



**TENDER FOR CONSTRUCTION OF NEW BANK OWN BUILDING FOR
STAFF QUARTERS AT JAWAHAR NAGAR, ERNAKULAM DISTRICT**

NOTICE TYPE : DOMESTIC TENDER NOTICE
REFERENCE NO : RFP/04/2024-25
AUTHORITY TYPE : PUBLIC SECTOR BANK
DATE OF PRE BID MEETING : 05.10.2024 AT 11.00 AM
LAST DATE FOR SUBMISSION : 16.10.2024 UP TO 3.00 PM
OF TENDER
TIME AND DATE OF OPENING OF : 16.10.2024 AT 3.30PM
TECHNICAL BID
EARNEST MONEY DEPOSIT : Rs.2,47,000/-
ESTIMATED AMOUNT : Rs.247.00 Lakhs

=====

ISSUED BY
GENERAL ADMINISTRATION SECTION
CIRCLE OFFICE
7TH FLOOR, SPENCER JUNCTION, M G ROAD,
THIRUVANANTHAPURAM - 695 001
Tel: 0471-2331340
e-mail: pecotvm@canarabank.com

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NOTICE INVITING E-TENDERS

Canara Bank, General Administration Section, Circle Office, Thiruvananthapuram invites online **Item Rate Bid** from eligible & experienced Firms / Companies in "TWO BID CONCEPT" for Construction of New Bank own Building at Sy. No: 438/3 and 463/2, Subash Chandra Bose Road, Jawahar Nagar, Ernakulam.

NIT No	TENDER/04/2024-25
Name of the Work	Construction of New Bank Own Building for Staff Quarters at Sy. No: 438/3 and 463/2, Subash Chandra Bose Road, Jawahar Nagar, Ernakulam.
Estimated cost of the works	Rs. 247.00 Lakhs including GST
Earnest Money deposit	Rupees Two Lakhs Forty Seven Thousand Only (Rs.2,47,000/-) by way of Demand Draft of a Scheduled Bank drawn in favour of Canara Bank, Circle Office, Thiruvananthapuram payable at Thiruvananthapuram.
Period of completion	300 days from the date of issue of work order
Date of Pre bid meeting	On 05.10.2024 at 11.00 AM
Last date and time for Uploading/submission of the Bid, EMD and other documents as specified in Notice Inviting e-Tender	On or before 16.10.2024 up to 3:00 PM
Date and time of Opening of the Tender - Technical bids	Tenders will be opened on 16.10.2024 at 3.30 PM

The tender forms and other details can be obtained from Canara Bank's website <https://canarabank.com>, Central Public Procurement (CPP) portal www.eprocure.gov.in and from the e-Procurement portal www.gerpegov.com/canarabank. Further modification, if any, can be seen in the Bank's website only.

Date: **25.09.2024**

For & on behalf of the Canara Bank

Assistant General Manager
General Administration Section
Canara Bank, Circle Office
Thiruvananthapuram

GENERAL INFORMATION AND INSTRUCTIONS FOR BIDDERS FOR E-TENDERING

1 Details of the Tender :

Name of the Work	Construction of New Bank Own Building for Staff Quarters at Sy. No: 438/3 and 463/2, Subash Chandra Bose Road, Jawahar Nagar, Ernakulam.	
Location of Work (Vacant Site)	Sy. No: 438/3 and 463/2, Subash Chandra Bose Road, Jawahar Nagar, Ernakulam District, Kerala.	
Description of Work	Civil, Electrical and Mechanical Works for construction of staff quarters by replicating the Plan of proposed Building in above site on Item Rate Basis.	
Estimated cost of the works	Rs. 247.00 Lakhs including GST	
Earnest Money deposit	Rupees Two Lakhs Forty Seven Thousand Only (Rs.2,47,000/-) by way of Demand Draft of a Scheduled Bank drawn in favour of Canara Bank, Circle Office, Thiruvananthapuram payable at Thiruvananthapuram.	
Period of completion	300 days from the date of issue of work order	
Date of Pre bid meeting	On 05.10.2024 at 11.00 AM	
Tender documents (soft copy)	Can be downloaded free of cost from following websites from 25.09.2024 till last date of submission.	
	Canara Bank's web site	https://canarabank.com
	Central Public Procurement (CPP) portal	www.eprocure.gov.in
	e-Procurement portal	http://www.gerpegov.com/canarabank
Last date and time for Uploading/submission of the Bid, EMD and other documents as specified in Notice Inviting e-Tender	<p>On or before 16.10.2024 up to 3:00 PM online through the e-Procurement portal</p> <p>Tender Response to be submitted in online through the following e-Procurement portal: www.gerpegov.com/canarabank</p> <p>For any queries regarding submission of the tender kindly call or mail on the below mentioned details:</p> <p>M/s Antares Systems Limited Bangalore City Karnataka - 560079</p>	

	Contact person: Smt. Sushmitha B Email ID: sushmitha.b@antaressystems.com Phone: 8951944383
Date and time of Opening of the Tender - Technical bids	Tenders will be opened on 16.10.2024 at 3.30 PM

2 Eligibility Criteria :

Bidders who fulfil the following requirements are eligible to apply:

The Contractor/ Company/ Firm having well established office and facilities for undertaking civil construction works, and who have executed **similar nature of works** are eligible to apply. Considering the applicants profiles, facilities & business turn over, the bidder will become eligible. The applicants are requested to furnish the full details of the company's profile, client list details of major projects of similar nature executed with documentary proof.

The Tenderer should not have been blacklisted by any organisation/ institution and should submit a declaration on letter head confirming the same.

Sl.	Eligibility Criteria	Documents Required
1.	The Bidder should be registered with CPWD (Class-III and above) or State PWD or MES or Railways or such other Government organizations or Registered in Public sector units or Public sector Bank's or Financial Institutions or Reputed Corporate companies, MNC's, IT companies as Civil Contractor.	A copy of valid registration certificate from respective authorities.
2.	The bidder should be a proprietorship firm duly registered under the applicable Shops and Commercial Establishments Act and should be compliant to all the applicable laws or partnership firm registered under LLP Act, 2008/ Indian Partnership Act, 1932 or Company in India as per Indian Companies Act, 1956 or Indian Companies Act, 2013.	Copy of registration certificate under the applicable Shops and Commercial Establishments Act with valid PAN and GST registration. (or) Copy of certificate of LLP registration. (or) Copy of certificate of incorporation and certificate of business in case of Public Limited Company or Certificate of Incorporation in case of Private Limited Company, issued by the Registrar of Companies. (or) Copy of Certificate of registration under and Certificate of Commencement of business in case of Public Limited Company or

		Certificate of Incorporation in case of Private Limited Company, issued by the Registrar of Companies.
3.	Bidder's Office	SHOULD HAVE OFFICE/ BRANCH SETUP IN KERALA (or) prepared to setup an adequate office setup with in-house capability & infrastructure in Kerala within 30 days from the date of award of contract provided they are qualified for the project through laid down process, Supporting documents for the same to be enclosed. An undertaking as per Proforma-II to be submitted by the bidder to this effect along with their application.
4.	The Bidder should have minimum of 07 (Seven) years' experience in the relevant field as on 31.03.2024 .	Copy of Registration of the Firm or Copy of incorporation. At least one copy of the work order of civil works from the clients prior to 31.03.2024 .
5.	Bidder should have a minimum of Rs.400.00 Lakhs annual average turnover during last three financial years from civil construction works. i.e. 2021-22, 2022-23, 2023-24 from the similar nature of work.	Audited balance sheet and P&L account for the years mentioned and certificate from the Chartered Accountant as in Appendix-II to be submitted.
6.	The bidder should have positive Net Worth as on 31/03/2024 and also should have not eroded by more than 30% in the last three financial year, ending on 31/03/2024	Audited balance sheet and P&L account for the years mentioned and certificate from the Chartered Accountant as in Appendix-II to be submitted.
7.	The Bidder should have executed any of the following work during the last Seven (7) years ending with 31.03.2024 for at least, One (1) similar work costing Rs.198.00 LAKHS (80% of estimated cost) OR Two (2) similar works each costing Rs.124.00 LAKHS (50% of estimated cost) OR	Order copies and satisfactory completion certificates clearly indicating the cost & nature of work executed, date of commencement & completion issued by the Clients. In case the work experience is of Private sector, the completion certificate shall be supported with copies of the Letter of Award/ Contract Agreement and Corresponding TDS Certificates. Value of work will be considered commensurate with the value of

	<p>Three (3) similar works each costing Rs.99.00 LAKHS (40% of estimated cost)</p> <p>Similar works means “Construction of multi-storied RCC buildings” for PSU or Central Government or State Government departments or NSE/ BSE Listed Private Companies/ Institutions for the pre-qualifying project/ projects.</p>	<p>TDS Certificates.</p> <p>Note: The Value of work in all the above cases shall mean the cost of construction and services excluding the cost of land and Architect fee. For arriving at cost of similar works, the value of executed works shall be brought to current costing level by enhancing the actual value of the work at simple rate of 7% per annum calculated from the date of completion to date of bid opening.</p>
8.	The contractor must have valid GST registration, PAN number.	Copies of the registration certificate and PAN card copy shall be enclosed. 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 undertaking as per Proforma-I
9.	Bidders should not be under debarment/ blacklist period for breach of contract/ fraud/ corrupt practices by any scheduled commercial bank/ public sector undertaking/ state or central Government or their agencies/ departments on the date of submission of this RFP.	A self-declaration letter by the bidder on the company's letter head should be submitted to this effect.
10.	<p>Available Bid capacity: The bidder should possess the bidding capacity as calculated by the specified formula. The formula generally used is:</p> <p>Available Bid Capacity= A x M x N - B,</p> <p>where A = maximum value of engineering (civil/ electrical/ mechanical as relevant to work being procured) works executed in any one year during the last five years (updated at the current price level), taking into account the completed as well as works in progress. M = Multiplier factor (usually 1.5), N = Number of years prescribed for completion of the work in question (present work proposed). B = Value (updated at the current price level) of the existing commitments and ongoing</p>	<p>Details pertaining to 'A' i.e. Maximum value of engineering (civil/ electrical/ mechanical as relevant to work being procured) works executed in any one year during the last five years (updated at the current price level), taking into account the completed as well as works in progress and</p> <p>B = Value (updated at the current price level) of the existing commitments and ongoing works to be completed in the next 'N' years.</p>

	works to be completed in the next 'N' years.	
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*Above mentioned each and every individual criteria should be met by the prospective bidder.

- 3 Tender documents can be downloaded only from the Bank's website <https://canarabank.com/>, Central Public Procurement (CPP) portal www.eprocure.gov.in and from the e-Procurement portal www.gerpegov.com/canarabank free of cost. The Tender documents shall be printed in 12 size font & A-4 size paper and neatly bounded (hard bound / spiral bound) in single book (i.e. Technical bid and blank Financial bid) and submitted as detailed in **point 10** below.
- 4 Tender documents consists of Notice Inviting the Tender (NIT), General information and instructions for bidders for e-tendering, Brief Particulars of the work, Eligibility criteria, General rules and Directions to Tenderers, Schedules A to F, Conditions of contract, Clauses of Contract, Special conditions, Special conditions, General conditions for E&M works, Technical specifications, Safety code, Model rules for protection of Health & sanitary arrangements, List of preferred makes, **Annexures**, Integrity pact, Proformas, Appendices, Schedule of Quantity (SOQ) of items to be executed, indicative architectural plans and other necessary documents.
- 5 The information and instructions for bidders posted on website shall form part of bid document.
- 6 Tenders shall be on prescribed Form for **Item Rate Bid** as issued by the Bank / hosted by the Bank in Bank's website <https://canarabank.com/>, Central Public Procurement (CPP) portal www.eprocure.gov.in and e-Procurement portal www.gerpegov.com/canarabank
- 7 The site is ready for commencement of works.
- 8 Nature of the document: **TWO BID CONCEPT**. This Tender document comprises of the following :
 - A. **TECHNICAL BID**: The following documents are to be signed in all pages and scanned documents of the same to be uploaded in the e-Procurement portal www.gerpegov.com/canarabank :-
 - a) Notice inviting e-Tender (NIT).
 - b) General Information and instructions for bidders for e-tendering.
 - c) Brief Particulars of the work
 - d) Eligibility criteria
 - e) General Rules & directions to Bidder
 - f) Schedules A to F.
 - g) Conditions of contract.

- h) Clauses of contract.
- i) Special conditions
- j) General conditions for E&M works
- k) Technical specifications
- l) Safety code.
- m) Model rules for protection of health and sanitary arrangements for workers employed by Bidders.
- n) List of Preferred makes
- o) Annexures.
- p) Proformas
- q) Appendices
- r) Integrity pact.
- s) Tender Drawings.
- t) Schedule of Quantities

B.FINANCIAL BID: Schedule of quantity (SOQ). Financial bid should be submitted in the e-Procurement portal www.gerpegov.com/canarabank.

9 Submission and opening of Tenders :

- a) Tenders to be submitted only through online from the e-Procurement portal www.gerpegov.com/canarabank, for any queries regarding the submission of the tenders online the vendors can contact on the below mentioned details -

Name of Firm	M/s Antares Systems Limited
Contact Person	Smt. Sushmitha B
E-mail ID	sushmitha.b@antaressystems.com
Official Mobile No	8951944383

Note: Tenders submitted through any other form will be rejected.

- b) If last day of submission of tender is declared a holiday under NI Act by the Government subsequent to issuance of tender the next working day will be deemed to be the last day for submission of the tender.
- c) Technical bids will be evaluated based on the Bank's eligibility criteria's. Wherever Bidders /agencies are submitting consolidated completion certificates, then the Bank may request for supporting documents for split-up of works certified from the client / project architects as per the eligibility criteria's. Bank's decision in this regard is final and shall be binding on all.
- d) The Financial bid of only the technically qualified / shortlisted applicants will be opened on a pre-notified time & date, under intimation to such qualified / shortlisted applicants. **Lowest quoted tender (L1) will be arrived based on the evaluation of all the financial bids and after mathematical scrutiny and freak rate analysis.** Bank reserves right of accepting / rejecting any / all the financial bids without assigning any reasons whatsoever.
- e) After submission of the tender the bidder can re-submit revised bid any number of times but before last time and date of submission of tender as notified.

- f) While submitting the revised bid, bidder can revise the item rates any number of times but before last time and date of submission of tender as notified.
- g) Contractor must ensure to quote rate of each item. 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.
- h) **Digital Signature:** For the purpose of participation in e tender, the intending bidders must have a valid digital signature, active e mail ID and PAN Number. Any intending bidders presently not having digital signature may procure it from any registering Authority (Certified by the Government of India) issuing of such signature.
- 10 Earnest money deposit by way of Demand Draft issued by a Scheduled commercial Bank (drawn in favour of **Canara Bank, Circle Office, Thiruvananthapuram payable at Thiruvananthapuram**) shall be scanned and uploaded to the e-tendering website within the period of bid submission. **The original EMD should be deposited to the office of Tender Issuing Authority within the period of bid submission.****

Submission of EMD in the form of fixed deposit or in any other form is not acceptable and Tenders with such EMD shall be rejected.

No interest shall be allowed on the Earnest Money Deposit (EMD). Tenders without EMD shall be summarily rejected. However, MSEs are exempted from paying EMD as per MSME Act 2012 [amended 2018 and 2021]. For getting the benefits in case of MSE firms, contractors / agencies should submit exemption certificate issued from the relevant authorities.

The Procurement Policy for Micro and Small Enterprises, 2012 [amended 2018 and 2021] has been notified by the Government in exercise of the powers conferred in Section 11 of the Micro, Small and Medium Enterprises Development (MSMED) Act, 2006. Details of the policy along with the amendments issued in 2018 and 2021 are available on the MSME website.

Copy of all documents as specified in the tender document 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 tender document along with the tender document signed by authorized signatory shall be submitted physically (as per point 3 above) by the bidders at the office of Tender Issuing Authority within the period of bid submission.

- 11** Copies of other drawings and documents pertaining to the works will be open for inspection by the Tenderers at the above mentioned Office of the Bank after obtaining prior permission from Accepting Authority.
- 12** The tenderer submitting the bid should read the schedule of quantities, Conditions of Contract, Special Conditions, Additional Conditions, particular specifications and

other terms and conditions given in NIT and drawings. Tenderers are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their Tenders, as to 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 Tender. A Tenderer shall be deemed to have full knowledge of the site whether he inspects it or not and no extra charges consequent on any misunderstanding or otherwise shall be allowed. Submission of a Tender by a Tenderers 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, site details and local conditions and other factors bearing on the execution of the work.

- 13 Tenders with any condition including that of conditional rebates shall be rejected. Such tenders shall not be entered in the tender opening register at the time of opening of tender.
- 14 **The Tenderer shall be responsible for arranging and maintaining at his own cost all materials, labour, tools and 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. The passenger lift available shall not be allowed for workmen or for shifting materials.**
- 15 Canara Bank reserves to itself the right of accepting the whole or any part of the Tender and the Tenderer shall be bound to perform the same at the rate quoted.
- 16 The Tender for the works shall remain open for acceptance for a period of **120 days** from the date of opening of Tenders. If any Tenderer withdraws his Tender before the said period or makes any modifications in the terms and conditions of the Tender which are not acceptable to the Bank, then the Bank shall, without prejudice to any other right or remedy, be at liberty to forfeit full value of the earnest money as aforesaid.
- 17 This Notice Inviting Tender shall form a part of the contract document. The successful Tenderer/bidder, on acceptance of his Tender by the Accepting Authority, shall, enter in to an agreement within **15 days** from the date of acceptance letter.
- 18 Canara Bank does not bind itself to accept the lowest or any other Tender, and reserves to itself the authority to reject any or all of the Tenders received without the assignment of a reason. All Tenders in which any of the prescribed conditions are not fulfilled or new conditions are stipulated by the Tenderer or are incomplete in any respect are liable to be rejected.
- 19 Canvassing whether directly or indirectly, in connection with Tenders is strictly prohibited and the Tenders submitted by the bidders who resort to canvassing will be liable to rejection.
- 20 If any information furnished by the applicant is found to be incorrect at a later stage, he shall be liable to be debarred from tendering/taking up of works in **Canara**

Bank or any of its subsidiaries. The Bank reserves the right to verify the particulars furnished by the applicant independently.

21 GST on all materials as well as GST on Work Contract etc., or any other taxes applicable in respect of this contract shall be payable by the Contractor. Rate quoted by him shall be inclusive of such taxes, levies etc and Bank will not entertain any claim for reimbursement whatsoever in respect of the same. Further the item rate quoted by the contractor shall be inclusive of **labour welfare cess** and the same shall be recovered from the contractor's bills and will be remitted by the Bank.

22 Pre bid queries and clarification to Tender :

The Tenderer should carefully examine and understand the specifications, terms and conditions of the Tender and may seek clarifications, if required. The Tenderer in all such cases seek clarification in writing in a word document (.doc) in the same serial order (and/or page number) of that of the Tender by mentioning the relevant page number and clause number of the Tender. The soft copy of the pre-bid queries should be sent by E-Mail to pecotvm@canarabank.com and the pre-bid query should be in the following format.

Sl. No:	Page No	Tender Clause No	Tender Clause	Query

All such pre-bid queries shall be given in writing to the **Assistant General Manager, Canara Bank, General Administration Section, Circle Office, 7th Floor, Spencer Junction, M G Road, Thiruvananthapuram - 695 001** by the intending Tenderers before **5:00 PM on the eve of Pre-Bid Meeting** by e-mail to pecotvm@canarabank.com. No oral or individual consultation shall be entertained. No queries will be entertained from the Tenderers after the pre-bid meeting.

Pre-Bid meeting:

A pre-bid meeting of the intending Tenderer will be held as scheduled below to clarify any point /doubt raised by them in respect of this Tender document:

Date	Time	Venue
05.10.2024	11.00 AM	Canara Bank General Administration Section, Circle Office, 7 th Floor, Spencer Junction, M G Road, Thiruvananthapuram - 695 001

No separate communication will be sent for this meeting. If the meeting date is declared as a holiday under NI Act by the Government subsequent to issuance of RFP, the next working day will be deemed to be the pre-bid meeting day. Authorized representatives of interested Tenderers shall be present during the scheduled time along with an authorization letter as per [Appendix - IV.](#)

The Bank will consolidate all the queries and discussions during the pre-bid meeting and the consolidated replies for the queries shall be made available in the Bank's website and no individual correspondence shall be made. The replies/clarification of the Bank in response to the queries raised by the bidder/s, and any other clarification / amendments / corrigendum furnished hereof will become part and parcel of the Tender document and it will be binding on the Tenderers.

Non-reply to the queries raised by any of the Tenderer shall not be accepted as a valid reason for non-submission of the Tender. In addition, non-reply to any query may not be deemed the version of the Tenderer as reflected in the query has been accepted by the Bank.

23 Amendment to Tender document :

At any time prior to deadline for submission of Tender, the Bank, for any reason, whether, at its own initiative or in response to a clarification requested by prospective bidder may modify the Tender document by amendment.

Notification of amendments will be made available on the Bank's website (www.canarabank.com) only and will be binding on all Tenderers and no separate communication will be issued in this regard.

In order to allow prospective Tenderers reasonable time in which to take the amendment into account in preparing their Tender, the Bank, at its discretion, may extend the deadline for a reasonable period as decided by the Bank for the submission of Tender.

Applicants are advised to keep visiting the Bank's website (www.canarabank.com) and e-Procurement portal (www.gerpegov.com/canarabank) web-sites as applicable from time to time (till the deadline for bid submission) for any updates in respect of the tender documents, if any. Failure to do so shall not absolve the applicant of his liabilities to submit the applications complete in all respects including updates thereof, if any. An incomplete application may be liable for rejection.

24 Brief details of the work :

The work involves civil, electrical and mechanical works such as construction of building, water proofing, water sump, septic tank, drainage system, bore well, electrical wiring and fittings, plumbing and sanitary works, painting, providing passenger lift, firefighting system as per NBC etc complete in all manner and ready to occupy, at Sy. No: 438/3 and 463/2, Subash Chandra Bose Road, Jawahar Nagar, Ernakulam. The site is ready for undertaking the works.

25 Definition: A "Tenderer / Bidder" is the Individual / Proprietor / Partnership Firm / Company who submits it Tender for the subject works.

26 This work requires engaging more than 20 nos. of labours / workers and therefore all necessary licenses such as Labour license, EPFO and ESI, BOCW welfare registration etc., shall be taken by contractor within the time limits as prescribed under [Clause 1](#) of Schedule- 'F'.

27 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 PFO, ESIC and BOCW Welfare Board including Provident Fund Code No. if applicable and also ensure the compliance of aforesaid provisions by the sub contractors, if any engaged by the contractor for the said work and Programme Chart (Time and Progress) within the period specified in [Schedule F](#).

28 Performance Guarantee and Security Deposit (Retention Money) :

- I. The Contractor whose tender is accepted, will be required to furnish performance guarantee at specified percentage of the tendered amount as mentioned in [Schedule 'E'](#) and within the period specified in [Schedule F](#). This period can be further extended by tender accepting authority upto a maximum period of 7 days on the written request of the contractor subject to payment of late fee @ 0.1% per day of Performance Guarantee amount. This guarantee shall be in the form of Account Payee Demand Draft, Fixed Deposit Receipt or Bank Guarantee of any Scheduled Commercial Bank.
- II. The contractor whose tender is accepted will also be required to furnish by way of Security Deposit for the fulfilment of his contract, an amount equal to 5.0% of the tendered amount of the work. The Security deposit will be collected by deductions from the running bills as well as final bill of the contractor at the rates mentioned above. The Security amount will also be accepted in the shape of Account Payee Demand Draft, Fixed Deposit Receipt or Bank Guarantee from any of the Scheduled Commercial Banks will be accepted for this purpose provided confirmatory advice is enclosed.

29 Valid GST Registration for work contract :

GST Certificate of the State in which the work is to be taken up, to be 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 undertaking as per [Proforma-I](#) along with other bid documents.

30 The work is estimated to cost **Rs. 2,47,00,000/-** (Civil: Rs. 2,19,25,000/- + Electrical & Mechanical (E&M): Rs. 27,75,000/-). This estimated cost, however, is given merely as a rough guide.

31 Online bid documents submitted by intending bidders shall be opened only of those bidders, whose EMD deposited at office of Tender Inviting Authority.

32 The bid submitted shall become invalid if:

- I. The bidder is found ineligible.
- II. The bidder does not up load all the documents (including GST registration) as stipulated in the bid document.

- III. If any discrepancy is noticed between the documents as uploaded at the time of submission of bid and hard copies as submitted physically by the bidders in the office of Tender Inviting Authority.
 - IV. If a tenderer quotes nil rates against every item under all section/sub head of the tender does not quote any percentage above/ below on the total amount of the tender, the tender shall be treated as invalid and will not be considered as lowest.
 - V. Bids on which any of the prescribed conditions is not fulfilled or any condition including that of conditional rebate is put forth by the bidders.
 - VI. The bidders does not deposit all the original documents within the period of bid submission.
 - VII. The Bidder does not furnish the Performance Guarantee of work as per NIT condition.
 - VIII. The Bidder does not furnish Integrity Pact in non-judicial stamp paper of required value as per NIT condition.
- 33 The time allowed for carrying out the work will be **10 (Ten) Months** from the date of start as defined in [schedule 'F'](#) or from the first date of handing over of the site, whichever is later, in accordance with the phasing, if any, indicated in the bid documents.

34 Running Bill payments:

Running bills shall be considered subject to a minimum bill value mentioned in Tender Document. All the bills shall be prepared by the Bidder in the form prescribed by the Employer/Bank. The bills in proper forms must be duly accompanied by detailed measurements, supporting documents (Invoices for procuring the raw materials like cement, steel, bricks, sand, door wood, shutters, grills, windows, Plumbing and sanitary items, Electrical DBs, MCBs, switches, cables, wires etc. as per the approved list of materials in support of the quantities of work done) and must show deductions for all previous payments, retention money, etc if any.

The Architect of the project shall issue a certificate after due scrutiny of the Bidder's bills, joint verification of the measurements and inspection of quality of works executed on site subject to clearance from Bank.

The amount stated in a running bill shall be the value of works properly executed on site as per Tender Schedule of Quantities (SOQ) based on **CPWD specifications and Good Engineering practices** and payment will be allowed to the extent of works completed on site based on the Bank's discretion. If any works are partly completed then the proportionate payment will be released as per the actuals after deducting the applicable taxes and retention money payments made earlier if any. **Bank will not consider any payments on account of raw materials supplied at site.**

Bill payment will be made within the period of **15 (Fifteen) working days** after submission of running bills along with the certificate issued by the Project Architect and other supporting documents.

