

**Government of India
Central Public Works Department**

NIT No. 42/EE/E-TVM/2026-27

Name of Work: Renovation of commercial laundry and allied systems for NHRIMH Hospital at Kurichi, Kerala.

Index

Sl. No	Description	Page No.
1	Part A	1
1.1	Information and Instructions for Bidders for e-Tendering forming part of NIT and to be posted on website	2
1.2	Proforma of Receipt of Original EMD	7
1.3	Brief Particulars of the project	8
1.4	Information & Instructions for Bidders	9
1.5	Letter of Transmittal	12
1.5.1	Financial Information (Form-A)	13
1.5.2	Form of Banker's certificate from a Commercial bank (Form-B)	14
1.5.3	Form of Certificate of net worth from chartered accountant (Form-B1)	15
1.5.4	Details of Eligible similar nature of works (Form-C)	16
1.5.5	Performance Report of works (Form-D)	17
1.5.6	Structure & Organization (Form-E)	19
1.5.7	Affidavit of Not having Blacklisted/Debarred (Form-G)	20
1.5.8	Affidavit of not executing the works through another contractor on back to back basis (Form-H)	21
1.6	CPWD – 6	22
1.7	CPWD – 7	27
1.8	Performa of Schedules	29
2	Part B – Major component (E&M)	34
2.1	General Terms & Conditions for E&M Component	35
2.2	Additional Conditions for Internal Electrical Installations	41
2.3	Additional Conditions for execution of laundry Equipment at NHRIMH, Kurichy, Kottayam	45
2.4	Additional Conditions for maintenance of laundry equipment	47
2.5	List of Approved Makes	49
3	Part C – Minor Component (Civil)	52
3.1	Performa of Schedules	53
3.2	Special Conditions	60
3.3	Special Conditions for aluminium work	72
3.4	Special Conditions for Cement and Steel Brought by the contractor	73
3.5	List of Approved Makes	77
4	Part – D	85
4.1	Schedule of Quantities – Major Component (E&M)	86
4.2	Schedule of Quantities – Minor Component (Civil)	89

Certified that this NIT contains **93** Pages only

NIT approved for ₹52,20,630/- (E&M: ₹48,24,093/- + Civil: ₹3,96,537/-)

PART-A

**INFORMATION'S AND INSTRUCTIONS FOR CONTRACTORS FOR e-
TENDERING, CPWD-6, CPWD-7/8, PROFORMA OF SCHEDULE**

**INFORMATION AND INSTRUCTIONS FOR BIDDERS FOR e-TENDERING FORMING PART OF
NIT AND TO BE POSTED ON WEB SITE**

The Executive Engineer -Electrical, Trivandrum, CPWD, CGO Complex, Trivandrum (Email id: eetvmtced.cpwd@gov.in) on behalf of the President of India invites online percentage rate bids from CPWD enlisted contractors of appropriate class in Buildings & Roads (erstwhile composite/ Buildings / infrastructure) category and OEM's/ specialized firms of repute in two bid system i.e. "Eligibility Bid" and Financial Bid" for the following work(s):

NIT No.	42/EE/E-TVM/2026-27	
Name of Work & Location	Renovation of commercial laundry and allied systems for NHRIMH Hosiptal at Kurichi, Kearala.	
Estimated cost put to bid	E&M Component	₹48,24,093/-
	Civil Component	₹3,96,537/-
	Combined Cost	₹52,20,630/-
Earnest money Deposit	₹1,04,413/-	
Stipulated period of completion of work	Four (04) Months	
Last time & date of online submission of bid, copy of receipt of deposition of original EMD and other documents as specified in the bid document	05.08.2026 up to 15.00 Hrs	
Time & date of online opening of Eligibility bid	05.08.2026 on 15.30 Hrs	
Time & date of online opening of Price bid	Will be intimated later to eligible bidders	

1. Contractors who fulfill the following requirements shall be eligible to apply. Joint Ventures, are not accepted.(1.2, 1.3, 1.4 are not applicable for CPWD enlisted contractors of appropriate class. 1.1,1.5, 1.6, 1.7 is applicable for CPWD enlisted contractors also)

1.1. Experience of having completed works of similar nature:

The bidder should have satisfactorily completed the works as mentioned below during the last Seven years ending last day of the month previous to the one in which tenders are invited.

(For this purpose, cost of work shall mean gross value of the completed work including cost of materials supplied by the Government/ client but excluding those supplied free of cost. This should be certified by an officer not below the rank of Project Manager / Executive Engineer / Senior Manager or Equivalent.)

Three similar works each costing not less than **₹17.42 Lakhs**

OR

Two similar works each costing not less than **₹26.13 Lakhs**

OR

One similar work costing not less than **₹34.83 Lakhs**

Similar work shall mean works of **SITC of Laundry Equipment.**

NOTE:-

- Only works executed in India shall be considered for similar work.
- Qualified similar works shall be physically inspected by the CPWD engineers to ascertain the completion, performance on quality of works for finalizing the eligibility bids, if required.
- If private work is shown in support of eligibility criteria, certified copy of Tax deducted at source (TDS) Certificate Form 16A and 26AS) shall be submitted along with the experience certificate and TDS amount shall tally with the actual amount of work done. Otherwise, the amount that tally with TDS shall only be considered for eligibility.
- The value of executed works shall be brought to current costing level by enhancing the actual value of work at simple rate of 7% per annum; calculated from the date of completion to previous day of last day of submission of tender

- e) Completion of work for the purpose of considering experience shall mean completion of entire work in contract and not completion of some portion of the contract even though some portion may be satisfying the magnitude and physical attributes of similar work
- 1.2. **Average financial turnover:**
Should have Average Annual Financial Turnover of **₹15.66 Lakhs** on construction works during the immediate preceding five consecutive years ending 31st March 2026. (Scanned copy of Certificate from Chartered Accountant with unique document identification Number (UDIN) to be uploaded). The value of annual turnover figures shall be brought to the current value by enhancing the actual turnover figure at simple rate of 7% per annum.
- 1.3. **Profit/Loss:**
Should not have incurred any loss (profit after tax should be positive) in more than two years during last five years ending 31st March 2026 (consecutive balance sheets, stand alone financial statement duly certified and audited by chartered accountants).
- 1.4. **Bankers Certificate/Net Worth Certificate:**
Should have a bankers certificate from a commercial bank for **₹20.88 Lakhs** or should have net worth certificate of minimum 10% amount of ECPT i.e. **₹5.22 Lakhs** from CA with unique identification number (UDIN). **₹5.22 Lakhs**
- 1.5. The bidder should not have been barred/blacklisted by the Central Government/State Government, or any entity controlled by it, from participating in any tender, and the bar subsists as on the Bid Due Date, such bidder would not be eligible to submit the BID. The Bidder should upload affidavit for NON-BLACK LISTING in Form G.
- 1.6. The bidder should not execute the works through another contractor on back to back basis as per prescribed format Form H
2. The intending bidder must read the terms and conditions of CPWD-6 carefully. He should only submit his bid if he considers himself eligible and he is in possession of all the documents required.
3. Information and instructions for bidders posted on website shall form part of bid document.
4. The bid document consisting of plans, Specifications, Schedule of quantities of various types of items to be executed and the set of terms and conditions of the contract to be complied with and other necessary documents can be seen and downloaded from website www.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 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 document shall only be issued from the place in which the office of receiving division office is situated) and uploading the mandatory scanned documents such as Insurance Surety Bonds, Account Payee Demand draft or Bankers Cheque or Fixed Deposit Receipts or/and Bank Guarantee (for balance amount as prescribed) from any of the Commercial Bank towards EMD in favour of Executive Engineer as mentioned in NIT, receipt for deposition of original EMD to division office of any Executive Engineer (including NIT issuing EE/ AE), CPWD and other documents as specified.
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 a Commercial bank. The bank guarantee submitted as a part of Earnest Money shall be valid for a period of 180 days or more from the date of submission of the tender.
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 bids he will receive the competitor bid sheets.
9. Contractor can upload documents in JPG format and PDF format. Bidder should ensure that the

document uploaded is legible and full documents page is properly scanned.

10. Certificate of Financial Turn Over: At the time of submission of bid, contractor may upload Affidavit/ Certificate from CA mentioning Financial Turnover of last 5 years or for the period as specified in the bid document and further details if required may be asked from the contractor after opening of Eligibility bids. There is no need to upload entire voluminous balance sheet.
11. Contractor must ensure to quote the percentage rate in the prescribed column(s) meant for quoting rate in figures appears in yellow colour and the moment rate is entered, it turns sky blue.
In addition to this, while selecting any of the cells a warning appears that if any cell is left blank the same shall be treated as "0". Therefore, if any cell is left blank and no rate is quoted by the bidder, rate of such item shall be treated as "0" (ZERO).
However, if a tenderer quotes nil rates against each item in item 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.
12. The eligibility bid shall be opened first on due date and time as mentioned above. The time and date of opening of financial bid of contractors qualifying the Eligibility Bid shall be communicated to them at a later date.
The decision of rejection of eligibility/technical bid along with the reasons of rejections shall be uploaded on ERP portal by tender inviting authority. The aggrieved bidder can make appeal against the decision, on ERP portal within 48 hours of uploading of decision of rejection of technical bid.
After receipt of appeal from the aggrieved bidder, the tender inviting authority shall upload the decision on the appeal preferably within 3 working days and in no case the financial bid shall be opened without disposal of appeal and uploading the same on ERP portal.
- ~~13. Pre — Bid conference shall be held in the office of in the office of **** at 11.00 Hrs on **, **.2026 to clear the doubt of e-tendering bidders if any.
Corrigendum will be issued within the next 3 days after the pre — bid meeting. Any changes in the conditions /BoQ will be reflected in the corrigendum. Bidders may submit their bids only after uploading of the corrigendum. Sufficient time of at least 14 days will be given to the bidders after issue of the corrigendum. Even if there is no change on the conditions/BoQ/specifications of the tender, a NIL corrigendum will be issued to indicate that the bidder can go ahead and submit their bids. Bids submitted before the issue of the corrigendum will be rejected unless otherwise the corrigendum issued is a NIL corrigendum, with no changes in conditions/BoQ.~~
- ~~14. When bids are invited in three stage system and if it is desired to submit revised financial bid then it shall be mandatory to submit revised financial bid. If not submitted then the bid submitted earlier shall become invalid.~~
15. 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.
16. If any discrepancy is noticed between the documents as uploaded at the time of submission of bid and the hard copies as submitted by the lowest bidder, the bid shall become invalid.
17. **List of documents to be scanned and uploaded within the period of bid submission:**
 - 17.1. **For CPWD Enlisted contractors**
 - a) Insurance Surety Bonds, Account Payee Demand draft, Fixed Deposit Receipts, Bankers Cheque or Bank Guarantee (as prescribed) from any of the Commercial Bank drawn in favour of Executive Engineer-Electrical, CPWD, Trivandrum against EMD
 - b) Copy of receipt for deposition of original EMD issued from division office of any Executive Engineer, CPWD. (The EMD document shall be issued from the place in which the office of receiving division office is situated)
 - c) CPWD Enlistment Order of the Contractor.
 - d) Letter of transmittal along with duly filled form C, form D as per NIT. (If the forms C & D as per proforma in the NIT are found not completely filled, bidder will not be considered as eligible).
 - e) Affidavit Of Not Having Blacklisted/Debarred as per prescribed format Form G.
 - f) Affidavit of not executing the works through another contractor on back to back basis as per prescribed format Form H.
 - g) GST Registration Certificate of the State in which the work is to be taken up, if already

obtained by the bidder.

If the bidder has not obtained GST registration as applicable, then he shall scan and upload following undertaking along with bid documents.

"If work is awarded to me, I/We shall obtain GST registration certificate as applicable within one month from the date of receipt of award letter or before release of any payment from CPWD, whichever is earlier, failing which I/We shall be responsible for any delay in payments which will be due towards me/us on account of the work executed and/or for any action taken by CPWD or GST Department in this regard."

- h) Copy of certificate of ERP training through any of the CPWD Regional Training Institutes (RTIs) at Delhi, Mumbai, Chennai and Kolkata, National CPWD Academy (NCA) Ghaziabad, Training arranged by Graduates of ERP "Train the Trainers Programme" conducted by NCA, Ghaziabad or through any other special training arranged by ERP unit of CPWD "Train the Trainers Programme" conducted by NCA, Ghaziabad or through any other special training arranged by ERP unit of CPWD.

For newly enlisted CPWD contractor, who has not obtained the ERP certificate, then in such a case the bidder shall scan and upload following under taking along with other bid documents.

"If work is awarded to me, I/we or our authorized representative shall take compulsory ERP training through any of the CPWD Regional Training Institutes (RTIs) at Delhi, Mumbai, Chennai and Kolkata, National CPWD Academy (NCA) Ghaziabad, Training arranged by Graduates of ERP "Train the Trainers Programme" conducted by NCA, Ghaziabad or through any other special training arranged by ERP unit of CPWD "Train the Trainers Programme" conducted by NCA, Ghaziabad or through any other special training arranged by ERP unit of CPWD, within two months from the date of issue of intent letter, failing which a recovery of Rs.10,000/- per week shall be made from the R/A bill without giving any show cause notice in this regard."

Note: Training will be valid only when non enlisted contractor is registered in LMS of ERP and certificate is issued through LMS of ERP

17.2. For Non CPWD contractors

- a) Insurance Surety Bonds, Account Payee Demand draft, Fixed Deposit Receipts, Bankers Cheque or Bank Guarantee (as prescribed) from any of the Commercial Bank drawn in favour of Executive Engineer-Electrical, CPWD, Trivandrum against EMD
- b) Copy of receipt for deposition of original EMD issued from division office of any Executive Engineer, CPWD. (The EMD document shall be issued from the place in which the office of receiving division office is situated)
- c) Letter of transmittal along with duly filled form A to E as per NIT. (If the forms A, B, C, D & E as per proforma in the NIT are found not completely filled, bidder will not be considered as eligible)
- d) Affidavit of not having blacklisted/debarred as per prescribed format Form G
- e) Affidavit of not executing the works through another contractor on back to back basis as per prescribed format Form H.
- f) If the bidder is a firm in partnership, the bid 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 later case a certified copy of the power of attorney should accompany the bid. In both cases a certified copy of the partnership deed and current address of all the partners of the firm should accompany the bid
- g) If the bidder is a limited company or a corporation, the bid shall be signed by a duly authorized person holding power of attorney for signing the bid 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
- h) Any other documents as specified in the NIT
- i) GST Registration Certificate of the State in which the work is to be taken up, if already obtained by the bidder

If the bidder has not obtained GST registration in the State in which the work is to be taken up, or as required by GST authorities then in such a case the bidder shall scan and upload

following under taking along with other bid documents

"If work is awarded to me, I/we shall obtain GST registration Certificate of the State, in which work is to be taken up, within one month from the date of receipt of award letter or before release of any payment by CPWD, whichever is earlier, failing which I/We shall be responsible for any delay in payments which will be due towards me/us on a/c of the work executed and/or for any action taken by CPWD or GST department in this regard."

- j) Copy of certificate of ERP training through any of the CPWD Regional Training Institutes (RTIs) at Delhi, Mumbai, Chennai and Kolkata, National CPWD Academy (NCA) Ghaziabad, Training arranged by Graduates of ERP "Train the Trainers Programme" conducted by NCA, Ghaziabad or through any other special training arranged by ERP unit of CPWD "Train the Trainers Programme" conducted by NCA, Ghaziabad or through any other special training arranged by ERP unit of CPWD.

If the bidder, who has not obtained the ERP certificate, then in such a case the bidder shall scan and upload following under taking along with other bid documents.

"If work is awarded to me, I/we or our authorized representative shall take compulsory ERP training through any of the CPWD Regional Training Institutes (RTIs) at Delhi, Mumbai, Chennai and Kolkata, National CPWD Academy (NCA) Ghaziabad, Training arranged by Graduates of ERP "Train the Trainers Programme" conducted by NCA, Ghaziabad or through any other special training arranged by ERP unit of CPWD "Train the Trainers Programme" conducted by NCA, Ghaziabad or through any other special training arranged by ERP unit of CPWD, within two months from the date of issue of intent letter, failing which a recovery of Rs.10,000/- per week shall be made from the R/A bill without giving any show cause notice in this regard."

Note: Training will be valid only when non enlisted contractor is registered in LMS of ERP and certificate is issued through LMS of ERP.

18. **List of documents to be submitted after acceptance along with performance guarantee:**

- 18.1. Licenses/ Registrations or proof of applying for labour licenses, registration with EPFO, ESIC & BOCW Welfare Board. GST registration from Kerala within 30 days or before passing the first running bill (if already not registered in Kerala).
- 18.2. Any other mandatory documents specified elsewhere in the bid document.
19. Tendered Amount quoted by the contractor is final and inclusive of GST etc., and nothing extra shall be paid. Necessary deduction for GST shall be made as per prevailing rules.
20. The bid become not eligible if bidder does not upload scanned copies of all the documents stipulated in the bid document (including GST Registration and as stipulated in the bid documents).
21. The Executive Engineer receiving EMD in original form shall examine the EMD deposited by the bidder and shall issue a receipt of deposition of earnest money to the agency in a given format uploaded by tender inviting EE. The receipt may be issued by the EE /AE(P)/AAO.
22. The tender inviting Executive Engineer will call for original EMD of the L-1 tenderer from EMD receiving Executive Engineer immediately.
23. 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. Information and instructions for bidders posted on website shall form part of bid document.

Executive Engineer (E)
Trivandrum, CPWD,
Thiruvananthapuram – 695522

Proforma of Receipt of Original EMD

1. The EE / Engineer in charge / DDH of any divisions / projects of CPWD or any other officer designated by CPWD Directorate from time to time, are authorized to receive the EMDs. These authorities should receive the original EMD for their tenders or tenders of any other division / projects.
2. The NIT approving authority / Tender inviting authority at the time of issue of NIT also fills and upload the following prescribed format of receipt of deposition of original EMD along with NIT (Format is given at next page).
3. The Authority receiving EMD in original form examines the EMD deposited by the bidder and issues receipt of deposition of earnest money to the agency in a given format uploaded by tender inviting authority. The receipt can also be issued by any subordinate gazetted authority as authorized by the EE / Engineer in charge / DDH.
4. The authority receiving original EMD also intimates tender inviting authority about deposition of EMD by the agency by email / fax / telephonically.
5. The original EMD receiving authority releases the EMD to unsuccessful bidders after the expiry of stipulated bid validity period or immediately after acceptance of the successful bidder, whichever is earlier, after verification from the e-tendering portal website (<https://etender.cpwd.gov.in>>closed Tender>all) that the particular contractor is not L-1 tenderer and work is awarded.
6. The tender inviting authority will call for original EMD of the L1 tenderer from EMD receiving authority immediately.

RECEIPT OF DEPOSITION OF ORIGINAL EMD			
(Receipt No...../ Date.....)			
1	Name of Work	:	Renovation of commercial laundry and allied systems for NHRIMH Hosiptal at Kurichi, Kearala.
2	NIT No	:	42/EE/E-TVM/2026-27
3	Estimated Cost	:	E&M Component ₹48,24,093/-
		:	Civil Component ₹3,96,537/-
		:	Combined Estimated Cost ₹52,20,630/-
4	Amount of EMD	:	₹1,04,413/-
5	Last date of submission of Bid	:	05.08.2026 up to 15.00 Hrs
1	Name of Contractor	:	
2	Form of EMD	:	
3	Amount of Earnest Money Deposit	:	
4	Date of Submission of EMD	:	
5	Email ID of EMD Receiving Officer	:	
6	Mobile No. Of EMD receiving officer	:	
To be filled by EMD receiving EE/DDH			

Signature, Name and Designation of EMD
Receiving officer along with Office stamp

Brief particulars of the project

1. Salient details of the work for which bids are invited are as under:

Sl. No	Name of Work	Estimated Cost		Period of completion
1	Renovation of commercial laundry and allied systems for NHRIMH Hosiptal at Kurichi, Kearala.	E&M Component	₹48,24,093/-	Four (04) Months
		Civil Component	₹3,96,537/-	
		Combined Estimated Cost	₹52,20,630/-	

2. The work is situated at NHRIMH, Kurichi, Kottayam.
 3. General features and major components of the work are as under:

3.1. E&M

It is proposed to replace the existing systems of wringing machine, power washer extractor machine, drier machine and flat bed press + compressor using latest technology commercial laundry machines having three year warranty that can cater to the requirements of a 100 bedded hospital.

A new flat work ironer is also proposed considering the requirement for effective ironing of the fabrics. Though the upcoming expansion project require capacity enhancement to power laundry systems, no separate accessory building is in proposal for the same at present. However, it is anticipated that the available space of the existing power laundry room can cater for housing additional machines to meet the revised demand following the said future expansion.

Existing old laundry machines are proposed to be dismantled and credited to the work itself. Replacement of existing UG cables are also incorporated in the scope of this estimate.