All the interim payments shall be regarded as payments by way of advance against the final payment only, and not as payments for work actually done and completed, and shall not preclude the requiring of bad, unsound, and imperfect or unskilled work to be removed and taken away and reconstructed, or re-erected or be considered as an admission of the due performance of the contract, or any part thereof in any respect or the accruing of any claim, nor shall it conclude, determine or affect in anyway the power of the Employer/Bank under these conditions or any of them as to the final settlement and adjustment of the accounts or otherwise or in any other way vary or affect the contract.

35 FINAL PAYMENT:

The Final Bill shall be accompanied by a "Completion of Work Certificate" from the Project Architect. Payments of final bill shall be made as per the procedure followed for running bills, after deduction of Retention Money as specified in relevant clauses which sum shall be refunded as stipulated in relevant clauses. Final bill should be submitted within 15 days of the final bill certification in proper bill format (Tax invoice). The acceptance of payment of the final bill by the Bidder would indicate that he will have no further claim in respect of the work executed.

Final bill payment will be made within the period of 30 (Thirty) working days after submission of certified bill by Architect.

36 TIMINGS OF THE WORK :

The site shall be made available for works round the clock on all days subject to local authority rules.

37 ACCOMODATION OF WORKMEN :

The contractor has to make his own arrangements for accommodation of workmen. Overnight stay of workmen in the premises will not be permitted under any circumstances.

BRIEF PARTICULARS OF THE WORK

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

Sr. No.	Name of Work	Estimated Cost	Period of completion
1.	“Construction of Quarters at Subash Chandra Bose Road, Jawahar Nagar, Ernakulam.”	Rs. 2,47,00,000/-	300 days from the date of issue of work order

2. Features:

2.1. The following provisions have been considered in this estimate:

A. RESIDENTIAL STAFF QTRS.(CIVIL) :-

a) FOUNDATION

Cast-in-situ reinforced cement concrete piles of grade M-30 of specified diameter and length below the pile cap, to carry a safe working load not less than specified, excluding the cost of steel reinforcement but including the cost of boring with bentonite solution and temporary casing of appropriate length for setting out and removal of same and the length of the pile to be embedded in the pile cap etc. by percussion drilling using Direct mud circulation (DMC) or Bailer and chisel technique by tripod and mechanical Winch Machine all complete, including removal of excavated earth with all its lifts and leads length of pile for payment shall be measured up to bottom of pile cap. The pile should be embedded into the pile cap at least half the depth of the pile cap with good concrete. All the lean concrete should be chipped off.

b) SUPERSTRUCTURE

Structure: R.C.C framed construction and total plinth area of residential buildings is 117.02 sqm [GF Floor height 3.0m and 3.15 for up to TF].

Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 5.0 in superstructure above plinth level up to floor V level in all shapes and sizes in Cement mortar 1:4 (1 cement : 4 coarse sand)

Internal partitions: Half Brick works with clay brick in cement mortar (1:4).

c) DOORS & WINDOWS

(i) Door Frames

1. Main doors- Second class Teak wood
2. Other doors- Anjili wood frame
3. Toilet-WPC frame size 45 x 85 mm

(ii) Door Shutters:

1. Main doors- 30 mm thick Second-class Teak wood
2. Other doors- 30 mm thick ISI marked flush door shutters.
3. Toilet- 30mm thick single extruded WPC (Wood Polymer Composite) solid decorative type flush door shutter

(iii) Window: - Powder coated aluminium (minimum thickness of powder coating 50 micron) three channel sliding aluminium windows, ventilators along with provision of M.S grill and mosquito net.

(iv) Fittings: Brass fittings

d) FLOORING

(i) Full body vitrified floor tiles (double charged) in different sizes (thickness not less than 12 mm) Size of Tile not less than 1200X600 mm in all rooms.

(ii) Lift & Stair passage: -25mm thick polished Kota stone slab flooring.

(iii) Toilets- Ceramic glazed floor tiles of size 300x300 mm and 1st quality ceramic glazed wall wall tiles.

(iv) Polished Granite stone slab with nosing in Staircase and kitchen slab with nosing.

(v) Skirting 10cm and DADO in toilet 210cm.

e) RAILING

2mm thick M S, SHS Railing

f) ROOFING

Roof treatment: -RCC roof slab with water proofing with necessary rain water drainage system

g) FINISHING

(i) External: Finishing walls with white cement based putty and Acrylic Smooth exterior paint.

(ii) Internal: one coat of water thinnable cement primer in all surface. White cement based putty on living, lobby and roof slab. Wall painting with acrylic emulsion paint on putty area. Distempering with 1st quality acrylic distemper on other non-putty areas.

(iii) Painting: Deluxe Multi Surface Paint on woods.

h) PAVER WORKS

60mm thick factory made cement concrete interlocking paver block of M -40 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required colour and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with fine sand etc. all complete as per the direction of Engineer-in-charge. Necessary compaction should be done to the drive way and filling done.

i) SANITARY AND WATER SUPPLY

- (i) Seamless PVC pipes of 75mm,110mm dia (6kg) for sanitary lines.
- (ii) CPVC pipes for water supply.
- (iii) Fittings: C P fittings.
- (iv) White vitreous china W.C pans, basins etc. shall be provided at toilets.

j) DEVELOPMENT OF SITE AND BULK SERVICES (CIVIL)

- (i) Provision of 1 nos deep tube well.
- (ii) 1 number septic tank of 50 users with soak pit and connection to the street sewer available in the street.
- (iii) Under Ground RCC Sump 50,000 liter capacity & pump house.
- (iv) Proposed Under Ground Rainwater storage tank 10,000 liter capacity

B. BOUNDARY WALL & GATE

1.50m high Boundary wall of length 35m with brick masonry and rubble foundation. Gate fabricated using rectangular/square hollow sections to be provided.

C. ELECTRICAL PART

- (i) Internal Electrical Wiring with FRLS copper conductor in PVC conduit with modular type switch.
- (ii) Provision of Energy saving fans and LED fitting.
- (iii) Provision of telephone connection.
- (iv) Provision of lightning conductor with G.I. earth plate for Earthing.
- (v) Provision of feeder service connection.
- (vi) Provision of portable type CO2 type Fire Extinguishers.

(vii) Provision for Down comer system.

(viii) Provision for lift

GENERAL RULES AND DIRECTIONS TO TENDERERS

1. All work proposed for execution by contract will be notified in a form of Invitation to Tender and signed by the Bank Tender Inviting Authority.

This form will state the work to be carried out, as well as the date for submitting and opening Tenders and the time allowed for carrying out the work, also the amount of Earnest money to be deposited with the Tender, and the amount of the performance guarantee to be deposited by the successful Tenderers and the percentage of security deposit, if any, to be deducted from bills. Copies of the specification, designs and drawings and any other documents required in connection with the work signed for the purpose of identification by the Tender Inviting Authority shall also be open for inspection by the contractor at the office of Tender Inviting Authority during office hours.

2. In the event of the Tender being submitted by a firm, it must be signed separately by each partner thereof or in the event of the absence of any partner, it must be signed on his behalf by a person holding a power of attorney authorising him to do so, such power of attorney to be produced with the Tender, and it must disclose that the firm is duly registered under the Indian Partnership Act 1952 by enclosing a copy of the partnership deed duly certified by one partner as true copy.

Tender by Hindu Joint Family (HUF) firm may be signed by the Kartha or Manager or any other duly authorised representative followed by the name and designation.

3. Receipts for payments made on account of a work, when executed by a firm, must also be signed by all the partners, except where contractors are described in their tender as a firm, in which case the receipts must be signed in the name of the firm by one of the partners, or by some other person having due authority to give effectual receipts for the firm.
4. In case of Item Rate Tenders, contractor shall quote the rates, against each item (in figures as well as in words) given in Schedule of Quantities, he will be willing to execute the work. The tender submitted shall be treated as invalid and will not be considered as lowest tenderer if :-

- I. The contractor does not quote rate for any item under any section/sub head of the tender.
- II. The contractor quotes nil rates against every item under all section/sub head of the tender.
- III. The item rate is not quoted in figures & words both for any item of tender under any section/sub head of the tender.
- IV. The item rate quoted is different in figures & words for any item of tender in under section/sub head of the tender.

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

5. In case the lowest tendered amount (estimated cost + amount worked on the basis of total tendered amount for item rate tender) of two or more contractors is same, such lowest contractors will be asked to submit sealed revised offer including all sub sections/sub heads as the case may be, but the revised rate/percentage quoted on each sub section/ sub head should not be higher than the rate/percentage quoted at the time of submission of tender. The lowest tender shall be decided on the basis of revised offers.

In case **any** of such contractor in his revised offer quotes rate higher than the rate/percentage already quoted on any sub section/ sub head at the time of submission of tender, then such revised offer shall be treated as invalid. In such event, the same will be treated as withdrawal of tender before acceptance and **50% of earnest money shall be forfeited.**

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

If the revised tendered amount of two or more contractors received in revised offer is again found to be equal, the lowest tender, among such contractors, shall be decided **by draw of lots** in the presence of Banks Officials and the lowest contractors those have quoted equal amount of their tenders.

In case **all** the lowest contractors those have quoted same tendered amount, refuse to submit revised offers, then tenders are to be recalled after **forfeiting 50% of EMD of each contractor.**

Contractor(s) whose earnest money is forfeited because of non-submission of revised offer (or) quoting higher rate/percentage on any sub section/ sub head than their respective original rate/percentage quoted at the time of submission of bid shall not be allowed to participate in the re-tendering process of the same work.

6. The Tender inviting authority or his duly authorised assistant will open Tenders in the presence of any intending bidders who may be present at the time, and will enter the amounts of the several Tenders in a comparative statement in a suitable form. In the event of a Tender being accepted for consideration, a receipt for the earnest money forwarded therewith shall thereupon be given to the contractor who shall thereupon for the purpose of identification, sign copies of the specifications and other documents mentioned in Rule-I. In the event of a Tender being disqualified and rejected, the earnest money forwarded with such unaccepted Tender shall thereupon be returned to the contractor remitting the same, without any interest. **For e-tender, the tendering procedure will be carried out through e-tendering portal only.**

7. The Tender Inviting Authority shall have the right of rejecting all or any of the Tenders and will not be bound to accept the lowest or any other Tender.
8. The memorandum of work Tendered for and the schedule of materials to be supplied by the Bank and their issue-rates, shall be filled in and completed in the office of the Tender Inviting Authority before the Tender form is issued. If a form is issued to an intending Tenderers without having been so filled in and incomplete, he shall request the officer to have this done before he completes and delivers his Tender.
9. The Tenderer shall take all necessary precautions to ensure that all confidential information which the Tenderer obtains in the course of participating in this Tender or at any time thereafter is not disclosed or used other than for the purpose of project execution / scope of work / deliverables. Tenderer shall suitably defend, indemnify Bank for any loss / damage suffered by Bank on account of and to the extent of any disclosure of such confidential information. Confidential information for this purpose refers to such information pertaining to Bank provided to Tenderer which is **marked as confidential** and which is not available in the "Public Domain".
10. In case of Percentage Rate Tenders only percentage quoted shall be considered. Any tender containing item rates is liable to be rejected. Percentage quoted by the contractor in percentage rate tender shall be accurately filled in figures and words, so that there is no discrepancy.

In the case of item rate tenders, only rates quoted shall be considered. Any tender containing percentage below/above the rates quoted is liable to be rejected. Rates quoted by the contractor in item rate tender in figures and words shall be accurately filled in so that there is no discrepancy in the rates written in figures and words. However, if a discrepancy is found, the rates which correspond with the amount worked out by the contractor shall unless otherwise proved be taken as correct. If the amount of an item is not worked out by the contractor or it does not correspond with the rates written either in figures or in words then the rate quoted by the contractor in words shall be taken as correct. Where the rates quoted by the contractor in figures and in words tally but the amount is not worked out correctly, the rates quoted by the contractor will unless otherwise proved be taken as correct and not the amount. In event no rate has been quoted for any item(s), leaving space both in figure(s), word(s), and amount blank, it will be presumed that the contractor has included the cost of this/these item(s) in other items and rate for such item(s) will be considered as zero and work will be required to be executed accordingly.

In case the same item appears more than once in the schedule of work under the same sub head or among the different sub heads of works, the lowest rate quoted for that item shall be taken for other items also and tender will be evaluated accordingly.

11. All rates shall be quoted only on the tender form. Quoted rates and units different from prescribed in the tender schedule will be liable for rejection. The amount for each item should be worked out and requisite totals given. Special care should

be taken to write the rates in figures as well as in words and the amounts in figures only, in such a way that interpolation is not possible. The total amount should be written both in figures and in words. In case of figures, the word 'Rs.' should be written before the figure of rupees and words 'P' after the decimal figures, e.g., 'Rs.2.15p' and in case of words, the words, 'Rupees' should precede and the word 'Paise' should be written at the end, unless the rate is in whole rupees and followed by the words 'only' it should be invariably be up to two decimal places. While quoting the rate in Schedule of quantities, the word 'only', should be written closely following the amount and it should not be written in the next line.

All corrections such as cuttings, interpolations, omissions and over-writings shall be numbered as 'c', 'i', 'o' and 'ow' and initialled and total of such c, l, o and ow on each page certified at the end of the page with grand total at the end of the bill/schedule of quantities. Use of correcting fluid, anywhere in tender document is not permitted. Such tender is liable for rejection.

12. **Performance Guarantee:** The bidder whose Tender is accepted shall be required to furnish by way of **Performance Guarantee** as detailed in the [clause I](#) of the "Clauses of Contract". A sum which shall be equal to **5.0% (five percent)** of the accepted value of the Tender including the Earnest Money Deposit, within **14 (fourteen) days** of the date of issue of the letter of acceptance of Tender. A further sum of **5% (eight percent)** of the Gross value of each interim/final bill shall be deducted as security deposit/ retention money. **The Performance Guarantee** amount will also be accepted in Fixed Deposit Receipt of Canara Bank for the full period of contract including defect liability period or in form of Bank Guarantee from any other Scheduled Commercial Bank in the prescribed format. In case a fixed deposit receipt of Canara Bank is furnished by the contractor to the Employer it shall be free from any loans or any encumbrance and shall be assigned / hypothecated to the Employer.)

In case the successful Tenderer fails to remit the Performance Guarantee within the above stipulated time, 100% of the Earnest money deposit shall be forfeited.

13. In the case of any Tender where unit rate of any item/items appears unrealistic, such Tender will be considered as unbalanced and in case the Tenderer is unable to provide satisfactory explanation such a Tender is liable to be disqualified and rejected and / or the Tenderer is liable for **additional security deposit** as demanded by the Employer in the form of Demand Draft or Bank guarantee from scheduled commercial Bank other than Canara Bank valid for contract period / smaller period (as decided by the Bank) in the **format** prescribed by the Bank.
14. On acceptance of the Tender, the name of the accredited representative(s) of the contractor who would be responsible for taking instructions from the Employer and / or Engineer-in-charge shall be communicated in writing to Employer.
15. The rates quoted shall be all inclusive rates for the item of work described, including materials, labour, tools and plant, lead, lift carriage and transport

supervision, incidental charges, Royalties, duties, levies, **Labour welfare cess**, labour licence, cess, entry tax, Octroi, profession tax, Sales Tax, VAT, purchase tax, turnover tax, or any other tax **including GST** on material or finished work in respect of this contract, overheads and profits, mobilizing, demolishing and other charges whatsoever including any special difficulties any restrictions for transport, any other incidentals works etc., complete for proper execution of the work as per drawings and specifications and no claim whatsoever for any extra payment shall be maintainable.

Any other Tax, any royalties, duties, levies, cess, Entry Tax, octroi, Profession Tax, Turnover Tax or any other Tax on material in respect of this contract shall be payable by the Tenderer and the Bank will not entertain any claim whatsoever in respect of the same and nothing extra shall be paid / reimbursed for the same subsequently. The rates quoted shall include all the above. **GST on works contract on finished works wherever applicable shall be paid by the contractor as per extant rules. All charges payable to local bodies for any service connections for construction purposes, land tax, etc., shall also be paid by the bidder and nothing extra shall be paid/reimbursed for the same.**

16. The bidder shall give a list of the Bank employees related to him with their places of posting and designations in prescribed Format as per the [Annexure-05](#).
17. The tender for composite work includes, in addition to building work, all other works such as sanitary and water supply installations drainage installation, electrical work, lift, firefighting, horticulture work, roads and paths etc as per brief description of work, schedule of quantities etc.
18. The Tender for the work shall not be witnessed by a bidder or bidders who himself/themselves has/have Tendered or who may and has/have Tendered for the same work. Failure to observe this condition would render, tenders of the bidder's tendering, as well as witnessing the tender, liable to summary rejection.
19. Errors and omissions due to clerical, typographical or printing etc., if any, will have to be got clarified and corrected before quoting the rates. The interpretation given by the appropriate Tender accepting authority of the Bank shall be final and binding.
20. Procurement of all materials, other than specifically stipulated to be issued by the Bank, if any, shall be at the cost and the responsibility of the bidder.
21. Tenderer shall fill in all the blanks and put their signature and seal on each page of the Tender documents. The successful Tenderer will have to enter into an agreement based on the Tender document with the Bank.
22. The Tender drawings under this NIT are only indicative to broadly understand the scope of the works. The contractor shall carry out the works according to the workings drawings/ construction drawings issued by the Architect during the course of work from time to time. Tenderer/ bidder is not eligible for any claim on account of any differences between the Tender drawings and working drawings.

23. SOCIAL MEDIA POLICY:

No person of the bank or the bidders and third parties shall violate the social media policy of the bank. The following acts on the part of personnel of the bank or the bidders and third parties shall be construed as violation of social media policy:

- a) Non-adherence to the standards/guidelines in relation to social media policy issued by the Bank from time to time.
- b) Any omission or commission which exposes the Bank to actual or potential monetary loss or otherwise, reputation loss on account of non-adherence of social media related systems and procedures.

24. INTEGRITY PACT:

Integrity Pact format is enclosed as [Annexure - 17](#). The same to be duly filled in a non-judicial stamp paper of **Rs. 500/-** and submitted along with offer.

Name & details Independent External Monitor (IEM) identified for this Tender/RFP are as under:

a) Smt. Dolly Chakrabarty, IA&AS (Retd.) - dollychakrabarty@gmail.com

b) Sri. Hem Kumar Pande IAS (Retd.) - hempande@hotmail.com

Only those tenderers, who commit themselves to the above pact with the Bank, shall be considered eligible for participate in the tendering process. Those bids/tenders which are not containing the above pact are liable for rejection. Integrity pact shall be signed by the person who is authorized to signed the Bid.

25. PURCHASE PREFERENCE:

Since the distribution of work between contractors in not suitable for tender based on the Purchase Preference to Micro and Small Enterprises (MSEs) and Startups and Purchase Preference linked with Local Content (PP-LC) the same are not applicable for this tender MSEs & Startups are exempted from paying Application fee/cost & EMD, subject to furnishing of valid certificate for claiming Exemption. They should meet all the technical specifications and full compliance of other terms and conditions of the RFP and Contract.



SCHEDULES

SCHEDULE `A' ::

Schedule of Quantities - SOQ - (Specified in detail and attached)

~~(Should be submitted in a separate envelope as financial bid for offline tender)~~

SCHEDULE `B' ::

Schedule of materials to be issued to the Bidder.

Sl. No	Description of items	Quantity	Rates in figures & words @which the materials will be charged to the contractor	Place of Delivery
- - - - N I L - - - -				

SCHEDULE - 'C' ::

Tools and Plants to be hired to the bidder under headings.

Sl. No	Description	Hire Charges per day
- - - - N I L - - - -		

SCHEDULE 'D' ::

Extra schedule for work :

- i. Conditions of contract
- ii. Clauses of contract
- iii. Special conditions
- iv. General conditions for E&M works
- v. Technical specifications for civil, E&M works
- vi. Safety code
- vii. Model rules for protection of Health & sanitary arrangements
- viii. List of preferred makes

SCHEDULE `E' ::

Name of work :: CONSTRUCTION OF NEW BANK OWN BUILDING FOR STAFF QUARTERS AT SY. NO: 438/3 AND 463/2, SUBASH CHANDRA BOSE ROAD, JAWAHAR NAGAR, ERNAKULAM.

Site :: VACANT SITE AT SY. NO: 438/3 AND 463/2,

SUBASH CHANDRA BOSE ROAD, JAWAHAR
NAGAR, ERNAKULAM DISTRICT, KERALA.

Estimate cost of work	::	Rs.2,47,00,000/- (Civil - Rs. 2,19,25,000/- + E&M - Rs. 27,75,000/-)
Earnest Money Deposit	::	Rs.2,47,000/-
Performance Guarantee	::	5% of tendered value
Security Deposit	::	5% of the Gross value of each interim/final bill

SCHEDULE `F' ::

Reference to Conditions of contract.

Definitions::

2(a) Work	::	CONSTRUCTION OF NEW BANK OWN BUILDING FOR STAFF QUARTERS AT SY. NO: 438/3 AND 463/2, SUBASH CHANDRA BOSE ROAD, JAWAHAR NAGAR, ERNAKULAM.
2(b) Site	::	VACANT SITE AT SY. NO: 438/3 AND 463/2, SUBASH CHANDRA BOSE ROAD, JAWAHAR NAGAR, ERNAKULAM DISTRICT, KERALA.
2(c) Contractor	::	Successful Tenderer/bidder to whom the work is awarded
2(d) Bank or Employer or Buyer	::	Canara Bank
2(e) Engineer-in-charge	::	Bank's Engineers/Architect
2(h) Accepting Authority	::	The Assistant General Manager Canara Bank, General Administration Section, Circle Office, 7 th Floor, Spencer Junction, M G Road, Thiruvananthapuram - 695 001
2(j) Percentage on cost of materials and labour to cover all overheads and profits.	::	15 % (fifteen %)
2(k) Standard Schedule of Rates	::	1. DSR - 2021 - (Civil works) + cost index and correction slip(s) issued upto the last date of submission of bid

- ~~2. DSR – 2022 – (E&M works) + cost index and correction slip(s) issued upto the last date of submission of bid~~
3. Market rates for Non-DSR items

2(i) Standard specification to be followed :: CPWD Specifications

2(j) Standard Contract Form :: Item Rate Tender form of Canara Bank as modified & Corrected up to date of Tender.

Reference to CLAUSES OF CONTRACT

Clause 1 :

Estimated cost of work :: Rs.247.00 Lakhs including GST

Earnest Money Deposit :: 1% of estimated Tender value

Performance Guarantee /Security Deposit :: As below

I. Performance Guarantee :: 5% of tendered value (including EMD) within 14 days.

II. Retention money/ Security Deposit :: 5% of the Gross value of each interim/final bill

(Rule 12 of [General Rules and Directions](#))

III. Maximum percentage for quantity of items of work to be executed beyond which rates are to be determined in accordance with clause 12.2 & 12.3 :: Same as given below against clause 12 & its subclasses.

Clause 2	::	Authority for fixing under clause 2.	General Manager, P & E Section, Canara Bank Circle Office, Thiruvananthapuram
Clause 5	::	Time allowed for execution of work from date of commencement	300 days
	::	Number of days from the date of issue of letter of acceptance for reckoning date of start	10 days
		Table of Milestones	Annexure-26
Clause 5.2	::	Authority	Assistant General

			Manager, P & E Section, Canara Bank Circle Office, Thiruvananthapuram
Clause 5.4	::	Authority to give fair and reasonable extension of time for completion of work	General Manager, P & E Section, Canara Bank Circle Office, Thiruvananthapuram
	::	Recovery per day basis in case of delay in submission of the revised program	Rs.2,500/-
Clause 7	::	Gross work to be done together with net payment/adjustments of advances for material collected, if any, since the last such payment for being eligible to interim payment	Rs. 25 lakhs for civil works and Rs.10 lakhs for E&M works or part thereof as decided by Employer
Clause 8A	::	Authority to decide compensation on account if contractor fails to submit completion plans, As built drawings, Services drawing, Standard Measurement Book and Other documents specified in NIT	Assistant General Manager, P & E Section, Canara Bank Circle Office, Thiruvananthapuram
Clause 10 A	::	List of testing equipments to be provided by the contractor at site	Applicable as per Annexure 24
Clause 10 B	::	Mobilisation Advance Max. percentage of accepted Tendered cost (contract amount)	-- N I L --
		Plant & Machinery Advance Maximum percentage of contract amount.	-- N I L --
		Rate of interest percent per annum on mobilization Advance and Plant and machinery Advance	-- NA --
		Other items (Specify) if any	-- N I L -
Clause 10 C	::	Escalation	-- N I L -

	::	Base Price:	
		Other items (Specify) if any	-- N I L -
Clause 10 CC	::		Not Applicable
		A. For construction Period	
		I. For Civil Component	
		Relevant component of Material/Labour for price escalation	Percentage of total value of work
		Component of Cement	15%
		Component of Labour	25%
		Civil component of other Construction Materials	40%
		Component of POL (Diesel)	0%
		Reinforcement steel bars/TMT bars/Structural steels (including strands and cables) component	20%
		Component of Bitumen	0%
		TOTAL	100%
		II. For E&M Component	
		Relevant component of Material/Labour for price escalation	Percentage of total value of work
		Component of Labour	15%
		E&M component of construction materials	85%
		TOTAL	100%
		B. For maintenance period	Not Applicable
Clause 12	::		
12.1 (iii)		Schedule of Rates for determining. Rates for additional, altered or substituted items that cannot be determined under 12.1 (b) (i) & (ii)	CPWD Schedule of Rates & Local Market Rates
12.1(vi)A(a)		Limit for value of any contract item, substituted item or contract-cum-substituted item beyond which sub-clauses (i) to (v) shall not apply and clauses 12.2 & 12.3 shall apply.	25% (Twenty five %)
12.1(vi)A(b)		Limit for deviations ordered on any individual trade beyond which provisions of sub-clauses (i) to (v) shall not apply and clauses 12.2	Not applicable.

		and 12.3 shall apply.	
12.1(vi)A(c)		Limit for value of all items not already included in the Contract beyond which sub-clauses (i) to (v) shall not apply and clauses 12.2 & 12.3 shall apply	10% (Ten %)
12.1(vi)B(a)		Limit for value of any item of any individual trade beyond which sub-clauses (i) to (v) shall not apply and clauses 12.2 and 12.3 shall apply.	10 % (ten %)
Clause 15	::		
(b) (II)		Percentage payable to cover contractor's indirect expenses for suspension of work exceeding 30 days and not exceeding 3 months.	NIL
(c)		Percentage payable to cover contractor's indirect expenses for suspension exceeding 3 months.	NIL
Clause 16	::	Competent Authority for deciding reduced rates.	General Manager, P & E Section, Circle office, Thiruvananthapuram
Clause 19	::	Submission of Labour License	Within 14 days from the date of receipt of Acceptance letter
Clause 25	::	i) Amount of claim by any party beyond which Arbitrator shall give reasons for award.	All Claims
		ii) Accepting Authority	Assistant General Manager, P & E Section, Circle office, Thiruvananthapuram
Clause 32 (i)		a) Minimum Qualifications & experience required for Principal Technical Representative(s) to be in-charge of work	GRADUATE ENGINEER with 3 years OR

			Diploma holder with 5 years OR Retired A. E. from Govt. Department with 5 years experience as A. E
		b) Discipline to which the Principal Technical representative(s) should belong	Civil / Electrical / Mechanical
		c) Minimum experience of works	3 years for Graduates and 5 years for Diploma.
		d) Recovery to be effected from the contractor in the event of not fulfilling provision of clause 36(i).	Rs. 25,000/-p.m.
Clause 38	::		
(i) (a)		Schedule / Statement for determining theoretical quantity of cement and bitumen.	On the basis of latest Schedule of Rates printed by CPWD with up to date correction slips issued up to previous day of last date of submission of tender
(i) (b)		Percentage wastage due to cutting	NIL
(i) (c)		Percentage wastage due to cutting	NIL
(i) (d)		Variation allowed over the theoretical quantity of material	NIL
(ii).		Variations permissible on theoretical quantities ::	
		a) Cement - For works with estimated cost put to Tender more than Rs. 25 lakhs	2% plus/minus
		b) Bitumen All Works	2.5% plus & only & nil on minus side.
		c) Steel Reinforcement & structural steel sections for each diameter, section and category	2% plus/minus

		d) All other materials	NIL

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CONDITIONS OF CONTRACT

Definitions:-

1. The 'Contract' means the Tender documents and acceptance thereof and the agreement duly executed between the Canara Bank and the Contractor, together with the documents referred to therein including these conditions, NIT, specifications, schedule of quantities, agreement, designs, drawings and instructions issued from time to time by the Employer and / or Engineer-in-charge/Architect and all these documents taken together, shall be deemed to form one contract and shall be complementary to one another.
2. In the contract, the following expressions shall, unless the context otherwise requires, have the meanings, hereby respectively assigned to them.
 - a) The expression 'works' or 'work' shall, as mentioned in Schedule F, unless there be something either in the subject or context repugnant to such construction be construed and taken to mean the works by or by virtue of the contract contracted to be executed whether temporary or permanent, and whether original, altered, substituted or additional.
 - b) The 'Site' shall mean the land, places on, as mentioned in Schedule F, into or where work is to be executed, under the contract or any adjacent land, path or street through which work is to be executed under the contract or any adjacent land, path or street which may be temporarily allotted or used for the purpose of carrying out the contract.
 - c) The 'Contractor' shall mean as mentioned in Schedule F, individual, Kartha, or Manager of HUF, firm or Company, whether incorporated or not, undertaking the works and shall include the legal heirs/representatives of such individual or the partners composing firm or company and their legal heirs and successors of such firm or company, or company's authorized and constituted attorneys/agents and the permitted assignees of such individual, firm or company.
 - d) The 'Employer/Canara Bank' means as mentioned in schedule F any officer of the Bank, who is specifically authorised to enter into contracts and in-charge of the work mentioned in Schedule F.
 - e) The 'Engineer-in-Charge' means the Officer, Engineer and/or Site Engineer as mentioned in Schedule 'F' hereunder who shall supervise and be in-charge of the work or any other person specifically deputed by the Employer.
 - f) 'Contract Price' shall mean the final accepted rates in the Schedule A hereto.
 - g) 'Date of Contract' means the 'Calendar date on which the Employer and Contractor have signed the Agreement on the Stamp Paper.

- h) "Accepting Authority" shall mean the authority mentioned in Schedule `F`.
- i) "Excepted Risk" are risks due to riots (other than those on account of contractor's employees or agents or persons worked under or at the instance of the contractor) or civil commotion (in so far as both these are uninsurable), war (Whether declared or not) invasion, act of foreign enemies, hostilities, civil war, rebellion revolution, insurrection, military or usurped power, any acts of Government, damages from aircraft, acts of God, such as earthquake, lightening and unprecedented floods, Tsunami and other causes over which the contractor has no control and accepted as such by the Accepting Authority.
- j) "Market Rate" shall be the rate as decided by the Employer on the basis of the cost of materials and labour and the site where the work is to be executed plus the percentage mentioned in Schedule `F` to cover all overheads and profits. Provided that no extra overheads and profits shall be payable on the part(s) of work assigned to other agency(s) by the contractor as per terms of contract.
- k) "Schedule(s)" referred to in these conditions shall mean the relevant schedule(s) annexed to the Tender documents or the standard Schedule of Rates of mentioned in Schedule `F` hereunder, with the amendments thereto issued upto the date of receipt of the Tender.
- l) "GST" shall mean Goods and Service Tax - Central, State and Inter State.
- m) 'Tendered Value' shall mean the value of the entire work as stipulated in the letter of acceptance.
- n) 'Approved' or 'Approval' wherever used in the specifications or schedule of Quantities shall mean, respectively, 'approved by or approval of the 'Accepting Authority' in writing.
- o) 'Notice in writing' or 'written notice' shall mean a notice in writing typed or printed characters delivered to or sent by registered post to the last known address private or business address or registered office address or through e-mail to the last known e-mail ID, and shall be deemed to have been received when in ordinary course of post it would have been delivered, and/or delivered personally, or otherwise proved to have been received.
- p) 'virtual completion' shall mean that the work / building is complete in all respects in the opinion of the Employer/Bank
- q) 'Drawings' shall mean all drawings and / or sketches duly signed by the Engineer-in-charge/Architect or their representative on behalf of the Employer before commencement or during the progress of the work.
- r) 'Letter of Acceptance' shall mean an intimation by a letter issued by the Accepting Authority of the Employer / Bank to Tenderers that his Tender has been accepted in accordance with the provisions in the said letter.

- s) **“Base price”** shall be as specified in [Schedule F](#), [Annexure -19](#) and Financial Bid based on the actual price quoted by the authorised stockiest / wholesalers / showroom including excise duty, cess, octroi and all other duties levied by the statutory / local authority and excluding GST, loading, unloading and carriage / transportation cost to the site of work, overheads, storage charges at site.
- t) **"Defect Liability Period"** shall mean a period of twelve months from the certified date of virtual completion issued by the Engineer in charge / Employer. However, in the case of specialist contracts like for anti-termite treatment, water proofing treatment and the like, the period of warranty in such contracts shall supersede the defect liability period, and the defect liability period of twelve months shall stand extended to be equal to the warranty period.
- u) **“Approved make”** means materials as specified under List of preferred makes and also as approved by the Bank.
3. **Terms of Interpretation::** Where the context so requires, words imparting the singular only also include the plural and vice versa. Any reference to masculine gender shall whenever required include feminine gender and vice versa.
4. Headings to these Conditions of Contract, Clauses of contract, special conditions, Technical specifications shall not be deemed to form part thereof or be taken into consideration in the interpretation or construction thereof or of the contract.
5. The contractor shall be furnished, free of cost one certified copy of the contract documents (except standard specifications, Schedule of Rates) together with all drawings as may be forming part of the Tender papers. None of these documents shall be used by the Contractor for any purpose other than for this contract.
6. **Works to be carried out ::** The work to be carried out under the contract shall, except as otherwise provided in these conditions, include all labour, materials, tools, plants, equipment and transport which may be required in preparation of and for and in the full and entire execution and completion of the works. The descriptions given in the Schedule of Quantities (Schedule - A) shall, unless otherwise stated, be held to include waste on material carriage and cartage, lead, lift, safety works, carrying and return of empties, hoisting, setting, fitting and fixing in position and all other labour necessary and for the full and entire execution and completion as aforesaid in accordance with good practice and recognised principles.
7. **Rates ::** The rates quoted shall be all inclusive rates for the item of work described, including materials, labour, tools and plant, lead, lift carriage and transport supervision, incidental charges, Royalties, duties, levies, labour license, cess, entry tax, Octroi, profession tax, GST, purchase tax, turnover tax, or any other tax on material in respect of this contract, overheads and profits, mobilizing, demolishing and other charges whatsoever including any special difficulties any restrictions for transport, any other incidentals works etc.

complete and for proper execution of the work as per drawings and specifications and no claim whatsoever for any extra payment shall be maintainable unless otherwise specifically exempted and are specified as payable or reimbursable under this Agreement.

8. Sufficiency of Tender:: The Contractor shall be deemed to have satisfied himself before Tendering as to the correctness and sufficiency of his Tender for the works and of the rates and prices quoted in the Schedule of Quantities, which rates and prices shall, except as otherwise provided, cover all his obligations under the Contract and all matters and things necessary for the proper completion and maintenance of the works.

9. Discrepancies and Adjustment of Errors:: The several documents forming the Contract are to be taken as mutually explanatory of one another, detailed drawing being followed in preference to small scale drawing and figured dimensions in preference to scale and special conditions in preference to General Conditions.

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

- a) Description of the Item as detailed in Schedule of Quantities (SOQ).
- b) Particular Specifications, Special condition, Additional conditions if any.
- c) Detailed Drawings.
- d) CPWD specifications.
- e) Kerala PWD specifications.
- f) Clauses of contract.
- g) Indian Standard Specifications of B.I.S.
- h) ASTM, BS or other foreign origin codes mentioned in tender document
- i) Manufacturer's specifications
- j) Sound engineering practices or well established local construction practices as decided by Employer

Moreover, the Contractor is not allowed to take benefit out of any clerical / grammatical mistake in the standard clauses/Bill of Quantities/Specifications etc. being used in the agreement”.

9.2 If there are varying or conflicting provisions made in any one or more document(s) forming part of the contract, the Accepting Authority shall be the deciding authority with regard to the intention of the document and his decision shall be final and binding on contractor.

9.3 Any error in description or quantity or rate in Schedule of Quantities or any omission there from shall not vitiate the Contract or release the Contractor from the execution of the whole or any part of the works comprised therein according to drawings and specifications or from any of his obligations under the Contract.

10. Signing of Contract :: The successful Tenderer/contractor, on acceptance of his Tender by the Accepting Authority, shall, within **15 days** from the stipulated date of start of the work sign the contract consisting of following **failing which the Earnest money deposit shall be forfeited :-**

a) Standard form of agreement on stamp paper, the notice inviting Tender, all the documents including drawings, if any, forming the Tender as issued at the time of invitation of Tender and acceptance thereof together with any correspondence leading thereto.

b) Standard Contract Form as mentioned in Schedule `F' consisting of ::

- a. Notice inviting e-Tender (NIT).
- b. General Information and instructions for bidders for e-tendering.
- c. Brief Particulars of the work
- d. Eligibility criteria
- e. General Rules & directions to Bidder
- f. Schedules A to F.
- g. Conditions of contract.
- h. Clauses of contract.
- i. Special conditions
- j. General conditions for E&M works
- k. Technical specifications
- l. Safety code.
- m. Model rules for protection of health and sanitary arrangements for workers employed by Bidders.
- n. List of Preferred makes
- o. Annexures.
- p. Proformas
- q. Appendices
- r. Integrity pact.
- s. Tender Drawings.
- t. Schedule of Quantities

c) No payment for the work done will be made unless contract is signed by the contractor.



CLAUSES OF CONTRACT

Clause - 1:: DEPOSITS

- (i) The contractor shall submit an irrevocable Performance Guarantee at specified percentage of the tendered amount as mentioned in Schedule 'E', in addition to other deposits mentioned elsewhere in the contract for his proper performance of the contract agreement, (not withstanding and/or without prejudice to any other provisions in the contract) within period specified in Schedule 'F' from the date of issue of letter of acceptance. This period can be further extended by the Accepting Authority up to a maximum period as specified in schedule 'F' on written request of the contractor stating the reason for delays in procuring the Performance Guarantee, to the satisfaction of the Employer. This Guarantee shall be in the form of Account Payee Demand Draft, Fixed Deposit Receipt or Bank Guarantee from any of the Scheduled Commercial Banks. In case a fixed deposit receipt of any Bank is furnished by the contractor to the Employer as part of the performance guarantee and the Employer is unable to make payment against the said fixed deposit receipt, the loss caused thereby shall fall on the contractor and the contractor shall forthwith on demand furnish additional security to the Employer to make good the deficit. In case a fixed deposit receipt of Canara Bank is furnished by the contractor to the Employer it shall be free from any loans or any encumbrance and shall be assigned / hypothecated to the Employer
- (ii) The Performance Guarantee shall be submitted by the contractor on format as per [Annexure-28](#) and shall be initially valid up to the stipulated date of completion plus minimum 6 months beyond that. In case the time for completion of work gets enlarged, the contractor shall get the validity of Performance Guarantee extended to cover such enlarged time for completion of work. After recording of the completion certificate for the work by the competent authority, the performance guarantee shall be returned to the contractor, without any interest. However, in case of contracts involving maintenance of building and services/any other work after construction of same building and services/other work, then 50% of Performance Guarantee shall be retained as Security Deposit. The same shall be returned year wise proportionately.
- (iii) The Accepting authority shall not make a claim under the performance guarantee except for amounts to which the Employer is entitled under the contract (not withstanding and/or without prejudice to any other provisions in the contract agreement) in the event of:
- a. Failure by the contractor to extend the validity of the Performance Guarantee as described herein above, in which event the Engineer-in-Charge may claim the full amount of the Performance Guarantee.
 - b. Failure by the contractor to pay the Employer any amount due, either as agreed by the contractor or determined under any of the Clauses/Conditions of the agreement, within 30 days of the service of notice to this effect by Employer.
- (iv) In the event of the contract being determined or rescinded under provision of any of the Clause/Condition of the agreement, the performance guarantee shall stand forfeited in full and shall be absolutely at the disposal of the Employer.

- (v) On substantial Completion of any work which has been completed to such an extent that the intended purpose of the work is met and ready to use, then a provisional Completion certificate shall be recorded by the Engineer-in-Charge and/or Architect. The provisional certificate shall have appended with a list of outstanding balance item of work that need to be completed in accordance with the provisions of the contract.

This provisional completion certificate shall be recorded by the Engineer-in-charge and/or Architect with the approval of the Accepting authority, if required. After recording of the provisional Completion certificate for the work by the competent authority, the 80 % of performance guarantee shall be returned to the contractor, without any interest.

However in case of contracts involving Maintenance of building and services /any other work after construction of same building and services/ other work, then 40% of performance guarantee shall be returned to the contractor, without any interest after recording the provisional Completion certificate.

Clause 1A :: RECOVERY OF SECURITY DEPOSIT

The person(s) whose tender may be accepted (hereinafter called the contractor) shall permit the Employer at the time of making any payment to him for work done under the contract to deduct a sum at the rate of 2.5% of the gross amount of each running and final bill till the sum deducted will amount to security deposit of 2.5% of the tendered amount of the work. Such deductions will be made and held by the Employer by way of Security Deposit unless he/they has/have deposited the amount of Security at the rate mentioned above in the form of fixed deposit receipts. In case a fixed deposit receipt of any Bank is furnished by the contractor to the Employer as part of the security deposit and the Bank is unable to make payment against the said fixed deposit receipt, the loss caused thereby shall fall on the contractor and the contractor shall forthwith on demand furnish additional security to the Employer to make good the deficit. In case a fixed deposit receipt of Canara Bank is furnished by the contractor to the Employer it shall be free from any loans or any encumbrance and shall be assigned / hypothecated to the Employer.

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

The security deposit as deducted above can be released against bank guarantee issued by a scheduled commercial bank, on its accumulations to a minimum of Rs. 5 lac subject to the condition that amount of such bank guarantee, except last one,

shall not be less than Rs. 5 lac. Provided further that the validity of bank guarantee including the one given against the earnest money shall be in conformity with provisions contained in [clause 17](#) which shall be extended from time to time depending upon extension of contract granted under provisions of [clause 2](#) and [clause 5](#).

In case of contracts involving maintenance of building and services/any other work after construction of same building and services/other work, then 50% of Performance Guarantee shall be retained as Security Deposit. The same shall be returned year wise proportionately.

Clause - 2 :: COMPENSATION FOR DELAY ::

If the contractor fails to maintain the required progress in terms of [clause 5](#) or to complete the work and clear the site on or before the contract or approved extended date of completion as per [clause 5](#) (excluding any extension under [clause 5.5](#)) as well as any extension granted under [clause 12](#) and [clause 15](#), he shall, without prejudice to any other right or remedy available under the law to the Employer on account of such breach, pay as compensation the amount calculated at the rates stipulated below or such smaller amount as may be fixed by the authority mentioned in [Schedule 'F'](#) may decide on the amount of accepted tendered value of the work for every completed day/week/month (as determined) that the progress remains below that specified in [clause 5](#) or that the work remains incomplete.

This shall also apply to items or group or items for which a separate period of completion has been specified, if any.

Compensation for delay of work: With maximum rate @ 0.50% (half percent) maximum per week of delay to be computed on per day basis based on quantum of damage suffered due to stated delay on the part of Contractor.

Provided always that the total amount of compensation for delay to be paid under this condition shall not exceed the **10% (ten percentage)** of the accepted tendered Value of the work or tendered Value of the item or group of items of work for which a separate period of completion is originally given. In case no compensation has been decided by the authority in [Schedule 'F'](#) during the progress of work, this shall be no waiver of right to levy compensation by the said authority if the work remains incomplete on final justified extended date of completion. If the Employer decides to give further extension of time allowing performance of work beyond the justified extended date, the contractor shall be liable to pay compensation for such extended period. If any variation in amount of contract takes place during such extended period beyond justified extended date and the contractor becomes entitled to additional time under [clause 12](#), the net period for such variation shall be accounted for while deciding the period for levy of compensation. However, during such further extended period beyond the justified extended period, if any delay occurs by events under sub [clause 5.2](#), the contractor shall be liable to pay compensation for such delay.

This is without prejudice to right of action by the Employer under [clause 3](#) for delay in performance and claim of compensation under that clause. In case action under [clause 2](#) has not been finalized and the work has been determined under [clause 3](#),

the right of action under this clause shall remain post determination of contract but levy of compensation shall be for days the progress is behind the schedule on date of determination, as assessed by the authority in [Schedule F](#), after due consideration of justified extension. The compensation for delay, if not decided before the determination of contract, shall be decided after of determination of contract.

The amount of compensation may be adjusted or set-off against any sum payable to the Contractor under this or any other contract with the Government. In case, the contractor does not achieve a particular milestone mentioned in [Schedule F](#), or the re-scheduled milestone(s) in terms of [Clause 5.4](#), the amount shown against that milestone shall be withheld, to be adjusted against the compensation levied as above. With-holding of this amount on failure to achieve a milestone, shall be automatic without any notice to the contractor. However, if the contractor catches up with the progress of work on the subsequent milestone(s), the withheld amount shall be released. In case the contractor fails to make up for the delay in subsequent milestone(s), amount mentioned against each milestone missed subsequently also shall be withheld. However, no interest, whatsoever, shall be payable on such withheld amount.

Clause -3::

Subject to other provisions contained in this clause, the Employer may without prejudice to his any other rights or remedy against the contractor in respect of any delay, not following safety norms inferior workmanship, any claims for damages and/or any other provisions of this contract or otherwise, and whether the date of completion has or has not elapsed, by notice in writing absolutely determine and cancel the contract in any of the following cases:

- i) If the contractor having been given by the Employer and/or the Engineer-in-charge a notice in writing to rectify, reconstruct or replace any defective work or that the work is being performed in any inefficient or otherwise improper or unworkman like manner shall omit or comply with the requirement of such notice for a period of seven days thereafter.
- ii) If the contractor has, without reasonable cause, suspended the progress of the work or has failed to proceed with the work with due diligence and continues to do so after a notice in writing of seven days from the Engineer-in-Charge.
- iii) If the contractor fails to complete the work or section of work with individual date of completion on or before the stipulated or justified extended date, on or before such date of completion; and the Employer without any prejudice to any other right or remedy under any other provision in the contract has given further reasonable time in a notice given in writing in that behalf as either mutually agreed or in absence of such mutual agreement by his own assessment making such time essence of contract and in the opinion of Engineer-in-Charge and/or Architect the contractor will be unable to complete the same or does not complete the same within the period specified.
- iv) If the contractor persistently neglects to carry out his obligations under the contract and/or commits default in complying with any of the terms and conditions of the contract and does not remedy it or take effective steps to

remedy it within 7 days after a notice in writing is given to him in that behalf by the Employer and /or Engineer-in-charge.

- v) If the contractor shall offer or give or agree to give to any person in Bank's service or to any other person on his behalf any gift or consideration of any kind as an inducement or reward for doing or forbearing to do or for having done or forborne to do any act in relation to the obtaining or execution of this or any other contract for Bank.
- vi) If the contractor shall enter into a contract with Bank in connection with which commission has been paid or agreed to be paid by him or to his knowledge, unless the particulars of any such commission and the terms of payment thereof have been previously disclosed in writing to the Accepting authority.
- vii) If the contractor had secured the contract with Bank as a result of wrong tendering or other non-bonafide methods of competitive tendering or commits breach of Integrity agreement/Pact.
- viii) If the contractor being an individual, or if a firm, any partner thereof shall at any time be adjudged insolvent or have a receiving order or order for administration of his estate made against him or shall take any proceedings for liquidation or composition (other than a voluntary liquidation for the purpose of amalgamation or reconstruction) under any Insolvency Act for the time being in force or make any conveyance or assignment of his effects or composition or arrangement for the benefit of his creditors or purport so to do, or if any application be made under any Insolvency Act for the time being in force for the sequestration of his estate or if a trust deed be executed by him for benefit of his creditors.
- ix) If the contractor being a company shall pass a resolution or the court shall make an order that the company shall be wound up or if a receiver or a manager on behalf of a creditor shall be appointed or if circumstances shall arise which entitle the court or the creditor to appoint a receiver or a manager or which entitle the court to make a winding up order.
- x) If the contractor shall suffer an execution being levied on his goods and allow it to be continued for a period of 21 days.
- xi) If the contractor assigns (excluding part(s) of work assigned to other agency(s) by the contractor as per terms of contract), transfers, sublets (engagement of labour on a piece-work basis or of labour with materials not to be incorporated in the work, shall not be deemed to be subletting) or otherwise parts with or attempts to assign, transfer, sublet or otherwise parts with the entire works or any portion thereof without the prior written approval of the Employer.
- xii) When the contractor has made himself liable for action under any of the aforesaid cases (i) to (xi), the Employer shall have powers:
 - a) To determine the contract as aforesaid so far as performance of work by the Contractor is concerned (of which determination notice in writing to the (If the revised tendered amount worked out on the basis of quoted rate of individual items) contractor under the hand of the Employer shall be conclusive evidence). Upon such determination, the Earnest Money

Deposit, Security Deposit already recovered, Security deposit payable and Performance Guarantee under the contract shall be liable to be forfeited and shall be absolutely at the disposal of the Bank.

- b) After giving notice to the contractor to measure up the work of the contractor and to take such whole, or the balance or part thereof, as shall be un-executed out of his hands and to give it to another contractor to complete the work. The contractor, whose contract is determined as above, shall not be allowed to participate in the tendering process for the balance work. In the event of above courses being adopted by the Employer, the contractor shall have no claim to compensation for any loss sustained by him by reasons of his having purchased or procured any materials or entered into any engagements or made any advances on account or with a view to the execution of the work or the performance of the contract. And in case action is taken under any of the provision aforesaid, the contractor shall not be entitled to recover or be paid any sum for any work thereof or actually performed under this contract unless and until the Engineer-in-Charge/Architect has certified in writing the performance of such work and the value payable in respect thereof and he shall only be entitled to be paid the value so certified.

Clause -3A::

In case, the work cannot be started due to reasons not within the control of the contractor within 1/8th of the stipulated time for completion of work or one month whichever is higher, either party may close the contract by giving notice to the other party stating the reasons. In such eventuality, the Performance Guarantee of the contractor shall be refunded within following time limits:

- | | | |
|-------|---|-----------|
| (i) | If the tendered value is up to Rs. 1 Crore | : 15 days |
| (ii) | If the Tendered value of work is more than Rs. 1 Crore and up to Rs. 10 Crore | : 21 days |
| (iii) | If the tendered value of work exceeds Rs. 10 Crore | : 30 days |

Neither party shall claim any compensation for such eventuality. This clause is not applicable for any breach of the contract by either party.

Clause-4::

In any case in which any of the powers conferred upon the Employer under [Clause-3](#) hereof, shall have become exercisable and the same shall not be exercised, the non-exercise thereof shall not constitute a waiver of any of the conditions hereof and such powers shall notwithstanding be exercisable in the event of any future case of default by the contractor and the liability of the contractor for compensation shall remain unaffected. In the event of the Employer putting in force all or any of the powers vested in him under the preceding clause he may, if he so desires after giving a notice in writing to the contractor, take possession of (or at the sole discretion of the Employer which shall be final and binding on the contractor) use as on hire (the amount of the hire money being also in the final determination of the Employer) all or any tools, plant, materials and stores in or upon the works, or the site thereof belonging to the contractor, or procured by the contractor and intended to be used for the execution of the work/or any part thereof, paying or

allowing for the same in account at the contract rates, or, in the case of these not being applicable, at current market rates to be certified by the Engineer-in-charge/Architect, whose certificate thereof shall be final and binding on the contractor, otherwise the Employer by notice in writing may order the contractor or his clerk of the works, foreman or other authorised agent to remove such tools, plant, materials, or stores from the premises, within a time to be specified in such notice, and in the event of the contractor failing to comply with any such requisition, the Employer may cause to remove them at the contractor's expense or sell them by auction or private sale on account of the contractor and at his risk in all respects and the certificate of the Engineer-in-charge/Architect as to the expense of any such removal and the amount of the proceeds and expenses of any such sale shall be final and conclusive against the contractor.

Clause-5:: TIME AND EXTENSION FOR DELAY ::

The time allowed for execution of the Works by the Contractor as specified in the [Schedule 'F'](#) or the extended time in accordance with these conditions shall be the essence of the Contract. The execution of the works shall commence from such time period as mentioned in Schedule F or from date of handing over the site notified by the Engineer-in-Charge, whichever is later.