3.2. Civil:

This Estimates provides for the following:

- a) Replacing the existing flooring of laundry building with anti skid vitrified tiles and CC flooring.
- b) Replacing existing tiles dados with ceramic wall tiles
- c) Finishing the wall with interior emulsion paint.
- d) Finishing external wall with premium acrylic smooth exterior paint with silicon additives.
- e) Replacing the damaged rolling shutter with a new one.
- f) Finishing the window grilles (old work) and rolling shutter with enamel paint (new work)
- g) Providing new manholes for laundry waste water management.

4. Work shall be executed according to General Conditions of Contract for Central P.W.D.
 5. The Address of the officers of the CPWD connected with this work are given below:

Assistant Engineer (C)
 KCSD- I, CPWD, Kottayam

Assistant Engineer(E)
 KCESD, CPWD, Kottayam

Executive Engineer(E)
 CPWD, Kottayam
 Public Library Building, Shastri Road – Kottayam –
 686 001

Executive Engineer(E)
 CPWD, Trivandrum
 CGO Complex, Poonkulam, Thiruvananthapuram-
 695522.

INFORMATION & INSTRUCTIONS FOR BIDDERS

1. General:

- 1.1. Letter of transmittal and forms for deciding eligibility are given in Section III.
- 1.2. 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 bid being summarily disqualified. Bids made by telegram or telex and those received late will not be entertained.
- 1.3. References, information and certificates from the respective clients certifying suitability, technical knowledge or capability of the bidder should be signed by an officer not below the rank of Executive Engineer or equivalent
- 1.4. 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. No information shall be entertained after submission of eligibility criteria document unless it is called for by the Employer.

2. 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 (E)Trivandrum, CPWD
- 2.3. Bidder: Means the individual, proprietary firm, firm in partnership, limited company private or public or corporation.
- 2.4. "Year" means "Financial Year" unless stated otherwise.

3. Method of application:

- 3.1. If the bidder is an individual, the bid shall be signed by him above his full type written name and current address.
- 3.2. If the bidder is a proprietary firm, the bid 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 bid 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 later case a certified copy of the power of attorney should accompany the bid. In both cases a certified copy of the partnership deed and current address of all the partners of the firm should accompany the bid.
- 3.4. If the bidder is a limited company or a corporation, the bid shall be signed by a duly authorized person holding power of attorney for signing the bid 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. 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. Particulars provisional

The particulars 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. 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. Criteria for eligibility

- 7.1. The Bidder should have satisfactorily completed similar works during the last Seven years ending last date of the month previous to the one in which tenders are invited of Central

Government Department/State Government Department/Central Autonomous Body/State Autonomous Body/Central Public Sector Undertaking/State Public Sector Undertaking.

- a) Three similar works each costing not less than **₹17.42 Lakhs**
- b) Two similar works each costing not less than **₹26.13 Lakhs**
- c) one similar work costing not less than **₹34.83 Lakhs**
Similar work shall mean **SITC of Laundry Equipment.**
- d) The value of executed works shall be brought to current costing level by enhancing the actual value of work at simple rate of 7 % per annum; calculated from the date of completion to previous day of last date of submission of tenders.
- e) The bidder should have had Average Annual Financial Turnover of **₹15.66 Lakhs** on Civil / E&M construction works during the last five consecutive years as per the balance sheets duly audited by Chartered Accountant. Year in which no turnover is shown would also be considered for working out the average. The value of annual turnover figures shall be brought to current value by enhancing the actual turnover figures at simple rate of 7% per annum.
- f) The bidder should not have incurred any loss (profit after tax should be positive) in more than two years during available last five consecutive balance sheets (stand alone financial statement), duly certified and audited by the Chartered Accountant. (The balance sheet in case of Pvt./ Public Ltd. company means its stand alone financial statement and consolidated financial statement both).
- g) The bidder should have a Banker's Certificate from a Commercial Bank for **₹20.88 Lakhs** certified by his Bankers (Not required if applicant is a CPWD Registered Contractor of appropriate class) or the bidder should submit Net worth Certificate of minimum 10% of amount of ECPT ie. **₹5.22 Lakhs** issued by the certified Chartered Accountant (on the format prescribed in Form 'B-1')
- h) The bidder should have sufficient number of Technical and Administrative employees for the proper execution of the contract. The bidder shall have to submit a list of these employees stating clearly how these would be involved in this work within 15 days of award of work.

8. Evaluation criteria

8.1. The detailed submitted by the bidders will be evaluated in the following manner:

- a) The criteria prescribed in para above in respect of experience of eligible similar works completed, financial turn over, profit and Banker's / Networth Certificate will be scrutinized by Engineer-in-charge and the bidder's eligibility for the work be determined.
- b) Engineer-in-charge at his sole discretion may call for additional information /documents, clarification from the bidders after submission or their bids to satisfy himself about their eligibility as per tender conditions.

9. Financial information.

Bidder should furnish the Annual financial statement for the last five years in (Form "A"). Banker's Certificate in (Form "B") or Networth Certificate in (Form "B-1").

10. Experience of similar work

Bidder should furnish the List of eligible similar nature of works successfully completed during the last seven years in (Form "C") and (Form D).

11. Organization information

Bidder is required to submit the information in respect of his organization in Forms "E"

12. Letter of transmittal

The bidder should submit the Letter of Transmittal attached with the document

13. Opening of Price bid

After evaluation of applications, a list of qualified bidders shall be prepared. Thereafter the financial bids of only the qualified bidders shall be opened at the notified time, date and place in the presence of the qualified bidders or their representatives.

14. Award Criteria

- 14.1. 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.
- 14.2. 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 (E)
Trivandrum, CPWD,
Thiruvananthapuram – 695522

INFORMATION REGARDING ELIGIBILITY

Letter of Transmittal

To

The Executive Engineer (E) -Trivandrum
CPWD, Trivandrum

Name of Work: **Renovation of commercial laundry and allied systems for NHRIMH Hosiptal at Kurichi, Kearala.**

Sir,

Having examined the details given in the bid document for the above work, I/ We hereby submit the relevant information.

1. I/ We hereby certify that all the statement made and information supplied in the enclosed **form- A to H** and accompanying statement are true and correct.
2. I/ We have furnished all information and details necessary for eligibility and have no further pertinent information to supply.
3. I/We submit the requisite certified solvency certificate or Net worth Certificate and authorize the Executive Engineer(E), CPWD, Trivandrum and/or his authorized staff to approach the Bank issuing the solvency certificate or Net worth Certificate to confirm the correctness thereof. I/We also authorize Executive Engineer(E), CPWD, Trivandrum and/or his authorized staff to approach individuals, employers, Firms, Corporation, etc. to verify our competence and general reputation, experience certificate of similar works and any other document submitted here with the bid document.
4. I/we submit the following certificates in support of our suitability, technical knowledge and capability for having successfully completed the following eligible similar works

S.No.	Name of work	Amount	Experience Certificate from
1.			
2.			
3.			

5. I/We hereby submit undertaking on structural stability and soundness as per prescribed format form 'F'.

Certificate: It is certified that the information given in the enclosed eligibility bid are correct. It is also certified that I/we shall be liable to be debarred, disqualified/cancellation of enlistment in case any information furnished by me/us found to be incorrect.

Enclosures:

Seal of bidder

Date of submission:

SIGNATURE(S) OF BIDDER(S):

Financial Information

Name of the firm / contractor.....:

1. **Financial Analysis** – Details to be furnished duly supported by figures in balance sheet / profit & loss account for the last five / ~~seven~~ years duly certified by the Chartered Accountant, as submitted by the applicant to the Income Tax Department (Copies to be attached).

Note: At the time of submission of bid, contractor has to upload Certificate of Chartered Accountant mentioning financial turnover and further details if required may be asked from the contractor after opening of technical bids. There is no need to upload entire voluminous balance sheet.

Fig in lakhs Rs.

Sl. No	Particulars	Financial Years				
		2021-22	2022-23	2023-24	2024-25	2025-26
1	Gross Annual Turnover on Construction works					
	Reference to Page No					
2	Profit / Loss (standalone finance statement and consolidated financial statement both)					
	Reference to Page No					

2. Financial arrangements for carrying out the proposed work.

Signature of Chartered Accountant with Seal**Unique Document Identification Number (UDIN)****Signature of Bidder(s)**

Note: The Bidder should give information strictly in above format.

Form of Banker's Certificate from a Commercial bank

This is to certify that to the best of our knowledge and information that M/s./ Sh..... having marginally noted address,as a Customer of our bank are/ is respectable and can be treated as good for any engagement upto a limit of Rs..... (Rupees.....).

This certificate is issued without any guarantee or responsibility on the bank or any of the officers.

(Signature) For the Bank

To,
The Executive Engineer(Electrical)
CPWD, Trivandrum

NOTE:

1. Banker's certificate should be on letter head of the Bank, addressed to Tendering authority.
2. In case of partnership firm, certificate should include names of all partners as recorded with the Bank.
3. The certificate should not be more than 6 months old.

FORM "B1"

Form for Certificate of net Worth From Chartered Accountant

It is to certify that as per the audited balance sheet and profit & loss account during the financial year.....,the net worth of M/s..... (name and registered address of individual/firm/company), as on..... (the relevant date) is Rs..... after considering all liabilities. It is further certified that the net worth of the company has not eroded by more than 30% in the last three years ending on.....(the relevant date)

Unique Document Identification Number (UDIN)

Signature of the Chartered Accountant

.....

Name of the Chartered Accountant

.....

Membership no. of ICAI

Date and seal

NOTE:

1. In case of partnership firm, certificate should include names of all partners as recorded with the Chartered Accountant.
2. The certificate should not be more than 6 months old on the last date of Tender Submission.

FORM 'C'**Details of Eligible Similar nature of Works completed during the last seven years ending last day of Previous month of submission of tenders.**

Name of the firm / contractor.....

Sl. No.	Name of work / project and location	Owner or sponsoring organization	Cost of work in crores of Rs.	Date of commencement as per contract	Stipulated date of completion	Actual date of completion	Litigation/ arbitration cases pending / in progress with details*	Name and Address (Postal & E-mail) / telephone number of officer to whom reference may be made	Whether work was done on back to back basis. Yes/no
1	2	3	4	5	6	7	8	9	10

*indicate gross amount claimed and amount awarded by the Arbitrator.

Signature of bidder(s)

Performance Report of Works referred to in Form 'C'

1.	Name of work / project & location		:	
2.	Agreement No.		:	
3.	Estimate cost		:	
4.	Tendered cost		:	
5.	Completion cost		:	
6.	Date of Start		:	
7.	Stipulated date of completion		:	
8.	Actual date of completion		:	
9.	(a)	Whether case of levy of compensation for delay has been decided or not	:	
	(b)	If decided, amount of compensation levied for delayed completion, if any	:	
10.	Amount of reduced rate items, if any		:	
11.	Performance Report			
(i)	Quality of work		:	Outstanding / Very Good / Good / Poor
(ii)	Financial soundness		:	Outstanding / Very Good / Good / Poor
(iii)	Technical Proficiency		:	Outstanding / Very Good / Good / Poor
(iv)	Resourcefulness		:	Outstanding / Very Good / Good / Poor
(v)	General Behaviour		:	Outstanding / Very Good / Good / Poor
12.	Type of Structure (RCC framed or load bearing)		:	
13.	No. of storeys (Note: Mumty, Machine Room shall not be counted as Storeys)		:	
14.	Whether the work executed with basement (Yes / No)		:	
15.	Whether the work executed with water supply & sanitary installations (Yes/No)		:	
16.	Whether the work executed with Internal & External electrical installations (Yes / No)		:	

17.	Whether the work executed with Firefighting works (Yes / No)	:	
18.	Whether the work executed with Fire Alarm works (Yes / No)	:	
19.	Whether the work executed with Public address & evacuation system (Yes/No)	:	
20.	Whether the work executed with BMS (Building Management System) (Yes / No)	:	
21.	Whether the work executed with HVAC work (Yes / No)	:	
22.	Whether the work executed with Lift (s) work (Yes / No)	:	
23.	Remarks (If any)	:	

Dated:

Owner / sponsoring organizations signature with date and seal (Project Manager / Executive Engineer / Senior Manager or Equivalent)

Structure and Organisation

1.	Name & Address of the bidder	
2.	Telephone No. / Email id/Mobile No. /Fax No.	
3.	Legal status of the bidder (Attach copies of original document defining the legal status)	
	1. An Individual	
	2. A proprietary firm	
	3. A firm in partnership	
	4. A limited company or Corporation	
4.	Particulars of registration with various Government bodies (attach attested photo – copy)	
	ORGANIZATION / PLACE OF REGISTRATION	REGISTRATION No.
	1.	
	2.	
	3.	
5.	Names and Titles of Directors & Officers with designation to be concerned with this work.	
6.	Designation of individuals authorized to act for the organization	
7.	Has the bidder or any constituent partner in case of partnership firm limited company or corporation ever abandoned the awarded work before its completion? If so, give name of the project and reasons for abandonment.	
8.	Has the bidder, or any constituent partner in case of partnership/firm/limited company or corporation ever been convicted by the court of law? If so, give details.	
9.	In which field of Civil Engineering Construction, the bidder has specialization and interest?	
10.	Any other information considered necessary but not included above	

SIGNATURE (S) OF BIDDER (S)

Affidavit of Not having Blacklisted/Debarred

I/We undertake and confirm that our firm / partnership firm has not been blacklisted presently (as on last date of submission of bid) by any state / Central Department / PSUs / Autonomous bodies of Central Government. Further that, if such information comes to the notice of the department then I / we shall be debarred for this work. Also, if such information comes to the notice of department on any day before date of start of work and during execution stage, the Engineer in charge shall be free to cancel the agreement and to forfeit the entire amount of Earnest Money Deposit / Performance Guarantee and APG (if applicable)/ Security Deposit etc.

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

Signature of Bidder(s) or an authorized
Officer of the firm with stamp

Signature of Notary with seal

Note: In case of any litigation in process or in last seven years, the details of same should be furnished/ (scanned and uploaded at the time of submission of bid) in the following Format.

S.No	Name of work	Year	Details of litigations	Type of litigation	Status of litigation

Signature of Bidder(s) or an authorized
Officer
of the firm with stamp

Signature of Notary with seal

Affidavit of not executing the works through another contractor on back to back basis

I/We undertake and confirm that eligible similar work(s) has / have not been got executed through another contractor on back-to-back basis. Further that, if such a violation comes to the notice of Department, then I/ we shall be debarred for bidding / 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 and APG (if applicable).

**Signature of Bidder(s) or an authorized
Officer of the firm with stamp**

Signature of Notary with seal

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

**GOVERNMENT OF INDIA
CENTRAL PUBLIC WORKS DEPARTMENT
NOTICE INVITING e-TENDER**

1. Online Percentage rate bids are invited on behalf of the President of India invites online percentage rate bids from CPWD enlisted contractors of appropriate class in Buildings & Roads (erstwhile composite/ Buildings / infrastructure) category and OEM's/ specialized firms of repute in two bid system i.e. "Eligibility Bid" and Financial Bid" for the following work(s):

Name of Work :Renovation of commercial laundry and allied systems for NHRIMH Hosiptal at Kurichi, Kearala.

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 **₹52,20,630/-**. This estimate, however, is given merely as a rough guide. The estimated rates considered in the BOQ are valid and applicable only for estimation purpose. However, the bidders are required to conduct their own market survey to obtain the latest prevailing rates in the market and to work out their tendered rates accordingly. Any dispute or claim on the validity or correctness of the rates considered in the BOQ shall not be entertained in the operation of contract at any stage.

1.2. Criteria of eligibility for submission of tender documents

The bidder should have satisfactorily completed the works as mentioned below during the last Seven years ending last day of the month previous to the one in which tenders are invited.

Three similar works each costing not less than **₹17.42 Lakhs**

or

Two similar works each costing not less than **₹26.13 Lakhs**

or

One similar work costing not less than **₹34.83 Lakhs**

"Similar Work" shall mean works of **"SITC of Laundry Equipment."**

To become eligible, the bidders shall have to furnish an affidavit as under (Form G):

"I/We undertake and confirm that eligible similar works(s) has / have not been got executed through another contractor on back-to-back basis. Further that, if such a violation comes to the notice of the Department, then I/we shall be debarred for bidding 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 and APG (if applicable)." (Scanned copy to be uploaded at the time of submission of bid).

2. Agreement shall be drawn with the successful bidders on prescribed Form No. **CPWD 7/8** (or other Standard Form as mentioned) which is available as a Govt. of India Publication and also available on website **www.cpwd.gov.in**. Bidders shall quote his rates as per various terms and conditions of the said form which will form part of the agreement.
3. The time allowed for carrying out the work will be from the date of start as defined in schedule 'F' or from the first date of handing over of the site, whichever is later, in accordance with the phasing, if any, indicated in the bid documents.
4. The site for the work is available.
5. The bid document consisting of plans, specifications, the schedules of quantities of various types of items to be executed and set of terms and conditions of the contract to be complied with and other necessary documents except standard general conditions of contract form can be seen on website **<https://etender.cpwd.gov.in>** or **www.cpwd.gov.in** free of cost.
6. After submission of the bid the contractor can re-submit revised bid any number of times but before last time and date of submission of bid as notified.

No post-tender modification is allowed by the tenderers except through negotiations, if required. In case, any 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 concerned CE/SE (in case of non-enlisted contractor).

7. While submitting the revised bid, contractor can revise the rate of one or more item(s) any number of times (he need not re-enter rate of all the items) but before last time and date of submission of bid as notified.

~~8. When tenders are invited in three stage system and if it is desired to submit revised financial bid then it shall be mandatory to submit revised financial bid. If not submitted then the tender submitted earlier shall become invalid.~~

9. Earnest Money in the form of Treasury Challan or Demand Draft or Pay order or Banker's Cheque or Deposit at Call Receipt or Fixed Deposit Receipt (drawn in favour of **The Executive Engineer(Electrical), CPWD, Trivandrum**) shall be scanned and uploaded to the e-Tendering website within the period of bid submission. The original EMD should be deposited either in the office of Executive Engineer inviting bids or division office of any Executive Engineer, CPWD within the period of bid submission. The EMD receiving Executive Engineer (including NIT issuing EE/AE) shall issue a receipt of deposition of earnest money deposit to the bidder in a prescribed format (enclosed) uploaded by tender inviting EE in the NIT.

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

The earnest money given by all the tenderers except the lowest tenderer shall be refunded immediately after the expiry of stipulated bid validity period or immediately after acceptance of the successful bidder, whichever is earlier. However, in case of two/ three bid system, earnest money deposit of bidders unsuccessful during technical bid evaluation etc., should be returned within 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 press notice shall be scanned and uploaded to the e-Tendering website within the period of bid submission. However, certified copy of all the scanned and uploaded documents as specified in press notice shall have to be submitted by the lowest bidder only along with physical EMD of the scanned copy of EMD uploaded within a week physically in the office of tender opening authority. Online bid documents submitted by intending bidders shall be opened only of those bidders, whose original EMD deposited with any division of CPWD and other documents scanned and uploaded are found in order ~~system without tender processing fee any time.~~

The Eligibility bid shall be opened at the time given in the "Information and Instructions for bidders for e-tendering forming part of bid document"

The bid submitted shall be opened at **15.30 Hrs on 05.08.2026**

10. The bid submitted shall become invalid if:
- 10.1. The bidder is found ineligible.
 - 10.2. The bidder does not upload all the documents (including GST Registration) as stipulated in the bid document.
 - 10.3. 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 tender opening authority.
 - 10.4. If a tenderer ~~quotes nil rates against each item in item rate tender or does not quote any percentage above/ below on the total amount of the tender or any section/ sub head in percentage rate tender~~, the tender shall be treated as invalid and will not be considered as lowest tenderer.
11. The contractor, whose bid is accepted will be required to furnish performance guarantee and APG (if applicable) at specified percentage of the tendered amount as mentioned in schedule E and within the period specified in Schedule F. This guarantee shall be in the form of Insurance Surety Bonds, Account Payee Demand Draft, Fixed Deposit Receipt or Bank Guarantee including e-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 and APG (if applicable) within the period as indicated in schedule 'F', including the extended period if any, the Earnest Money deposited by the contractor shall be forfeited automatically without any notice to the contractor. The earnest money deposited along with bid shall be returned after receiving the aforesaid performance guarantee and APG (if applicable).

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

12. The description of the work is as follows:

Renovation of commercial laundry and allied systems for NHRIMH Hosiptal at Kurichi, Kearala.

Intending Bidders are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their bids as to the nature of the ground and sub-soil (so far as is practicable), the form and nature of the site, the means of access to the site, the accommodation they may require and in general shall themselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their bid.

A bidder shall be deemed to have full knowledge of the site whether he inspects it or not and no extra charge consequent on any misunderstanding or otherwise shall be allowed. The bidders shall be responsible for arranging and maintaining at 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 a bidder implies that he has read this notice and all other contract documents and has made himself aware of the scope and specifications of the work to be done and of conditions and rates at which stores, tools and plant, etc. will be issued to him by the Government and local conditions and other factors having a bearing on the execution of the work.

13. The competent authority on behalf of the President of India does not bind itself to accept the lowest or any other bid and reserves to itself the authority to reject any or all the bids received without the assignment of any reason. All bids in which any of the prescribed condition is not fulfilled or any condition including that of conditional rebate is put forth by the 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 for rejection.
15. The competent authority on behalf of President of India reserves to himself the right of accepting the whole or any part of the bid and the bidders shall be bound to perform the same at the rates quoted.
16. The contractor (enlisted or non-enlisted in CPWD) shall not be allowed to participate in the tender for work(s) in the CPWD Zone / Circle / Division / Sub-Division responsible for award and/ or execution of contract(s) in which his near relative is posted as Divisional Accountant or as an officer in any capacity between the grades of the Chief Engineer and Junior Engineer (both inclusive). He shall also intimate the names of persons who are working or subsequently employed by him and who are near relatives to any officer working in the CPWD. Any breach of this condition by the contractor would render him liable to be debarred for a period upto two years from tendering in CPWD as decided by the accepting authority mentioned in Schedule-F and his decision will be excepted from Clause-25.
17. No Engineer of gazetted rank or other Gazetted Officer employed in Engineering or Administrative duties in an Engineering Department of the Government of India is allowed to work as a contractor for a period of one year after his retirement from Government service, without the prior permission of the Government of India in writing. This contract is liable to be cancelled if either the contractor or any of his employees is found any time to be such a person who had not obtained the permission of the Government of India as aforesaid before submission of the bid or engagement in the contractor's service
18. The bid for the works shall remain open for acceptance for a period of ~~thirty (30) days from the date of opening of bids in case of single bid system/~~ seventy five (75) days from the date of opening of technical bids in case bids are invited on 2 or 3 bid envelop system.
- 18.1. 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.
- 18.2. 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.

- 18.3. 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.
- 18.4. In case of forfeiture of earnest money as prescribed in para (i) and (ii) above, the bidder shall not be allowed to participate in the rebidding process of the same work.
19. This notice inviting Bids 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:
- 19.1. The Notice Inviting Bid, all the documents including additional conditions, specifications and drawings, if any, forming part of the bid as uploaded at the time of invitation of bid and the rates quoted online at the time of submission of bid and acceptance thereof together with any correspondence leading thereto.
- 19.2. Standard C.P.W.D. Form 7/8 or other Standard CPWD forms as applicable.

20. Composite Bids

- 20.1. The Executive Engineer in charge of the major component will call bids for the composite work. The cost of bid document and Earnest Money will be fixed with respect to the combined estimated cost put to tender for the composite bid.
- 20.2. The Bid document consists of the following four Components. However, all these components constitute a unified single bid document where the information flows across the components. Therefore, while reading, the entire bid document is to be treated as a single unified documents though it consists of following internal components for the purpose of convenience in reading.

Part – A	CPWD-6, CPWD-7 including schedule A to F for the major & minor component(s) of the work, Standard General Conditions of Contract for CPWD as mentioned in schedule A to F, Specific conditions for all component(s) of work
Part – B	General / Specific conditions and Specifications for major component of the work
Part – C	Schedule A to F for minor component of the work (competent authority under clause 2 and clause 5 shall be same authority as mentioned in schedule A to F for major components), General / specific conditions and specifications applicable to minor component(s) of the work.
Part – D	Schedule of Quantities for both major and minor components of work, Financial Bid

- 20.3. The bidders must associate themselves, with agencies as per NIT conditions
- 20.4. The eligible bidders shall quote rates for all items of major component as well as for all items of minor components of work.
- 20.5. 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 EEs / DDH in charge of minor components. One such signed set of agreement shall be handed over to EE/ DDH in charge of minor component(s).
EE of major component will operate Part A, Part B & Part D of the agreement. EE / DDH in charge of minor component (s) shall operate Part- A, Part C, Part D & ~~Part E~~ of the agreement.
- 20.6. Entire work under the scope of composite bid including major and all minor components shall be executed under one agreement.
- 20.7. Security Deposit will be worked out separately for each component corresponding to the estimated cost of the respective component of works.
- 20.8. 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 / EMB shall be maintained independently by Engineer in Charge of major and minor components.

- 20.9. 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.
- 20.10. Final bill of whole work shall be finalized and paid by the EE of major component.
- 20.11. Engineer(s) in charge of other component(s) will prepare and pass the final bill for their component of work and pass on the same to the EE of major component for including in the final bill for composite contract.
21. ~~INTEGRITY PACT: The contractor shall download the Integrity Pact, which is a part of tender documents, affix his signature in the presence of a witness, and upload the same while submitting online bids for all works of estimated cost put to tender equal or more than the threshold value given in Schedule F. In the event of his failure to sign and upload the Integrity Pact along with other bid documents, his bid shall be rejected.~~
22. The intending bidders are required to update their profile in CPWD e-tender 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 inviting tender (as mentioned at Sl. No. 1 of Information and Instructions for Bidders for e-Tendering forming part of Bid Document) or ERP help line No. 18001803286 or e-mail id cpwd.support@techmahindra.com. The e-tendering bidders are also advised not to wait to raise any issues till the last date of submission of bid in their own interest.

Executive Engineer (E)
Trivandrum, CPWD,
Thiruvananthapuram – 695522

CPWD-7

GOVERNMENT OF INDIA
CENTRAL PUBLIC WORKS DEPARTMENT
Percentage Rate Tender & Contract for Works

Tender for the work of: **Renovation of commercial laundry and allied systems for NHRIMH Hosiptal at Kurichi, Kearala.**

1.	To be uploaded by 05.08.2026 up to 15.00 Hrson to /upload at https://etender.cpwd.gov.in .
2.	To be opened in presence of tenderers who may be present at 05.08.2026 on 15.30 Hrs in the office of the Executive Engineer-Electrical, CPWD, Trivandrum.

TENDER

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

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

I/We agree to keep the tender open for 30 (Thirty) days from the due date of its opening in case of single bid system, 75 (Seventy five) days from the date of opening of technical cum eligibility bid in case tenders are invited on 2 /3 bid/ system for specialised work and not to make any modification in its terms and conditions.

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

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

If I/We, fail to furnish the prescribed performance guarantee and APG(if applicable) 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 and APG(if applicable) absolutely. The said Performance Guarantee and APG(if applicable) 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 of the tender form.

Further, I/We agree that in case of forfeiture of Earnest Money or Performance Guarantee and APG(if applicable)as aforesaid, I/We shall be debarred for participation in the re-tendering process of the work.

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

I/We hereby declare that I/We shall treat the tender documents drawings and other records connected with the work as secret / confidential documents and shall not communicate information/ derived there from to

any person other than a person to whom I/We am/ are authorized to communicate the same or use the information in any manner prejudicial to the safety & integrity of the State.

Dated:
Witness:
Occupation:

Signature of Contractor
Postal Address

ACCEPTANCE

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

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

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

For & on behalf of President of India

Dated:

Signature
Designation.....

PERFORMA OF SCHEDULES

SCHEDULE 'A'

Schedule of Quantities (as per PWD-3) : As per Part-D

SCHEDULE 'D'

Extra schedule for specific requirements/
document for the work, if any: : As per Bid Document

SCHEDULE 'E'

Reference to General Conditions of contract: (GCC EPC Projects 2022 / GCC Maintenance Works 2023 / GCC Construction Works 2023) : Applicable GCC is CPWD General Conditions of Contract Maintenance Works 2023 as modified and corrected upto the previous day of last date of submission of bid

Name of Work : **Renovation of commercial laundry and allied systems for NHRIMH Hosiptal at Kurichi, Kearala.**

Estimated Cost of Work : **₹52,20,630/-**

i. Earnest money deposit : **₹1,04,413/-**(to be returned after receiving performance guarantee)

ii. Performance Guarantee : As per OM No. DG/Manual-2024/20 dt. 27.02.2026
5% of ECPT or contract amount whichever is higher.

A bid will be treated as abnormally low if the quoted bid amount is lesser than 80% of the estimated cost put to tender.

Requirement of Additional Performance Guarantee (APG): In case of abnormally low bids as defined above, the bidder shall be required to submit Additional Performance Guarantee (APG) in addition to the Standard Performance Guarantee (PG). The amount of Additional Performance Guarantee (APG) shall be equivalent to the difference between the 80% amount of ECPT and quoted amount. (e.g. if ECPT is A and quoted amount is 0.7A then the amount of APG shall be 0.8A-0.7A)

Additional Performance Guarantee (APG) shall be in the prescribed format of PG and has to be submitted within the time frame prescribed for submission of PG. The other terms and conditions of release etc. Of APG shall be same as that of PG.

iii. Security Deposit : 2.5% of tendered value

SCHEDULE 'F'

GENERAL RULES & DIRECTIONS:

Officer inviting tender : Executive Engineer (E), Trivandrum, CPWD, or successor as designated by CPWD.

Definitions:

2(v) Engineer-in-Charge : Executive Engineer (E), Trivandrum, CPWD, or

- successor as designated by CPWD.
- 2(viii) Accepting Authority : Executive Engineer (E), Trivandrum, CPWD, or successor as designated by CPWD.
- 2(x) Percentage on cost of materials and Labour to cover all overheads and profits : 15%
- 2(x)b Standard Schedule of Rates : DSR-2025 (E&M works) with an applied Cost Index for Kottayam & corrected upto the last date of receipt of Bid and & Market Rates for Non-DSR Items.
- 2(xii) Department : Central Public Works Department
- 9(ii) Standard CPWD Contract Form : General Conditions of Contract Maintenance Works 2023, CPWD Form 7/ 8 as modified & corrected upto previous day of the last date of submission of the tender.

Clause 1

1. Time allowed for submission of : 7 (Seven) days
Performance Guarantee, programme chart (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
2. Maximum allowable extension with late fee : 5 (Five) days
@ 0.1% per day of Performance Guarantee amount beyond the period provided in (i) above

Clause 2

Authority for fixing compensation under clause 2 : Chief Engineer, Trivandrum, CPWD, or successor as designated by CPWD

Clause 5

Number of days from the date of issue of letter of : 12 (Twelve) days
acceptance for reckoning date of start Mile stone(s)
as per table given below

Sl. No	Description of Milestone (Physical)	Time allowed in days/ months (from date of start)	Amount to be with- held in case of non-achievement of milestone
1	Approval of Materials	1 Month	1.5% Tendered value of the work
2	Supply of Materials	3 Months	2% Tendered value of the work
3	Installation, testing & commissioning of all work including Handing Over	4 Months	1.5% Tendered value of the work

Time allowed for execution of work : **Four (04) Months**

Authority to decide:

EE(E)/Contr

- i. Authority to convey the decision of shifting of milestone and Extension of time : Engineer-in-charge or successor as designated by CPWD.
- ii. Authority to decide Rescheduling of milestone and extension of time : Chief Engineer, Trivandrum, CPWD, or successor as designated by CPWD
- iii. Shifting of date of start in case of delay in handing over of site : Chief Engineer, Trivandrum, CPWD, or successor as designated by CPWD

Clause 5 Schedule of handing over of site

Part	Portion of site	Description	Time Period for handing over/reckoned from date of issue of letter of intent.
Part A	Portion without any hindrance	Full	Immediate
Part B	Portions with encumbrances	Not Applicable	Not Applicable
Part C	Portions dependent on work of other agencies	Not Applicable	Not Applicable

Clause 6

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

- i. Mode of measurement : CMB / ERP Electronic Measurement Book (e-MB)
(As per DG/SOP 2022/16 dated 13.09.2023)

Clause 7

Gross work to be done together with net payment : **Rs. 13 (Thirteen) Lakhs**
/adjustment of advances for material collected, if any,
since the last such payment for being eligible to
interim payment

Clause 7

- Whether Clause 7A shall be applicable : **Yes**
(No Running Account bill shall be paid for the work till the applicable labour licenses, registration with EPFO, ESIC and BOCW Welfare Board, whatever applicable are submitted by the contractor to the Engineer-in-Charge.)

Clause 7B

- Payment to third party : Not Applicable
(Refer No. DG/CON/310 dated 17/07/2020)
Whether Clause 7B shall be applicable : (As per DG/SOP-2022/02 dated.30.08.2022)
(Affidavit per annexure-III to be furnished for effecting 3rd party payments)

Clause 8A

- Authority to decide compensation on account if the contractor fails to submit the completion plans : Executive Engineer (E), Trivandrum, CPWD or successor as designated by CPWD

Clause 10A

List of testing equipment to be provided by the : NA
contractor at site lab

1..... 2..... 3.....
4..... 5..... 6.....

Clause 10B(ii)

Whether Clause 10 B (ii) shall be applicable : Not Applicable

Clause 10C

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

Clause 10CC : Not Applicable

Clause 11 :

Specifications to be followed for the execution of work

1. CPWD General Specifications for electrical works, Part-I: Internal -2023 with up-to-date amendments.

Clause 16

Competent Authority for deciding reduced rates. : Chief Engineer, Trivandrum, CPWD,
or successor as designated by CPWD

Clause 18

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

1..... 2..... 3.....
4..... 5..... 6.....

Clause 19C/19D/19G/19K

Authority to decide penalty for each default: : Engineer-in – charge or successor as
designated by CPWD.

Clause 25

Constitution of Dispute Redressal Committee (DRC):

- i. Conciliator Additional Director General-Kochi, CPWD, Chennai
- ii. Arbitrator Appointing Authority: Chief Engineer, CPWD, Trivandrum
- iii. Place of Arbitration Trivandrum / as decided by Arbitrator in consultation with both parties

Clause 32

Requirement of Technical Representative(s) and recovery rate

SL. No.	Requirement of technical staff	Minimum	Designation of	Rate at which
---------	--------------------------------	---------	----------------	---------------

	Qualification	Number	Experience (Years)	Technical Staff	recovery shall be made from the contractor in the event of not fulfilling
1	Graduate Engineer or Diploma Engineer	1 +1 (Civil + Electrical)	2 or 5 years respectively	Project Manager cum Planning/Quality/Site/Billing Engineer	Rs. 15,000/- per person (Rupees Fifteen Thousand Only)

Discipline for E&M Component: Electrical/ Mechanical Engineering

Discipline for Civil Component: Civil Engineering

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

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

Clause 38

: Not Applicable

i.	(a)	Schedule/statement for determining theoretical quantity of cement & bitumen on the basis of Delhi Schedule of Rates	On the basis of Delhi Schedule of Rates 2023 printed by C.P.W.D
ii.	Variations permissible on theoretical quantities		
	(a)	Cement	
	i.	For works with estimated cost put to tender not more than Rs. 25 lakh	3% plus/minus
	ii.	For works with estimated cost put to tender more than Rs. 25 lakh	2% plus/minus
	(b)	Bitumen for all works	2.5% plus & only nil on minus side
	(c)	Steel Reinforcement and structural steel sections for each diameter, section and category	2% plus/minus
	(d)	All other materials.	Nil

**Executive Engineer (E)
Trivandrum, CPWD,
Thiruvananthapuram – 695522**

PART-B

MAJOR COMPONENT

**General/specific conditions, specifications applicable to
major component(s) of the work**

General Terms and Conditions for E&M Components

1. General

- 1.1. The work shall be generally carried out in accordance with tender/bid specifications and the following specifications / rules.
- 1.2. CPWD General Specifications for electrical works Part-I Internal -2023 with up-to-date amendments
- 1.3. CPWD General Specifications for electrical works Part-II (External)-2023 with up-to-date amendments.
- 1.4. ~~CPWD General Specifications for HVAC-2024 with up-to-date amendments.~~
- 1.5. Commercial and Additional conditions for this work.
- 1.6. The Indian Electricity Act, 2003, as amended upto date.
- 1.7. Indian Electricity Rules 1956 amended upto date.

2. 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:

- 2.1. Schedule of quantities
- 2.2. Commercial and additional conditions for this work
- 2.3. Drawings, if any
- 2.4. CPWD General Specifications
- 2.5. Relevant I.S or any other International code in case I.S code is not available.
- 2.6. However, nothing extra shall be paid on account of these, as the same are to be read along with schedule of quantities for the work.

This specification covers manufacture, testing as may be necessary before dispatch, delivery at site, all preparatory works, assembly and installation, commissioning putting into operation of equipment of all E&M components of the tender.

The tenderer should in his own interest visit the site and get familiarise with the site conditions before tendering.

No T&P shall be issued by the Department and nothing extra shall be paid on this account.

3. Commercial Conditions

- 3.1. Type of Contract: The work to be awarded by this tender shall be treated as indivisible works contract.
- 3.2. Income tax, GST, labour cess & other statutory deductions etc. shall be made at source as per the prevalent laws. The deductions of Security Deposit, Income-Tax etc. shall be done after calculation of the due payment and net payment shall be reduced accordingly.
- 3.3. RATES: The rates quoted by the tenderer, shall be firm and inclusive of all taxes (including GST, labour cess etc.) and all charges for packing forwarding, insurance, freight and delivery, installation, testing, commissioning etc. at site including temporary construction of storage, risks, overhead charges, general liabilities/obligations. However, the fee for the
- 3.4. CEA /Kerala State Electrical Inspectorate inspections shall be reimbursed on production of proof of payment.
- 3.5. The contractor has to carry out maintenance as per CPWD General Specifications and manufacturer's standards for a period of 36 months & 3 years after defect liability period from the date of handing over. Nothing extra shall be paid on this account.

4. Completeness of Tender

All sundry equipment, fittings, unit assemblies, accessories, hardware items, foundation bolts, termination lugs for electrical connections, and all other items which are necessary for efficient assembly and installation of equipment and components of the work shall be deemed to have been included in the tender irrespective of the fact whether such items are specifically mentioned in the tender documents or not.

5. Storage and Custody of Materials

The agency has to make his own arrangement for storage of materials. No storage accommodation shall be provided by the department. Watch and ward of the stores and their safe custody shall be the

responsibility of the contractor till the final taking over of the installation by the department.

6. **Care of Building**

Care shall be taken by the contractor while handling and installing the various equipment's and components of the work to avoid damage to the building. He shall be responsible for repairing all damages and restoring the same to their original finish at his cost. He shall also remove at his cost all unwanted and waste materials arising out of the installation from the site of work.

7. **Completion Period**

The completion period indicated in the tender documents is for the entire work of planning, designing, approval of drawings etc., arrangement of materials & equipment, delivery at site including transportation, installation, testing, commissioning and handing over of the entire system to the satisfaction of the Engineer-in-charge.

8. **Guarantee and defect liability period**

All equipments shall be guaranteed for a period of 36 months (~~except LED fittings which shall be guaranteed for a minimum of 5 years~~), from the date of taking over the installation by the department, against unsatisfactory performance and/or break down due to defective design, workmanship or material. The equipments or components, or any part thereof, so found defective during guarantee period shall be forthwith repaired or replaced free of cost, to the satisfaction of the Engineer-in Charge.

~~The guarantee for LED light fittings & BLDC fans are to be got submitted from the manufacturer /authorized dealer in addition to the guarantee from the contractor. The manufacturer/ authorised dealer should give undertaking that in case of discontinuation of model and /or non-availability of spares, they will replace the unit with equivalent/ high end model in case of manufacturing defect during the warranty period of 3 years as in Annexure – X. Type Test certificate, BIS certificate, LM79 and LM80 certificate test report from an NABL accredited laboratory need to be submitted prior for approvals.~~

Before handing over the installation, the contractor shall furnish an additional Security Deposit equivalent to 5% of the total value of work executed towards the remaining two years of the three-year warranty period, in the form of FDR/Bank Guarantee/Demand Draft acceptable to the department. This shall be in addition to the Security Deposit already recovered from the contractor's bills towards the first year of the warranty period.

In case the contractor fails to furnish the above Security Deposit, the same shall be withheld from the final bill and retained under Part-V.

The Security Deposit retained/furnished towards the warranty period shall be released on a pro-rata basis after satisfactory completion of each year of the warranty period and fulfillment of all warranty obligations. The Security Deposit pertaining to the first year shall be released after completion of the first year, and the additional Security Deposit furnished for the remaining two years shall be released annually on a pro-rata basis at the end of the second and third years, subject to satisfactory fulfilment of the warranty conditions.

If, in the opinion of the Department, the contractor fails to carry out the required rectification/replacement work within a reasonable time or causes undue delay in attending to the defects, the Department shall be at liberty to have the work executed through any other agency at the risk and cost of the contractor. The expenditure incurred on such work shall be recoverable from the contractor from any dues, Security Deposit, Performance Guarantee, or any other amount payable to him. The decision of the Engineer-in-Charge in this regard shall be final and binding on the contractor.