If the Contractor commits default in commencing the execution of the work as aforesaid, the performance guarantee shall be forfeited by the Accepting authority and shall be absolutely at the disposal of the Bank without prejudice to any other right or remedy available in law.

Clause -5.1:: Time and Progress Chart

The contractor shall submit a Time and Progress Chart and get it approved by the Engineer-in-Charge. The Chart shall be prepared in direct relation to the time stated in the Contract documents for completion of items of the works. It shall indicate the forecast of the dates of commencement and completion of various trades of sections of the work and may be amended as necessary by agreement between the Employer and the Contractor within the limitations of time imposed in the Contract documents, and further to ensure good progress during the execution of the work, the contractor shall in all cases in which the time allowed for any work exceeds one month (save for special jobs) complete 1/8th of the whole of work before 1/4th of the whole time allowed in the contract has elapsed; 3/8th of the work before one half of such time has elapsed and 3/4th before 3/4th of such time has elapsed.

In case of non-submission of construction programme by the contractor, the program approved by the Engineer-in-Charge shall be deemed to be final. The approval by the Engineer-in-Charge of such programme shall not relieve the contractor of any of the obligations under the contract.

Clause -5.2:: If the work(s) be delayed by :-

- a) Force majeure, or
- b) abnormally bad weather, or
- c) serious loss or damage by fire, or

- d) civil commotion, local commotion of workmen, strike or lockout, affecting any of the trades employed on the work, or
- e) delay on the part of other contractors or tradesmen engaged by the Employer in executing work not forming part of this Contract, or
- f) any other cause like above which, in the reasoned opinion of the authority mentioned in Schedule 'F' is beyond the Contractor's control

then upon the happening of any such event causing delay, the Contractor shall immediately give notice thereof in writing to the Authority but shall nevertheless use constantly his best endeavour to prevent or make good the delay and shall do all that may be reasonably required to the satisfaction of the Engineer-in-charge/Architect to proceed with the works.

The contractor shall have no claim of damages for extension of time granted or rescheduling of milestone/s for events listed in clause 5.2.

Clause -5.3::

In case the work is hindered, by the Employer or for any reason / event, for which the Employer is responsible, the authority as indicated in Schedule 'F' shall, give a fair and reasonable extension of time and reschedule the mile stones for completion of work. Such extension of time or rescheduling of milestone/s shall be without prejudice to any other right or remedy of the parties in contract or in law, provided further that for concurrent delays under this sub clause and sub clause 5.2 to the extent the delay is covered under sub clause 5.2 the contractor shall be entitled to only extension of time and no damages.

Clause -5.4::

Request for rescheduling of Mile stones or extension of time, to be eligible for consideration, shall be made by the Contractor in writing within fourteen days of the happening of the event causing delay to the Accepting Authority. The Contractor shall indicate in such a request the period by which rescheduling of milestone/s or extension of time is desired. With every request for rescheduling of milestones, or if at any time the actual progress of work falls behind the approved programme by more than 10% of the stipulated period of completion of contract, the contractor shall produce a revised programme without causing any delay in execution of the work. A recovery as specified in Schedule 'F' shall be made on per day basis in case of delay in submission of the revised programme.

Clause -5.4.1::

In any such case the authority as indicated in Schedule 'F' may give a fair and reasonable extension of time for completion of work or reschedule the mile stones. Engineer-in-Charge/Architect shall finalize/ reschedule a particular mile stone before taking an action against subsequent mile stone. Such extension or rescheduling of the milestones shall be communicated to the Contractor by the authority as indicated in Schedule 'F' in writing, within 21 days of the date of receipt of such request from the Contractor. In event of non-application by the contractor for extension of time Engineer-in-Charge/Architect after affording opportunity to the contractor, may give,

supported with a programme (as specified under 5.4 above), a fair and reasonable extension within a reasonable period of occurrence of the event.

Clause -5.5::

In case the work is delayed by any reasons, in the opinion of the Engineer-in-Charge/ Architect, by the contractor for reasons beyond the events mentioned in clause 5.2 or clause 5.3 or clause 5.4 and beyond the justified extended date, without prejudice to right to take action under [Clause 3](#), the Employer may grant extension of time required for completion of work without rescheduling of milestones. The contractor shall be liable for levy of compensation for delay for such extension of time.

Clause - 6::

Engineer-in-charge/Architect is duty bound to, except as otherwise provided, ascertain and determine by measurement the value of work done in accordance with the contract.

All measurement of all items having financial value shall be entered by the contractor in Computerised **Measurement Book (CMB)** and Computerised **level book (CLB)** having pages of A-4 size as per the format so that a complete record is obtained of all the items of works executed under the contract.

All such measurements and levels recorded by the contractor or his authorized representative from time to time, during the progress of the work, shall be got checked by the contractor from the Engineer-in-Charge/Architect or his/her authorized representative as per interval or program fixed in consultation with Engineer-in-Charge/Architect or his/her authorized representative.

No earthwork shall be started without recording initial ground levels in the level field book jointly signed by both the parties in token of acceptance.

In case of CMB/CLB, after the necessary corrections made by the Engineer-in-Charge/Architect or his/her authorized representative, the measurement sheets/ shall be returned to the contractor for incorporating the corrections and for resubmission to the Engineer-in-Charge/Architect for the dated signatures by the Engineer-in-Charge/Architect and the contractor or their representatives in token of their acceptance.

Whenever bill is due for payment, in case of CMB, the contractor would initially submit draft computerized measurement sheets and these measurement(s) would be got checked/ test checked from the Engineer-in-Charge and/ or his/her authorized representative. The contractor will, thereafter, incorporate such changes as may be done during these checks/ test checks in his draft computerized measurement(s) and submit to the Engineer-in-Charge/Architect a computerized measurement book, duly bound, and with its pages machine numbered.

The Engineer-in-Charge/Architect and/ or his/her authorized representative would thereafter check this CMB and record the necessary certificates for their checks/ test checks. The final, fair, computerized measurement book (CMB) / CLB given by the contractor, duly bound, with its pages machine numbered, should be 100% correct,

and no cutting or over-writing in the measurement(s) would thereafter be allowed. If at all any error is noticed, the contractor shall have to submit afresh CMB / CLB with its pages duly machine numbered and bound, after getting the earlier MB cancelled by the Engineer-in-Charge/Architect.

The contractor shall submit two spare copies of such CMBs/CLBs for the purpose of reference and record of the Bank. The contractor shall also submit to the Engineer-in-Charge/Architect separately his computerized abstract of Cost and the bill based on these measurements, duly bound, and its pages machine numbered along with two spare copies of the bill. Thereafter this bill will be processed by the Bank based on the recommendations by the Engineer-in-Charge/Architect

The contractor shall, without extra charge, provide all assistance with every appliance, labour and other things necessary for checking of measurements/levels by the Engineer-in-Charge/Architect or his/her authorized representative. Except where any general or detailed description of the work expressly shows to the contrary, measurements shall be taken in accordance with the procedure set forth in the specifications notwithstanding any provision in the relevant Standard Method of measurement or any general or local custom. In the case of items which are not covered by specifications, measurements shall be taken in accordance with the relevant standard method of measurement issued by the Bureau of Indian Standards and if for any item no such standard is available then a mutually agreed method shall be followed.

The contractor shall give not less than seven days' notice to the Engineer-in-Charge/Architect or his/ her authorized representative-in-charge of the work before covering up or otherwise placing beyond the reach of checking and/or test checking the measurement of any work in order that the same may be checked and/or test checked and correct dimensions thereof be taken before the same is covered up or placed beyond the reach of checking and/or test checking measurement and shall not cover up and place beyond reach of measurement any work without consent in writing of the Engineer-in-Charge/Architect or his/her authorized representative-in-charge of the work who shall within the aforesaid period of seven days inspect the work, and if any work shall be covered up or placed beyond the reach of checking and/or test checking measurements without such notice having been given or the Engineer-in-Charge's/Architect's consent being obtained in writing the same shall be uncovered at the Contractor's expense, or in default thereof no payment or allowance shall be made for such work or the materials with which the same was executed.

Engineer-in-Charge or his/her authorized representative may cause either themselves or through Architect to check the measurements/levels recorded by contractor and all provisions stipulated herein above shall be applicable to such checking of measurements or levels. It is also a term of this contract that checking and/or test checking the measurements/levels of any item of work in the CMB/ CLB and/or its payment in the interim, on account of final bill shall not be considered as conclusive evidence as to the sufficiency of any work or material to which it relates nor shall it relieve the contractor from liabilities from any over measurement or defects noticed till completion of the defects liability period.

Whenever any payment for lead in earthwork or any other item of work is involved as an item of work, separately or together with any other item of work, the contractor shall get the lead measured jointly by the Engineer-in-charge or his authorized representative before executing any work and obtain the approval in writing of the Engineer-in-charge failing which the lead as decided by the Engineer-in-charge and/or Employer shall be treated as final and binding on the contractor. In the case of earth work of cutting, filling and disposal, lead charts shall be prepared by the contractor giving area and quantities to be cut and filled and lead involved and got approved in writing before executing the work failing which lead charts will be prepared by the Engineer-in-charge as to cause most economic method of cut fill and shall be accepted for payment whether or not work is actually carried out by the contractor accordingly.

Clause 7::

No payment shall be made for an item of work, estimated to cost **Rs 10,00,000/-** (Rupees Ten Lakhs) or less till after the whole of the work shall have been completed and certificate of completion given.

For item of works estimated to cost over **Rs 10,00,000/- (Rupees Ten Lakhs)** the interim or running account bills shall be submitted by the contractor for the work executed on the basis of such recorded measurements on the format of the Employer in triplicates on or before the date of every month fixed for the same by the Engineer-in-charge and/or the employer. The Contractor shall not be entitled to be paid any such interim payment if the gross work done together with net payment/adjustment of advances for material collected, if any, since the last such payment is less than the amount specified in [Schedule 'F'](#), in which case the interim bill shall be prepared on the appointed date of the month after the requisite progress is achieved. Engineer-in-charge shall arrange to have the bill verified by taking or causing to be taken, where necessary, the requisite measurements of the work. In the event of the failure of the contractor to submit the bills, no claims whatsoever due to delays on payment including that of interest shall be payable to the contractor. Payment on account of amount admissible shall be made by the Engineer-in-Charge certifying the sum to which the contractor is considered entitled by way of interim payment at such rates as decided by the Employer. The amount will be paid by within **15 (fifteen) working days** after the day of presentation of the bill by the Contractor to the Engineer-in-charge under intimation to the Employer together with the account of the material issued by the Employer or dismantled materials, if any. In case of delay in payment of intermediate bills after 45 days of submission of bill by the contractor, provided the bill submitted by the contractor found to be in order, a simple interest @ **3.5%** per annum shall be paid to the contractor from the date of expiry of prescribed time limit.

All such interim payments shall be regarded as payment by way of advances against final payment only and shall not preclude the requiring of bad, unsound and imperfect or unskilled work to be rejected, removed, taken away and reconstructed or re-erected. Any certificate given by the Engineer-in-charge relating to the work done or materials delivered forming part of such payment, may be modified or corrected by any subsequent such certificate(s) or by the final certificate and shall not by itself be conclusive evidence that any work or materials to which it relates

is/are in accordance with the contract and specifications. Any such interim payment, or any part thereof shall not in any respect conclude, determine or affect in any way powers of the Accepting Authority under the contract or any of such payments be treated as final settlement and adjustment of accounts or in any way vary or affect the contract.

Pending consideration of extension of date of completion, interim payments shall continue to be made as herein provided without prejudice to the right of the employer to take action under the terms of this contract for delay in the completion of work, if the extension of date of completion is not granted by the competent authority.

In case of composite tenders, running payment for the major component shall be made by employer to the main contractor. Running payment for minor component shall be made by the employer directly to the main contractor.

In case main contractor fails to make the payment to the contractor associated by him within 15 days of receipt of each running account payment, then on the written complaint of contractor associated for such minor component, Employer shall serve the show cause to the main contractor and if reply of main contractor either not received or found unsatisfactory, employer may make the payment directly to the contractor associated for minor component as per the terms and conditions of the agreement drawn between main contractor and associate contractor fixed by him. Such payment made to the associate contractor shall be recovered by the Employer from the next R/A/ final bill due to main contractor as the case may be.

Clause - 7A ::

No Running Account Bill shall be paid for the work till the applicable labour licenses, registration with EPFO, ESIC and BOCW Welfare Board, whatever applicable are submitted by the contractor to the Employer.

Clause - 8 ::

Within ten days of the completion of the work, the contractor shall give notice of such completion to the Engineer-in- Charge/Architect and within thirty days of receipt of such notice the Engineer-in-charge/Architect shall inspect the work and if there is no defect in the work, Engineer-in-charge/Architect shall furnish the contractor with a final certificate of completion, otherwise a provisional certificate of physical completion indicating defects (a) to be rectified by the contractor and/or (b) for which payment will be made at reduced rates, shall be issued subject to approval from the Employer.

But, no final certificate of completion shall be issued, nor shall the work be considered to be complete by the employer until the contractor shall have removed from the premises on which the work shall be executed all scaffolding, surplus materials, rubbish and all huts and sanitary arrangements required for his / their work people on the site in connection with the execution of the works as shall have been erected or constructed by the contractor(s) and cleaned off the dirt from all wood work, doors, windows, walls, floor or other parts of the building, in upon, or about which the work is to be executed or of which he may have had possession

for the purpose of the execution; thereof, and not until the work shall have been measured by the Engineer-in-Charge. If the contractor shall fail to comply with the requirements of this Clause as to removal of scaffolding, surplus materials and rubbish and all huts and sanitary arrangements as aforesaid and cleaning off dirt on or before the date fixed for the completion of work, the Employer may at the expense of the contractor remove such scaffolding, surplus materials and rubbish, etc., and dispose of the same as he thinks fit and clean off such dirt as aforesaid, and the contractor shall have no claim in respect of any such scaffolding or surplus materials as aforesaid except for any sum actually realised by the sale thereof.

Clause 8A::

~~The contractor shall submit completion plans for Internal and External Civil, Electrical and Mechanical Services within thirty days of the completion of the work, provided that the service plans having been issued for execution by the Engineer-in-Charge, unless the contractor, by virtue of any other provision in the contract, is required to prepare such plans.~~

~~In case, the contractor fails to submit the completion plan as aforesaid, he shall be liable to pay a sum of 0.10 % (zero point one percent) of accepted Tendered Value or limit prescribed in [Schedule F](#) whichever is more as may be fixed by the authority as mentioned in [Schedule F](#) and in this respect the decision of the that authority shall be final and binding on the contractor.~~

Clause 9::

The Contractor shall submit the final bill in the same manner as specified in interim bills within three months of physical completion of the work or within one month of the date of the final certificate of completion furnished by the Engineer-in-charge/Architect whichever is earlier. No further claims shall be made by the contractor after submission of the final bill and these shall be deemed to have been waived and extinguished. Payments of those items of the bill in respect of which there is no dispute and for those items which are in dispute on account of quantities and/or rates as recommended by Engineer-in-Charge and approved by Employer, shall be made by the employer **within three months** reckoned from the date of receipt of the bill by the Engineer-in-charge/Architect or his authorised representative under intimation to the Employer complete with account of materials issued by the Employer and dismantled materials, if any, theoretical consumption of materials, inventory of fittings and fixtures, detailed measurements etc.

If the final bill is submitted by the contractor within the period specified above and payment of final bills is made by the Employer after prescribed time limit , a simple interest @ 3.5 % per annum shall be paid to the contractor from the date of expiry of prescribed time limit, provided the final bill submitted by the contractor is found to be in order. Interest shall be payable by the Employer on the portion of the net amount of the final bill payable as aforesaid but not paid within the stipulated period.

Clause -10:: MATERIALS SUPPLIED BY EMPLOYER ::

No materials will be supplied by the Employer.

Clause -10 A:: MATERIALS TO BE PROVIDED BY THE CONTRACTOR, TESTS

The contractor shall, at his own expense, provide all materials, required for the works other than those which are stipulated to be supplied by Employer, if any.

The contractor shall, at his own expense and without delay supply to the Engineer-in-charge/Architect samples of materials to be used on the work and shall get these approved in advance from the Engineer-in-charge/Architect and Employer. All such materials to be provided by the Contractor shall be in conformity with the specifications laid down or referred to in the contract. The contractor shall, if requested by the Engineer-in-charge and/or employer furnish proof, to the satisfaction of the Engineer-in-charge and/or employer that the materials so comply. The Engineer-in-charge/Architect in consultation with employer shall within 30 (thirty) days of supply of samples or within such further period as he may require and so intimated to the Contractor in writing, inform the Contractor whether samples are approved by him or not. If samples are not approved, the Contractor shall forthwith arrange to supply to the Engineer-in-charge for his approval, fresh samples complying with the specifications laid down in the Contract. When materials are required to be tested in accordance with specifications, approval of the Engineer-in-charge/Architect shall be issued after the test results are received and should match with the specification laid down under the contract.

The Contractor shall at his risk and cost submit the samples of materials to be tested or analysed and shall not make use of or incorporate in the work any materials represented by the samples until the required tests or analysis have been made and materials finally accepted by the Engineer-in-Charge and employer. The Contractor shall not be eligible for any claim or compensation either arising out of any delay in the work or due to any corrective measures required to be taken on account of and as a result of testing of materials.

The contractor shall, at his risk and cost, make all arrangements and shall provide all facilities as the Engineer-in-charge may require for collecting and preparing the required number of samples for such tests at such time and to such place or places as may be directed by the Engineer-in-charge/Architect and bear all charges and cost of testing charges. The Employer and/or Engineer-in-charge or his authorised representative shall at all times have the right to inspect/supervise the works and access to all workshops and places where work component is being prepared or from where materials, manufactured articles or machinery are being obtained for the works and the contractor shall afford every facility and every assistance as required by the Employer/Engineer-in-Charge in obtaining the right to such access.

The Employer shall have full powers to require the removal from the premises of all materials which in his opinion are not in accordance with the specifications, and in case of default, the Employer shall be at liberty to employ at the expense of the contractor, other persons to remove the same without being answerable or accountable for any loss or damage that may happen or arise to such materials. The Employer shall also have full powers to require other proper materials to be substituted thereof and in case of default, the Employer may cause the same to be

supplied and all cost which may attend such removal and substitution shall be borne by the Contractor.

The contractor shall at his own expense, provide a material testing lab at the site for conducting routine field tests. The lab shall be equipped at least with the testing equipment as specified in [Schedule F](#).

Clause 10-B::

- A.> SECURED ADVANCE ON MATERIALS :: No advance will be paid.
- B.> MOBILISATION ADVANCE :: No advance will be paid.
- C.> PLANT AND MACHINERY ADVANCE :: No advance will be paid.
- D.> INTEREST APPLICABILITY :: Not applicable for the present case

Clause - 10 C:: ESCALATION:

The rate quoted shall be firm throughout the tenure of the contract including extension of time, if any, granted and will not be subject to any fluctuation due to increase in cost of materials, labour, etc. or any other tax. There shall be **NO ESCALATION** on the quoted rates.

The basic rates indicated in Schedule of quantities (SOQ) for material is only to facilitate the Employer to select the material. Any variation in the market price shall be absorbed by the contractor & no extra is payable by Employer.

~~Clause - 10 CC:: PRICE ADJUSTMENT FOR WORKS~~

~~If the prices of materials and/or wages of labour required for execution of the work increase, the contractor shall be compensated for such increase as per provisions detailed below and the amount of the contract shall accordingly be varied, subject to the condition that such compensation for escalation in prices and wages shall be available only for the work done during the stipulated period of the contract including the justified period extended under the provisions of clause 5 of the contract without any action under clause 2. Such compensation for escalation in the prices of materials and labour, when due, shall be worked out based on the following provisions:~~

- ~~(i) The base date for working out such escalation shall be the last stipulated date of receipt of tenders including extension, if any.~~
- ~~(ii) The cost of work on which escalation will be payable shall be reckoned as below:~~
 - ~~(a) Gross value of work done up to this quarter : (A)~~
 - ~~(b) Gross value of work done up to the last quarter : (B)~~
 - ~~(c) Gross value of work done since previous quarter (C) = (A-B)~~

~~(d) Full assessed value of Secured Advance fresh paid in this quarter : (D)~~

~~(e) Full assessed value of Secured Advance recovered in this quarter : (E)~~

~~(f) Full assessed value of Secured Advance for which escalation Payable in this quarter, (F) = (D-E)~~

~~(g) Advance payment made during this quarter: (G)~~

~~(h) Advance payment recovered during this quarter: (H)~~

~~(i) Advance payment for which escalation is payable in this Quarter (I) = (G-H)~~

~~(j) Amount paid based on prevailing market rates due to deviations/variations as per clause 12 during this quarter: (J)~~

~~Then, M = C+F+I-J~~

~~Cost of work for which escalation is applicable (W) = 0.85M~~

~~Components for materials, labour, etc. shall be pre-determined for every work and incorporated in the conditions of contract attached to the tender documents included in Schedule 'F'. The decision of the Engineer in Charge in working out such percentage shall be binding on the contractors.~~

~~(iii) The following principles shall be followed while working out the payment/recovery on account of variation of prices of materials and/ or wages of labour.~~

~~(a) The compensation for escalation shall be worked out at quarterly intervals and shall be with respect to the cost of work done as per bills paid during the three calendar months of the said quarter. The date of submission of bill by the contractor to the Engineer-in-charge shall be the guiding factor to decide the bills relevant to the quarterly interval. The first such payment shall be made at the end of three months after the month (excluding the month in which the letter of commencement of work is issued by the Engineer-in-Charge) and thereafter at three months' interval. At the time of completion of the work, the last period for payment might become less than 3 months, depending on the actual date of completion.~~

~~(b) The indices as defined below (excluding LI) relevant to any quarter/period for which such compensation is to be paid shall be the arithmetical average of the indices relevant to the three calendar months. If the period up to the date of completion after the quarter covered by the last such installment of payment, is less than three months, the indices shall be the average of the indices for the months falling within that period.~~

~~(c) The minimum wage of an unskilled Mazdoor shall be the higher of the wage notified by Government of India, Ministry of Labour and that notified by the local administration both relevant to the place of work and the period of reckoning.~~

- (d) ~~The escalation for labour also shall be paid at the same quarterly intervals when escalation due to increase in cost of materials is paid under this clause. If such revision of minimum wages takes place during any such quarterly intervals, the escalation compensation shall be payable at revised rates only for work done in subsequent quarters;~~
- (e) ~~Irrespective of variations in minimum wages of any category of labour, for the purpose of this clause, the variation in the rate for an unskilled Mazdoor alone shall form the basis for working out the escalation compensation payable on the labour component.~~
- (iv) ~~In the event the price of materials and/or wages of labour required for execution of the work decreases, there shall be a downward adjustment of the cost of work so that such price of materials and/or wages of labour shall be deductible from the cost of work under this contract and in this regard the formula herein stated below under this Clause 10CC shall mutatis mutandis apply.~~
- (v) ~~The contract price shall be adjusted for increase or decrease in rates and prices of labour, cement, steel reinforcement bar, fuel and lubricants and other input materials as per percentage of materials/labour specified in schedule F and in accordance with the principles, procedures and formulae specified below:~~
- (a) ~~Price adjustment for change in cost shall be paid in accordance with the following formulae:~~

i) ~~For Construction period of this work:~~

$$\Delta W = W * (1/100) * [C_p * (C_i - C_0) / C_0 + L_p * (L_i - L_0) / L_0 + CM_p * (CM_i - CM_0) / CM_0 + EM_p * (EM_i - EM_0) / EM_0 + F_p * (F_i - F_0) / F_0 + S_p * (S_i - S_0) / S_0 + B_p * (B_i - B_0) / B_0]$$

ii) ~~For Maintenance period of this work:~~

$$\Delta W = W * (1/100) * [L_p * (L_i - L_0) / L_0 + CM_p * (CM_i - CM_0) / CM_0 + EM_p * (EM_i - EM_0) / EM_0 + B_p * (B_i - B_0) / B_0]$$

~~(* means multiplication)~~

~~Where, W=cost of work done as per para (ii) above.~~

~~ΔW (Variation of cost of Work) = Increase or decrease in the cost of works during the period under consideration due to change in the rates for relevant components.~~

~~Percentage components of materials & labour as specified in the schedule F are defined~~

~~as under:-~~

~~C_p – Cement component,~~

~~L_p – Labour component,~~

~~CM_p – Civil component of other construction materials,~~

~~EM_p – E & M component of construction materials~~

~~F_p – POL (Diesel) component~~

~~S_p – Reinforcement steel bars/TMT bars/structural steel (including strands and cables) component~~

~~B_p – Bitumen component~~

~~Indices for various components of materials & labour to be used for the purpose of this Clause are defined as under:~~

~~C₀ – Wholesale Price Index for Pozzolana Cement published by office of the Economic Adviser, Ministry of Industry & Commerce valid for the month of last date of receipt of tender including extension, if any.~~

~~C_i – Wholesale Price Index for Pozzolana Cement published by office of the Economic Adviser, Ministry of Industry & Commerce for the period under consideration.~~

~~L₀ – Minimum daily wage in rupees of an unskilled adult mazdoor, fixed under any law, statutory rule or order as on the last date of receipt of tender including extension, if any.~~

~~L_i – Minimum wage in rupees of an unskilled adult mazdoor, fixed under any law, statutory rule or order as applicable on the last date of the quarter previous to the one under consideration.~~

~~CM₀ – Price Index for civil components of other construction materials valid for the month of the last date of receipt of tender including extension, if any, as issued by the office of CE CSQ (Civil) or successor.~~

~~CM_i – Price Index for civil components of other construction materials for the period under consideration and as issued by the office of CE CSQ (Civil) or successor.~~

~~EM₀ – Price Index for E & M components of construction materials valid for the month of the last date of receipt of tender including extension, if any, as issued by the office of CE CSQ (Electrical) or successor.~~

~~EM_i – Price Index for E & M components of construction materials for the period under consideration and as issued by the office of CE CSQ (Electrical) or successor.~~

~~F₀ = Wholesale Price Index of HSD (High Speed Diesel) published by office of the Economic Adviser, Ministry of Industry & Commerce valid for the month of the last date of receipt of tender including extension, if any~~

~~F₁ = Wholesale Price Index of HSD (High Speed Diesel) published by office of the Economic Adviser, Ministry of Industry & Commerce for the period under consideration.~~

~~S₀ = Wholesale Price Index of Mild Steel-long products published by office of the Economic Adviser, Ministry of Industry & Commerce valid for the month of the last date of receipt of tender including extension, if any~~

~~S₁ = Wholesale Price Index of Mild Steel-long products published by office of the Economic Adviser, Ministry of Industry & Commerce for the period under consideration.~~

~~B₀ = Wholesale Price Index of Bitumen published by office of the Economic Adviser, Ministry of Industry & Commerce valid for the month of the last date of receipt of tender including extension, if any~~

~~B₁ = Wholesale Price Index of Bitumen published by office of the Economic Adviser, Ministry of Industry & Commerce for the period under consideration.~~

~~(vi) Provided always that:~~

~~(a) Where provisions of clause 10CC are applicable, provisions of clause 10C will not be applicable.~~

~~(b) Where provisions of clause 10CC are not applicable, provisions of clause 10C will become applicable.~~

Clause -10 D::

The contractor shall treat all materials obtained during dismantling of a structure, excavation of the site for a work, etc. as employer's property unless otherwise specified and such materials shall be handed over or disposed off to the best advantage of the Employer according to the instructions in writing issued by the Engineer-in-Charge/Architect.