The tenderer shall guarantee among other things, the following:

- 8.1. Quality, strength and performance of the materials used as per manufacturers standards.
- 8.2. Safe mechanical and electrical stress on all parts under all specified conditions of operation.
- 8.3. Satisfactory operation during the maintenance period.

9. **Acceptable Makes of Various Equipments**

The acceptable makes of various equipments/components/accessories have been indicated in the “**List of Acceptable Makes/ Schedule of Quantities**” appended with the tender documents. The tenderer shall work out the cost of the offer on this basis. Alternate makes are not acceptable.

10. Data Manual and Drawings to be furnished by the Tenderer:

10.1. **After award of work**

The successful tenderer would be required to submit the following drawings after award of work for approval as per milestones of tender.

- a) General layout of all E&M installations.
 - b) ~~General arrangement drawing for HT/LT installations.~~
 - c) ~~GAD for E&M piping and other details.~~
 - d) ~~General arrangement of lighting & fans etc.~~
 - e) Details of foundations for equipments and the weights of assembled equipments etc.
 - f) ~~The voltage drop calculation for external cabling works along with the proposed cable route/layout.~~
 - g) ~~Details of foundations for the equipments including DG set and the weights of all assembled equipments considering the soil bearing capacity and other relevant factors at site.~~
 - h) Any other drawings/details necessary for the job as per general specifications.
- The successful tenderer should furnish well in advance of commencement of work with three copies of detailed instructions and manuals of manufacturers for all items of equipments regarding installation, adjustments operation and maintenance including preventive maintenance & troubleshooting together with all the relevant data sheets, spare parts catalogue etc., all in triplicate.

11. **Extent of Work**

- 11.1. The work shall comprise of entire labour including supervision and all materials necessary to make a complete installation and such tests and adjustments and commissioning, as may be required by the department. The term complete installation shall not only mean major items of the plant and equipments covered by specifications but all incidental sundry components necessary for complete execution and satisfactory performance of installation with all layout drawings whether or not those have been mentioned in detail in the tender document in connection with this contract as this is a turnkey job.
- 11.2. The cables and other linear quantity items shall be brought to site only after taking correct measurements as per actual requirement of work. Excess quantities shall not be accepted. i.e., Quantity of items brought to site and used in work as per actual requirement shall only be measured and to be paid.
- 11.3. In addition to supply, installation, testing and commissioning, of E&M equipments, the following works shall be deemed to be included within the scope of work to be executed by the tenderer as this is a turnkey job.
- 11.4. Minor building works necessary for installation of equipments, foundation, supports, making of opening in walls or in floors and restoring them to their original condition /finish and necessary grouting etc. as required.

12. **Exclusion and Work to be done by Other Agencies**

The following shall be excluded from the scope of the work:

- 12.1. Major dismantling of any existing building work.

13. **Inspection and Testing**

The General intent of this specification is to mention the relevant tests to be done and furnished to the Engineer- in-Charge by the Contractor. These are guidelines. However the Contractor shall carry out all such tests and complete all formalities as per relevant Indian Standard Specifications, Fire Insurance Requirements and/or Electricity Rules and Regulations as per Government Gazette and Publications.

All equipment before installing on the site work shall be tested and all such results produced to the Engineer-in- Charge. Nothing shall absolve the Contractor from reperforming any tests that the Contractor may be called upon specifically by the Engineer-in-Charge or supply company or electrical inspector. All equipment shall be tested jointly with the Engineer-in-Charge as required by various sections of the specifications and test data shall be furnished as required.

Factory Inspection: The following items shall be offered for factory inspection by the Engineer-in-charge or his authorized representatives prior to dispatch of the material at site. Agency has to make necessary co-ordination with the Engineer-in-Charge for such an inspection. The cost of the Engineer's visit will be borne by the department.

~~13.1. All LT panel boards~~

~~13.2. DG sets~~

~~13.3. Any other item as decided by the Engineer-in-charge and as per general specifications~~

~~13.4. However, the Engineer-in-charge may waive the factory inspection at his discretion in lieu of proper test certificates~~

14. Compliance with Regulations and Indian Standards

All works shall be carried out in accordance with relevant regulation, both statutory and those specified by the Indian Standards related to the works covered by this specification

14.1. Factories Act.

14.2. Indian Electricity Rules.

14.3. B.I.S. & other standards as applicable.

14.4. Work men's compensation Act.

14.5. Statutory norms prescribed by local body(s), CEA/Kerala State Electrical Inspectorate, Power Supply Co., etc.

After completion of the installation, the same shall be offered for inspection by the representatives of the Central Electricity Authority/Kerala State Electrical Inspectorate as the case may be and by all concerned local body(s). The contractor will extend all help including test facilities to the representatives of CEA/Kerala State Electrical Inspectorate and the Local body(s). The observations of CEA/Kerala State Electrical Inspectorate and Local body(s) shall be attended by the contractor. The installation will be commissioned only after getting clearance from CEA/Kerala State Electrical Inspectorate and the local body(s).

Nothing in this specification shall be construed to relieve the successful tenderer of his responsibility for the design, manufacture and installation of the equipment with all accessories in accordance with currently applicable statutory regulations and safety codes.

15. Indemnity

The successful tenderer shall at all times indemnify the department, consequent on this works contract. The successful tenderer shall be liable, in accordance with the Indian Law and Regulations for any accident occurring due to any cause and the contractor shall be responsible for any accident or damage incurred or claims arising therefrom during the period of erection, construction and putting into operation the equipments and ancillary equipment under the supervision of the successful tenderer in so far as the latter is responsible. The successful tenderer shall also provide all insurance including third party insurance as may be necessary to cover the risk. No extra payment would be made to the successful tenderer on account of the above.

16. Erection of Tools

No tools and tackles either for unloading or for shifting the equipments for erection purposes would be made available by the department. The successful tenderer shall make his own arrangement for all these facilities.

17. Location

The work is to be executed at proposed at **NHRIMH, Kurichi, Kottayam**. The Contractor is advised to visit the site before submission of their tender and ensure that equipment being offered by them can be accommodated in the spaces available and for assessing the scope of work.

18. Cooperation with other agencies

The successful tenderer shall co-ordinate with other contractors and agencies engaged in the construction of buildings, if any, and exchange freely all technical information so as to make the execution of work/contract smooth. No remuneration should be claimed from the department for such technical cooperation. If any unreasonable hindrance is caused to other agencies and any completed portion of the work has to be dismantled and re-done for want of cooperation and coordination by the successful tenderer during the course of work, such expenditure incurred will be recovered from the successful tenderer if the restoration work to the original condition or specification of the dismantled portion of the work was not undertaken by the successful tenderer himself.

19. Verification of Correctness of Equipment at Destination

The contractor shall have to produce all the relevant records to certify that the genuine equipments from the manufacturers has been supplied and erected.

20. Painting

All equipments shall be factory painted unless otherwise mentioned. The agency shall be required to do only making good the damages caused to the painting of various equipments during transportation, handling & installation at site.

21. Maintenance

21.1. Sufficient trained and experienced staff shall be made available to meet any exigency of work during the guarantee period of 36 months & three years after defect liability period from the date of taking over of the installation.

21.2. The maintenance, routine as well as preventive for 36 months & three years after defect liability period from the date of taking over the installation.

22. Approval of drawings, makes and models of equipment/materials for all E&M components

The agency shall submit drawings and details with makes and models of the equipments /materials offered by him along with specifications for all E&M components to the Engineer-in-charge of the work, before ordering the equipment/materials for approval of the department.

The Engineer-in-charge shall scrutinize the proposal and approve the makes and models which are acceptable as per the schedule, specifications, conditions of the agreement and inform the agency for procurement.

After approval of the equipment/materials by the department the agency shall procure the equipment/materials from the OEM/authorized distributor/dealer as the case may be.

23. Quality & Genuiness of Material

23.1. Adequate care may be taken such that only tested and genuine materials of proper quality are used in work shall be ensured by firm.

23.2. The firm shall also ensure that:

23.3. The contractor will submit makes & brands of electrical components as per the acceptable makes list in tender documents for approval of Engineer-in-Charge.

23.4. The firm will be required to procure material directly from the manufacturer/ their authorised dealers to ensure genuineness & quality and as per the approved makes only. Proof in this regard shall be submitted by the contractor to the department, if required.

23.5. Inspection at factory, as required, shall be arranged by the firm on a mutually agreed date.

23.6. Department shall reserve the right to waive inspection in lieu of suitable test certificate, at its discretion.

23.7. All the materials to be supplied by the contractor shall be procured & brought to site as per requirement at site of work in consultation with department so that these materials are not damaged & their manufacturer's warranty is not getting void.

23.8. The testing plan shall be as per the Quality Assurance policy and check list for E&M Services 2016 issued by CPWD

24. Safety Codes & Statutory Regulations

24.1. Nothing in this specification shall be construed to relieve the successful tenderer of his responsibility for the design, manufacture and installation of the equipment with all accessories in accordance with currently applicable statutory regulations and safety codes.

24.2. Successful tenderer shall arrange for compliance with statutory provisions of safety regulations and departmental requirements of safety codes in respect of labour employed on the work by the tenderer. Failure to provide such safety requirement would make the tenderer liable for penalty as per conditions. In addition, the department will be at liberty to make arrangement for the safety requirements at the cost of successful tenderer and recover the cost thereof from him.

25. Power Supply

The contractor shall make his own arrangement for power supply required for execution of the work.

26. Water Supply

The contractor shall make his own arrangement for water supply required for execution of the work.

27. ANNUAL COMPREHENSIVE MAINTENANCE

Supplementary agreement for annual comprehensive maintenance contract for a period of 3 years after defect liability period shall be executed by the agency with the NHRIMH/CPWD authorities which include preventive, break down maintenance, repair, replacement of worn out parts of entire system free of cost i/c free of cost labour, all taxes and all other incidental charges. The fault/complaint call shall be attended within a minimum down time during the comprehensive maintenance period failing which department reserves the right to execute the same at the risk and cost of the contractor and to recover the same from the contractor for the same.

The annual comprehensive maintenance shall include once in three months (4 visit in a year) during the defect liability period for scheduled maintenance of the system. The annual comprehensive maintenance shall be executed through qualified service personnel. The deputed service personnel shall sign in the site order/log book with the list of complaints noticed and spares replaced/nature of works undertaken during each visit and sign the record.

Additional Conditions for Internal Electrical Installations

1 Extent of Work

- 1.1 The electrical works shall be done by agency having electrical contractor license issued by the electrical licensing authority under the Kerala state.
- 1.2 The work shall comprise of entire labour including supervision and all materials necessary to make a complete installation and such tests and adjustments and commissioning as may be required by the department.
- ~~1.3 The main agency shall be responsible for all acts of omissions and submissions of the associate Contractor engaged by him, even with approval of department.~~
- 1.4 Approval of the Engineer-in-charge shall be taken well in advance for all the materials to be supplied and used in all the works by the contractor.
- 1.5 The contractor has to make his own arrangements for stores and watch and ward and no extra claim for this will be entertained.
- 1.6 The main contractor shall be responsible for coordinating the activities of all works and will ensure progress of works as per laid down programme.
- 1.7 The main contractor and / or ~~his associate contractor~~ or his representative is bound to sign the site order book as and when required by the Engineer-in-charge and will comply with the remarks therein.
- 1.8 The contractor shall make his own arrangement at his own cost for electrical / General Tools and plants required for the work.
- 1.9 The contractor shall remove all the debris due to the E & M works from the site as soon as the work is completed.
- 1.10 Guarantee for the electrical installation in the prescribed proforma shall be provided by the agency after handing over of the installation.

2 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 as below.

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

S.No	Stage of work	Percentage of payment on pro-rata basis
1	On laying of conduits with accessories, switch boxes, etc.	35%
2	On drawing of wires i/c terminations, switches, sockets, cover plates etc.	50%
3	On completion of item and after testing and commissioning.	10%
4	At the time of payment of final bill	5%

2.2 LT panel boards, MCB Distribution Boards, MCBs, RCBOs, LED fittings and other equipments such as Dynamic Pass box, Static Pass box etc.

S.No	Stage of work	Percentage of payment
1	On initial inspection of material and delivery at site in good condition on pro-rata basis.	70%
2	On completion of installation on pro-rata basis.	15%
3	On completion of testing and commissioning.	10%

S.No	Stage of work	Percentage of payment
4	At the time of payment of final bill.	5%

3 Additional Conditions

- 3.1 The wiring and conduit layout shall be marked by the contractor in the drawing prior to execution and shall be got approved from the Engineer-in-charge.
- 3.2 The rupturing capacity of the MCBs shall be 10 KA minimum. The MCBs shall have ISI mark. Quantities of MCBs of different rating shall be brought in consultation with the Engineer-in-Charge or his authorized representative.
- 3.3 All the MCCBs shall be rated for $I_{cs}=100\% I_{cu}$.
- 3.4 The copper wire to be used on this work shall be FRLS type and ISI marked.
- 3.5 The make of switch boxes, cover plates etc. shall be the same as that of switches. Only the required knockouts of the switch boxes are to be removed for terminating the conduit pipes with PVC glands / check nuts.
- 3.6 Make of MCB/MCCB shall be the same as the make of MCB DB.
- 3.7 All the switch boxes, MCB DBs are to be covered with plastic masking sheet / petroleum jelly when installed in brick work till the plastering / painting is done to avoid sticking of cement plaster/ splashes of paint. Cement plaster / paint are to be cleaned immediately after plaster to avoid rusting of switch boxes and MCB DBs. All plastic sheets are to be removed at the time of handing over.
- 3.8 The E & M works shall be carried out by the contractor, side by side with the progress of civil work.
- 3.9 All PVC conduits accessories shall be of the same make as conduits. The conduit shall be terminated at switch boxes/metallic junction boxes with suitable PVC glands/check nuts.
- 3.10 Cutting of brick walls shall be with chase cutting machine only. All repairs and patch works shall be neatly carried out to match the original finish and to the entire satisfaction of the Engineer -in-Charge.
- 3.11 All metallic conduit shall be ISI marked. The wall thickness of steel conduit shall not be less than 1.6mm(16SWG) for conduits upto 32mm dia and not less than 2mm (14SWG) for conduits above 32mm. These shall be solid drawn or reamed by welding, and finishing with galvanized or stove enamelled surface.
- 3.12 All the sub main and circuit wiring item includes loose wire for connections inside switch boxes and MCB DBs. No payment for these loose wires shall be made. However wires within the cubicle panel board will be measured and paid under relevant item of work.
- 3.13 All the circuits / sub-main wiring are to be suitably numbered with stickers / marker pen at LT panel board, MCB DBs, switch boards (on backside of cover plate) for ease of maintenance. Nothing shall be paid extra on this account.
- 3.14 To facilitate drawing of wires, 18 SWG GI fish wire shall be provided along with laying of recessed conduit for which no extra payment shall be made. For conduits laid for other services where wiring is not done along with Internal EI works, fish wire shall be invariably drawn.
- 3.15 The connection between incoming switch / isolator and bus bar shall be made with suitable size of thimble and cable at no extra cost.
- 3.16 Copper conductor of insulated cables of size 1.5 Sq.mm and above shall be stranded and terminals provided with crimped lugs.
- 3.17 All sub-main wiring shall be terminated in the main board with suitable copper lugs and thimbles for which nothing extra will be paid.
- 3.18 All hardware items such as screws, thimbles, GI wire etc. which are essentially required for completing an item as per specifications will be deemed to be included in the item even when the same have not been specifically mentioned.
- 3.19 All hardware items such as nuts/ bolts/ screws/ washers etc. to be used in work shall be zinc/ cadmium plated iron.

- 3.20 While laying conduit, suitable size junction boxes shall be provided for pulling wires. The junction box cover should be of phenolic laminated / good quality plastic sheet of thickness not less than 3mm. Nothing extra shall be paid on the account.
- 3.21 All materials to be used in work shall be ISI marked. The make of the materials shall be as indicated in the list of acceptable makes. Alternate makes are not acceptable. The materials to be used in the work shall be got approved by the Engineer in Charge / his representative before use at site. The Engineer-in-Charge shall reserve the right to instruct the contractor to remove the material which, in his opinion, is not acceptable.
- 3.22 All modular switches/ sockets/ regulator/ telephone/ TV / internet outlets shall be of the same make.
- 3.23 Installation of distribution boards in niches in walls and making good the same shall be in the scope of the work.
- 3.24 All switch boards having fan controls shall be provided with additional two module spare space. Space/provision with blanking plate shall be provided if fan regulator is not provided therein. However, if twin control fan points is provided, the same shall be provided in one of the switch boards and this shall be done as per the direction of the Engineer-in-charge.
- 3.25 A blanking plate shall be provided between 25A switch and 25A socket outlet without extra cost , wherever provided.
- 3.26 Wherever light fittings are proposed to be provided on the false ceiling, the respective light / fan point wiring will have to be brought upto the terminal of the light fittings / fans by the contractor. Flexible metal conduits shall be used for drawing wires from conduits on ceiling to fittings on false ceiling and nothing extra shall be paid to the contractor for the same.
- 3.27 The external cabling works shall be carried out along the route as directed by the Engineer-in-charge.
- 3.28 The voltage drop calculation for the entire external cabling network shall be provided by the agency as per relevant standards for verification by the department. Procurement and laying of cables shall only be done thereafter.
- 3.29 All MCCBs and relays forming protection to the system shall be suitably calibrated and tested for trouble free operation.
- 3.30 The earthing of the installation shall be properly ensured at all parts of the installation.
- 3.31 All LT panel boards shall be compliant to relevant IS standards. The design of the LT panel board shall be sufficient capacity to withstand the fault level at the point of installation. The enclosures shall be designed to take care of normal stress as well as abnormal electro-mechanical stress due to short circuit conditions. All covers and doors provided shall offer adequate safety to operating persons. Ventilating openings, if provided, shall be arranged such that the required ingress protection is not defeated.
- 3.32 Switchboards construction shall be compartmentalized and segregated for incomer, busbar, cable alley, each outgoing feeders and control and metering units unless otherwise specified.
- 3.33 The switchboards shall be designed for use in the local ambient temperature and humid tropical conditions.
- 3.34 Switchboard panels and cubicles shall be fabricated with CRCA Sheet Steel of thickness not less than 2.0 mm unless otherwise specified and shall be folded and braced as necessary to provide a rigid support for all components. The doors and covers shall be fabricated from CRCA sheet steel of thickness not less than 2 mm unless otherwise specified. Joints of any kind in sheet metal shall be seam welded and all welding slag ground off and welding pits wiped smooth with plumber metal. Switchboards shall be provided with "Danger Notice Plate" conforming to relevant Indian Standards.
- 3.35 Busbars shall be made of high conductivity, 99.9% purity, high strength Aluminum / Copper of ETP grade Busbars shall be of rectangular cross sections shall be provided in all LT panel boards. Busbar shall be suitable to withstand the stresses of fault level at the point of installation. Continuous earth bus sized for prospective fault current to be provided with arrangement for connecting to station earth at two points shall be provided in LT panel boards. Hinged doors / frames to be connected to earth through adequately sized flexible braids.

- 3.36 Copies of type tests carried out on MCCB at manufacturers works shall be furnished along with the delivery of the switchboards.

Additional Condition for Execution of Laundry Equipment at NHRIMH, Kurichy, Kottayam.

SCOPE: The scope of work includes design, supply, installation, testing and commissioning of Laundry Equipment and related hardware and software, UG cables etc. in the NHRIMH, Kurichy, Kottayam. The broad scope of the services included in the contract shall include, but not restricted, to the following:

1. The work shall be carried out as per C.P.W.D. Specification for electrical amended upto date.
2. All the material to be used on the work shall be approved from Engineer-in-charge before execution of work.
3. All the malba/debris shall have to be removed from site of work, immediately.
4. The work shall be carried out as per layout/drawing approved by the department. Layout / drawing shall be prepared by the contractor for approval before execution of work.
5. The work shall be executed in close co-ordination with civil work, failing which department reserves the right to get the work executed through departmentally or through any other agency on risk and cost of agency, as per terms and conditions of the agreement.
6. The work is to be carried out in the hospital which is already functional. Hence care should be taken not to disturb the existing installations.
7. All the hidden work shall be carried out in the presence of Engineer-in-charge or his representative.
8. The contractor will be responsible for transportation, storage and watch and ward of the stipulated material and other items for which nothing extra shall be paid.
9. The contractor/his authorized representative is bound to sign the site order book as and when required and he is bound to carry out the instructions recorded there in.
10. No claim for idle labour shall be entertained.
11. Any accidental liabilities will be the responsibility of the contractor.
12. The work shall treated as completed, when all the installation are handed over to the department and all the defects are remove to the entire satisfaction of Engineer-in-charge.
13. No T&P will be issued to the contractor.
14. Any damage done to the man, machine and building during the execution of work shall be the responsibility of the agency and the same will have to be made good promptly by the contractor at its own cost to the entire satisfaction of the Engineer-in-charge.
15. On completion of work, the contractor shall arrange for insulation and earth continuity test as per I.E. rules in the presence of the Engineer-in-charge or required, for which nothing extra shall be paid.
16. The Original Equipment Manufacturer (OEM) shall provide a comprehensive warranty for the complete Laundry Equipment for a period of 36 months from the date of successful testing, commissioning and handing over of the system to the Department.
17. The OEM shall provide, free of cost, all patches, bug fixes, security updates and version upgrades applicable to the offered software during the warranty period.
18. The final acceptance shall be done by the department, to ensure the system meets requirements, standards and specifications as set out in these documents for satisfactory working of Laundry

Equipment. However, the department shall be free to get the material and installation inspected by the third party at its own cost and take action as per its recommendation. The observations so made shall be abided by the contractor and shall be binding upon him.