Clause -11::

The contractor shall execute the whole and every part of the work in the most substantial and workmanlike manner and both as regards materials and otherwise in every respect in strict accordance with the specifications. "The contractor shall also conform exactly, fully and faithfully to the design, drawings and instructions in writing in respect of the work signed by the Engineer-in-charge and approved by employer and the Contractor shall be furnished free of charge one copy of the contract documents together with specifications, designs, drawings and instructions as are not included in the standard specifications of Schedule 'F' or in any Bureau of

Indian Standard or any other, published standard or code or Schedule of Rates or any other printed publication referred to elsewhere in the contract.

The contractor shall comply with the provisions of the contract and with due care and diligence execute and maintain the works and provide all labour and materials, tools and plants including for measurements and supervision of all works, structural plans and other things of temporary or permanent nature required for such execution and maintenance in so far as the necessity for providing these, is specified or is reasonably inferred from the contract.

The Contractor shall take full responsibility for adequacy, suitability and safety of all the works and methods of construction.

Clause - 12:: DEVIATION/ VARIATIONS EXTENT & PRICING ::

The Employer and /or the Engineer- in- Charge with the specific approval of the employer shall have power:-

- (i) to make alteration in, omissions from, additions to or substitutions for the original specifications, drawings, designs and instructions that may appear to him to be necessary or advisable during the progress of the work, and
- (ii) to omit a part of the works or Item of the works or reduce the quantity in case of non-availability of a portion of the site or for any other reasons and the contractor shall be bound to carry out the works in accordance with any instructions given to him in writing signed by the Engineer-in-charge and such alterations, omissions, additions or substitution shall form part of the contract as if originally provided therein and any altered, additional or substituted work which the contractor may be directed to do in the manner specified above as part of the works, shall be carried out by the contractor on the same conditions in all respects including price on which he agreed to do the main work without any extra compensation except as hereafter provided :
 - (a) No work which radically changes the original nature of the contract shall be ordered by the Engineer-in-charge as a deviation.
 - (b) In the event of any deviation being ordered which in the opinion of the Contractor changes the original nature of the Contract, he shall within fifteen days of having been so ordered bring this to the notice of the Engineer-in-charge and Employer with the reasons but nevertheless carry it out and the disagreement as to the nature of work and the rate to be paid therefore shall be resolved in accordance with [Clause 25](#).

Clause -12.1::

The time for completion of the works shall, in the event of any deviations resulting in additional cost over the contract sum being ordered, be extended by the employer if requested by the Contractor as follows ::

- a) In the proportion which the additional cost of the altered, additional or substituted work, bears to the original Contract sum plus

- b) 25% of the time calculated in (a) above or such further additional time as may be considered reasonable by employer on the recommendations of the Engineer-in-Charge.

Rates for such altered, additional or substituted work shall be determined by the Employer as follows on the recommendations of Engineer-in-Charge:

- (i) If the rate for altered, additional or substituted item of work is specified in the Schedule of Quantities, the Contractor shall carry out the altered, additional or substituted item at the same rate. In the case of composite Tenders, where two or more schedules of quantities may form part of the contract, the applicable rate shall be taken from the schedule of quantities of that particular part in which the deviation is involved, failing that at the lowest applicable rate for the same item of work in the other Schedules of Quantities.
- (ii) If the rate for any altered, additional or substituted item of work is not specified in the Schedule of Quantities, the rate for that item shall be derived from the rate for the nearest similar item specified therein. In case of composite Tenders where two or more schedule of quantities form part of the contract, the rate shall be derived from the nearest similar item in the Bills of Quantities of the particular part of works in which the deviation is involved failing that from the lowest of the nearest similar items in other schedule of quantities.
- (iii) If the rate for altered, additional or substituted item of work cannot be determined in the manner specified in sub-para (i) and (ii) above, then such item of works shall be carried out at the rate entered in the Schedule 'F' plus/minus the percentage by which the tendered amount of the work actually awarded is higher or lower than the estimated amount of the works actually awarded.
- (iv) If the rate for any altered, additional or substituted item of work cannot be determined in the manner specified in sub-para (i) to (iii) above, then the rate for such item of work shall be derived from the Schedule of Rates specified in sub-para (iii) above plus/minus the percentage mentioned in the sub-para (iv). In the case of materials issued by the Employer, issue rates of materials with storage charges recovered, enhanced by two and a half percent for profits and overheads shall be adopted in place of schedule Rate plus percentage specified in sub-para(iii), Provided always that if rate(s) for part (s) of an item (s) for such part(s) shall be determined by the Engineer-in-charge on the basis of the purchase price as supported by the vouchers plus ten per cent for profits and overheads unless the Engineer-in-charge finds the purchase price unreasonable. In the latter event the price shall be determined on the basis of market rate(s) prevailing during the fortnight following the date of the order plus ten per cent for profit and overhead.
- (v) If the rate for any altered, additional or substituted item of work cannot be determined in the manner specified in Sub-para (i) to (iv) above, the Contractor shall, within 15 days of the date of receipt of the order to carry out

the said work or occurrence of the item(s) , inform the Engineer-in-charge of the rate which he proposes to claim for such item of work, supported with proper analysis of rate and manufacturer's specification for the work, invoices, vouchers, etc. (as applicable) of the rate claimed, and the Engineer-in-charge shall within **45 days** thereafter, after giving due consideration to the rate claimed by the Contractor, determine the rate on the basis of market rate(s). In the event of the Contractor failing to inform the Engineer-in-charge within the stipulated period of time, the rate which he proposes to claim, the rate for such item shall be determined by the Engineer-in-charge on the basis of market rate (s) only. The rate(s) of extra items so determined by the Engineer-in-Charge in the manner specified in sub-paras (i) and (v) above is subject to final clearance from employer and the rate thus arrived is binding on the contractor, and shall not be arbitrable.

(vi) A. Except in case of items relating to foundations as it exists at the time of commencement of work as per Clause B as under, the quantities of which may change due to site conditions, provisions contained in sub-conditions (i) to (v) above shall not apply to :-

(a) that value of any contract item, substituted item or contract-cum-substituted item as is in excess of the original value of the item plus the percentage mentioned in [Schedule `F`](#) or **Rs.20,000/-** whichever is higher (Applicable to Lump sum Contract, Measurement Contract based on item rates and percentage Rate Contracts).

(b) The value of all items not already included in the Contract, as is in excess of the percentage mentioned in [Schedule `F`](#) or **Rs.40,000/-** whichever is higher (Applicable to Lump-sum-Contracts only).

(c) the value of all items not already included in the Contract, as is in excess of the percentage mentioned in Schedule F of the Contract.

(vi) B. In case of items relating to foundations as it exists at the time of commencement of work, quantities of which may change due to site conditions, provisions contained in sub-conditions (i) to (v) above shall not apply to

(a) Value of any items of any individual trade which exceed by more than the percentage maintained in [Schedule `F`](#) of the value of that trade included in the Contract as a whole, unless the Contractor and the Engineer-in-charge with approval of Employer agree to a higher percentage for any particular item.

(b) The value of item not included in the Contract in excess of 5% of the contract sum or **Rs.40,000/-** whichever is higher.

NOTE ::- Individual trade means the sub-heads into which the Schedule of Quantities as provided in the Contract has been divided and in the absence of any such provision in the contract the sub-heads as given in the Schedule of Rates.

Clause -12.1.2::

For the purpose of operation of clause 12.1 (vi), the following works shall be treated as works relating to foundation.

- (a) For buildings, compound walls plinth level or 1.2 metres (4 feet) above ground level whichever is lower excluding items of flooring and D.P.C. but including base concrete below the floors.
- (b) For abutments, piers, retaining walls of culverts and bridges, walls of water reservoirs the bed of floor level.
- (c) For retaining walls where floor level is not determined, 1.2metres above the average ground level or bed level.
- (d) For roads all items of excavation and filling including treatment of sub-base and soling work.

Clause -12.2 ::

In the case of contract items, substituted items, contract cum substituted items or additional items which exceed the limits laid down in sub para (vi) of Condition 12.1 above, the contractor may, within fifteen days of receipt of order or occurrence of the excess claim revision of the rates, supported by proper analysis, for the work in excess of the above mentioned limits, provided that if the rates so claimed are in excess of the rates specified in the Schedule of Quantities, inform the Engineer-in-Charge under the advice to the Accepting Authority. Engineer-in-charge shall, within sixty days of receipt of the claims supported by analysis, after giving consideration to the analysis of the rates submitted by the contractor, determine the rates on the basis of the market rates and the contractor shall be paid in accordance with the rates so determined. In the event of the contractor failing to claim revision of rates within the stipulated period, or if the rates determined by the Engineer-in-charge, No claims shall be entertained after the settlement of the final bills.

Clause -12.3::

The provisions of the preceding paragraph shall also apply to the decrease in the rates of items for the work in excess of the limits laid down in sub para (vi) of Condition 12.1 in accordance with the provisions or sub-paras (i) to (iv) of Condition 12.1 and the Engineer-in-charge may after giving notice to the contractor within one month of the occurrence of the excess and after taking into consideration any reply received from him within fifteen days of receipt of the notice **revise the rates** for the work in question within **one month** of expiry of the said period of fifteen days having regard to the market rates.

Clause -12.4::

The contractor shall send to the Engineer-in-charge once every three months an up to date account giving complete details of all claims for additional payments to which the contractor may consider himself entitled and of all additional work ordered by the Engineer-in-charge under the advice to the Accepting Authority which he has executed during the preceding quarter failing which the contractor shall be deemed to have waived his right and to have no claim in the matter.

Clause -12.5 ::

No increase or decrease of rates under clause 12.1, 12.2 and 12.3 shall be made unless within the stipulated period after the order of variation and before the commencement of such quantities a notice shall have been given in writing by the party claiming increase or decrease of rates.

Clause -13:: FORECLOSURE OF CONTRACT IN FULL OR IN PART

- (i) The employer shall give notice in writing at any time after acceptance of the Tender, if the Employer shall decide to abandon or reduce the scope of the works for any reason whatsoever and hence not require the whole or any part of the works to be carried out, to that effect to the Contractor and the contractor shall act accordingly in the matter and the Contractor shall have no claim to any payment of compensation or otherwise whatsoever, on account of any profit or advantage which he might have derived from the execution of the works in full but which he did not derive in consequence of the foreclosure of the whole or part of the works.
- (ii) The employer may pay to the Contractor at Contract rates full amount for works executed at Site and, in addition, a reasonable amount as certified by the Engineer-in-charge for the Items hereunder mentioned which could not be utilised on the work to the full extent in view of the foreclosure and the contractor expressly agrees for such payment without demur.
 - (a) Any expenditure incurred on preliminary site work, e.g., temporary access roads, temporary labour huts, staff quarters and site office.
 - (b) Employer shall have the option to take over Contractor's materials or any part thereof either brought to site or of which the Contractor is legally bound to accept delivery from suppliers (for incorporation in or incidental to the work). For materials taken over or to be taken over by the Employer cost of such materials as detailed by Engineer-in-charge and approved by employer shall be paid. The cost shall, however, take into account purchase price, cost of transportation and deterioration or damage which may have been caused to materials whilst in the custody of the Contractor.
 - (c) Reasonable compensation for transfer of T & P from Site to Contractor's permanent stores or to his other Works, whichever is less. If T & P are not transported to either of the said places, no cost of transportation shall be payable.
 - (d) Reasonable compensation for repatriation of Contractor's Site staff and imported labour to the extent necessary.

The contractor shall, if required by the Engineer- in-Charge, furnish to him, books of account, wage books, time sheets and other relevant documents and evidence as may be necessary to enable him to certify the reasonable amount payable under this condition.

The reasonable amount of items on (a), (c) and (d) above shall not be in excess of 2% of the cost of the work remaining incomplete on the date of closure, i.e., total stipulated cost of the work as per accepted Tender less the cost of work actually executed under the contract and less the cost of contractor's materials at site taken over by the Employer as per item (b) above. Provided always that against any payments due to the contractor on this account or otherwise, the Employer shall be entitled to recover to be credited with any outstanding balances due from contractor for advances paid in respect of any tool, plants and materials and any other sums which at the date of termination were recoverable by the employer from the contractor under the terms of the contract.

In the event of action being taken under Clause 13 to reduce the scope of work, the contractor may furnish fresh Performance Guarantee on the same conditions, in the same manner and at the same rate for the balance tendered amount and initially valid up to the extended date of completion or stipulated date of completion if no extension has been granted plus minimum 60 days beyond that. Wherever such a fresh Performance Guarantee is furnished by the contractor the Employer may return the previous Performance Guarantee.

- (iii) If any materials supplied by the Employer are rendered surplus, the same except normal wastage shall be returned by the Contractor to the Employer at the rates not exceeding those at which these were originally issued less allowance for any deterioration or damage which may have been caused whilst the materials were in the custody of the Contractor. In addition cost of transporting such materials from site to the Employers stores, if so required by the Employer shall be paid.

Clause -14:: CANCELLATION OF CONTRACT IN FULL OR PART ::

If contractor ::

- (a) at any time makes default during currency of work or does not execute any part of the work with due diligence and continues to do so even after a notice in writing of 7 working days from the Employer and /or Engineer-in-Charge; or
- (b) commits default in complying with any of the terms and conditions of the Contract and does not remedy it or take effective steps to remedy it within 7 working days even after a notice in writing is given in that behalf by the Employer and/or Engineer-in-Charge; or
- (c) fails to complete the works or items of work with individual dates of completion, on or before the date(s) so determined, and does not complete them within the period specified in the notice given in writing in that behalf by the Employer and or Engineer-in-Charge; or
- (d) the Accepting Authority without invoking action under clause 3 may, without prejudice to any other right or remedy which have either accrued or accrue thereafter to the Employer, by a notice in writing cancel the contract as a whole or only such of items in default from the Contractor.

The accepting authority shall on such cancellation by the appellate authority have powers to, for which the Contractor shall hereby unconditionally agree ::

- (a) to take possession of the Site and any materials, constructional plant, implements, stores, etc., thereon; and/or
- (b) to carry out the part work/ part incomplete work of any item(s) by any means at the risk and cost of the Contractor.

On cancellation of the Contract in full or in part, the Employer through the Engineer-in-charge shall determine the amount, if any, is recoverable from the Contractor for completion of the part work/ part incomplete Work of any item(s) taken out of his hands and execute at the risk and cost of the contractor the liability of contractor on account of loss or damage suffered by Employer because of action under this clause shall not exceed 10% of the tendered value of the work.

In determining the amount, credit shall be given to the Contractor with the value of work done in all respect in the same manner and at the same rate as if it had been carried out by the original contractor under the terms of his contract, the value of contractor's materials taken over and incorporated in the work and use of plant and machinery belonging to the contractor.

The certificate of the Engineer-in-Charge, with approval of Accepting Authority, as to the value of work done shall be final and conclusive against the contractor provided always that action under this clause shall only be taken after giving notice in writing to the contractor. Provided also that if the expenses incurred by the Bank are less than the amount payable to the contractor at his agreement rates, the difference shall not be payable to the contractor.

Any excess expenditure incurred or to be incurred by the Employer in completing the part Work/ part incomplete Work of any item(s) or the excess loss or damages suffered or may be suffered by the Employer as aforesaid after allowing such credit shall without prejudice to any other right or remedy available to Employer in law or as per agreement be recovered from any money due to the Contractor on any account, and if such moneys are not sufficient the Contractor shall be called upon in writing and shall be liable to pay the same within 30 days.

If the Contractor fails to pay the required sum within the aforesaid period of 30 days, the Employer shall have the right to sell any or all of the Contractor's unused materials, constructional plant, implements, temporary buildings at site etc. and adjust the proceeds of sale thereof towards the dues recoverable from the Contractor under the Contract and if thereafter there be any balance outstanding from the Contractor, it shall be recovered in accordance with the provisions of the Contract.

Any sums in excess of the amounts due to the Employer and unsold materials, constructional plant, etc., shall be returned to the Contractor, provided always that if cost or anticipated cost of completion by the Employer of the Works or part of the Works is less than the amount which the Contractor would have been paid had he completed the Works or part of the Works, such benefit shall not accrue to the Contractor.

In the event of above course being adopted by the Employer, the contractor shall have no claim to compensation for any loss sustained by him by reason of his having purchased or procured any materials or entered into any engagements or made any advance on any account or with a view to the execution of the work or the performance of the contract.

Clause -15 :: SUSPENSION OF WORK ::

a) The Contractor shall, on receipt of the order in writing of the Employer (whose decision shall be final and binding on the Contractor), suspend the progress of the Works or any part thereof for such time and in such manner as the Employer may consider necessary so as not to cause any damage or injury to the work already done or endanger the safety thereof for any of the following reasons ::

- (i) on account of any default on the part of the Contractor; or
- (ii) for proper execution of the works or part thereof for reasons other than the default of the Contractor; or
- (iii) for safety of the Works or part thereof.

The Contractor shall, during such suspension, properly protect and secure the Works to the extent necessary and carry out the instructions given in that behalf by the Employer and/or the Engineer-in-Charge.

b) If the suspension is ordered for reasons (ii) and (iii) in sub para (a) above.

- (i) the contractor shall be entitled to an extension of time equal to the period of every such suspension PLUS 25%, for completion of the item or group of items of work for which a separate period of completion is specified in the Contract and of which the suspended work forms a part ;

and

- (ii) If the total period of all such suspensions in respect of an item or group of items of work for which a separate period of completion is specified in the Contract exceeds thirty days, the Contractor shall, in addition, be entitled to such compensation as the Employer may consider reasonable, in respect of salaries and/or wages paid by the Contractor to his employees and labour at Site, remaining idle during the period of suspension, adding thereto the percentage mentioned in [Schedule `F`](#) to cover all other expenses including indirect expenses of the Contractor, provided the Contractor submits his claim supported by details to the Employer within fifteen days of the expiry of the period of 30 days.

c) If the Works or part thereof is suspended on the orders of the Employer for more than three-months at a time, except when suspension is ordered for reason (i) in sub-para (a) above, the Contractor shall after receipt of such order serve a written notice on the Employer requiring permission within fifteen days from receipt by the Employer of the said notice, to proceed with the Works or part thereof in regard to which progress has been suspended. If such permission is

not granted within that time, the Contractor, if he intends to treat the suspension, where it affects only a part of the works as an omission of such part by the Employer or where it affects whole of the Works, as an abandonment of the Works by the Employer shall within ten days of expiry of such period of 15 days give notice in writing of his intention to the Employer. In the event of the Contractor treating the suspension as an abandonment of the Contract by the Employer, he shall have no claim to payment of any compensation on account of any profit or advantage which he might have derived from the execution of the work in full but which he could not derive in consequence of the abandonment. He shall, however, be entitled to such compensation, as the Employer arrived through the Engineer-in-charge and/or otherwise may consider reasonable, in respect of salaries and/or wages paid by him to his employees and labour at Site, remaining idle in consequence adding to the total thereof the percentage mentioned in [Schedule `F`](#) to cover all other expenses including indirect expenses of the Contractor provided the contractor submits his claim supported by details to the Employer within 30 days of the expiry of the period of 3 months.

Provided, further, that the contractor shall not be entitled to claim any compensation from the Employer for the loss suffered by him on account of delay by the Employer in the supply of materials in Schedule `B` where such delay is covered by difficulties relating to the supply of wagons, force majeure including non-allotment of such materials by controlling authorities, acts of God, acts of enemies of the state/country or any reasonable cause beyond the control of the Employer.

Clause -16:: INSPECTION ::

(i) All works under or in course of execution or executed in pursuance of the Contract shall be at all times be open and accessible to the inspection and supervision of the Employer and/ or Engineer-in-charge and his authorised subordinates in charge of the work, representative of any Quality Control Organisation/ other agencies/ institutions engaged by Employer, any other Consultant authorised by the Employer and Chief Technical Examiner's Office under Central Vigilance Commission.

(ii) The Contractor shall at all times during the usual working hours and at all other times at which reasonable notice of the visit of such officers has been given to the contractor, either himself be present to receive orders and instructions or have a responsible agent duly accredited in writing, present for that purpose. Orders given to the contractor's agent shall be considered to have the same force as if they had been given to the Contractor himself.

(iii) If it shall appear to the Employer and/ or Engineer-in-charge and his authorised subordinates in charge of the work, representative of any Quality Control Organisation/ other agencies/ institutions engaged by Employer, any other Consultant authorised by the Employer and Chief Technical Examiner or his subordinate officers, that any work has been executed with unsound, imperfect, or unskillful workmanship, or with materials or articles provided by him for the execution of the work which are unsound or of a quality inferior to that contracted or otherwise not in accordance with the contract, the contractor shall, on demand in writing, which shall be made within twelve months of the completion of the work,

from the Employer and/or Engineer-in-charge specifying the work, materials or articles complained of notwithstanding that the same may have been passed, certified and paid for forthwith rectify, or remove and reconstruct the work so specified in whole or in part, as the case may require or as the case may be, remove the materials or articles so specified and provide other proper and suitable materials or articles at his own charge and cost. In the event of the contractor failing to do so within a period specified by the Employer / Engineer-in-charge in his demand aforesaid, then the contractor shall be liable to pay compensation at the same rate as under the [clause 2](#) (for non-completion of the work in time) for this default.

In such case the Engineer-in-charge and/ or employer may not accept the item of work at the rates applicable under the contract but may accept such items at reduced rates as the Employer may consider reasonable during the preparation of on account bills or final bill if the item is so acceptable without detriment to the safety and without substantially affecting the utility of the item and the structure or he may reject the work outright without any payment and/or get it and other connected and incidental items rectified, or removed and re-executed at the risk and cost of the contractor. Decision of the Employer to be conveyed in writing in respect of the same will be final and binding on the contractor.

Clause -17:: CONTRACTOR LIABLE FOR DAMAGES, DEFECTS DURING DEFECT LIABILITY PERIOD

If the contractor or his working people or servants shall break, deface, injure or destroy any part of building in which they may be working, or any building, road, road kerb, fence, enclosure, water pipe, cables, drains, electric or telephone post or wires, trees, grass or grassland, or cultivated ground contiguous to the premises on which the work or any part is being executed, or if any damage shall happen to the work while in progress, from any cause whatever or if any defect, shrinkage or other faults appear in the work within twelve months after a certificate final or otherwise or its completion shall have been given by the Employer as aforesaid arising out of defect or improper materials or workmanship the contractor shall upon receipt of a notice in writing on that behalf make the same good at his own expense or in default the Employer cause the same to be made good by other workmen and deduct the expense from any sums that may be due or at any time thereafter may become due to the contractor, or from his security deposit or the proceeds of sale thereof or of a sufficient portion thereof. The security deposit of the contractor shall not be refunded before the expiry of twelve months after the issue of the certificate final or otherwise, of completion of work, or till the final bill has been

prepared and passed whichever is later. Provided that in the case of road work, if in the opinion of the Engineer-in-Charge with approval of the Employer, half of the security deposit is sufficient, to meet all liabilities of the contractor under this contract, half of the security deposit will be refundable after six months and the remaining half after twelve months of the issue of the said certificate of completion or till the final bill has been prepared and passed whichever is later.

In case of Maintenance and Operation works of E&M services, the security deposit deducted from contractors shall be refunded within one month from the date of final

payment or within one month from the date of completion of the maintenance contract whichever is earlier.

Clause -18::

The contractor shall provide at his own cost all materials (except such special materials, if any as may in accordance with the contract be supplied by the Employer), machinery, plant, tools, appliances, implements, ladders, cordage, tackle, scaffolding and temporary works required for the proper execution of the work, whether original, altered or substituted and whether included in the specification or other documents forming part of the contract or referred to in these conditions or not, or which may be necessary for the purpose of satisfying or complying with the requirements of the Engineer-in-charge as to any matter as to which under these conditions he is entitled to be satisfied, or which he is entitled to require together with carriage therefore to and from the work. The contractor shall also supply without charge the requisite number of persons with the means and materials, necessary for the purpose of setting out works, and counting, weighing and assisting the measurement for examination at any time and from time to time of the work or materials. Failing his so doing, the same may be provided by the Employer to Engineer-in-charge at the expense of the contractor and the expenses may be deducted, from any money due to the contractor, under this contract or otherwise and /or from his security deposit or the proceeds of sale thereof, or of a sufficient portions thereof.

Clause -18 A::

In every case in which by virtue of the provisions sub-section (1) of Section 12, of the Workmen's Compensation Act, 1923, Employer is obliged to pay compensation to a workman employed by the contractor, in execution of the works, Employer shall be entitled to recover from the contractor, the amount of the compensation so paid; and, without prejudice to the rights of the Employer under sub-section (2) of Section 12, of the said Act, Employer shall be at liberty to recover such amount or any part thereof by deducting it from the security deposit or from any sum due by the Employer to the contractor whether under this contract or otherwise. The Employer shall not be bound to contest any claim made against it under sub-section (1) of Section 12, of the said Act, except on the written request of the contractor and upon his giving to the Employer full security for all cost for which the Employer might become liable in consequence of contesting such claim.