19. Operational and basic troubleshooting training shall be imparted to at least two personnel nominated by the Engineer-in-Charge/Client Department for a minimum period of two working days. Necessary user manuals, operation guides and maintenance instructions shall also be provided.
20. The rate for all items of work, shall unless otherwise clearly specified include cost of all labour, material and other inputs involved in the execution of the items.
21. The successful bidder shall submit detailed technical data sheets, shop drawings, system architecture diagrams and OEM authorizations, wherever applicable, for approval by the Engineer-in-Charge before procurement and execution of the work. No material shall be procured or installed without such approval.
22. **GUARANTEE / WARRANTEE**

The installation will be handed over to the department after necessary testing and commissioning. All installations pertaining to complete Laundry Equipment shall be warranted for a period of 36 months from the date of taking over the installation by the department, against satisfactory performance and/or break down due to defective design, workmanship of material. The material shall include all material that is required for the successful completion of the work. The equipments or components, or any part thereof, if found defective during warrantee period shall be forthwith rectified/ repaired or replaced free of cost, to the satisfaction of the Engineer-in-Charge. In case it is felt by the department that undue delay is being caused by the contractor in doing this, the same will be got done by the department at the risk and cost of the contractor. The decision of the engineer-in-charge in this regard shall be final & binding on the contractor.

The following percentage of contract rates shall be payable against the stages of work of Laundry Equipment as shown.

S.No	Stage of work	Percentage of payment
1	After delivery at site in good condition on pro-rata basis.	70%
2	On completion of installation on pro-rata basis.	20%
3	On successful testing and commissioning and handing over the system	10%

Additional Condition for Maintenance of Laundry Equipment

1. The section covers the maintenance schedule during the period of three (03) years defect liability period and comprehensive maintenance for a period of three (03) years after defect liability period.
2. The comprehensive maintenance shall be provided during the defect liability period of three years and three years subsequent to the defect liability period.
3. The work shall be carried out as per CPWD general specifications and as per direction of Engineer– in –Charge.
4. The scope of work includes preventive maintenance, corrective maintenance (breakdown repair), calibration, cleaning, software / firmware upgrades of relevant equipment, replacement of worn out or failed parts (spares), etc.
5. The maintenance during Defect liability period and three years subsequent to the defect liability period shall be comprehensive in nature, i.e., inclusive of: All spares and replacement of defective components, Labour, consumables, travel, and tools, Calibration, software upgrades, and firmware support. No additional payment shall be made for parts or labour during the contract period.
6. The contractor must maintain spares of critical components for immediate replacement to minimise downtime.
7. All replacement parts must be of standard / OEM or equivalent quality. Alternate makes may require prior approval.
8. Preventive maintenance shall be carried out once in three months (4 visit in a year). Activities shall include cleaning, tightening of connections, verifying system calibration, software/firmware updates, and functional testing. A preventive maintenance report shall be submitted after each visit, duly signed by client/CPWD representative. Failing which recovery @ Rs. 5000/- per preventive maintenance shall be made from the Security Deposit.
9. Any complaint lodged by the department shall be attended within 24 hours of reporting, from the time of lodging of the complaint through phone/ SMS/ E-mail etc., failing which a recovery @ Rs. 200/- per complaint per day (excluding the day of lodge of complaint) shall be made from the Security Deposit.
10. In case of major failure, the system shall be made functional within 3 days, failing which a recovery @ Rs. 500/- per complaint per day shall be made from the Security Deposit. Standby equipment of equivalent capacity/performance shall be provided if repairs require more time or off-site service.
11. Only qualified engineers/technicians experienced in Laundry Equipment shall be deployed. He should have complete knowledge of Laundry Equipment
12. Contractor shall maintain a service logbook at site, duly signed by department representatives / engineer in charge after each visit.
13. The maintenance shall normally be done during normal working hours. However, in case of emergency, maintenance may have to be beyond office hours and even on holidays. Prior arrangements through proper communication should be done in all cases by the service agencies.
14. Parts replaced must be compatible with and equivalent to the original item. It is preferred that the parts replaced should be the same make as the original.
15. No T &P shall be issued by the Department.

16. The material to be used at site shall have to be get it approved by Engineer in charge before use.
17. Rates should be quoted inclusive of all taxes and duties. Nothing shall be paid extra on this account.
18. The department reserves the right to terminate the work / contract at any time without assigning any reasons.
19. If at any time it is found that the services rendered are unsatisfactory or the Laundry Equipment is not being maintained properly in accordance with the contract conditions, the Department may recover suitable compensation from the Security Deposit and/or get the defects rectified through another agency at the risk and cost of the contractor. In case of repeated failures or abandonment of maintenance obligations, the Security Deposit furnished for the Defect Liability Period shall be liable to forfeiture. The decision of the Engineer-in-Charge shall be final and binding.
20. Exclusions: The following may be excluded:
 - 20.1. Physical damage due to mishandling, vandalism, accident, theft, fire, flood or other causes attributable to unauthorized personnel or force majeure events.
 - 20.2. Major civil works, electrical infrastructure works, or modifications outside the scope and boundary of the Laundry Equipment.
 - 20.3. Obsolescence of equipment due to discontinuation of product support by the OEM, provided that such condition is certified by the OEM and accepted by the Engineer-in-Charge. However, the contractor shall remain responsible for maintaining the system in functional condition during the Defect Liability Period through suitable repair, replacement or equivalent alternatives, subject to the approval of the Engineer-in-Charge.

List of Preferred Makes

A list of preferred brand names of various materials/products are shown below for usage in execution of work. However, in case it is established that the brands specified below are not available in the market, approved equivalent material of any other specialized companies/firms may also be used, subject to approval of the alternate brand by the Engineer in Charge.

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

The list given below does not absolve the executing agency from their responsibility for using quality 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.

Internal Electrical Installations		
1.	PVC insulated copper conductor cable / Telephone cable / Co-axial TV Cable/submersible cable.	Finolex/ Havells/ Anchor/ L & T / Polycab/ V-Guard/ RR Kabel (All wires shall be FRLS with "ISI" marked).
2.	PVC conduit and accessories	Avonplast / Bajaj Plast/ Precision / Atul/ Balco /Konseal "ISI" marked.
3.	Modular plate type switch, Socket, other modular items, modular Box, inner & outer plate and accessories	MK Blenze/ Legrand Arteor or Myrius/ Crabtree Thames with platinum plate/ Schneider Zencilo "ISI" marked
4.	Cable management / Floor trunking	MK / Legrand/ Schneider/ Siemens
5.	MCB DBs	Siemens: Beta guard/ ABB: Elegance / Legrand: Ekinox / Schneider: Acti9 /L&T
6.	MCBs	Legrand: DX ³ / ABB: S200M/ Schneider: Acti9/ Siemens: Beta guard /L&T
7.	RCCB/RCBO	Legrand: DX ³ / ABB: F200, DS200M, DDA200/ Schneider: Acti 9/ Siemens: Beta guard /L&T
8.	MCCB's	Siemens/ L&T /Schneider/ABB
9.	Panel board mounting Switches	L & T / Siemens / Schneider/ABB
10.	Industrial sockets	Siemens/ Legrand / Schneider / Hager
11.	Timer	L&T / Schneider / Siemens/ Legrand/BCH/ GE
12.	Contactors	L&T / Schneider / Siemens/ABB
13.	LED light fittings	Philips/Crompton/Wipro/Havells
14.	Lamps	GE/ Osram/ Philips/ Bajaj/Wipro
15.	Angle/batten holder	Kinjal/ Emperor/ Anchor, all ISI marked.
16.	CAT6A UTP cables	Belden/ Panduit /AMP/ Commscope/Siemon
17.	Meters (Digital type)	Conzerv / AE / Krykard/ Schneider/ Mecon/

		L&T/ Cadel/ C&S/ ABB
18.	Telephone/ TV cable/Tag Block	Delton/ Finolex/ L& T/Legrand/Polycab
19.	CT's	AE / BCH/ L&T/ ABB/ siemens/ GE/ MECO/ Rishab
20.	Ceiling rose	Anchor / Lisha / Leader "ISI" marked.
21.	BLDC Ceiling Fan	Atomberg/Orient/ Havells/Usha/ equivalent model of Crompton
22.	Exhaust fan – Heavy duty	Usha / Almonard / Crompton/Havells
23.	Wall fan	CG/Havells/Orient
24.	MS/GI pipe	Zenith/ Jindal / TATA
25.	Phenolic laminated sheet	Hylam/ Green lam / Formica (minimum 3 mm thick, ISI Marked)
26.	Octagonal Street light poles	Philips / Bajaj / Crompton/ Wipro/Gammon India/ Valmont
27.	XLPE/ PVC insulated PVC sheathed aluminum /copper conductor UG cable.	Universal / Finolex/ CCI/ Gloster/ Grandlay/ Havells / Polycab/KEI, " ISI" marked
28.	HDPE Pipe & accessories	Duraline/ Supreme/Times Technoplast/ Hasti/ National Plastic/Finolex
29.	HDPE DWC Pipe & accessories	Duraline/Supreme/Times Technoplast/ Hasti/ National Plastic/Finolex /Rex/jain Irrigation/ Gemini
30.	Energy Meters for KSEB metering	As per approved list of KSEB Ltd.
31.	Call bell/Buzzer	Anchor/ Leader/Rider/GM
32.	HRC fuses	L&T/ GE/ Siemens/Havells
33.	Indicating Lamps, Selector Switches	Kaycee / BCH / L & T Salzer / Siemens/C&S
34.	Cable glands	Jainson/ Comet/ Dowells/ Cosmos
35.	Cable Lugs	Comet/Cosmos/Dowells/Hax Brass(Copper Alloy India)
36.	Fasteners	Hilti / Fischer / Bosch
37.	Surge protectors	Legrand/ Siemens /Schneider/ ABB/ Obo Bettermann/L&T
38.	Fire Extinguishers	Flameguard / Padmini / Newage / Fire Shield / Swastik / Cease fire / Minimax /Safex / Kanex
39.	MCCB incomer and MCCB outgoing distribution boards	Legrand/Siemens/Schnieder/ABB/L&T/Hager
40.	DB mounting MCCBs	Same make as of MCCB incomer DBs.
41.	Water supply pumpsets	Kirloskar/Texmo/Wilo/ Grundfoss/KSB/ Xy-

		lem
42.	NRV/ Butterfly Valve	Intervalve / Audco / Kalpana / Zoloto / Kartar/Sant/Leader
43.	Gate valve	Intervalve / Audco / Kalpana / Zoloto / Kartar/Sant/Leader
44.	CPVC pipe & accessories	Ashirwad/Astral/Supreme/Duraline
45.	Single Phase/ Dry Running Preventor	L&T/ Minilec / H&H
46.	Inverter unit	Hykon/ SuKam Power Systems/Microtek/V-Guard/ Luminous Power Technologies Pvt Ltd.
47.	Sealed maintenance free battery	Amaron/Panasonic/Exide
48.	On Line UPS	Eaton/APC/Socomec/Emerson Vertiv
49.	Telephone/ TV cable/Tag Block	Delton/ Finolex/ L& T/Legrand/Polycab
50.	Server rack/network rack	Valrack/ Netrack/ Rittal
51.	Offline UPS	APC / Emerson / Numeric
52.	Single mode OFC cable	Commscope/ Belden/ Panduit /Siemon
53.	LIU unit	Commscope/ Belden/ Panduit /Siemon
54.	SM SC pigtails	Commscope/ Belden/ Panduit /Siemon
55.	SC duplex adaptors	Commscope/ Belden/ Panduit /Siemon
56.	SM duplex SC-LC patch cords	Commscope/ Belden/ Panduit /Siemon
57.	CAT6A fully loaded patch panel	Belden/ Amp/ CISCO/Commscope
58.	Unmangable Gigabit switch	Cisco / EXTREME/HP/ Juniper
59.	CAT6A UTP patch cord	Belden/ Panduit /AMP/ Commscope
60.	CAT6A UTP cable	Belden/ Panduit /AMP/ Commscope/Siemon
61.	CAT6A data socket outlet	Legrand/Panduit/siemon/Commscope/ Belden/AMP
62.	Any other item	As per approval of the Engineer-in-charge

PART-C

MINOR COMPONENT

**Proforma of Schedule for minor component of the work,
General/specific conditions, specifications
applicable to minor component(s) of the work**

PERFORMA OF SCHEDULES

SCHEDULE 'A'

Schedule of Quantities (as per PWD-3) : As per Schedule Attached

SCHEDULE 'D'

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

SCHEDULE 'E'

Reference to General Conditions of
contract: (GCC EPC Projects 2022 / GCC
Maintenance Works 2023 / GCC
Construction Works 2023) : As per Major component

Name of Work : **Renovation of commercial laundry and allied
systems for NHRIMH Hosiptal at Kurichi,
Kearala.**

Estimated Cost of Work : As per Major component

i. Earnest money deposit : As per Major component

ii. Performance Guarantee : As per Major component

iii. Security Deposit : As per Major component

SCHEDULE 'F'

GENERAL RULES & DIRECTIONS:

Officer inviting tender : As per Major component

Maximum percentage for quantity of items of work : See Below
to be executed beyond which rates are to be
determined in accordance with Clauses 12.2 &
12.3.

Definitions:

2(v) Engineer-in-Charge : Executive Engineer – Kottayam,
CPWD, Kottayam

2(viii) Accepting Authority : As per Major component

2(x) Percentage on cost of materials and
Labour to cover all overheads and profits : 15%

2(xi) Standard Schedule of Rates : Delhi Schedule of Rates 2023

2(xii) Department : Central Public Works Department

9(ii) Standard CPWD Contract Form : As per Major component

Clause 1

1. Time allowed for submission of : As per Major component
Performance Guarantee, programme chart
(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
2. Maximum allowable extension with late fee : As per Major component
@ 0.1% per day of Performance
Guarantee amount beyond the period
provided in (i) above

Clause 2

Authority for fixing compensation under clause 2 : As per Major component

Clause 2A

Whether Clause 2A shall be applicable : As per Major component

Clause 5

Number of days from the date of issue of letter of : As per Major component
acceptance for reckoning date of start Mile stone(s)
as per table given below

Sl. No	Description of Milestone (Physical)	Time allowed in days/ months (from date of start)	Amount to be with- held in case of non- achievement of milestone
As per Major component			

Time allowed for execution of work : As per Major component

Authority to decide:

- i. Extension of time : Engineer in charge of major component
- ii. Rescheduling of milestone : As per Major component
- iii. Shifting of date of start in case of delay in : As per Major component
handing over of site

Clause 5 Schedule of handing over of site

Part	Portion of site	Description	Time Period for handing over/reckoned from date of issue of letter of intent.
As per Major component			

Clause 6

i. Mode of measurement : Electronic Measurement Book (EMB) through CPWD ERP Portal As per CON Circular No. DG/CON-Construction-2020/337 dt. 13.04.2023

Clause 7

Gross work to be done together with net payment : As per Major component /adjustment of advances for material collected, if any, since the last such payment for being eligible to interim payment

Clause 7

Whether Clause 7A shall be applicable : **Yes**
(No Running Account bill shall be paid for the work till the applicable labour licenses, registration with EPFO, ESIC and BOCW Welfare Board, whatever applicable are submitted by the contractor to the Engineer-in-Charge.)

Clause 10A

List of testing equipment to be provided by the : Nil
contractor at site lab

Clause 10B(ii)

Whether Clause 10 B (ii) shall be applicable : As per Major component

Clause 10C

: As per Major component

Clause 10CA

: As per Major component

Clause 10CC

: As per Major component

Clause 11

Specifications to be followed for the execution of work : C.P.W.D Specification 2019 Vol. I & II. with upto date correction Slip.

Clause 12	:
Authority to decide deviation upto 1.5 times of tendered amount	: As per Major component
Deviation Limit beyond which clauses 12.2 & 12.3 shall apply for building work	: As per Major component
1. Deviation Limit beyond which clauses 12.2 & 12.3 shall apply for foundation work (Except Earth Work)	: As per Major component
2. Deviation Limit for items in earth work Sub head of DSR and or related items	: As per Major component

Clause 16	
Competent Authority for deciding reduced rates.	: As per Major component

Clause 19 C	: Engineer-in-charge to decide penalty for each default
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Clause 19 D	: Engineer-in-charge to decide penalty for each default
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Clause 19 G	: Engineer-in-charge to decide penalty for each default
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Clause 19 K	: Engineer-in-charge to decide penalty for each default
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Clause 25	As per Major component
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Clause 32	
<i>Requirement of Technical Representative(s) and recovery rate</i>	
As per Major component	

Clause 38

:

i.	(a)	Schedule/statement for determining theoretical quantity of cement & bitumen on the basis of Delhi Schedule of Rates	Delhi Schedule of Rates 2023 with upto date correction slips.
ii.	Variations permissible on theoretical quantities		
	(a)	Cement	
	i.	For works with estimated cost put to tender not more than Rs. 25 lakh	± (plus/minus) 3% (Three percent)
	ii.	For works with estimated cost put to tender more than Rs. 25 lakh	± (plus/minus) 3% (Three percent)
	(b)	Bitumen for all works	+(plus) 2.5%(Two point five percent) only and nil on – (minus) side.
	(c)	Steel Reinforcement and structural steel sections for each diameter, section and category	± (plus/minus) 2% (Two percent) only.
	(d)	All other materials.	Nil

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-Kottayam, CPWD, Kottayam on behalf of the President of India (hereinafter called "The Government") has invited bids under NIT No.....dated For the work of "**Renovation of commercial laundry and allied systems for NHRIMH Hospital at Kurichi, Kerala.**"
2. The Government has further agreed to accept irrevocable Bank Guarantee for Rs..... (Rupees only) valid up to (date)*..... as **Earnest Money Deposit** from (name and address of contractor) (hereinafter called "the contractor") for compliance of his obligations in accordance with the terms and conditions of the said NIT.

OR**

Whereas the Executive Engineer-Kottayam, CPWD, Kottayam on behalf of the President of India (hereinafter called "The Government") has entered into an agreement bearing No. with (Name and address of the contractor) ... (hereinafter called the "the contractor") for execution of work "**Renovation of commercial laundry and allied systems for NHRIMH Hospital at Kurichi, Kerala**"

The Government has further agreed to accept irrevocable Bank Guarantee for Rs. (Rupees only) valid up to (date) as **Performance Guarantee / Security Deposit / Mobilization Advance** from the said contractor for compliance of his obligations in accordance with the terms and conditions of the agreement.

3. We (Indicate the name of the Bank) (hereinafter referred to as "the Bank") hereby undertake to pay to the Government an amount not exceeding Rs..... (Rupees.....only) on demand by the Government within 10 days of the demand.
4. We (Indicate the name of the Bank), do hereby undertake to pay the amount due and payable under this Guarantee without any demure, 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 Contractors. 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).
5. 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 contractors 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.
6. 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 obligations hereunder 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 Contractors 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.

7. 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.
8. This guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor.
9. We (indicate the name of the Bank), undertake not to revoke this guarantee except with the consent of the Government in writing.
10. This Bank Guarantee shall be valid up to unless extended on demand by the Government. Notwithstanding anything mentioned above, our liability against this guarantee is restricted to Rs. (Rupees only) and unless a claim in writing is lodged with us within the date of expiry or extended date of expiry of this guarantee, all our liabilities under this guarantee shall stand discharged.

Date

Witnesses:

1. Signature
Name & Address

Authorized Signatory
Name
Designation
Staff Code No.
Bank Seal

2. Signature
Name & Address

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

** In paragraph 1, strike out the portion not applicable. Bank Guarantee will be made either for earnest money or for performance guarantee/security deposit/mobilization advance, as the case may be.

SPECIAL CONDITIONS

1. The contractor shall execute the whole work in the most substantial and workman like manner in strict accordance with the specifications, approved design, drawings, particular specifications, special conditions, additional conditions and instructions of the Engineer-in-Charge.
2. Before tendering, the contractor shall inspect the site of work and structures and shall fully acquaint himself about the conditions prevailing at site, availability of materials, availability of land and suitable location for construction of go-downs, stores, site office, transport facilities, constraints of space for establishing design mix plants, weather condition at site, the extent of leads and lifts involved in execution of work etc., which may affect or influence the tenders.
3. The contractor shall at his own expense and risk arrange land for accommodation of labour, setting up of office, storage of materials, erection of temporary workshops, and construction of approach roads to the site of work, including land required for carrying out of all jobs connected with the completion of the work. However, the departmental land to the extent available may be allowed to be used for these purposes free of rent without accepting any responsibility for the delay, if any, on this account. The contractor shall have to abide by the regulations of the authorities concerned and the directions of the Engineer-in-Charge for use of land available at the site of work. If it becomes necessary during construction to remove or shift the stored materials, shed, workshop, access roads, etc, to facilitate execution of the work included in this agreement or any other work by any other agency, the contractor shall remove or shift these facilities as directed by the Engineer-in-Charge and no claim whatsoever shall be entertained on this account. ~~The contractor shall submit a detailed layout drawing of the temporary structures, stock yards, plant locations proposed to be constructed by him for his use which may be got approved before any such construction is attempted. A tentative layout showing the working space is attached in Page No.179.~~
4. It shall be deemed that the contractor has satisfied himself as to the nature and location of the work, transport facilities, availability of land for setting up of camp, etc. The department will bear no responsibility for lack of such knowledge and the consequences thereof.
5. The contractor shall have to make approaches to the site, if so required and keep them in good condition for transportation of labour and materials as well as inspection of works by the Engineer-in-Charge. Contractor will have no right to restrict access to whom so ever the engineer in charge authorizes from using any such temporary or permanent access made Nothing extra shall be paid on this account.
6. ~~The contractor shall carry out true and proper setting out of the work in co-ordination with the Engineer-in-Charge or his authorized representatives and shall be responsible for the correctness of the positions, levels, dimensions and alignments of all parts of the structure. If at any time during the progress of the work any error appears or arises in the position, level, dimensions or alignment of any part of the work, the contractor on being asked to do so by the Engineer-in-Charge, shall rectify such error to the entire satisfaction of Engineer-in-charge. The checking by the Engineer-in-Charge or his authorized representatives shall not relieve the contractor of his responsibility for the correctness of any setting out of any line or level. The contractor shall carefully protect and preserve all bench marks, pegs and pillars provided for setting out of works.~~

7. All setting out activities concerning establishment of bench marks, instrument stations, centre line pillars, etc. including all material, tools, plants, equipments and all other instruments, labour, etc. required for performing all the functions necessary and ancillary thereto at the commencement of the work, during the progress of the work and till the completion of the work shall be carried out by the contractor and nothing extra shall be paid on this account.
8. The work shall be carried out in such a manner so as not to interfere or adversely affect or disturb other works being executed by other agencies, if any.
9. Any damage done by the contractor to any existing works or work being executed by other agencies shall be made good by him at his own cost or will be made good at his risk and cost without any notice served in this regard depending on the urgency of restoration of such damaged services.

10. **Compliance with Local Bye-Laws/Control of state Pollutions as per Pollution Control Board – Rules and regulations.**

The work shall be carried out in the manner complying in all respects with the requirement of relevant bye-laws of the local bodies under the jurisdiction of which the work is to be executed/**Pollution Control Board issued till the completion of work** or as directed by the Engineer-in-charge and nothing extra shall be paid on this account. The Contractor shall give due notices to the Municipality, Gram Panchayat, Police and /or other authorities as may be required under the law/rules under force and obtain all requisite licenses/permissions to carry out the work and pay all charges which may be leviable on account of his execution of the work under the agreement. Nothing extra shall be payable in this account. In the event of any restrictions being imposed by security and traffic agencies or any other authority having jurisdiction in the area on the working or movement of labour /material, the contractor shall strictly follow such restrictions and nothing extra shall be payable to the contractor on this account. The loss of time on this account, if any, shall have to be made up by generating additional resources etc

11. For completing the work in time, the contractor may have to work in two or more shifts and no claims whatsoever shall be entertained on this account, notwithstanding the fact that the contractor will have to pay to the labourers and other staff engaged directly or indirectly on the work according to the provisions of the labour regulations and the agreement entered upon and/or extra amount for any other reasons.
12. The contractor shall make his own arrangements for water and for obtaining electric connections if required and make necessary payments directly to the State / Central Govt. departments concerned. Contractor shall get the water tested from laboratory approved by the Engineer-in-charge at regular interval as per the CPWD Specifications 2019. All expenses towards collection of samples, packing, transportation, testing charges etc. shall be borne by the contractor.
13. The drawings for the work issued by the Engineer-in-Charge during execution of work shall at all times be properly correlated before executing any work and no claim whatsoever shall be entertained for discrepancies in the drawings.

14. 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 works.

The works to be undertaken by the contractor shall inter-alia include the following:

- i. Preparation of detailed SHOP drawings and AS BUILT drawings wherever applicable.
 - ii. ~~Obtaining of Statutory permissions where ever 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 equipments 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.
15. The contractor shall maintain in good condition all work executed till the completion of entire work entrusted to the contractor under this contract.
16. No payment shall be made to the contractor for damage caused by rain, whatsoever during the execution of works and any damage to the work on this account shall have to be made good by the contractor at his own cost.
17. Unless otherwise provided in the Schedule of quantities, the rates tendered by the contractor shall be all inclusive and shall apply to all heights, lifts, leads and depths of the building and nothing extra shall be payable to him on this account. Payment for centering, shuttering, however, if required to be done for floor heights greater than 3.5m shall be admissible at rates arrived in accordance with clause 12 of the agreement if not already specified.
18. The rates quoted by the Contractor are deemed to be inclusive of site clearance, setting out work (including marking of reference points, center lines of buildings), construction and maintenance of reference bench mark(s), taking spot levels, construction of all safety and protection devices, barriers, barricading, signage, labour safety, labour welfare and labour training measures, preparatory works, working during monsoon, working at all depths, height and location etc. and any other incidental works required to complete this work. Nothing extra shall be payable on this account.
19. 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 connection, telephone, water etc. required for execution of the work, liaison and pursuing for obtaining various approvals, 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. The Contractor shall submit to the Engineer-in-Charge, a site / construction yard layout, specifying areas for construction, site office, positioning of machinery, material yard, cement and other storage, steel fabrication yard, site laboratory, water tank, etc. within one month from the award of the work

20. No claim whatsoever for idle labour, additional establishments, costs of hire and labour charges for tools and plants, scaffolding etc. would be entertained under any circumstances.
21. The Contractor(s) shall take all precautions to avoid accidents by exhibiting necessary caution boards day and night. In case of any accident of labours/ contractual staffs 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.
22. Contractor shall within two weeks of award of work, submit to the Engineer-in-Charge for his approval, list of measures for maintaining safety of manpower deployed for construction and avoidance of accidents.
23. For the safety of all labour directly or indirectly employed in the work the contractors shall, in addition to the provision of CPWD safety code and directions of the Engineer-in-Charge, make all arrangements to provide facility as per the provision of Indian Standard Specifications (Codes) listed below and nothing extra shall be paid on this account.

1.	IS 3696 Part I	Safety Code for scaffolds and ladders.
2.	IS 3696 Part II	Safety Code for scaffolds and ladders Part II ladders.
3.	IS 764	Safety Code for excavation work.
4.	IS 4138	Safety Code for working in compressed air.
5.	IS 7293	Safety Code for working with construction machinery.
6.	IS 7969	Safety Code for storage and handling of building materials.
7.	IS 4130	Safety code for demolition of buildings.
24. The contractor shall take all precautions to avoid all accidents by exhibiting necessary caution boards and by providing red flags, red lights and barriers. The contractor shall be responsible for any accident at the site of work and consequences thereof.
25. 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. It shall be designed to take all incidental loads. It should cater to the safety features for workmen. It shall be ensured that no damage is caused to any structure due to the scaffolding. Nothing extra shall be payable on this account.
26. Royalty if any payable and all other incidental expenditure shall have to be paid by the contractor on all the boulders, metal shingle, earth, sand bajri, etc. collected by him for the execution of the work, direct to the concerned Revenue Authority of the State or Central Govt. and the amount paid shall not be reimbursed in any form whatsoever.
27. Other agencies working at site will also simultaneously execute the works entrusted to them and to facilitate their working, the contractor shall make necessary provisions e.g. holes, openings, etc. for laying/burying pipes, cables, conduits, clamps, hooks, etc. as may be required from time to time. The contractor shall extend full co-operation to other agencies for smooth execution of works by other agencies. The final finishing of the work is to be executed in co-ordination with other agencies as directed by the Engineer-in-Charge.
28. On account of security considerations, there could be some restrictions on the working hours, movement of vehicles for transportation of materials and location of labour camp. The contractor shall be bound to follow all such restrictions and adjust the programme for execution of work accordingly. Nothing extra shall be paid on this account. Also the contractor shall plan the activities so that no delay occurs due to the above. The contractor is expected to collect information about the same.

29. Stacking of materials and excavated earth shall be done as per the directions of the Engineer-in-Charge. Double handling of materials or excavated earth if required shall have to be done by the contractor at his own cost.
30. In case of construction joints, the cost of applying cement slurry over the concrete surface before fresh concrete is laid as per para 5.4.4.4. of CPWD Specification 2019 is included in the relevant items of the schedule of quantities and nothing extra shall be paid on this account.
31. Unless otherwise specified in the Schedule of Quantities the rates for all items of work shall be considered as inclusive of working in or under water and/or liquid mud and/or foul conditions including pumping or bailing out liquid mud or water accumulated in excavations during the progress of the work from springs, tidal or river seepage, rain, broken water mains or drains and seepage from subsoil aquifer.
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 items of Schedule of Quantities.
33. The holes of required shape and size shall be drilled in the single piece stone slabs of treads for fixing balustrades wherever necessary. Pattern of stone slabs for landings of staircase shall be decided by the Engineer-in-Charge. Nothing extra is payable on this account.
34. Stone slabs used for treads of staircase shall be provided with three machine cut grooves of size 3mm wide x 2mm deep, 25 mm apart near the nosing of the steps. Nothing extra is payable on this account.
35. To protect the flooring and steps of staircases during construction and until the completion of the work, finished/semi-finished surface of flooring shall be covered with a thick layer of plaster of Paris and this layer shall be maintained in good condition till its removal. The removal of the layer of plaster of Paris and cleaning the surface shall be done as and when decided by the Engineer-in-Charge. After the removal of plaster of Paris and cleaning of the surface, damage, if any, shall have to be made good by the contractor. No extra payment shall be made for protection with plaster of Paris, removal of plaster of Paris, cleaning and making good the damages.
36. The contractor shall give a performance test of the entire installation (s) as per standing specifications before the work is finally accepted and nothing extra whatsoever shall be payable to the contractor for the test.
37. The steel work in railing includes fish tailing of the section to be embedded in concrete and fixing the same.
38. Only factory made round / square type cover blocks should be used in RCC work, to avoid displacement of reinforcement bars in any direction and to ensure proper cover.
39. In RCC work, to avoid displacement of reinforcement bars in any direction and to ensure proper cover, only factory made round / square type cover blocks should be used.
40. Nothing extra will be paid for centering, shuttering, reinforcement and RCC work for sloped slabs and beams, unless otherwise specified in the item.
41. Steel bars shall be stored about 30 to 45 cm above ground and where the storage is for more than 3 months, a coat of cement wash shall be given to the bars. Nothing extra shall be paid towards cost of application of cement wash.

42. Some restrictions may be imposed by the State Government on quarrying of sand, stones etc, from certain areas. The contractor shall have to bring such materials from other quarries located elsewhere for timely completion of work and nothing extra shall be paid on this account.
43. The contractor shall give five years guarantee in the prescribed proforma for water proofing items and structural glazing items specified in the schedule of quantities. In addition to this 10% of the quoted cost of items shall be retained either in cash /fixed deposit or in the form of bank guarantee, which shall be released after the expiry of five years from the date of completion if no defects are found in water proofing or the defects are made good. This amount shall be adjusted against the expenses incurred on making good the defects if the contractor commits breach of guarantee.
44. In case of any difference in the Hindi version and English version in any of the condition of contract, English version shall prevail.
45. To facilitate gas connection, holes (if required by the Engineer-in-Charge) including suitable rubber gasket shall be provided in the kitchen platform of RCC slab/granite /marble/ other stone slab etc. Nothing extra will be paid on the account and rates quoted for relevant items are inclusive of making such provision.
46. Concrete mixers to be used on the work shall have automatic arrangement for dispersing water for controlling water cement ratio.
47. Any cement slurry added over base surface (or) for continuation of concreting for better bond is deemed to have been in built in the items and nothing extra shall be payable no extra cement considered in consumption on this account.
48. If the actual weight of reinforcement and structural steel to be used in the work differs from standard weight given in table 5.4 of CPWD Specification, the following procedure shall be followed for arriving at the quantity for payment.
 - i. If the actual weight is more than standard weight only standard weight shall be considered for payment.
 - ii. If the actual weight is less than standard weight but within the permissible variation, only actual weight shall be considered for payment.
49. The contractor shall arrange to keep the premises neat and clean. The rubbish/malba and unserviceable materials shall be removed on day to day basis.
50. 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 / firefighting equipments, fire sprinklers etc. and also testing water supply, sanitary and drainage lines, water proofing of underground sump, overhead tanks, water proofing treatment etc. shall be arranged by the contractor at his own cost. Nothing extra shall be payable on this account.
51. Time and Programme Chart.
 - i. The contractor shall give scientifically analyzed detailed programme chart for all the activities of the work within 10 days from the date of issue of letter of acceptance of tender. The programme chart shall be prepared covering the physical milestones as envisaged in the tender documents. Nothing extra shall be paid for preparation/ modification of programme chart, CPM and PERT chart. The contractor shall submit the time and programme and project report using the mutually agreed software or in other format decided by the Engineer-in-charge.
 - ii. While preparing the above detailed programme chart, effort shall be made to take all possible items of work simultaneously.

- iii. Separate programme chart should be prepared exclusively for procurement of materials. The detailed bar chart should distinctly bifurcate the items of work and of materials required for the execution of that item. Both should not be clubbed together. For example, for internal plumbing work the bar chart should show the procurement of pipe and other fittings with start and finish dates and items of work with start and finish dates separately. Both items should be interlinked preceding and succeeding activity. The programme chart not indicating procurement items separately will not be accepted.
- iv. Similarly programme chart should be prepared separately for arrangement of labour.
- v. The programme chart so finalized and accepted by department should be got reviewed by the department, once in a month regularly. Modified / revised programme chart shall be prepared in the event of not adhering to the targets mentioned in the earlier programme chart. The contractor shall augment additional resources, materials and man power for achieving the targets, so submitted in the revised Programme chart.
- vi. He shall furnish the details both in hard copies as well as soft copies. Nothing extra shall be paid on this account.
- vii. In case the above details are not furnished within 15 days as mentioned above, recovery @ Rs. 1000/-per day till its receipt by Engineer-in-Charge shall be effected from the first RA bill/RA bills.
- viii. The submission for approval by the Engineer-in-Charge of such program or the furnishing of such particulars shall not relieve the contractor of any of his duties or responsibilities under the contract. This is without prejudice to the right of Engineer-in-Charge to take action against the contractor as per terms and conditions of the agreement.
- ix. **SUBMISSION OF PROGRESS REPORTS:**
Apart from the above integrated program chart, the contractor shall be required to submit monthly progress report of the work in a computerized form on 1st and 16th of every month.
- x. Monthly progress report showing the work done during the previous month in prescribed form by the department shall be furnished by the contractor on or before 5th day of each month. The authorized representatives of the contractor shall attend fortnightly works review meeting with Engineer-in-Charge without fail till completion of the work. In case the monthly progress report for the work done during previous month is not furnished on or before 5th day of each month a recovery @ Rs. 2500/- per day basis will be imposed till its receipt by Engineer-in-Charge.
- xi. The contractor shall ensure the basic needs to the labourer or the employees are full filled during lockdown or quarantined if so necessitated. The contractor can strike terms as necessary with their labours of employees but adherence of strict lockdown/quarantine shall be the contractors responsibility and contractor shall ensure humane conditions during the same.
- xii. The normal delay in work due to the present pandemic situation is already built in to the completion time of the work no extra time for completion will be allowed due to the same unless complete lockdown is announced or directions are issued by the Central/ State Government for extension of time of completion.

52. QUALITY ASSURANCE

- i. The proposed work is a prestigious campus development project and quality of work is of paramount importance. Contractor shall have to engage well-experienced skilled labour and deploy modern T&Ps and other equipment in the execution of the work.

Many items like flooring work, 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 the set out tolerance limit shall be summarily rejected by the Engineer-in-charge and the 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. Special attention should be paid towards quality of materials, workmanship of execution of required standard and finish, lines and levels internal and external plastering, finish of 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, accurate joints in stone/ tiling / cladding work, non-hollowness in floor and dado tiles work, protection of scratches over flooring by providing layer of plaster of Paris, water tight pipe linings, proper compaction of joints in brick masonry, proper compaction of filled up earth etc. as per specification to achieve prescribed standards, Quality assurance for the project shall be of paramount importance.
- iv. The Contractor shall submit, within 21 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.
- v. All the materials to be used in the work, to make 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.
- vi. All materials and fittings brought by the contractor to the site for use shall conform to the specification and the samples approved by the Engineer-in-charge. The contractor should get the samples of all the materials got approved from the Engineer in charge before bringing the bulk quantity, which shall be preserved at site of execution till the completion of the work. If a particular brand of material is specified in the item of work in Schedule of Quantity, the same shall be used after getting the same approved from Engineer-In-Charge. Wherever brand / quality of material is not specified in the item of work, the contractor shall submit the samples as per approved list of brand names given in the tender document / 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

- vii. The Contractor shall procure and provide all the materials from the manufacturers / suppliers approved by Engineer-in-charge, as per the item description and particular specifications for the work. No claim, whatsoever, of any kind shall be entertained from the Contractor on this account. Also, the material shall be procured only after written approval of the Engineer-in-Charge.
- viii. All materials whether obtained from Govt. stores or otherwise shall be got checked by the Engineer-in-Charge or his authorized supervisory staff on receipt of the same at site before use.
- ix. To avoid delay, contractor should submit all samples well in advance so as to give timely orders for procurement.
- x. The contractor has to establish field laboratory at site including all necessary equipment for field tests as given in Schedule 'F'. All the relevant and applicable standards and specifications shall be made available by the contractor at his cost in the field laboratory. The contractor shall designate one of his technical representatives possessing required qualification and experience specified in the Schedule F as Quality Assurance Engineer, who shall be responsible for carrying out all mandatory field/laboratory tests. The contractor shall also provide adequate supporting staff at his cost for carrying out field tests, packaging and forwarding of samples for outside laboratory tests and for maintaining test records.
- xi. All 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 should be regularly reviewed by JE/AE/AEE/EE. Contractor shall be responsible for safe custody of all the registers. The above registers shall in no circumstances be taken out of the site and shall be made available for inspection as and when required without any delay.
- xii. The contractor shall at his own cost submit samples of all materials sufficiently in advance and obtain approval of Engineer-in-Charge. The materials to be used in actual execution of the work shall strictly conform to the quality of samples approved by the Engineer-in-Charge and nothing extra shall be paid on this account. The acceptance of any sample or material on inspection shall not be a bar to its subsequent rejection, if found defective.
- xiii. The contractor shall at his cost, make all arrangements and shall provide necessary facilities as the Engineer-in-Charge may require for collecting, preparing, packing, forwarding and transportation of the required number of samples for tests and for analysis at such time and to such places as directed by the Engineer-in-Charge. Nothing extra shall be paid for the above operations including the cost of materials required for tests and analysis. Testing charges shall be borne by the contractor.
- xiv. The necessary tests shall be conducted in the laboratory approved by the Engineer-in-Charge. For this purpose, laboratories in the Government Sector, Semi Government or Private Sector, all Govt. Institutes, Indian Institutes of Technology, National Institutes of Technology, Central and State research Centers, Centrally and State funded laboratories stand approved. The samples for carrying out all or any of the tests shall be collected by the Engineer-in-charge or on his behalf by any other officer of CPWD. The contractor or his authorized representative shall associate himself in collection, preparation, packing and forwarding of such samples for the prescribed tests and analysis. In case the contractor or his authorized representative is not present or does not associate him in the aforesaid operation the results of such tests and consequences thereon shall be binding on the contractor.