Clause -18 B::

In every case in which by virtue of the provisions of the Contract Labour (Regulation and Abolition) Act 1970, and of the Contract Labour (Regulation and Abolition) Central Rules, 1971, the Employer is obliged to pay any amounts of wages to a workman employed by the contractor in execution of the works, or to incur any expenditure in providing welfare and health amenities required to be provided under the above said Act and the rules under Clause 19H or under the Contractors' Labour Regulations, or under the Rules framed by the State or Central Government from time to time for the protection of health and sanitary arrangements for workers employed by the Contractors, the Employer shall be entitled to recover from the contractor the amount of wages so paid or the amount of expenditure so incurred; and without prejudice to the rights of the

Employer under sub-Section (2) of Section 20, and sub-Section (4) of Section 21, of the Contract Labour (Regulation and Abolition) Act, 1970, the Employer shall be at liberty to recover such amount or any part thereof by deducting it from the security deposit or from any sum due by the Employer to the contractor whether under this contract or otherwise. The Employer shall not be bound to contest any claim made against it under sub-Section (1) of Section 20 and sub-Section (4) of Section 21, or any other provisions of the said Act, except on the written request of the contractor and upon his giving to the Employer full security for all costs for which the Employer might become liable in contesting such claim.

Clause -19::

The contractor shall comply with the provisions of the Contract Labour (Regulation and Abolition) Act, 1970, and the Contract Labour (Regulation and Abolition) Central Rules, 1971.

The contractor shall obtain a valid licence under the said above Act before the commencement of the work, and continue to have a valid license until the completion of the work.

The contractor shall also comply with provisions of the Inter-State Migrant Workmen (Regulation of Employment and Conditions of Service) Act, 1979.

The contractor shall also abide by the provisions of the Child and Adolescent Labour (Prohibition and Regulation) Act, 1986.

The contractor shall also comply with the provisions of the building and other Construction Workers (Regulation of Employment & Conditions of Service) Act, 1996 and the building and other Construction Workers Welfare Cess Act, 1996.

Any failure to fulfil these requirements shall attract the penal provisions of this contract arising out of the resultant non-execution of the work.

Clause -19 A::

No labour below the age of eighteen years shall be employed on the work.

Clause -19 B:: PAYMENT OF WAGES ::

- (i) The contractor shall pay to labour employed by him either directly or through sub-contractors, wages not less than fair wages as defined as per the provisions of the Contract Labour (Regulation and Abolition) Act 1970, and the Contract Labour (Regulation and Abolition) Central Rules, 1971 wherever applicable. Such wages paid shall not less than the wages fixed by the state and/or Central Government under the Minimum Wages Act applicable to the work. Higher amount among the existing wages to be paid.
- (ii) The contractor shall, notwithstanding the provisions of any contract to the contrary, cause to be paid fair wage to labour indirectly engaged on the work, including any labour engaged by his sub-contractors in connection with the said work, as if the labour had been immediately employed by him.

- (iii) In respect of all labour directly or indirectly employed in the works for performance of the contractor's part of this contract, the contractor shall comply with or cause to be complied with the Contractor's Labour Regulations made by Employer and/or the Government (State and Central) from time to time in regard to payment of wages, wage period, deductions from wages, recovery of wages not paid and deductions unauthorisedly made, maintenance of wage books or wage slips, publication of scale of wage and other terms of employment, inspection and submission of periodical returns and all other matters of the like nature or as per the provisions of the Contract Labour (Regulation and Abolition) Act, 1970, and the Contract Labour (Regulation and Abolition) Central Rules, 1971, wherever applicable.
- (iv)
- i. The Employer shall have the right to deduct from the moneys due to the contractor any sum required or estimated to be required for making good the loss suffered by a worker or workers by reason of non-fulfillment of the conditions of the contract for the benefit of the workers, non-payment of wages or of deductions made from his or their wages which are not justified by their terms of the contract or non-observance of the Regulations.
 - ii. Under the provision of Minimum Wages (Central) Rules 1950, the contractor is bound to allow to the labour directly or indirectly employed in the works one way rest for 6 days continuous work and pay wages at the same rate as for duty. In the event of default, the Employer shall have the right to deduct the sum or sums not paid on account of wages for weekly holidays to any labours and pay the same to the persons entitled thereto from any money due to the contractor by the Employer. In the case of the state Government or Administration of UT where all inclusive minimum daily wages are fixed under notification by the authorities (as amended from time to time) and such wages are inclusive of wages for the weekly day of rest, the question of extra payment for weekly holiday would not arise.
- (v) The contractor shall comply with the provisions of the payment of Wages Act, 1936, Minimum Wages Act, 1948, Employees Liability Act, 1938, Workmen's Compensation Act, 1923, Industrial Disputes Act, 1947, Maternity Benefits Act, 1961, and the Contractors Labour (Regulation and Abolition) Act 1970, or the modifications thereof or any other laws relating thereto and the rules made there under from time to time.
- (vi) The contractor shall indemnify and keep indemnified the Employer against payments to be made under and for the observance of the laws aforesaid and the Contractors' Labour Regulations made by Employer and/or the Government (State and Central) from time to time without prejudice to his right to claim indemnify from his sub-contractors.

- (vii) The laws aforesaid shall be deemed to be a part of this contract and any breach thereof shall be deemed to be a breach of this contract.
- (viii) Whatever is the minimum wage for the time being, or if the wage payable is higher than such wage, such wage shall be paid by the contractor to the workmen directly without the intervention of Jamadar and that Jamadar shall not be entitled to deduct or recover any amount from the minimum wage payable to the workmen as and by way of commission or otherwise.
- (ix) The Contractor shall ensure that no amount by way of commission or otherwise is deducted or recovered by the Jamadar from the wage of workmen.

Clause -19 C::

In respect of all labour directly or indirectly employed in the work for the performance of the contractor's part of this contract, the contractor shall at his own expense arrange for the safety provisions as per Government/CPWD/ Employer's safety Code framed from time to time and shall at his own expense provide for all facilities in connection therewith. In case the contractor fails to make arrangement and provide necessary facilities as aforesaid he shall be liable to pay a penalty of Rs.500/- for each default and in addition, the Employer shall be at liberty to make arrangement and provide facilities as aforesaid and recover the costs incurred in that behalf from the contractor.

Clause -19 D::

The contractor shall submit by the 4th and 19th of every month, to the Employer and Engineer-in-charge a true statement showing in respect of the second half of the preceding month and the first half of the current month respectively:-

- (1) the number of labourers employed by him on the work,
- (2) their working hours,
- (3) the wages paid to them,
- (4) the accidents that occurred during the said fortnight showing the circumstances under which they happened and the extent of damage and injury caused by them, and
- (5) the number of female workers who have been allowed Maternity Benefit according to Clause 19F and the amount paid to them.

Failing which the contractor shall be liable to pay to Employer, a sum not exceeding Rs.500/- for each default or materially incorrect statement. The decision of the Employer shall be final in deducting from any bill due to the contractor, the amount levied as fine and be binding on the Contractor.

Clause -19 E::

In respect of all labour directly or indirectly employed in the works for the performance of the contractor's part of this contract, the contractor shall comply with or cause to be complied with all the rules framed by the State and or Central

Government from time to time for the protection of health and sanitary arrangements for workers employed.

Clause -19 F::

Leave and pay during leave shall be regulated as follows:-

1. Leave :

(i) in the case of delivery - maternity leave not exceeding 8 weeks, 4 weeks up to and including the day of delivery and 4 weeks following that day,

(ii) in the case of miscarriage - upto 3 weeks from the date of miscarriage.

2. Pay :

(i) in the case of delivery - leave pay during maternity leave will be at the rate of the women's average daily earnings, calculated on total wages earned on the days when full time work was done during a period of three months immediately preceding the date on which she gives notice that she expects to be confined or at the rate of Rupee one only a day whichever is greater.

(ii) in the case of miscarriage - leave pay at the rate of average daily earning calculated on the total wages earned on the days when full time work was done during a period of three months immediately preceding the date of such miscarriage.

3. Conditions for the grant of Maternity Leave: No maternity leave benefit shall be admissible to a woman unless she has been employed for a total period of not less than six months immediately preceding the date on which she proceeds on leave.

4. The contractor shall maintain a register of Maternity (Benefit) in the Prescribed Form as shown in [Appendix-V](#) and [Appendix-VI](#), and the same shall be kept at the place of work.

The Contractor shall maintain appropriate records for LEAVE and pay during leave and the same shall be regulated as per relevant/latest labour laws. Also all mandatory registers as per the prevailing rules in this regard shall be updated regularly and kept at the place of work.

Clause -19 G :: DEFAULT AS TO REGULATIONS/RULES ::

In the event of the contractor(s) committing a default or breach of any of the provisions of Contractors' Labour Regulations and Model Rules for the protection of health and sanitary arrangements for the workers as amended from time to time or furnishing any information or submitting or filling any statement under the provisions of the above Regulations and Rules which is materially incorrect, the contractor shall, without prejudice to any other liability pay to the Employer a sum not exceeding Rs.500/- for every default, breach or furnishing, making, submitting, filing such materially incorrect statements and in the event of the contractor(s) defaulting continuously in this respect, the penalty may be enhanced to Rs.1000/- per day for each day of default subject to a maximum of 5 percent of the estimated

cost of the work put to Tender. The decision of the Employer shall be final and binding on the contractors.

Should it appear to the Engineer-in-Charge/Employer that the contractor(s) is/are not properly observing and complying with the provisions of the Contractor's Labour Regulations and Model Rules and the provisions of the Contract Labour (Regulation and Abolition) Act 1970, and the Contract Labour (R & A) Central Rules 1971, for the protection of health and sanitary arrangements for work-people employed by the contractor(s) (herein referred as "the said Rules") the Engineer-in-Charge and/or Employer shall have power to give notice in writing to the contractor(s) requiring that the said Rules be complied with and the amenities prescribed therein be provided to the work-people within a reasonable time to be specified in the notice. If the contractor(s) shall fail within the period specified in the notice to comply with and/observe the said Rules and to provide the amenities to the work-people as aforesaid, the Employer shall have the power to provide the amenities hereinbefore mentioned at the cost of the contractor(s). The contractor(s) shall erect, make and maintain at his/their own expenses and as per approved standards all necessary huts and sanitary arrangements required for his/their work-people on the site in connection with the execution of the works, and if the same shall not have been erected or constructed, according to approved standards, the Engineer-in-Charge/ Employer shall have power to give notice in writing to the contractor(s) requiring that the said huts and sanitary arrangements be remodelled and/or reconstructed according to approved standards, and if the contractor(s) shall fail to remodel reconstruct such huts and sanitary arrangements according to approved standards within the period specified in the notice, the Employer shall have the power to remodel or reconstruct such huts and sanitary arrangements according to approved standards at the cost of the contractor(s).

Clause -19 H :: ACCOMMODATION ::

The contractor(s) shall at his/their own cost provide his/their labour with sufficient accommodation facilities. Also it should satisfy with the requirements laid down by the Local health Authorities (like sufficient no. of toilets (separate for men & women), water supply, rest rooms, disposal of Excreta, drainage, sanitation, etc) and as per labours regulations for similar works.

Clause -19 - I ::

The Employer with/without the recommendation of Engineer-in-Charge may require the contractor to dismiss or remove from the site of the work any person or persons in the contractors' employ upon the work who may be incompetent or misconduct himself and the contractor shall forthwith comply with such requirements. In respect of maintenance/repair or renovation works etc. where the labour have an easy access to the individual houses, the contractor shall issue identity cards to the labourers, whether temporary or permanent and he shall be responsible for any untoward action on the part of such labour.

Clause -19- J :: ILLEGAL OCCUPATION ::

It shall be the responsibility of the contractor to see that the building under construction is not occupied by anybody unauthorised during construction, and is handed over to the Employer with vacant possession of complete building. If such

building though completed is occupied illegally, then the Employer shall have the option to refuse to accept the said building/buildings in that position. Any delay in acceptance on this account will be treated as delay in completion and for such delay, a levy upto 5% of tendered value of work may be imposed by the Accepting authority whose decision shall be final both with regard to the justification and quantum and be binding on the Contractor.

However, the Accepting authority through a notice, may require the contractor to remove the illegal occupation any time on or before construction and delivery.

Clause - 19- K ::

The contractor shall, at all stages of work, deploy skilled/semi-skilled tradesmen who are qualified and possess certificate in particular trade from Industrial Training Institute/ National Institute of construction Management and Research (NICMAR)/ National Academy of Construction, CIDC or any similar reputed and recognized Institute managed/ certified by State/Central Government. The number of such qualified tradesmen shall not be less than 20% of total skilled/semi-skilled workers required in each trade at any stage of work. The contractor shall submit number of man days required in respect of each trade, its scheduling and the list of qualified tradesmen along with requisite certificate from recognized Institute to Accepting Authority for approval. Notwithstanding such approval, if the tradesmen are found to have inadequate skill to execute the work of respective trade, the contractor shall substitute such tradesmen within two days of written notice from the Accepting Authority. Failure on the part of contractor to obtain approval of Accepting Authority or failure to deploy qualified tradesmen will attract a compensation to be paid by contractor at the rate specified by authority in schedule 'F' per such tradesman per day. Decision of Accepting Authority as to whether particular tradesman possesses requisite skill and amount of compensation in case of default shall be final and binding.

The provisions of this clause, shall not be applicable for works with estimated cost put to tender being less than Rs. 5 crores.

Clause - 19- L ::

The ESI and EPF contributions on the part of employer in respect of this contract shall be paid by the contractor.

Clause - 20 :: COMPLIANCE WITH STATUTE ::

THE Contractor shall comply with all the provisions of the Minimum Wages Act, 1948, Contract Labour (Regulation and Abolition) Act 1970, EPF & MP Act 1952, ESI Act and amendments from time to time and rules framed thereunder and other labour laws affecting contract labour that may be brought into force from time to time.

Clause - 21 :: ACTION IN CASE OF SUBLET OR INSOLVENCY ::

The contract shall not be assigned or sublet without the written approval of the Employer. And if the contractor shall assign or sublet his contract, or attempt to do so, or become insolvent or commence any insolvency proceedings or make any

composition with his creditors or attempt to do so, or if any bribe, gratuity, gift, loan, perquisite, reward or advantage pecuniary or otherwise, shall either directly or indirectly, be given, promised or offered by the contractor, or any of his servants or agent to any officer or person in the employ of the Employer in any way relating to his office or employment, or if any such officer or person shall become in any way directly or indirectly interested in the contract, the Employer shall have power to adopt any of the course specified in [Clause 3](#) hereof as he may deem best suited to the interest of the Employer and in the event of such course being adopted, the consequences specified in the said [Clause 3](#) shall ensue.

Clause - 22 :: REASONABLE COMPENSATION ::

All sums payable by way of compensation under any of these conditions shall be considered as reasonable compensation to be applied to the use of the Employer without reference to the actual loss or damage sustained and whether or not any damage shall have been sustained.

Clause - 23 :: APPROVAL FOR CHANGE IN FIRM'S CONSTITUTION ::

Where the contractor is a partnership firm, the previous approval in writing of the Employer shall be obtained before any change is made in the constitution of the firm. Where the contractor is an individual or a Hindu undivided family business concern such approval as aforesaid shall likewise be obtained before the contractor enters into any partnership agreement where under the partnership firm would have the right to carry out the works hereby undertaken by the contractor. If previous approval as aforesaid is not obtained, the contract shall be deemed to have been assigned in contravention of [Clause 21](#) hereof and the same action may be taken, and the same consequences shall ensue as provided in the said [Clause 21](#).

Clause - 24 :: LIFE CYCLE COST ::

The contractor shall be responsible for safety, quality and soundness of the buildings including structural elements beyond maintenance period. The contractor shall have obligation to rectify such defects minimum up to 5 (five) years from the date of completion of work. The defects have to be rectified within a reasonable time not exceeding forty five days after issue of notice by Employer. If contractor does not take corrective action within 45 days, then action for debarring of the agency shall be taken by the appropriate authority.

Clause - 25 :: SETTLEMENT OF DISPUTES AND ARBITRATION ::

(i) It shall be accepted as an inseparable part of the contract that in matters regarding conditions & clauses of contract, quality of materials, workmanship, removal or rejection of improper work, interpretation of the drawings and specifications, measurements of materials and/or items of work, mode of procedure and carrying out of the work, the decision of the Employer which shall be given in writing, shall be final, conclusive and binding on the contractor.

(ii)

(A) If the contractor considers any work demanded of him to be outside the requirements of the contract, or considers any drawings record or decision

given in writing by the Employer on any matter in connection with or arising out of the contract or carrying out of work, to be unacceptable, he shall promptly within 15 days request the Accepting Authority in writing for written instruction or decision. Thereon, the Accepting Authority shall give his written instructions or decision within a period of two months from the receipt of the contractor's letter.

(B) Upon receipt of such written instructions or decision the contractor shall promptly proceed without delay to comply with such instructions or decisions. If the Accepting Authority fails to give his instructions or decision in writing within a period of two months after being requested or if the contractor is dissatisfied with the instructions or decision of the Accepting Authority Employer, the Contractor may within 30 days appeal to the Appointing Authority who shall afford an opportunity to the contractor to be heard and to offer evidence in support of his appeal and give his decision in writing within a period of Thirty (30) days from the receipt of the contractor's request. If the contractor is dissatisfied with the decision of the appointing authority, then the contractor shall within a period of Thirty (30) days from receipt of the decision of the Appointing authority shall indicate his intention to refer the dispute to Arbitration, failing which the said decision of the Appointing authority shall be final and conclusive and not referable to adjudication by the Arbitrator.

(iii) That if any dispute, difference or question shall at any time arise between the parties in respect of the meaning or construction of this agreement, or covering anything therein contained or arising out of this agreement, or the validity of the enforcement thereof which cannot be settled mutually, shall within 30 days (or such longer period as may be mutually, agreed upon) from the date one party informs the other in writing that such dispute or disputes or disagreement exists, be referred to sole arbitration by a person selected by the Contractor out of the panel of three names supplied by the Bank and appointed by The General Manager, General Administration Section, Circle Office, Thiruvananthapuram within 30 days from such selection by the Contractor.

The arbitration proceedings will be conducted in accordance with and be subject to the Indian Arbitration Act 1996 as amended from time to time and the decision of the arbitrator shall be final and binding on the parties.

The Arbitrator will have his seat at Thiruvananthapuram or at such places in India as decided by the appointing authority. The Arbitrator may, with the written consent of the parties, extend time for making and publishing the award.

If the Arbitrator so appointed is unable or unwilling to act or resigns his appointment or vacates his office due to any reason whatsoever another sole Arbitrator shall be appointed in the manner aforesaid. Such person shall be entitled to proceed with the reference from the stage at which it was left by his predecessor.

The Contractor shall continue to perform his duties with diligence notwithstanding the fact that the dispute has been referred to Arbitration or any dispute or difference has arisen.

It is also the term of the agreement that if the Contractor does not make any demand for arbitration in respect of any item in writing within 90 days of receiving intimation from the Bank that the final bill is ready for payment, the claim of the Contractor will be deemed to have been waived and absolutely barred and the Bank shall be discharged and released of all liabilities under the agreement in respect of these claims.

(iv) It is term of this contract that the party invoking arbitration shall give a list of disputes with amounts claimed in respect of each such dispute along with the notice for appointment of arbitrator and giving reference to the rejection by the Appointing authority of the appeal and a copy of his notice(s) of intention to refer the dispute to arbitration of such disputes as mentioned in Part (ii) above failing which the notice for appointment of the Arbitrator shall not be treated as notice for appointing the arbitrator.

(v) It is also a term of this contract that no person other than a person appointed by Appointing authority, in charge of the work as aforesaid should act as arbitrator and if for any reason that is not possible, the matter shall not be referred to arbitration at all.

vi) It is also a term of the contract that if the contractor does not make any demand for appointment of arbitration in respect of any claims in writing as aforesaid within 90 days of receiving the intimation from the Appointing authority that the final bill is ready for payment, the claim of the contractor shall be deemed to have been waived and absolutely barred and the Employer shall be discharged and released of all liabilities under the contract in respect of these claims. No party shall be entitled to bring any claim to arbitration if the arbitrator has not been appointed before the expiry of sixty days after defect liability period.

vii) The arbitration shall be conducted in accordance with the provisions of the Indian Arbitration and Conciliation ACT 1996 , or any statutory modification or re-enactment thereof and the rules made there under and for the time being in force shall apply to the arbitration proceeding under this clause.

viii) The Arbitrator may from time to time with the consent of the parties enlarge the time for making and publishing the award.

ix) It is also a term of this contract that the Arbitrator shall adjudical on only such disputes as are referred to him by the appointing authority and give separate award against every dispute and claim referred to him and in all cases where the total amount of the claims by any party exceed the amount specified in Schedule `F` the arbitrator shall give reasons for the award separately for every dispute.

(i) It is also a term of the contract that any fees, TA, DA and other charges are payable to the Arbitrator shall be paid by both the parties equally.

(ii) The venue of the arbitration shall be such a place as may be fixed by the Arbitrator in his sole discretion.

xi) It is also a term of the contract that the Arbitrator shall be deemed to have entered on the reference on the date of first hearing. The fees, and charges of the Arbitrator shall, if required to be paid before the award is made and published, be paid half and half by each of the parties. The cost of the reference and of the award (including the fees, if any, of the Arbitrator) shall be in the discretion of the Arbitrator who may direct to and by whom and in what manner, such costs or any part thereof shall be paid and fix or settle the amount of costs to be so paid.

xii) The award of the Arbitrator shall be final and binding on both the parties.

Clause - 26:: INDEMNITY ::

The Contractor shall keep and hold the Employer indemnified and harmless from time to time and at all times against all actions, prosecutions proceedings, claims, suits, liabilities (including statutory liability), penalties, demands, charges, costs (including legal costs) and expenses, damages, losses and any other expenses which may be caused to or suffered by or made or taken against the Employer arising out of:

- i) The breach, default or non-performance of undertakings, warranties, covenants or obligations by the contractor, non-compliance of safety rules, regulations, instructions by the contractor and mishaps occurring at the site due to faulty work executed by the contractor.
- ii) Any contravention or Non-compliance with any applicable laws, regulations, rules, statutory or legal requirements by the Bidder.

Further, the Contractor shall indemnify, protect and save the Employer against all claims, losses, costs, damages, expenses, action suits and other proceedings, resulting from infringement of any law pertaining to patent, trademarks, copyrights etc. or such other statutory infringements in respect of the services offered by the contractor.

All Indemnities shall survive notwithstanding expiry or termination of the contract and contractor shall continue to be liable under the indemnities.

There is no limit to claims made by the Employer / third parties in case of infringement of Intellectual property rights or for claims relating to the loss of damage to real property and tangible personal property and for bodily injury or death and in these cases the liability will be unlimited ”.

Indemnity format is enclosed as [Annexure - 20](#). The same to be duly filled and submitted by the successful bidder in a non-judicial stamp paper of appropriate value.

Clause - 27:: LUMPSUM PROVISIONS IN TENDER ::

When the estimate on which a Tender is made includes lump sum in respect of parts of the work the contractor shall be entitled to payment in respect of the items of work involved or the part of the work in question at the same rates as are payable under this contract for such items, or if the part of the work in question is not, in the opinion of the Engineer-in-charge and/ or employer capable of

measurement, the Employer may at his discretion pay the lump-sum amount entered in the estimate, and the certificate in writing of the Engineer-in-charge issued with the approval of Employer shall be final and conclusive against the contractor with regard to any sum or sums payable to him under the provisions of the clause.

Clause -28:: ACTION WHERE NO SPECIFICATIONS ARE SPECIFIED::

In the case of any class of work for which there is no such specifications as referred to in [Clause 11](#), such work shall be carried out in accordance with the Bureau of Indian Standards Specifications. In case, there are no such specifications in Bureau of Indian Standards, the work shall be carried out as per manufacturers' specifications, if not available then as per state District Specifications. In case there are no such specifications as required above, the work shall be carried out in all respects in accordance with the instructions and requirements of the Engineer-in-Charge.

Clause - 29:: LIEN ::

- (a) Whenever any claim or claims for payment of a sum of money arises out of or under the contract or against the contractor, the Employer shall be entitled to withhold and also have a lien to retain such sum or sums in whole or in part from the security, if any deposited by the Contractor and for the purpose aforesaid, the Employer shall be entitled to withhold the security deposit, if any, furnished as the case may be and also have a lien over the same pending finalisation or adjudication of any such claim. In the event of the security being insufficient to cover the claimed amount or amounts or if no security has been taken from the contractor, the Employer shall be entitled to withhold and have a lien to retain to the extent of such claimed amount or amounts referred to above, from any sum or sums found payable or which may at any time thereafter become payable to the contractor under the same contract or any other contract with the Employer or any contracting person through the employer pending finalisation of adjudication of any such claim.
- (b) It is an agreed term of the contract that the sum of money or moneys so withheld or retained under the lien referred to above by the Employer will be kept withheld or retained as such by the Employer till the claim arising out of or under the contract is determined by the arbitrator (if the contract is governed by the arbitration clause) by the competent court, as the case may be and that the contractor will have no claim for interest or damages whatsoever on any account in respect of such withholding or retention under the lien referred to above and duly notified as such to the contractor. For the purpose of this clause, where the contractor is a partnership firm or a limited company, the Employer shall be entitled to withhold and also have a lien to retain towards such claimed amount or amounts in whole or in part from any sum found payable to any partner/limited company as the case may be, whether in his individual capacity or otherwise.
- (c) The Employer shall have the right to cause an audit and technical examination of the works and the final bills of the contractor including all supporting vouchers, abstract, etc., to be made even after payment of the final bill and if as a result of such audit and technical examination any sum is found to have

been overpaid in respect of any work done by the contractor under the contract or any work claimed to have been done by him under the contract and found not to have been executed, the contractor shall be liable to refund the amount of over-payment and it shall be lawful for the Employer to recover the same from him in the manner prescribed in sub-clause (a) or in any other manner legally permissible and if it is found that the contractor was paid less than what was due to him under the contract in respect of any work executed by him under it, the amount of such under payment shall be duly paid by the Employer to the contractor, without any interest thereon whatsoever; Provided that the contractor shall not be entitled to payment of any sum paid short where such payment has been agreed upon between the Employer and Engineer-in-charge on the one hand and the contractor on the other under any term of the contract permitting payment for work after assessment by the Employer and Engineer-in-Charge.

Clause -29 A::

Any sum of money due and payable to the contractor (including the security deposit returnable to him) under the contract may be withheld or retained by way of lien by the Employer or any other contracting person or persons through Employer against any claim of the Employer or such other person or persons in respect of payment of a sum of money arising out of or under any other contract made by the contractor with the Employer or with such other person or persons. It is an agreed term of the contract that the sum of money so withheld or retained under this clause by the Employer will be kept withheld or retained as such by the Employer or till his claim arising out of the same contract or any other contract is either mutually settled or determined by the arbitration clause or by the competent court, as the case may be and that the contractor shall have no claim for interest or damages whatsoever on this account or on any other ground in respect of any sum of money withheld or retained under this clause and duly notified as such to the contractor.