- xv. 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.
 - xvi. The contractor shall make his own arrangement of water required for execution of work and get the water tested at his own cost with regard to its suitability for use in the works and get written approval from the Engineer-in-Charge before he proceeds with the use of same for execution of work and thereafter it is got tested at the prescribed interval as per specification.
 - xvii. 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.
 - xviii. Water tanks, taps, sanitary, water supply and drainage pipes, fittings and accessories should conform to local bye-laws rules and specification of municipal / corporation, If CPWD Specifications are not available for the same. 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.
 - xix. Third party Quality Assurance shall be engaged for the work, by CPWD and the client jointly for monitoring the construction of the work for all items from start to finish. The contractor has to fully co-operate with this TPQA (Third Party Quality Assurance) and the execution of the work shall be fully as per the approval of TPQA. The cost for engaging TPQA shall be borne by CPWD. The contractor will be extending all cooperation by providing working office at site, other facilities as required, access and permission to enter into all contractual environments of the work to the TPQA. The condition regarding for TPQA stipulated by CPWD shall be binding on the contractor fully.
53. Senior Officers of CPWD, Dignitaries from Central Ministry / Department, **NHRIMH Authorities** shall be inspecting the on-going work at site at any time with or without prior intimation. The contractor shall, therefore, keep updated the following requirements and detailing.
- i. Display Board showing detail of work, weekly progress achieved with respect to targets, reason of shortfall, status of manpower, wages being paid for different categories of workers.
 - ii. Entrance and area surrounding to be kept clean.
 - iii. Display layout plan key plan, Building drawings including plans, elevations and sections.
 - iv. Display of up to date Bar chart, CPM and PERT Chart etc.
 - v. Keep details of quantities executed, balance quantities, deviations, possible Extra item etc.
 - vi. Keep one set of plastic / cloth mounted building drawings.
 - vii. Sets of Helmets and safety shoes for exclusive use for officers/dignitaries visiting at site.

54. The contractor shall not store/dump construction material or debris on metalled road.
55. 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.
56. The Contractor shall take appropriate 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.
57. 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.
58. The contractor shall provide mask to every worker working on the construction site.
59. 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.
60. 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.
61. The contractor shall compulsory use of wet jet in grinding and stone cutting.
62. The contractor shall comply all the preventive and protective environmental steps as stated in the MoEF guidelines,2010 amended upto date
63. The contractor shall carry out on-Road-Inspection for black smoke generating machinery. The contractor shall use cleaner fuel.
64. The contractor shall ensure that all DG sets comply emission norms notified by MoEF amended upto date.
65. 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.
66. 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.
67. The contractor shall make arrangement for helmet and safety shoes (meant for construction works at site). For all field staff of the Department, during the entire period of construction for safety reasons, one helmet and two pairs of shoes per staff member (maximum 10 members) of the Department(s) per year shall be arranged by the contractor.
68. Safety, security and insurance for the workers engaged shall be the responsibility of the agency.

69. The Jurisdiction for any legal dispute shall be the courts which are having Jurisdiction over the State of KERALA.
70. For water proofing works guarantee bond in the prescribed format and 10% security for 5 years.
71. Jointing with existing RCC& reinforcement shall be done at no extra cost by the Contractor.
72. Nothing extra shall be payable for jungle clearance, bush cutting, and removal of any building rubbish.
73. Extra lift shall not be paid for earth work excavation in hill side cutting where actual lift is not involved.
74. Nothing extra shall be paid for double handling of surplus excavated earth.
75. Manufacturer warranty for all manufacturing items such as valves, sanitary fittings, dry wall partition, water supply and sanitary fittings, doors and windows i/c fittings etc shall be secured from the manufacturer and shall be provided by the agency to the client.
76. All external painting should have a warranty of minimum 3 years from the date of completion of work, warranty in form of undertaking has to be given by the agency to the client and any rectifications should be done by the agency in the warranty period at their own cost.
77. Unless otherwise specified, noting extra, whatsoever shall be Paid for executing the work as per the above special conditions.

SPECIAL CONDITION FOR ALUMINIUM WORK

1. Aluminum Doors, Windows and Ventilators

- 1.1. Powder coated aluminium doors, windows, ventilators and fixed glazing shall be generally as per the architectural drawing and shall be fabricated using aluminium alloy standard extruded sections of "JINDAL", "INDAL", "HINDALCO" or equivalent as approved by the Engineer-in-Charge. The contractor shall submit the drawings indicating the sections proposed to be used by him and the fixing arrangement for approval. The Engineer-in-Charge shall have the right to reject or modify these drawings before approval and the contractor is bound to execute the work in accordance with drawings approved by the Engineer-in-Charge.
- 1.2. Samples of doors, windows and ventilators as per the drawings approved by the Engineer-in-Charge shall be fabricated and got approved by the Engineer-in-Charge before taking up the execution of these items of work.
- 1.3. The aluminium sections shall be jointed to each other wherever required with extruded aluminium angle cleats of suitable size and of thickness not less than 6mm for doors and 4mm for windows and ventilators with stainless steel screws. Unless otherwise specified all joints shall be mitred.
- 1.4. Various tests on aluminium sections shall be conducted in accordance with the relevant provisions of IS: 1868 (anodic coatings on aluminium and its alloys) and IS: 5523 (Method of testing anodic coating on aluminium and its alloys).
- 1.5. The fabricated aluminium frame work shall be given a laquer coating which shall be maintained during the entire period of construction to prevent damage to the anodic coating of aluminium sections. The surface shall be cleaned and polished before handing over the works.
- 1.6. The doors, windows, ventilators, fixed glazing etc. individually or forming composite unit shall be provided with glazing and paneling as specified with PVC weather sealing gaskets/neoprene felt. Glazing and paneling shall be fixed with aluminium snap beading. The sliding shutters of windows shall be provided with nylon pullers with concealed bearings, aluminium stoppers and special locking arrangements as approved by the Engineer-in-Charge. The interlocking styles of sliding windows shall be provided with PVC/ neoprene weather sealing gaskets. The windows with side hung shutters shall be provided with best quality heavy type anodized aluminium hinges with stainless steel pins/bolts, anodized aluminium peg stays and fasteners of suitable size and shape.
- 1.7. For the purpose of payment, the weight of each door, window, ventilator, louvered window, fixed glazing etc. individually or forming composite unit shall be the actual weight of extruded aluminium sections, cleat angles and aluminium snap beading excluding the weight of all fittings & fixtures. If the variation between the actual unit weight and unit weight specified in the manufacturer's catalogue is more than +10%, the materials shall be rejected as being substandard. The cost of hinges, locking arrangements, gaskets, stainless steel screws, pins/bolts etc and the wastage of extruded aluminium sections shall be deemed to be included in the agreement rate and nothing extra whatsoever shall be payable. Paneling and glazing shall be paid separately.

SPECIAL CONDITIONS FOR CEMENT AND STEEL BROUGHT BY THE CONTRACTOR

1. CEMENT

- 1.1. The contractor shall procure 43 grade ordinary Portland cement conforming to IS:8112/ Portland Pozzolona Cement conforming to IS:1489 (Part-I) as required in the work, from reputed manufacturers of cement as per approved list of manufacturers or from any other reputed cement Manufacturer having a production capacity not less than one million tonnes per annum as approved by SDG/ADG for the region.

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. Supply of cement shall be taken in 50 kg bags bearing manufacturer's name and ISI marking. Samples of cement arranged by the contractor shall be taken by the Engineer-in-Charge and got tested in accordance with provisions of 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 at least 30 days before they are to be used / consumed in the work.

- 1.2. The cement shall be brought at site in bulk supply of approximately 50 tonnes or part thereof as decided by the Engineer-in-Charge.
- 1.3. The cement go-down of the capacity to store a minimum of 2 months requirement shall be constructed by the contractor at site of work for which no extra payment shall be made. Double lock provision shall be made to the door of cement go-down. The keys of one lock shall remain with Engineer-in-Charge or his authorized representative and keys of the other lock shall remain with the contractor. The contractor shall be responsible for the watch and ward and safety of the cement go-down. The contractor shall facilitate the inspection of the cement go-down by the Engineer-in-Charge or his authorized representatives.
- 1.4. The cement shall be got tested and shall be used on the work only after satisfactory test results have been received. The contractor shall supply free of charge the cement required for testing including its transportation cost to testing laboratories. The frequency and details of the tests shall be decided by the Engineer-in-Charge depending on the quantum of supply in each batch. The cost of tests shall be borne by the contractor
- 1.5. The actual issue and consumption of cement on work shall be regulated and proper accounts maintained as provided in clause 10 of the contract. The theoretical consumption of cement shall be worked out as per procedure prescribed in clause 38 of the contract and shall governed by the conditions laid therein. In case of excess consumption no adjustment shall be made.

- 1.6. 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.
 - 1.7. 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 at the cost of the contractor.
 - 1.8. 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.
 - 1.9. 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.
 - 1.10. The contractor shall bring whatever cement he requires for temporary structures or for trial mix for design mix or any such miscellaneous work and consume the same before storing the cement in the cement godown. If any personal requirement of cement for any purpose what so ever occurs after the cement is taken in account for in the cement register the same shall be intimated to the Engineer in Charge in writing which will be issued in your personal name by the Engineer in Charge which then will be excluded from in the calculation of the cement consumption.
 - 1.11. Cement if left un consumed for longer than the permissible expiry time will be rejected by the Engineer In Charge and will have to be removed from site without any compensation and will be written off from the cement register.
 - 1.12. Cement shall be stored such that the older lot gets consumed first.
2. STEEL
- 2.1. The CPWD/Contractor shall procure IS marked TMT bars of various grades from the steel manufacturers or their authorized dealers (as per following selection criteria) having valid BIS license for IS.1786-2008 (Amendment 1st November 2012).
 - a) The procured steel should have following qualities.
 - b) Excellent ductility, bend ability and elongation of finished product due to possible refining technology.
 - c) Consumption of steel should be accurate as per design.
 - d) Steel should have no brittleness problem in finished product.
 - e) Steel should carry the quality of corrosion and earthquake resistance.
 - f) Quality steel with achievement of proper level of sulphur and phosphorus as per IS:1786-2008.
 - 2.2. The contractor shall have to obtain and furnish test certificates to the Engineer-in-charge in respect of all supplies of steel brought by him to the site of work.

- 2.3. Samples shall also be taken and got tested as per the provisions in this regard in relevant BIS codes. In case the test results indicate that the steel arranged by the contractor does not conform to the specifications as defined under Para 2.1 above, the same shall stand rejected, and it shall be removed from the site of work by the contractor at his cost within a week's time of written orders from the Engineer-in-charge to do so.
- 2.4. The steel reinforcement bars shall be brought to the site in bulk supply of 10 tonnes or more or as decided by the Engineer-in-Charge.
- 2.5. The steel reinforcement 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.
- 2.6. For checking nominal mass, tensile strength, bend test, re-bend test, elongation etc. specimen of sufficient length shall be cut from each size of the bar at random, and at frequency not less than that specified below:-

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

- 2.7. The contractor shall supply free of charge the steel required for testing including its transportation to testing laboratories. The cost of tests shall be borne by the contractor.
- 2.8. The actual issue and consumption of steel on work shall be regulated and proper accounts maintained as provided in clause 10 of the contract. The theoretical consumption of steel shall be worked out as per procedure prescribed in clause 38 of the contract and shall be governed by conditions laid therein. In case of excess consumption no adjustment need to be made
- 2.9. The contractor should submit pre measurement of existing exposed reinforcement to the Engineer-in-charge before taking up any further reinforcement work on the portion and nothing extra shall be paid on this account
- 2.10. The steel brought to site and steel remaining unused shall not be removed from site without the written permission of the Engineer-in-Charge.

- 2.11. The standard section weight referred to as standard tables in Para 5.3.3. in CPWD specifications 1996 Volume –II to be considered for conversion of length of various sizes of MS bars and High yield strength deformed bars into weight are as under.

Size (Diameter MM)	Weight in Kg/ Meter
6	0.222
8	0.395
10	0.617
12	0.888
16	1.58
18	2.00
20	2.47
22	2.98
25	3.85
28	4.83
32	6.31
36	7.99
40	9.86
45	12.49
50	15.42

For steel, measurement will be regulated on sectional weight basis, weight being calculated with help of the above tables. The weight shall be taken as per actual weight if it is found lower than the standard weight but within tolerance limit as per relevant IS codes. Nothing extra shall be paid for extra weight of steel sections more than that given in the table.

The Contractor has to produce the cash bills to the JE/AE as and when he brings the cement and steel to the site

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

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

SL NO	MATERIALS	PREFERRED MAKE/BRAND
1	WHITE CEMENT	J.K. WHITE, BIRLA WHITE, ASIAN PAINTS
2	CHEMICAL ADMIXTURES	ARDEX ENDURA, FOSROC, MC BAUCHEMIE, SIKA, BASF, PIDILITE, CHOKSEY CHEMICALS, BOSTIK, ULTRA FINE, STP LIMITED, CERACHEM
3	EXPANSION JOINT BOARD	SUPREME INDUSTRIES, SIL FILL OR EQUIVALENT, STP LTD
4	DAMP PROOF MATERIAL	ASIAN PAINTS, ARDEX ENDURA, IMPERMO, DURASEAL, ACCO-PROOF
5	NON METALIC SURFACE HARDNER	ARDEX ENDURA, FOSROC, SIKA, PIDLITE,
6	INJECTION GROUTING	ARDEX ENDURA, FOSROC, SIKA, BASF, CICCIO
7	CHLOROPHYRIPHOS	UDRSBANTCT, PREMISE AGENDA, PIRAMID, NOBAN, HILBAN, SARUPUS PEST CONTROL.
8	RMC / DMC	ULTRATECH, LAFARGE, ACC, RMC INDIA, NEPTUNE, POABSONS
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	STEEL	IS MARKED TATA, JSPL, JSW, RINL OR THEIR AUTHORIZED DEALERS:

12	AAC BLOCKS	XTRALITE FROM ULTRATECH, AEROCON FROM HIL, SIPOREX INDIA LIMITED, NCL, RENACON.
13	ADHESIVE FOR ACC BLOCK	ASIAN PAINTS, ULTRATECH, ARDEX ENDURA, FERROUS CRETE, SMART CARE TILE ADHESIVE, TILE ADHESIVE PLUS
14	EPOXY MORTAR	ARDEX ENDURA, FOSROC, SIKA, BASF, ULTRATECH, BOSTIK, PIDILITE
15	CC BLOCKS/ FLYASH BLOCKS	SIPOREX, SUNVIK, HIL
16	FRP DOOR FRAME	MEENA, RAWJI, FIBERTECH, ASTRALWIN DOORS
17	FRP DOOR SHUTTERS	MEENA, RAWJI, FIBERTECH, ASTRALWIN DOORS
18	PVC DOOR SHUTTER AND FRAME	RAJASHREE, SINTEX, DUROPLAST
19	WOODEN FLUSH DOORS	KITPLY, CENTURY, GREENPLY, ARCHID PLY, KUTTY
20	WATER PROOF PLY WOOD	DURO, KITPLY, CENTURY, ARCHID PLY, GREENPLY
21	COMMERCIAL PLY.	DURO, KITPLY, CENTURY, ARCHID PLY, GREENPLY
22	LAMINATE	FORMICA, DECOLAM, CENTURY, ROYAL TOUCH, GREENLAM , HERITAGE
23	HIGH PRESSURE LAMINATES	MERINO, GREENLAM, DECOLAM, CENTURY, ROYAL TOUCHE, HERITAGE
24	PRELAMINATED PARTICLE BOARD	KITLAM, ARCHID PLY, CENTURY
25	NATURAL WOOD VENEER	ARCHID, ANCHOR, DURAIN, KITPLY, NATIONAL ACTION TESA
26	POLYSTER POWDER COATED SHADES	NEROLAC, BERGER, AKZONOBEL, ASIAN
27	GYPSUM BOARD	SAINT GOBAIN, LAFARGE, BORAL BOARD, ARMSTRONG
28	FALSE CEILING CALCIUM SILICATE	ARMSTRONG, AEROLITE, RAMCO, HILUX
29	FALSE CEILING MINERAL FIBRE	SAINT GOBAIN, ARMSTRONG, ANUTONE, AEROLITE
30	MELAMINE POLISH	ASIAN PAINTS, MALAMYNE GOLD WUDFIN OF PIDILITE INDUSTRIES TIMBERTONE OF ICI DULUX
31	DOOR HARDWARE	DORMA, HAFELE, KICH, OZONE,

		DORSET, BACKERS FS, GODREJ
32	HYDRAULIC DOOR CLOSERS / FLOOR SPRINGS	DORMA, KICH, GODREJ, HARDWYN, DORSET
33	LOCKS / LATCHES	GODREJ, HARRISON, LINK, DORSET, DORMA
34	FIRE CHECK DOOR	BANGALORE PROTECH, SHAKTI, NAVAIR, KENWOOD, VEROTECH, SHAKTI HARMON
35	SMOKE SEAL STRIP	IMPROTED PROMAT / ASTRO FLAME
36	FIRE RATED HARDWARE	DORMA, INGERSOL RAND, GEZE, DORSET BACKERS FS
37	STAINLESS STEEL SCREWS FOR FABRICATION AND FIXING OF WINDOWS.	KUNDAN, PUJA, ATUL, GRIPWELL, NAKODA
38	BUTT / BALL BEARING HINGES	HAFFLE, DORMA, DORSET, GODREJ
39	PIANO HINGES	JOLLY, GARG, AMIT, JYOTI, SLEEK
40	NUTS BOLTS/ SCREWS	KUNDAN, PUJA, ATUL, IT, BOLT MASTER, GRIPWELL, NAKODA
41	ACOUSTIC INSULATION	U.P. TWIGA LTD, LLOYD INSULATION, SAINT GOBAIN, ARMSTRONG
42	GLASS/ REFLECTIVE GLASS	MODI FLOAT, SAINT GOBAIN, ASAHI, GLAVERBEL
43	UPVC WINDOWS / VENTILATION	FENESTA, REHAU, ENCRAFT, DUROPLAST WINTech, NCL VEKA, MADHU INDUSTRIES, LG, QUTE
44	SOURCE FOR TEMPERING REFL. GLASS / CLEAR	FUSO, SAINT GOBAIN, GURIND, IMPACT SAFETY, ASAHI
45	FIRE RATED GLASS	PYOSWISS OF SAINT GOBAIN, PYRAN OF SCHOTT, PILKINGTON
46	VITRIFIED TILES	KAJARIA, JOHNSON, RAK CERAMICS, NITCO, AGL
47	GLAZED CERAMIC TILES	JOHNSON, KAJARIA, NITCO, AGL, RAK, SIMPOLO VITRIFIED PVT LTD.
48	FALSE FLOOR	HEWETSON, UNIFLOOR, UNITILE, KEBAO, PINNACLE
49	ENGINEERED WOOD/LAMINATE FLOORING	ARMSTRONG, WERNEL, PERGO, ACTION TESA, WELSPUN
50	CEMENT CONCRETE PARKING	NITCO, NTC, HINDUSTAN, PODDAR

	TILES	EUROCON, DAZZLE ULTRA.
51	INTERLOCKING CONCRETE BLOCKS	NITCO-(ROCKARD), BHARAT- (NILSAN) REGENCY, BESANT BEATONS
52	CLAY TILES ON ROOF	KENJAI, JOHNSON, COMMON WEALTH TRUST (IND) LTD
53	TILE ADHESIVE	ARDEX ENDURA, CICO, PIDILITE, PERROUS, FOSROC, SIKA
54	CHEQUERED TERRAZO TILES	NITCO, BHARAT, PODDAR
55	SYNTHETIC CARPET TILES	TOLI, HOLLITEX, STANDARD CARPETS, WELSPUN
56	GLASS MOSAIC TILES	ITALIA, PALLADIO, BISAZZA
57	PAINT/PRIMER/OIL BOUND DISTEMPER ACRYLIC PAINT	ASIAN PAINTS, ICI DULUX, NEROLAC, BERGER
58	WATER PROOF CEMENT PAINT	SNOWCEM INDIA LTD, ASIAN PAINTS, ICI DULUX, NIPPON PAINTS
59	SYNTHETIC ENAMEL PAINT	BERGER, NEROLAC, ASIAN, ICI DULUX
60	ACRYLIC TEXTURED PLASTER	ASIAN PAINTS, ICI DULUX, NEROLAC, BERGER
61	FIRE RETARDANT PAINT	JOTUN, HILTI, AKZONOBEL, NIPPON
62	MIRROR GLASS	MODI GUARD, SAINT GOBAIN, ASAHI, ATUL
63	ANTI CORROSIVE BITUMASTIC PAINT	ASIAN / BERGER / SHALIMAR
64	EPOXY PAINT	BERGER PAINTS, ASIAN PAINTS, MRF, ARDEX ENDURA
65	EPOXY COATING	ARDEX ENDURA, BASF, FORSOC, LATICRETE, MRF
66	STRUCTURAL SILICON/ WEATHER SILICON	DOW CORNING / WACKER / GE
67	ACRYLIC EXTERIOR PAINT	ASIAN PAINTS, ICI DULUX, BERGER, NEROLAC
68	STAINLESS STEEL FITTINGS	DORSET, GODREJ, DORMA, OZONE, KICH
69	ALUMINIUM SECTIONS	JINDAL, HINDALCO, INDAL
70	FRICTION STAY HINGES	EBCO, HAFELE, SEVAX
71	ALUMINIUM COMPOSITE PANEL (ACP)	ALUCOBOND, EUROBOND, DURABUILD, CITY BOND
72	E.P.D.M. GASKETS	ANAND / ROOP / BOHRA / HANU / AMEE RUBBER
73	WATER PROOFING COMPOUND	ASIAN PAINTS, SIKA, ACCOPROOF, IMPERMO, FOSROC, PIDILITE, ARDEX ENDURA, BOSTIK, BERGER, STP