Clause - 29 B:: CONTROLLED AREA LABOUR ::

The contractor shall not employ coal mining or controlled area labour falling under any category whatsoever on or in connection with the work or recruit labour from area within a radius of 32 km (20 miles) of the controlled area Subject as above the contractor shall employ imported labour only i.e., deposit imported labour or labour imported by contractors from area, from which import is permitted. Where ceiling price for imported labour has been fixed by State or Regional Labour Committees not more than that ceiling price shall be paid to the labour by the contractor.

The contractor shall immediately remove any labourer who may be pointed out by the Employer as being a coal mining or controlled area labourer. Failure to do so shall render the contractor liable to pay to the Employer a sum calculated at the rate of Rs.100/- per day per labourer. The certificate of the Engineer-in-charge with concurrence of Employer about the number of coal mining or controlled area labourer and the number of days for which they worked shall be final and binding upon all parties to this contract.

The aforesaid stipulation in this clause is one in which the public are interested within the meaning of the exception in Section 74 of Indian Contract Act, 1872.

Any area which may be declared a 'controlled Area' by or with the approval of the Central Government.

Clause - 30 :: WATER SUPPLY

The contractor(s) shall make his/their own arrangements for water required for the work and nothing extra will be paid for the same. This will be subject to the following conditions ::

- (i) That the water used by the contractor(s) shall be fit for construction purposes to the satisfaction of the Engineer-in-Charge and/or Employer.
- (ii) The Employer through Engineer-in-Charge or by any other means shall make alternative arrangements for supply of water at the risk and cost of contractor(s) if the arrangements made by the contractor(s) for procurement of water are in the opinion of the Engineer-in-Charge and/or Employer, unsatisfactory.

~~Clause - 30A :: ALTERNATE WATER SUPPLY ::~~

- ~~(i) Where there is no piped water supply arrangement and the water is taken by the contractor from the wells or hand pump constructed by the Employer, if any, charge at 1 % (one percent) of the Gross value of the work shall be recovered from the contractor on that account. The contractor shall, however, draw water at such hours of the day that it does not interfere with the normal use for which the hand pumps and wells are intended. He will also be responsible for all damage and abnormal repairs arising out of his use, the cost of which shall be recoverable from him. The Accepting Authority shall be the final authority to determine the cost recoverable from the contractor on this account and his decision shall be binding on the contractor.~~
- ~~(ii) The contractor shall be allowed to construct temporary wells or bore well in on employers land for taking water by pumping at his own cost, for construction purposes only after he has got permission of the Accepting Authority in writing. No charges shall be recovered from the contractor on this account, but the contractor shall be required to provide necessary safety arrangements to avoid any accidents or damage to adjacent buildings, roads and service lines. He shall be responsible for any accidents or damage caused due to construction and subsequent maintenance of the wells and shall restore the ground to its original condition after the wells are dismantled on completion of the work.~~

Clause - 31 :: ARRANGEMENTS OF MACHINERY EQUIPMENT ::

The contractor shall arrange at his own expense all tools, plant, machinery and equipment (hereinafter referred to as T&P) required for execution of the work.

Clause - 32:: CONTRACTORS SUPERINTENDENCE, SUPERVISION, TECHNICAL STAFF & EMPLOYEE ::

- (i) The contractor shall provide all necessary superintendence during execution of the work and all along thereafter as may be necessary for proper fulfilling of the obligations under the contract.

The contractor shall immediately after receiving letter of acceptance of the Tender and before commencement of the work, intimate in writing to the Employer the name, qualifications, experience, age, address and other particulars along with certificates, of the principal technical representative to be in charge of the work and other technical representative(s) who will be supervising the work. Minimum requirement of such technical representative(s) and their qualifications and experience shall not be lower than specified in [Schedule F](#). The Employer shall within 7 days of receipt of such communication intimate in writing his approval or otherwise of such a representative(s) to the contractor. Any such approval may at any time be withdrawn and in case of such withdrawal the contractor shall appoint another such representative(s) according to the provisions of this clause. Decision of the Tender accepting authority shall be final and binding on the contractor in this respect. Such a principal technical representative and other technical representative(s) shall be appointed by the contractor soon after receipt of the approval from Engineer-in-charge and shall be available at site before start of work.

All the provisions applicable to the principal technical representative under the Clause will also be applicable to other technical representative(s) The principal technical representative and other technical representative(s) shall be present at the site of work for supervision at all times when any construction activity is in progress and also present himself/themselves, as required, to the Employer and/or Engineer-in-Charge and/or his designated representative to take instructions. Instructions given to the principal technical representative or other technical representative(s) shall be deemed to have the same force as if these have been given to the contractor. The principal technical representative and other technical representative(s) shall be actually available at site fully during all stages of execution of work, during recording/checking/test checking of measurements of works and whenever so required by the Employer and/or Engineer-in-Charge and/or his designated representative and shall also note down instructions conveyed by the Employer and/or Engineer-in-Charge or his designated representative(s) in the site order book and shall affix his/their signature in token of noting down the instructions and in token of acceptance of measurements/checked measurements/ test checked measurements. The representative(s) shall not look after any other work. Substitutes, duly approved by Engineer-in-Charge with consent of the Employer of the work in similar manner as aforesaid shall be provided in event of absence of any of the representative(s) by more than two days.

If the Engineer-in-Charge with consent of the Employer, whose decision in this respect is final and binding on the Contractor is convinced that no such technical representative(s) is/are effectively appointed or is/are effectively attending or fulfilling the provision of this clause, a recovery (non-refundable) shall be effected from the Contractor as specified in [Schedule `F`](#) and the decision of the Employer based on recommendations by Engineer-in-Charge as

recorded in the site order book and measurements recorded checked/test checked in Measurement Books shall be final and binding on the contractor.

Further if the Contractor fails to appoint a suitable technical representative and/or other technical representative(s) and if such appointed person(s) are not effectively present or are absent by more than two days without duly approved substitute or do not discharge their responsibilities satisfactorily, the Engineer-in-charge shall have full powers to suspend the execution of the work until such date as other technical representative(s) is/are is appointed and the Contractor shall be held responsible for the delay so caused to the work. Contractor shall submit a certificate of employment of the technical representative(s) along with every on account bill/final bill and shall produce evidence if at any time so required by the Engineer-in-Charge and/or the Employer.

- (ii) The contractor shall provide and employ on the site only such technical assistants as are skilled and experienced in their respective fields and such foremen and Supervisory staff as are competent to give proper supervision to the work.

The contractor shall provide and employ skilled, semi-skilled and unskilled labour as is necessary for proper and timely execution of the work.

The Engineer-in-charge with consent of the Employer shall be at liberty to object to and require the contractor to remove from the works any person who in his opinion misconduct himself, or is incompetent or negligent in the performance of his duties or whose employment is otherwise considered by the Engineer-in-charge to be undesirable. Such person shall not be employed again at works site without the written permission of the Employer and the persons so removed shall be replaced as soon as possible by competent substitutes.

Clause - 33:: LEVY/TAXES PAYABLE BY CONTRACTOR::

- (i) GST, Building and other Construction Workers Welfare Cess or any other tax, levy or Cess in respect of input for or output by this contract shall be payable by the contractor and the Employer shall not entertain any claim whatsoever in this respect except as provided under [Clause 38](#).
- (ii) The contractor shall deposit royalty and obtain necessary permit for supply of the red bajri, stone, kankar, etc. from local authorities.

If pursuant to or under any law, notification or order any royalty, cess, fee or the like becomes payable by the Employer and does not at any time become payable by the contractor to the State Government and/or the local authorities in respect of any material used by the contractor in the works then in such a case, it shall be lawful to the Employer and the Employer will have the right and be entitled to recover the amount paid in the circumstances as aforesaid from dues of the contractor.

Clause - 34::

- (i) All tendered rates shall be inclusive of any tax, levy or cess applicable on last stipulated date of receipt of tender including extension if any. No adjustment i.e. increase or decrease shall be made for any variation in the rate of GST, Building and Other Construction Workers Welfare Cess or any tax, levy or cess applicable on inputs.

However, effect of variation in rates of GST or Building and Other Construction Workers Welfare Cess or imposition or repeal of any other tax, levy or cess applicable on output of the works contract shall be adjusted on either side, increase or decrease.

Provided further that for Building and Other Construction Workers Welfare Cess or any tax (other than GST), levy or cess varied or imposed after the last date of receipt of tender including extension if any, any increase shall be reimbursed to the contractor only if the contractor necessarily and properly pays such increased amount of taxes/ levies/cess.

Provided further that such increase including GST shall not be made in the extended period of contract for which the contractor alone is responsible for delay as determined by authority for extension of time under Clause 5 in [Schedule F](#).

- (ii) The contractor shall keep necessary books of accounts and other documents for the purpose of this condition as may be necessary and shall allow inspection of the same by a duly authorized representative of the Employer and/or the Engineer-in-Charge and shall also furnish such other information/document as the Engineer-in-Charge may require from time to time.
- (iii) The contractor shall, within a period of 30 days of the imposition of any such further tax or levy or cess, or variation or repeal of such tax or levy or cess give a written notice thereof to the Accepting Authority that the same is given pursuant to this condition, together with all necessary information relating thereto.

Clause - 35:: DEATH ::

Without prejudice to any of the rights or remedies under this contract if the contractor dies, the Employer shall have the option of terminating the contract without levy compensation to the contractor.

Clause - 36:: RELATIVES ::

The contractor shall not be permitted to Tender for works under the Circle Office of the Canara Bank responsible for award and execution of contracts in which his near relative is posted as an officer in any capacity between the grades of the Chief General Manager and Officer (both inclusive) of Premises and Estate department. He shall also intimate the names of persons as per [Annexure 05](#) who are working with him in any capacity or are subsequently employed by him and who are near relatives to any Officer in the Canara Bank or the Engineer in Charge employed by the Canara

Bank for the work. Any breach of this condition by the Contractor would render him liable to be removed from the project with immediate effect at any time ([Clause 14](#) will be applicable) and de-barring for a period of three years from participating in tenders issued by Canara Bank.

Note:- By the term "near relatives" is meant wife, husband, parents and grand parents, children and grand children, brothers and sisters, uncles and aunts and cousins and their corresponding in-laws.

Clause - 37:: EX-EMPLOYEES ::

No Engineer or other officer employed in the Canara Bank shall work as a contractor or employee of a contractor for a period of two years after his retirement from the Bank's service without the previous permission of the Employer. This contract is liable to be cancelled if either the contractor or any of his employees is found at any time to be such person who had not obtained the permission of the Employer as aforesaid, before submission of the Tender or engagement in the contractors' service, as the case may be. Names of such persons employed by the Contractor shall be informed as per [Annexure 18](#).

Clause -38:: METHOD TO CALCULATE CONSUMPTION OF MATERIALS ::

- (i) After completion of the work and also at any intermediate stage in the event of non-reconciliation of materials issued, theoretical quantity of materials used in the work shall be calculated on the basis and method given hereunder :-
- a) Quantity of cement and Bitumen shall be calculated on the basis of quantity of cement and Bitumen required for different items of works shown in the Schedule of Rates mentioned in [Schedule `F'](#). In case any item is executed for which standard constants for the consumption of cement or bitumen are not available in the above mentioned schedule/statement or cannot be derived from the same shall be calculated on the basis of standard formula to be laid down by the Employer or Engineer-in-Charge.
 - b) Theoretical quantity of steel reinforcement or structural steel sections shall be taken as the quantity required as per design or as authorised by Engineer-in-Charge including authorized lappages, chairs etc. plus percentage mentioned in [Schedule `F'](#) for wastage due to cutting into pieces, such theoretical quantity being determined and compared with the actual, each diameter wise, section wise and category wise separately subject to approval of employer.
 - c) Theoretical quantity of G.I. & C.I. or other pipes, conduits, wires, cables and pig lead and G.I./M.S. sheets shall be taken as quantity actually required and measured plus percentage mentioned in [Schedule `F'](#) for wastage due to cutting into pieces or as authorised by Engineer-in-Charge subject to approval of employer.

- d) For any other material as per actual requirement and as approved by the Accepting Authority. Over the theoretical quantities of materials so computed a variation shall be allowed as specified in [Schedule 'F.'](#) For non-scheduled items, the decision of the Accepting Authority arrived through Engineer-in-Charge regarding theoretical quantities of materials which should have been actually used, shall be final and binding on the contractor.
- (ii) The said action under this clause is without prejudice to the right of the Employer to take action against the contractor under any other conditions of the contract for not doing the work according to the prescribed specifications.

Clause - 39::

The work (whether fully constructed or not) and all materials, machines, tools and plants, scaffolding, temporary buildings and other things connected therewith shall be at the risk of the contractor until the work has been delivered to the Employer and a certificate from Engineer in charge to that effect obtained. In the event of the work or any materials properly brought to the site for incorporation in the work being damaged or destroyed in consequence of hostilities or warlike operation, the contractor shall when ordered (in writing) by the Engineer-in-charge and/or the Employer to remove any debris from the site, collect and properly stack or remove in store all serviceable materials salvaged from the damaged work and shall be paid at the contract rates in accordance with the provision of this agreement for the work of clearing the site of debris, stacking or removal of serviceable material and for reconstruction of all works ordered by the Engineer-in-Charge with concurrence of the Employer, such payments being in addition to compensation upto the value of the work originally executed before being damaged or destroyed and not paid for. In case of works damaged or destroyed but not already measured and paid for, the compensation shall be assessed by the Engineer-in-charge upto Rs.5,000/- and by the Accepting Authority concerned for a higher amount. The contractor shall be paid for the damages/destruction suffered and for the restoring the material at the rate based on analysis of rates Tendered for in accordance with the provision of the contract. The certificate of the Engineer-in-charge regarding the quality and quantity of materials and the purpose for which they were collected shall be final and binding on the contractor subject to concurrence of the Employer.

Provided always that no compensation shall be payable for any loss in consequence of hostilities or war-like operations

- (a) unless the contractor had taken all such precautions against air raid as are deemed necessary by the ARP (Air Raid Precaution) officers or Engineer-in-Charge
- (b) for any material etc. not on the site of the work or for any tools, plant, machinery, scaffolding, temporary building and other things not intended for the work.

In the event of the contractor having to carry out reconstruction as aforesaid, he shall be allowed such extension of time for its completion as is considered reasonable by the employer.

Clause - 40 :: APPRENTICES ::

The contractor shall comply with the provisions of the Apprentices Act, 1961 and the rules and orders issued there under from time to time. If he fails to do so, his failure will be a breach of the contract and the Employer may, in his discretion, cancel the contract. The contractor shall also be liable for any pecuniary liability arising on account of any violation by him of the provisions of the said Act.

Clause - 41 :: RELEASE OF SECURITY DEPOSIT ::

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

Clause - 42 :: USE OF ASPHALTED MATERIALS ::

- (i) The contractor undertakes to make arrangement for the supervision of the work by the firm supplying the tar or bitumen used.
- (ii) The contractor shall collect the total quantity of tar or bitumen required for the work as per standard formula, before the process of painting is started and shall hypothecated it to the Employer. If any bitumen or tar remains unused on completion of the work on account of lesser use of materials in actual execution for reasons other than authorised changes of specification and abandonment of portion of work, a corresponding deduction equivalent to the cost of unused materials as determined by the Engineer-in-charge shall be made and the material returned to the contractors. Although the materials are hypothecated to the Employer the contractor undertakes the responsibility for their proper watch, safe custody and protection against all risks. The materials shall not be removed from site of work without the consent of the Employer in writing.
- (iii) The contractor shall be responsible for rectifying defects noticed in the works within a year (i.e. one year) from the date of completion of the work. For specialized works the guarantee shall be for 10 years.

Clause - 43 :: RETURN OF SURPLUS MATERIALS::

Notwithstanding anything contained to the contrary herein , where any material for the execution of the contract are procured with the assistance of the Employer either by issue from Employers stocks or purchase made under orders or permits or licences issued by the Employer or with the assistance of the Employer the contractor shall hold the said materials economically and solely for the purpose of the contract and not dispose of them without the written permission of the Employer and return, if required by the Engineer-in-Charge, all surplus or unserviceable

materials that may be left with him after the completion of the contract or at its termination for any reason whatsoever on being paid or credited such price as the Engineer-in-charge shall determine having due regard to the condition of the materials.

The price allowed to the contractor however shall not exceed the amount charged to him excluding the element of storage charges. The decision of the Engineer-in-charge shall be final and conclusive.

In the event of breach of the aforesaid condition the contractor shall in addition to throwing himself open to action for contravention of the terms of the licence or permit and/or for criminal breach of trust, be liable to the Employer for all moneys, advantages or profits resulting or which in the usual course would have resulted to him by reason of such breach.

Clause - 44:: DAMAGES::

The Contractor shall be responsible for all injury to the work or workmen to persons, animals or things and for all damages to the structural and/or decorative part of property which may arise from the operations or neglect of himself or of any sub-contractor or of any of his or a sub-contractors employees, whether such injury or damage arise from carelessness, accident or any other cause whatsoever in any way connected with the carrying out of this contract. The clause shall be held to include interalia, any damages to buildings whether immediately adjacent or otherwise, and any damage to roads, streets, footpaths or ways as well as damages caused to the buildings and the works forming the subject if this contract by rain, wind or other inclemency of the weather. The contractor shall indemnify the employer and hold harmless in respect of all and any expenses arising from such injury or damages to persons or property as aforesaid and also in respect of any claim made in respect of injury or damage under any acts of compensation or damage consequent upon such claim.

The Contractor shall reinstate all damage of every sort mentioned in this clause, so as to deliver the whole of the contract works complete and perfect in every respect and so as to make good or otherwise satisfy all claims for damages to the property or third parties. The contractor shall effect the insurance necessary and indemnify the employer entirely from all responsibility in this respect. The insurance must be placed with a company approved by the employer and must be effected jointly in the name of the contractor and the employer and the policy lodged with the latter. The scope of insurance is to include loss or damage to the work and workmen due to carelessness, accident including fire, earthquake, floods, etc., damage or loss to the contract itself till this is made over a complete state. Insurance is compulsory and must be effected from the very initial stage. The contractor shall also be responsible for anything which may be excluded from damage to any property arising out of incidents, negligence or defective carrying out of this contract.

The employer shall be at liberty and is hereby empowered to deduct the amount of any damages, compensations, costs, charges and expenses arising or occurring from or in respect of any such claim or damages from any sums due or to become due to the contractor.

Clause - 45:: INSURANCE - CONTRACTOR'S ALL RISK POLICY::

The contractor shall insure the works and keep them insured until the virtual completion of the contract against loss or damages by fire and/or earthquake, flood by paying required premium of Contractor's All Risk Policy (CAR) for the entire tendered cost covering the entire contract period. The insurance must be placed with a company approved by the Employer, in the joint names of the employer and the contractor for such amount and for any further sum if called to do so by the employer and lodge receipts of premiums paid with the employer within **21 days** from the date of issue of letter of acceptance unless otherwise instructed. In default of the contractor insuring as provided above, the employer on his behalf may so insure and deduct the premiums paid from any money due or which may become due to the contractor. The contractor shall as soon as the claim under the policy is settled or the work reinstated by the insurance company should they elect to do so, proceed with due diligence will the completion of the works in the same manner as though the damages has not occurred and in all respects under the conditions of the contract. The contractor in case of rebuilding or reinstatement after fire shall be entitled to extension of time for completion as the employer/architect may deem fit.

Clause - 46:: ABNORMALLY HIGH AND LOW RATED ITEMS ::

For Tenders if, the rates quoted by the lowest bidder for certain items of the Bill of Quantities of the Tender are found to be abnormally high or low in comparison to the market rate analysis of the item done by the Architects/Bank and or in comparison to Architect/Bank's method of working out market rate justification for the items, the same shall be governed as under in order to avoid financial loss to the Bank in the event of default of contractors.

- i) For abnormally high rated items (AHR), the progressive payment shall be 80% (eighty percent) of the payment due to the contractor against execution of the AHR item. The balance withheld 20% payment shall be released after 75% of total value of the original contract is complete in financial terms or this 20% withheld payment can be released to the contractor on submission of an unconditional bank guarantee of equivalent amount in the proforma of Bank. Further deviation limit for AHR items shall be nil on plus side and Bank reserves the right to restrict, substitute or not execute the AHR items during execution. The decision of the Accepting Authority in this regard shall be final and binding on the contractor.
- ii) For abnormally low rated (ALR) items the contractor shall submit Bank Guarantee of difference in total of amount of ALR item(s) and the total amount of corresponding items at market rate arrived by the Engineer-in-charge. This bank guarantee shall be valid till completion of the project. In exceptional circumstances, the amount of Bank Guarantees (BG) may be reduced or BG released earlier than completion period if, in view of Engineer-in-charge, all ALR items as provided in the contract are executed as per terms of contract and/or not required to be executed.

Notwithstanding what is contained in para i) & ii) above, the provisions of para i) and ii) shall not be applicable on Tenders invited on percentage rate basis.

The decision of the Accepting Authority on identification/ marking of AHR and ALR item is final and binding on the contractor. In case the contractor do not agree for furnishing of Bank Guarantee as above towards ALR items, at the time of award of works, the EMD/Performance guarantee of the contractor shall be forfeited and decision of Accepting Authority in this regard shall be final and binding on the contractor.



SPECIAL CONDITIONS

1 Scope :

- 1.1 The works to be governed by this contract shall cover Construction of Building as specified in the **schedule A & E** along with all services, including all materials, labour, delivery and transportation up to destination, safe custody at site, insurance, erection, testing and commissioning of the entire works including obtaining statutory permissions for the water supply, sanitary services and electrical power and shall bear any incidental expenses.
- 1.2 The work shall be carried out as per CPWD technical specifications, particular specifications, structural drawings and as per instruction of Engineer-in-charge and/or the Employer.
- 1.3 The Contractor shall obtain all the relevant permissions from the local governing departments (wherever applicable) and shall bear the incidental expenses for the same. Any statutory payments, deposits, fee made to the appropriate authorities for permanent services connections shall be reimbursed by the Employer provided the receipts/ deposits are in the name of the Canara Bank.
- 1.4 The Contractor shall also be responsible to obtain all the Temporary service connections i.e. Electricity Power, Water and Sewerage (wherever applicable) connections and shall bear any incidental expenses, fees, deposits, monthly consumption charges required for the construction work. Bank will not pay any amount for obtaining & maintaining temporary connections.
- 1.5 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 wherever applicable and required.
 - iii. Pre-commissioning tests as per relevant standard specifications, code of practice, Acts and Rules wherever required.
 - iv. Warranty obligation for the equipments and/or fittings/fixtures supplied by the contractor.
 - v. Contractor shall maintain all approved samples of all civil, plumbing and electrical samples in a specially designated store, which shall be under lock and key of the Engineer-in-charge or his authorized representative. The contractor shall study all Good For Construction drawings issued by the Engineer-in-charge and seek any necessary clarifications regarding the drawings issued within one week of the receipt of the drawings. Any delay caused by non-seeking of clarification within the stipulated time by the contractor for which the contractor shall be responsible.
 - vi. The detailed drawings shall be followed for the areas for which they have been provided. The specific reference in the drawings and specifications to any material by trade name, make or catalogue number shall be

construed as establishing standard, colour, shade, quality and performance to be followed and not as limited to that particular make. Contractor may offer other similar materials as per list of preferred makes mentioned in the tender document.

- vii. All samples of materials shall be got approved by the Engineer-in-charge with concurrence of Employer within two weeks of the issue of the drawings. A fully furnished temporary site office of minimum 200 sqft to be provided by the contractor at the commencement of the project for the Engineer in charge and/or his authorized representative(s).

1.6 Unless otherwise specified in the schedule of quantities, particular specifications or technical specifications (subject to the order or preference) the rates tendered by the tenderer shall be all inclusive and nothing extra over and above the schedule of quantity shall be payable on this account.

1.7 All the hidden items such as reinforcement steel, electrical conduits, water supply lines, drainage pipes, conduits, sewers etc. are to be properly tested as per the design conditions before covering and their measurements in measurement book duly test checked shall be deposited with Engineer in charge or his authorized representative, prior to hiding these items.

1.8 Wherever any reference to any Indian Standards occurs in the documents relating to this contract, the same shall be inclusive of all amendments issued thereto or revisions thereof, if any, up to the date of receipt of tenders.

1.9 The Contractors are advised to inspect and examine the site and its surroundings and satisfy themselves with the nature of site, the means of access to the site, the constraints of space for stacking material / machinery, labour etc., constraints put by local regulations, if any, weather conditions at site, general ground / subsoil conditions etc. or any other circumstances which may affect or influence submission of their bids. **The site is available for work.** The contractor shall carry out survey of the work area, at his own cost, setting out the layout and fixing of alignment of the building as per architectural and structural drawings in consultation with the Engineer-in-charge and proceed further ensuring full structural continuity and integrated and monolithic construction. Any discrepancy between the architectural drawings and actual layout at site shall be brought to the notice of the Engineer-in-charge.

1.10 The Contractor shall, if required by him, before submission of the bid, inspect the drawings in the **Office of the Employer at Trivandrum**. The Bank shall not bear any responsibility for the lack of knowledge and also the consequences, thereof to the Contractor. The information and data shown in the drawings and mentioned in the bid documents have been furnished, in good faith, for general information and guidance only. The Employer, in no case, shall be held responsible for the accuracy thereof and/or interpretations or conclusions drawn there from by the Contractor and all consequences shall be borne by the Contractor. No claim, whatsoever, shall be entertained from the Contractor, if the data or information furnished in bid document is different or in-correct

otherwise or actual working drawings are at variance with the drawings available for inspection or attached to the bid document. It is presumed that the Contractor shall satisfy himself for all possible contingencies, incidental charges, wastages, bottlenecks etc. likely during execution of work and acts of coordination, which may be required between different agencies. Nothing extra shall be payable on this account.