		LIMITED, KRYTON
74	MEMBRANE WATERPROOFING SYSTEM	ASIAN PAINTS, BASF, TEXSA, WR GRACE, PIDILITE, HYDRO TECH LTD. ARDEX ENDURA, BOSTIK, FOSROCK
75	POLYMER BASED CONTENTIOUS WATER PROOF COATINGS	ARDEX ENDURA, BASF, MC-BAUCHEMIE, SIKA, FORSOLOC, PIDILITE, BERGER
76	WATER STOPS	ASIAN PAINTS, ARDEX ENDURA, HYDROTITE, BASF, HYDROSWELL, PIDILITE, BOSTIK
77	PVC PERFORATED PIPES	REX POLYEXTRUSION LTD, AKASH ENTERPRISES, ZENPLAS PIPES PVT. LTD
78	MS PIPES	TATA, JINDAL, APOLLO, SAIL, TISCO
79	POLYSULPHIDE SEALANT	ASIAN PAINTS, PIDILITE, CHEMETALL-RAJ, FOSROC, CHOKSEY CHEMICALS, TUFF SEAL
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
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, KINGSTON
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

96	GROUTS	KERAKOLL, WEBER, ARDEX ENDURA, BOSTIK, FOSROCK, PIDILITE
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, BATHSENSE, TCTE/BATHSENSE
102	GULLYTRAPS	PERFECT, PARRY
103	STAINLESS STEEL SINKS	NILKANTH, AMC, COBRA, NIRALI, DIAMOND, HINDWARE, CERA
104	C. P. BRASS FITTINGS	JAQUAR, PARKO, MARC, HINDWARE, PARRYWARE, KINGSTON, ESSESS/BATHSENSE/ROYALE
105	GI PIPES	TATA, JINDAL, HISSAR, APOLLO, ZENITH
106	GI PIPE FITTINGS	ZOLOTO, ITAPS, 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
113	UPVC PIPES	SUPREME, PRINCE, FINOLEX, ASTRAL
114	WATER SUPPLY VALVES	ZOLOTO, ITAPS, 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	FLOAT VALVES	PRAYAG, LEADER, ZOLOTO, ITAPS, ARCO
119	CI DOUBLE FLANGE SLUICE VALVE	KIRLOSKAR, RBM, KARTAR
120	PLASTIC ENCAPSULATED FOOT REST	KK INDIA, KGM, ACCURATE BUILDCON
121	GUN METAL VALVES	ZOLOTO, ITAPS, LEADER, SANT, ANDCO INDIA

122	CI DOUBLE F LANGED SLUICE VALVES	KIRLOSKAR, IVS, BURN, ZOLOTO, ITAPS, LEADER
123	CI DOUBLE FLANGED NON-RETURN VALVES	KIRLOSKAR, FLUIDTEH, ZOLOTO, ITAPS
124	SANDWICH PU PANELLED ROOFING SHEETS	LLOYD INSULATION (INDIA) LTD., JINDAL, MEC TEC PVT LTD., TATA
125	GALVALUME SHEET	LLOYD (INDIA) LTD., JSW, TATA BLUESCOPE
126	CRYSTALLINE WATER PROOFING ADMIXTURE AND COMPOUND	PENETRON, KRYTON, PIDILITE, FOSROC.
127	STAINLESS STEEL WATER SUPPLY PIPES & FITTINGS	JINDAL, SWASTIK, RAMPPART, J-PRESS.
128	HERMETICALLY SEALED PERFORMANCE GLASS, TOUGHENED, DGU, SGU, TOUGHENED LAMINATED GLASS	AUTHORISED TOUGHENERS OF (MODI GUARD, SAINT GOBAIN, ASAHI, AIS/GLAVERBEL, PILKINGTON
129	ORDINARY PORTLAND CEMENT (43 GRADE) AND PORTLAND POZZOLONA CEMENT	ACC CEMENT, ULTRATEC CEMENT, COROMANDAL CEMENT, 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, INDIA CEMENTS
130	PLASTICISER AND SUPER PLASTICISER	AS PER CEMENT MANUFACTURER'S RECOMMENDATION
131	EXPANSION JOINT BITUMEN BOARD	DURA BOARD HD100, DURAFILL
132	HIGH DENSITY PRELAMINATED BOARD	PERGO, GREEN PLY INDUSTRIES LTD, HIDEX
133	SS BUTT HINGES	OZONE, DORMA, GEZE
134	REFLECTIVE GLASS	SAINT GOBAIN, ASAHI, PILKINGTON, MODI FLOAT, GLAVERBEL
135	PREMIER ACRYLIC SMOOTH EXTERIOR PAINT WITH SILICON ADDITIVES	ASIAN PAINT, ICI DULUX, NEROLAC BERGER
136	CEMENT BASED WALL PUTTY	JK WALL PUTTY, BIRLA WALLCARE, ASIAN PAINT
137	FLUSHING CISTERN	KOHLER, GROHE, JAQUAR, CERA, BATHSENSE TECE/BATHSENSE, PARRYWARE, HINDWARE
138	URINAL	CERA, HINDWARE, PARRYWARE, JAQUAR, BATHSENSE TECE/BATHSENSE
139	PE-AL-PE COMPOSITE PIPES	KITECH, VECTUS, JINDAL
140	PVC /HDPE WATER STORAGE TANKS	VECTUS, SYNTEX, SUPREME
141	WATER SUPPLY FIXTURES, (CP BRASS)	JAQUAR, HINDWARE, PARRYWARE, METRO, SEIKO

142	ANODISED ALUMINIUM FITTINGS FOR DOORS AND WINDOWS	DEFNE, SCHUECO, BHORUKA, KAWANEER, HARDIMA, EVERITE, JYOTHI, SIGMA, DORMA
143	STRUCTURAL GLAZING	MODI, SAINTGOBAIN, ASAHI, GLAVERBEL
144	MULTI WALLED POLYCARBONATE ROOFING SHEETS	DANPALON, LEXAN GE, DPI DAYLIGHT, PALRAM
145	EPOXY FLOORING	STP LIMITED, ASIAN, FOSROC
146	PVC/WPC BOARD	SMP IMPEX, A1 STONE, ECOSTE, ECHON, RAJASREE, QUTE
147	DRY WALL PARTITION	GYPROC (SAINT GOBAIN), HILUX, BISON, AEROCON

NOTE: if any item is not available in the preferred make list, the Engineer-in-charge shall accord the approval of such item.

PART – D
SCHEDULE OF QUANTITIES

Schedule of Quantities – Major Component – E&M

Name of Work: Renovation of commerical laundry and allied systems for NHRIMH Hospital at Kurichi, Kerala.

Sl. No	Item Description	Qty	Unit	Rate	Amount
1	SH: I – Power laundry machines				
1.1	Supply, installation, testing and commissioning of 30 kg nominal capacity washer extractor machine of the following specifications and complying to the relavant standards including dismantling the existing 25Kg industrial washer unit from existing foundation complete with providing new foundation as required for new unit etc. as required. The unit shall be offered three year warranty by OEM.				
	Make: Electrolux / Milnor / Stefab / IFB				
	a) 15KW or better electric heating with provision for steam heating with required discharge at minimum 4 bar pressure; b) stainless steel drum c) touch screen display d) VFD controller with fully programmable PLC e) minimum 24 wash programs f) stainless steel chemical compartment g) front loading and unloading facility h) emergency stop switch and auto/manual door locks	1	Each	13,69,468.73	13,69,468.73
1.2	Supply, installation, testing and commissioning of 60 Kg nominal capacity tumble drier unit of following specifications and complying to relavant standards including dismantling the existing 15 kg wringing machine unit from existing foundation complete with demolishing and providing new foundation for new unit etc. as required. The unit shall be offered three year warranty by OEM.				
	Make: Electrolux / Milnor / Stefab / IFB				
	a) stainless steel drum with powder coated MS body; b) touch screen display with programmable microprocessor c) self cleaning lint mesh d) steam/electric radiator e) electric heating with provision for steam heating f) emergency stop switch & safety door limit switch g) 25KW or better electric heating and provision of steam heating at 4 bar or better pressure.	1	Each	8,84,587.55	8,84,587.55
1.3	Supply, installation, testing and commissioning of flat work ironer roll heated, single roll front feed front return capacity of following specifications and complying to the relavant standards including dismantling the existing electric drier				

Sl. No	Item Description	Qty	Unit	Rate	Amount
	unit as required. The unit shall be offered three year warranty by OEM.				
	Make: Electrolux / Milnor / Stefab / IFB				
	a) facility for electric heating b) CRCA/ MS with powder coated body c) 1.60metre or better roller length and nominal roller dia. of about 400 mm d) auto adjusting roller e) electrical control panel with VFD drive f) auto digital temperature controller g) gear box and drive h) speed regulator i) spring press j) emergency stop switch k) Electric heating of 22KW or better.	1	Each	11,89,486.70	11,89,486.70
1.4	Supply, installation, testing and commissioning of flat bed press with 2 HP or better vacuum motor etc. of following specifications and complying to the relavant standards including dismantling the existing unit with compressor unit from existing foundation complete with demolishing and providing new foundation for new unit etc. as required. The unit shall be offered three year warranty by OEM.				
	Make: Electrolux / Milnor / Stefab / IFB				
	a) electric heating with CRCA/ MS powder coated body and stainless steel top buck plate b) heated upper bucks, pneumatic cylinder operated c) emergency stop button d) condensate steam outlet and steam provision for 4 bar pressure or better e) heating using steam/electric	1	Each	8,66,717.91	8,66,717.91
2	SH: II – Electrical works				
2.1	Supply of 4×10 sq.mm XLPE insulated and PVC outer sheathed armoured aluminium conductor power cable complying to IS: 7098 and latest amendments as required.	45	Metre	382.75	17,223.75
2.2	Laying and fixing of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size on wall surface as required				
2.2.1	Upto 35 sq. mm (clamped with 1mm thick saddle)	45	Metre	82.02	3,690.90
2.3	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.				
2.3.1	4 X 10 sq. mm (25mm)	6	Each	416.52	2,499.12
2.4	Providing and fixing 4.00 mm dia copper wire on surface or in recess for loop earthing along with existing surface/ recessed conduit/ submain	90	Metre	178.14	16,032.60

Sl. No	Item Description	Qty	Unit	Rate	Amount
	wiring/ cable as required.				
2.5	Supplying and fixing TP sheet steel enclosure on surface/ recess along with 16/25/32 A 415 V "C" curve TP MCB complete with connections, testing and commissioning etc. as required.	2	Each	2,187.69	4,375.38
2.6	Dismantling the existing three phase outlets from installed position and handing over the same as required.	2	Each	132.12	264.24
3	SH: III – Credit Items				
3.1	Credit for existing units and removing the same from site as required.				
3.1.1	25 Kg industrial washer unit	1	Each	-21,860.15	-21,860.15
3.1.2	20-25 Kg wringing machine	1	Each	-12,296.33	-12,296.33
3.1.3	20-25 Kg electric drier unit	1	Each	-12,296.33	-12,296.33
3.1.4	Flat bed press with 5HP compressor unit and motor	1	Each	-27,325.19	-27,325.19
4	SH: IV: Annual maintenance contract				
4.1	Annual labour maintenance contract of items vide item No: 1.1 to 1.4 excluding cost of spares and consumables but including the cost of quarterly visits by OEM/authorised channel partner for scheduled periodical inspection to ensure healthiness of the system as required. The cost of labour contract shall include all labour costs for any type of preventive /predictive/scheduled/break down/shut down maintenance being carried out on machines procured vide Sl. NO: 1.1 to 1.4 of the schedule of quantities as required.				
4.1.1	For 1st year after expiration of 3 year warranty period by OEM	1	Year	1,72,410.44	1,72,410.44
4.1.2	For 2nd year after expiration of 3 year warranty period by OEM	1	Year	1,81,030.96	1,81,030.96
4.1.3	For 3rd year after expiration of 3 year warranty period by OEM	1	Year	1,90,082.51	1,90,082.51
	Total				48,24,093.00

Executive Engineer(E)
CPWD, Trivandrum

Schedule of Quantities – Minor Component – Civil

Name of Work: Renovation of commerical laundry and allied systems for NHRIMH Hospital at Kurichi, Kerala.

SLNo	Description	Qty	Unit	Rate	Amount
1	EARTH WORK				
1.1	Excavating trenches by mechanical / manual means of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, for all depth, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m:				
1.1.1	All kinds of soil				
1.1.1.1	Pipes, cables etc. exceeding 80 mm dia. but not exceeding 300 mm dia	30	metre	452.30	13569.00
2	CEMENT CONCRETE (CAST IN SITU)				
2.1	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering – All work up to plinth level:				
2.1.1	1:1.5:3 (1 Cement: 1.5 coarse sand (zone-III) derived from natural sources: 3 graded stone aggregate 20 mm nominal size derived from natural sources)	1	cum	10712.65	10713.00
3	REINFORCED CEMENT CONCRETE				
3.1	Centering and shuttering including strutting, propping etc. and removal of form for				
3.1.1	Foundations, footings, bases of columns, etc. for mass concrete	2	sqm	503.65	1007.00
4	CLADDING WORK				
4.1	Providing and fixing 1st quality ceramic glazed wall tiles conforming to IS: 15622 (thickness to be specified by the manufacturer), of approved make, in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge, in skirting, risers of steps and dados, over 12 mm thick bed of cement mortar 1:3(1 cement: 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm, including pointing in white cement mixed with pigment of matching shade complete.	51	sqm	1628.50	83054.00
5	STEEL WORK				
5.1	Supplying and fixing rolling shutters of approved make, made of required size M.S. laths, interlocked together through their entire length and jointed together at the end by end locks, mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push				

SLNo	Description	Qty	Unit	Rate	Amount
	and pull operation complete, including the cost of providing and fixing necessary 27.5 cm long wire springs manufactured from high tensile steel wire of adequate strength conforming to IS: 4454 – part 1 and M.S. top cover of required thickness for rolling shutters.				
5.1.1	80×1.25 mm M.S. laths with 1.25 mm thick top cover	6	sqm	4692.00	28152.00
6	FLOORING				
6.1	52 mm thick cement concrete flooring with concrete hardener topping, under layer 40 mm thick cement concrete 1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate 20 mm nominal size) and top layer 12 mm thick cement hardener consisting of mix 1:2 (1 cement hardener mix: 2 graded stone aggregate 6 mm nominal size) by volume, hardening compound mixed @ 2 litre per 50 kg of cement or as per manufacturer's specifications. This includes cost of cement slurry, but excluding the cost of nosing of steps etc. complete.	21	sqm	1256.70	26391.00
6.2	Chequered precast cement concrete tiles 22 mm thick in footpath & courtyard, jointed with neat cement slurry mixed with pigment to match the shade of tiles, including rubbing and cleaning etc. complete, on 20 mm thick bed of cement mortar 1:4 (1 cement: 4 coarse sand).				
6.2.1	Dark shade pigment using ordinary cement	7	sqm	1437.85	10065.00
6.3	Providing and laying Vitrified tiles in floor in different sizes (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS:15622, of approved brand & manufacturer, in all colours and shade, laid on 20 mm thick cement mortar 1:4 (1 cement: 4 coarse sand) jointing with grey cement slurry @3.3 kg/sqm including grouting the joints with white cement and matching pigments etc. The tiles must be cut with the zero chipping diamond cutter only. Laying of tiles will be done with the notch trowel, plier, wedge, clips of required thickness, leveling system and rubber mallet for placing the tiles gently and easily.				
6.3.1	Glazed Vitrified tiles Matt/Antiskid finish of size				
6.3.1.1	Size of Tile 600×600 mm	25	sqm	1881.40	47035.00
6.4	Deduct for not using 20 mm thick cement mortar 1:4 (1 cement: 4 coarse sand) bedding in laying of floor tiles and jointing with grey cement slurry @ 3.3 kg/ sqm.	25	sqm	1091.85	27296.00

SLNo	Description	Qty	Unit	Rate	Amount
6.5	Grouting the joints of flooring tiles having joints of 3 mm width, using epoxy grout mix of 0.70 kg of organic coated filler of desired shade (0.10 kg of hardener and 0.20 kg of resin per kg), including filling / grouting and finishing complete as per direction of Engineer-in-charge.				
6.5.1	Size of Tile 600×600 mm	25	sqm	396.95	9924.00
7	FINISHING				
7.1	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade:				
7.1.1	Two or more coats on new work over an under coat of suitable shade with ordinary paint of approved brand and manufacture	12	sqm	290.60	3487.00
7.2	Wall painting with premium acrylic emulsion paint of interior grade, having VOC (Volatile Organic Compound) content less than 50 grams/ litre of approved brand and manufacture, including applying additional coats wherever required to achieve even shade and colour.				
7.2.1	One coat	71	sqm	122.60	8705.00
7.3	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade:				
7.3.1	One or more coats on old work	14	sqm	132.05	1849.00
7.4	Finishing walls with Premium Acrylic Smooth exterior paint with Silicone additives of required shade				
7.4.1	Old work (one or more coats applied @ 0.83 ltr/10 sqm).	96	sqm	113.75	10920.00
8	Dismantling and Demolishing				
8.1	Demolishing cement concrete manually/ by mechanical means including disposal of material within 50 metres lead as per direction of Engineer – in – charge.				
8.1.1	Nominal concrete 1:3:6 or richer mix (including equivalent design mix)	5	cum	3126.45	15632.00
8.2	Dismantling steel work in built up sections in angles, tees, flats and channels including all gusset plates, bolts, nuts, cutting rivets, welding etc. including dismembering and stacking within 50 metres lead.	100	kg	7.25	725.00
8.3	Dismantling tile work in floors and roofs laid in cement mortar including stacking material within 50 metres lead.				
8.3.1	For thickness of tiles 10 mm to 25 mm	73	sqm	94.25	6880.00
8.4	Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means, including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge,	20	cum	339.00	6780.00

SLNo	Description	Qty	Unit	Rate	Amount
	beyond 50 m initial lead, for all leads including all lifts involved.				
9	WATER SUPPLY				
9.1	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply and all CPVC plain & brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge. Internal work – Exposed on wall				
9.1.1	25 mm nominal dia Pipes	25	metre	515.75	12894.00
10	DRAINAGE				
10.1	Constructing brick masonry manhole in cement mortar 1:4 (1 cement: 4 coarse sand) with R.C.C. top slab with 1:1.5:3 mix (1 cement: 1.5 coarse sand (zone-III): 3 graded stone aggregate 20 mm nominal size), foundation concrete 1:4:8 mix (1 cement: 4 coarse sand (zone-III): 8 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement: 3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement complete as per standard design:				
10.1.1	Inside size 90×80 cm and 45 cm deep including C.I. cover with frame (light duty) 455×610 mm internal dimensions, total weight of cover and frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg):				
10.1.1.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	2	each	16402.00	32804.00
10.2	Making connection of drain or sewer line with existing manhole including breaking into and making good the walls, floors with cement concrete 1:2:4 mix (1 cement: 2 coarse sand: 4 graded stone aggregate 20 mm nominal size) cement plastered on both sides with cement mortar 1:3 (1 cement: 3 coarse sand), finished with a floating coat of neat cement and making necessary channels for the drain etc. complete:				
10.2.1	For pipes 100 to 250 mm diameter	2	each	1040.90	2082.00
	Market rate items				
11	Providing and fixing soil, waste and vent pipes with uPVC SWR pipes conforming to IS 13592 Type -B of approved make including jointing of pipes, testing of				

SLNo	Description	Qty	Unit	Rate	Amount
	joints etc. complete as directed by the Engineer-in-charge.				
11.1	110 mm diameter	46.00	metre	676.30	31110.00
12	Providing and fixing uPVC SWR fittings/accessories for uPVC Type B SWR waste pipes including jointing with solvent cement, testing of joints etc. complete as directed by the Engineer-in-charge.				
12.1	Bend with door				
12.1.1	110×110×110 mm	2.00	each	308.60	617.00
12.2	Bend 87.5°				
12.2.1	110 mm	3.00	each	265.90	798.00
12.3	PVC collar				
12.3.1	110 mm	2.00	each	203.95	408.00
13	Providing and fixing uPVC SWR trap of self cleansing design with screwed down or hinged SS grating with or without vent arm complete, including cost of cutting and making good the walls and floors:				
13.1	100 mm inlet and 100 mm outlet	2.00	each	1820.10	3640.00
	TOTAL				396537.00

Executive Engineer
CPWD, Kottayam