- 1.11 The nomenclature of the item given in the schedule of quantities gives in general the work content but is not exhaustive i.e. does not mention all the incidental works required to be carried out for complete execution of the item of work. The work shall be carried out, all in accordance with true intent and meaning of the specifications and the drawings taken together, regardless of whether the same may or may not be particularly shown on the drawings and/or described in the specifications, provided that the same can be reasonably inferred there from may be several incidental works, which are not mentioned in the nomenclature of each item but will be necessary to complete the item in all respect. All these incidental works / costs which are not mentioned in item nomenclature but are necessary to complete the item shall be deemed to have been included in the rates quoted by the contractor for various items in the schedule of quantities. No adjustment of rates shall be made for any variation in quantum of incidental works due to variation / change in actual working drawings. Also, no adjustment of rates shall be made due to any change in incidental works or any other deviation in such element of work (which is incidental to the items of work and are necessary to complete such items in all respects) on account of the directions of Engineer-in-Charge and/or Employer. Nothing extra shall be payable on this account.
- 1.12 The contractor shall give to the local body, police and other authorities all necessary notices etc. that may be required by law and obtain all requisite licenses for temporary obstructions, enclosures etc. and pay all fees, taxes and charges which may be leviable on account of these operations in executing the contract.
- 1.13 The work shall generally be carried out in accordance with latest "CPWD specifications 2019 Vol. I & Vol. II" with up to date correction slips, additional/ Particular Specifications, Architectural/ Structural drawings and as per instructions of Engineer-in charge. Any additional item of the work, if taken up subsequently, shall also confirm to the relevant CPWD Specifications as mentioned above. Working (both Architectural and Structural) drawings will be released progressively to the contractor commensurate to the construction schedule approved by Engineer-in-charge with concurrence of employer.
- 1.14 The several documents forming the tender are to be taken as mutually complementary to one another. Detailed drawings shall be followed in preference to small scale drawings and figured dimensions in preference to scale dimensions.

2 Precautionary measures:

- 2.1 Proper temporary barricading by fencing with G.I. sheets, shall be carried out by the contractor at the start of work as per direction of Engineer-in-charge in order to physically define the boundaries of the plot for restricted entry to only those involved in the work and also to prevent any accidents, at the same time without causing any inconvenience to the traffic and the users of the handed over buildings in the adjacent plots. It shall be done by providing, erecting, maintaining temporary protective barricading of minimum 3.0 meters in height, made in panels, with each panel having MS frames / MS scaffolding pipes of suitable size and stiffness, with 24 gauge thick GI corrugated sheet or suitably stiffened plain GI sheet fixed on frames. Such panels shall be suitably connected to each other for stability with nuts and bolts, hooks, clamps etc. and fixed firmly to the ground at about 2 metres spacing, for the entire duration till completion of the work. He shall also provide and erect temporary protective barricades within the plot, if required, to prevent any accident. It shall be dismantled and taken away by the Contractor after the completion of work at his own cost with the approval of the Engineer-in-charge. Nothing extra shall be payable on this account.
- 2.2 The contractor shall take all precautions to avoid accidents by exhibiting necessary caution boards day and night like speed limit boards, red flags, red lights etc. and providing barriers. He shall be responsible for all damages and accidents caused to work due to negligence on his part. No hindrances shall be caused to traffic, during the execution of the work. In case of any accident to labours/ contractual staff the entire responsibility will rest on the part of the contractor and any compensation under such circumstances, if becomes payable, shall be entirely borne by the contractor.
- 2.3 Contractor shall take all precautionary measures to avoid any damage to adjoining property. All necessary arrangement shall be made at his own cost.
- 2.4 The contractor shall take all precautions to prevent his workmen and employees from removing and damaging any Flora (tree/plant/vegetation) from the site.
- 2.5 The contractor, his authorized representative, workmen etc. shall strictly observe orders pertaining to fire precautions prevailing in the area.
- 2.6 The Contractor shall take all necessary precautions to prevent any nuisance or inconvenience to the owners, tenants or occupants of the adjacent properties and to the public in general. The Contractor shall take all care, as not to damage any other adjacent property or other services running adjacent to the plot. If any damage is done, the same shall be made good by the Contractor at his own cost and to the entire satisfaction of the Engineer-in-Charge and Employer. The Contractor shall use such methodology and equipments for execution of the work, so as to cause minimum environmental pollution of any kind during construction, to have minimum construction time and minimum inconvenience to road users and to the occupants of the buildings on the adjacent plot and public in general, etc. He shall make good at his own cost and to the entire satisfaction of the Engineer

in Charge and Employer any damage to roads, paths, cross drainage works or public or private property whatsoever caused, due to the execution of the work or by traffic brought thereon, by the Contractor. Further, the Contractor shall take all precautions to prevent any pollution of streams and waterways. All waste or superfluous materials shall be carted away by the Contractor, entirely to the satisfaction of the Engineer-in-Charge and Employer. Utmost care shall be taken to keep the noise level to the barest minimum so that no disturbance as far as possible is caused to the occupants / users of adjoining buildings. No claim whatsoever on account of site constraints mentioned above or any other site constraints not specifically stated here, shall be entertained from the Contractor. Therefore, the Contractors are advised to visit site and get first hand information of site constraints. Accordingly, they should quote their Tenders. Nothing extra shall be payable on this account.

3 General cleanliness of the site and Stacking & Storage of Materials:

- 3.1 The site of work shall be always kept clean in general strictly adhering to approved job layout/specifications. The Contractor shall take all care to prevent any water-logging at site. The waste water shall not be allowed to be collected at site. It may be directly pumped into the public drainage system with prior approval of the concerned authorities. For discharge into public drainage system, necessary permission shall be obtained from relevant authorities after paying the necessary charges, if any, directly to the authorities. The work shall be carried out in such a way that the area is kept clean and tidy. All the fees/charges in this regard shall be borne by the Contractor. Nothing extra shall be payable on this account.
- 3.2 The works to be governed by this contract shall cover delivery and transportation up to destination, safe custody at site, insurance, erection and commissioning of the E&M services of the entire work.
- 3.3 The contractor shall take instructions from the Engineer-in-charge/Architect regarding collection and stacking of materials at any place. No excavated earth or building rubbish shall be stacked on areas where other buildings, roads, compound wall, services etc are to be constructed. The stacking shall be done as per stacking plan. However, if any change is required, the same shall be done with the approval of Engineer-in-Charge.
- 3.4 For construction works which are likely to generate malba / rubbish, contractor shall dispose of malba, rubbish & other unserviceable materials and wastes at his own cost to the dumping ground notified by local authorities and under no circumstances these shall be stacked / dumped even temporarily, outside the construction premises.
- 3.5 The contractor shall not stack building material / malba / muck on the road or on the land owned by any other authority or others, as the case may be. So the muck, rubbish etc. shall be removed periodically as directed by the Engineer-in-charge, from the site of work to the approved dumping grounds as per the local

byelaws and regulations of the concerned authorities and all necessary permissions in this regard from the local bodies shall be obtained by the contractor. Nothing extra shall be payable on this account. In case, the Contractor is found stacking the building material / malba as stated above, he shall be liable to pay the stacking charges as may be levied by local body or authority and also to face penal action as per the rules, regulations and bye-laws of the said body or authority. The Employer shall be at liberty to recover the sums due but not paid to the concerned authorities on the above counts from any sums due to the contractor including amount of the Performance Guarantee or Retention Money in respect of this contract or any other contract.

3.6 The contractor shall arrange/construct suitable godowns, yard at the site of work/nearby location for storing all other materials so as to be safe against damage by sun, rain, damages, fire, theft etc. at his own cost and also employ necessary watch and ward establishment for the purpose at his cost.

3.7 The Contractor shall bear all incidental charges for Cartage, storage and safe custody of materials, if any, issued by Employer as well as to those materials also arranged by the contractor.

3.8 No payment shall be made for any damage caused by rain, snowfall, flood or any other natural calamity, whatsoever during the execution of the work. The contractor shall be fully responsible for any damage to the Employer's property and the work for which payment has been advanced to him under the contract and he shall make good the same at his risk and cost. The contractor shall be fully responsible for safety and security of his material, T&P/Machinery brought to the site by him.

3.9 The contractor shall get checked all materials by the Engineer-in-charge of his authorized representative on receipt of the same at site before use.

4 ROYALTY

Royalty/Seigniorage Fee at the prevalent rates shall be deducted from the Bills payable to the Contractor, as per Gazette Notification No. 2280 dated 14.12.2016 issued by Steel & Mines Department,(Copy enclosed), on all materials such as boulders, metals, all sizes stone aggregates, brick aggregates, coarse and fine sand, moorum, river sand/ Manufactured sand, gravels and bajri etc. collected by him for the execution of the work. The rates quoted by the contractor shall be inclusive of such Royalty and taxes etc. And nothing extra shall be payable on this account.

5 Laboratory Equipment:

The contractor shall provide at his own cost suitable measuring tapes, weighing, surveying and leveling and measuring arrangements as may be necessary at site for checking. All such equipments shall be got calibrated in advance from laboratory, approved by the Engineer-in-Charge. Nothing extra shall be payable on this account. Minimum equipments as required for field tests shall be provided at site without any extra cost to the Employer.

6 Setting Out of works

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

7 Architectural, structural and integrated service drawings:

- 7.1 Although Tender drawings are made available with the Tender, the working & detailed architectural drawings and structural drawings shall be issued as and when required according to the programme chart submitted by the contractor. It is the duty of the contractor to intimate the requirement of drawings reasonably well in advance and no hindrance shall be allowed on this account.
- 7.2 The work shall be carried out in accordance with the Architectural drawings and Structural drawings, to be issued from time to time, by the Engineer-in-Charge. Before commencement of any item of work, the contractor shall correlate all the relevant architectural and structural drawings issued for the work, nomenclature of items, specifications etc. and satisfy himself that the information available there from is complete and unambiguous. The figures & the written dimensions of the drawing shall supersede the measurement by scale. The discrepancy, if any, shall be brought to the notice of the Engineer-in-charge for immediate decision before execution of the work. The contractor alone shall be responsible for any loss or damage occurring by the commencement of work on the basis of any erroneous and/ or incomplete information and no claim, whatsoever shall be entertained on this account.
- 7.3 The delay caused on account of non-timely action by the contractor in resolution of the differences whatsoever shall not be considered as valid ground for extension of time unless otherwise accepted by Engineer-in-charge.
- 7.4 The information and site data shown in the drawings and mentioned herein and also elsewhere in the Tender documents are being furnished for general information and guidance only. The Engineer-in-charge/ Employer shall not bear responsibility for lack of such knowledge and also the consequences thereof. The Engineer-in-charge/ Employer in no case shall be held responsible for the accuracy thereof or any interpretation/ or conclusions drawn there from by the contractor.
- 7.5 Before taking up the work, the contractor shall be provided with working drawings for various civil and E&M services showing details of lay out plan including sectional elevations and the contractor shall plan and mobilize his resources as per the working drawings and as per the site conditions to facilitate convenient execution, installation as well as maintenance of these services. Nothing extra shall be payable on this account.

8 SECURITY AND TRAFFIC ARRANGEMENTS

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

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

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

8.3 The contractor shall be responsible for the watch and ward/guard of the buildings, safety of all fittings and fixtures including all equipments, services provided by him against pilferage and breakage during the period of Installations and thereafter till the building is physically handed over to the Employer. No extra payment shall be made on this account and no claim shall be admissible on this account

9 TOOLS AND PLANTS

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

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

10 SCAFFOLDING & STAGING:

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

11 Procurement of materials and Basic rate:

- 11.1 All material shall only be brought at site as per program finalized with the Engineer-in-Charge/Employer. Any pre- delivery of the material not required for immediate consumption shall not be accepted and thus not paid for.
- 11.2 The contractor shall procure the required materials in advance so that there is sufficient time for testing of the materials and approval of the same before use in the work.
- 11.3 The Base price of materials eligible for cost adjustment are mentioned Annexure-19, the contractor shall provide the materials accordingly, if the rate of the material selected by Bank is higher / lower than the above basic rate proportionate cost adjustment shall be made.
- 11.4 “Base price” shall be the actual price quoted by the authorized stockist/wholesalers/ showroom including excise duty, cess, octroi, and all other duties levied by the statutory / local authority and excluding GST loading, unloading and carriage/ transportation cost to the site of work, overheads, storage charges at site.

12 Execution of Work

- 12.1 The contractor shall do proper sequencing of the various activities by suitably staggering the activities so as to achieve early completion. The contractor is to deploy adequate equipment, machinery and labour as required for the completion of the entire work within the stipulated period as specified. Also ancillary facilities shall be provided by contractor commensurate with requirement to complete the entire work within the stipulated period. Nothing extra shall be payable on this account. Adequate number/sets of equipment in working condition, along with adequate stand-by arrangements, shall be deployed during entire construction period. It shall be ensured by the contractor that all the equipment, Tools & Plants, machineries etc. provided by him are maintained in proper working condition at all times during the progress of the work and till the completion of the work. Further, all the constructional tools, plants, equipment and machineries provided by the contractor, on site of work or his workshop for this work, shall be exclusively intended for use in the construction of this work and they shall not be shifted/ removed from site without the permission of the Engineer-in-charge.
- 12.2 For completing the work in time, the Contractor might be required to work in two or more shifts (including night shifts). No claim whatsoever shall be entertained on this account, not with-standing the fact that the Contractor may have to pay extra amounts for any reason, to the labourers and other staff engaged directly or indirectly on the work according to the provisions of the labour and other statutory bodies regulations and the agreement entered upon by the Contractor with them.
- 12.3 The work should be planned in a systematic manner so that chase cuttings in the walls, ceilings and floors is minimized. Wherever absolutely essential, the chase shall be cut using chase cutting machines. Chases will not be allowed to be cut using hammer / chisel. The electrical boxes should be fixed in walls simultaneously while raising the brick work. The contractor shall ensure proper

co-ordination of various disciplines viz. building works, sanitary & water supply & electrical installations etc.

12.4 **Final testing of the installation:**

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

13 SAFETY MEASURES

13.1 **WARNING/ CAUTION BOARDS:** All temporary warning / caution boards / glow signage display such as "Construction Work in Progress", "Keep Away", "No Parking", Diversions & protective Barricades etc. shall be provided and displayed during day time by the Contractor, wherever required and as directed by the Engineer- in-Charge. These glow signage and red lights shall be suitably illuminated during night also. The Contractor shall be solely responsible for damage and accident caused, if any, due to negligence on his part. Also he shall ensure that no hindrance, as far as possible, is caused to general traffic during execution of the work. This signage shall be dismantled & taken away by the Contractor after the completion of work, only after approval of the Engineer - in - Charge. Nothing extra shall be payable on this account.

13.2 **SIGN BOARDS:** The Contractor shall provide and erect a display board of size and shape as required and paint over it, in a legible and workman like manner, the details about the salient features of the project, as required by the Engineer-in-Charge. The Contractor shall fabricate and put up a sign board in an approved location and to an approved design indicating name of the project, Employer, Engineer-in-charges, Structural Consultants etc. besides providing space for names of other Contractors, Sub-Contractors and specialized agencies within 15 days from issue of award letter. Nothing extra shall be payable on this account. In case of non compliance/delay in compliance in this, a penalty @ **Rs. 500/- per day** will be imposed which will be recovered from the immediate next R/A Bill of the Contractor.

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

13.4 No inflammable materials including P.O.L shall be allowed to be stored in huge quantity at site. Only limited quantity of P.O.L may be allowed to be stored at site subject to the compliance of all rules / instructions issued by the relevant authorities and as per the direction of Engineer-in- Charge in this regard. Also all precautions and safety measures shall be taken by the Contractor for safe

handling of the P.O.L products stored at site. All consequences on account of unsafe handling of P.O.L shall be borne by the Contractor.

14 PRESERVATION AND CONSERVATION MEASURES

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

15 Quoted Rates and other conditions for payment:

The rates quoted by the Contractor for the descriptions given in the Schedule of quantities (SOQ) are deemed to be inclusive of the following apart from other inclusions elsewhere stipulated in these documents:

- 15.1 Site clearance, setting out work, profile, setting lay out on ground establishment of reference bench mark(s), installing various signage, taking spot levels with total station, construction of all safety and protection devices, compulsory use of helmet and safety shoes, and other appropriate safety gadgets by workers, imparting continuous training for all the workers barriers, barricading, signage, labour safety, welfare, preparatory works, providing clean, hygienic and well ventilated accommodations for workers in sufficient numbers, working during monsoon or odd season, working beyond normal hours, working at all depths, height, lead, lift levels and location and any other unforeseen but essential incidental works required to complete this work. Nothing extra shall be payable on this account and no extension of time for completion of work shall be granted on these accounts.
- 15.2 **The amount quoted by the tenderer is inclusive of all taxes and levies including GST and nothing extra shall be payable.**
- 15.3 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 it

- and nothing extra shall be paid except otherwise provided in the items of Schedule of quantities.
- 15.4 Any legal or financial implications resulting out of disposal of earth shall be sole responsibility of the contractor. Nothing extra over the schedule shall be paid on this account.
- 15.5 All labour, material, tools and plants, temporary water, sewerage, electricity connection charges & works and other inputs involved/ required in the execution of the item.
- 15.6 Conducting Testing of materials and works wherever stipulated.
- 15.7 Any cement slurry added over base surface (or) for continuation of concreting for better bond is deemed to have been built in the execution of work and nothing extra shall be payable or extra cement considered in consumption on this account.
- 15.8 The Contractor shall arrange to give all notices as required by any statutory / regulatory authority and obtain all requisite licenses wherever required and shall pay to such authority all the fees that is required to be paid for the execution of work. Nothing extra shall be payable on these accounts.
- 15.9 All ancillary and incidental facilities required for execution of work like labour camp, stores, fabrication yard, offices for Contractor, watch and ward, temporary ramp required to be made for working at the basement level, temporary structure for plants and machineries, water storage tanks, installation and consumption charges of temporary electricity, telephone, water etc. required for execution of the work, liaison and persuing for obtaining various no-objection certificate from local bodies / municipal / statutory authorities etc., protection works, barricading, testing facilities / laboratory at site of work, facilities for all field tests and for taking samples etc. during execution or any other activity which is necessary (for execution of work and as directed by Engineer-in Charge), shall be deemed to be included in rates quoted by the Contractor for various items in the Schedule of quantities. Nothing extra shall be payable on these accounts.
- 15.10 Before start of the work, the Contractor shall submit to the Engineer-in-Charge, a site / construction yard layout, specifying areas for construction, site office, positioning of machinery, material yard, cement and other storage, steel fabrication yard, site laboratory, water tank, etc. In case of site constraints, alternate arrangements should be made by the contractor including transportation to and fro from site. Nothing extra shall be payable on these accounts.
- 15.11 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.

15.12 The contractor shall make his own arrangements for water and for obtaining electric connections if required and make necessary payments directly to the State Govt. departments concerned. Contractor shall get the water tested from laboratory approved by the Engineer-in-charge at regular interval as per the CPWD Specifications 2019. All expenses towards collection of samples, packing, transportation etc. shall be borne by the contractor. Work shall normally be done in a single shift/day. However if the work is required to be executed in more than one shift in a day for meeting the time lines, the Contractor with prior approval of the Engineer-in-charge, shall have to make necessary arrangements for the same and all costs towards the same shall be deemed to have been included in the quoted rates.

15.13 Contributions towards the EPF & ESI for the labour, employees engaged by the contractor wherever applicable shall be paid by the Contractor, Nothing extra shall be payable on this account.

15.14 The contractor shall make all necessary arrangements for protecting works already executed from rains, fog or likewise extreme weather conditions and for carrying out further work, during monsoon including providing and fixing temporary shelters, protections etc. Nothing extra shall be payable on this account and also no claims for hindrance shall be entertained on this account

16 RESPONSIBILITY OF CONTRACTOR

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

16.2 The fee payable to statutory authorities for obtaining the various permanent service connections and Building Use Certificate for the building shall be reimbursed by the Employer provided the receipts/ deposits are in the name of the Canara Bank.

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

16.4 The contractor is required to make his own arrangements to provide accommodation for laborers as is acceptable to local bodies /client and nothing extra shall be paid on this account. He shall make his own arrangements for stores, field office etc. Before bidding, he shall visit the site and assess the manner

in which he is able to arrange the above facilities. The Engineer-in-charge shall in no way be responsible for any delay on this account and no claim, whatsoever, on this account shall be entertained.

17 CO-OPERATION WITH OTHER CONTRACTORS/SPECIALIZED AGENCIES/ SUB-CONTRACTORS

17.1 The contractor shall take all precautions to adhere by the environmental related restrictions imposed by any statutory body having jurisdiction over work site as well as prevent any pollution of streams, ravines, river bed and waterways. All waste or superfluous materials shall be transported by the contractor, entirely to the satisfaction of the Employer and/or Engineer-in-charge and disposed at designated places only. Utmost care shall be taken to keep the noise level to the barest minimum so that no disturbance as far as possible is caused to the occupants / users of adjoining buildings. No claims whatsoever on account of site constraints mentioned above or any other site constraints, lack of public transport, inadequate availability of skilled, semi-skilled or unskilled workers in the near vicinity, non-availability of construction machinery spare parts and any other constraints not specifically stated herein, shall be entertained from the contractor. Therefore, the tenderers are advised to visit site and get first-hand information of site constraints. Accordingly, they should quote their tenders. Nothing extra shall be payable on this account.

17.2 The contractor shall cooperate with and provide the facilities to the sub-contractors and other agencies working at site for smooth execution of the work. The contractor shall indemnify the Employer against any claim(s) arising out of any disputes. The contractor shall:

- i. Allow use of scaffolding, toilets, sheds etc.
- ii. Properly co-ordinate their work with the work of other contractors.
- iii. Provide control lines and benchmarks to his sub-contractors and the other contractors.
- iv. Provide electricity and water at mutually agreed rates.
- v. Provide hoist and crane facilities for lifting material at mutually agreed rates.
- vi. Co-ordinate with other contractors for leaving inserts, making chases, alignment of services etc. at site.
- vii. Adjust work schedule and site activities in consultation with the Engineer-in-charge and other Contractors to suit the overall scheduled completion.
- viii. Resolve the disputes with other contractors/ sub-contractors amicably and the Engineer-in-charge/Employer shall not be made an intermediary or an arbitrator.

17.3 The work should be planned in a systematic manner so as to ensure proper co-ordination of various disciplines viz. water supply, drainage, rain water harvesting, electrical, fire fighting, information technology, communication & electronics and any other services.

- 17.4 Other Associated agencies may also simultaneously execute and install the works of sub-station / generating sets, air-conditioning, lifts, etc. for the work and the contractor shall afford necessary facilities for the same. The contractor shall leave such recesses, holes, openings trenches etc. as may be required for such related works at the time of casting of concrete, stone work and brick work, if required, and nothing extra shall be payable on this account.
- 17.5 The contractor shall conduct his work, so as not to interfere with or hinder the progress or completion of the work being performed by other contractor(s) or by the Employer and shall as far as possible arrange his work and shall place and dispose off the materials being used or removed so as not to interfere with the operations of other contractor or he shall arrange his work with that of the others in an acceptable and in a proper coordinated manner and shall perform it in proper sequence to the complete satisfaction of others.

18 Local laws :

- 18.1 The Contractor shall keep himself fully informed of all acts and laws of the Central & State Governments, all orders, decrees of statutory bodies, tribunals having any jurisdiction or authority, which in any manner may affect those engaged or employed and anything related to carrying out the work. All the rules & regulations and bye-laws laid down by Collector/State Govt./Municipal authorities etc. and any other statutory bodies shall be adhered to, by the contractor, during the execution of work. The Contractor shall also adhere to all traffic restrictions notified by the local authorities.
- 18.2 All statutory taxes, levies, charges (including water and sewerage charges, charges for temporary service connections and / or any other charges) payable to such authorities for carrying out the work, shall be borne by the Contractor. The water charges (for municipal water connection as well as tanker water) shall be borne by the contractor. Also, if the contractor obtains water connection for the drinking purposes from the municipal authorities or any other statutory body, the consequent sewerage charges shall be borne by the contractor.
- 18.3 The [clause 30A](#) of the conditions of contract is ~~not~~ applicable to the tender.
- 18.4 The Contractor shall arrange to give all notices as required by any statutory / regulatory authority and shall pay to such authority all the fees that is required to be paid for the execution of work. He shall protect and indemnify the Employer and its officials & employees against any claim and /or liability arising out of violations of any such laws, ordinances, orders, decrees, by himself or by his employees or his authorized representatives. Nothing extra shall be payable on these accounts.
- 18.5 The contractor shall ensure that applicable permits mandated by the local bodies and in case warranted for this work are obtained as required under the Applicable Laws.
- 18.6 The building work shall be carried out in the manner complying in all respects with the requirements of relevant bye-laws of the local body and sanctioned plans

under the jurisdiction of which the work is to be executed or as directed by the Engineer-in-charge/Employer and nothing extra shall be paid on this account

19 Water Supply & Sanitary Installations & Testing:

The contractor shall give performance test of the entire installation(s) as per the CPWD standing specifications before the work is finally accepted and nothing extra whatsoever shall be payable to the contractor for the test.

20 DE-WATERING

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

21 Recording of Hindrances:-

- 21.1 Whenever any hindrance whether on part of Employer or on part of contractor, comes to the notice of the Engineer in charge, the contractor should at once make a note of such hindrance in the register kept at site, and immediately make a report to the Engineer in charge within a week.
- 21.2 Each hindrance should be entered in the Hindrance Register, (as per [Annexure 14](#)) which should be authenticated by the Engineer In charge and Contractor. The Employer shall review the Hindrance Register at least once in a month.
- 21.3 The hindrances on part of contractor are also to be entered in the Hindrance Register.
- 21.4 The hindrance register shall be submitted at the time of payment of each Running Account Bill.

22 SUPERVISION OF WORK

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

23 SPECIALIZED AGENCIES

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

24 Hardware and sanitary wares:

Engineer-in-charge with concurrence of Employer will take a decision regarding make of materials, model numbers of equivalent Door/window hardware/sanitary ware etc. at the time of execution, in case the stipulated make or model mentioned, is not available. However, in case, the equivalent make or model so approved, is cheaper than the make or model already mentioned in Preferred makes list, the price adjustment will be made based on the difference in market rate.

25 QUALITY ASSURANCE

25.1 Contractor shall have to engage well-experienced skilled labour and deploy modern T&P and other equipment to execute the work.

25.2 The contractor shall ensure quality construction in a planned and time bound manner. Any sub-standard material / work beyond set out tolerance limit shall be summarily rejected by the Engineer-in-charge & contractor shall be bound to replace / remove such sub-standard / defective work immediately. If any material, even though approved by Engineer-In-Charge is found defective or not conforming to specifications shall be replaced / removed by the contractor at his own risk & cost.

25.3 In addition to the supervision of work by Engineer-in-charge/Architect, the Employer through their Engineer, External Agency or consultant shall also be carrying out regular and periodic inspection of the ongoing activities in the work and deficiencies, shortcomings, inferior workmanship pointed out by them shall be communicated by Engineer-in-charge/Architect to the contractor. Upon receipt of instructions from Engineer-in-charge/Architect these are also to be made good by necessary improvement, rectification, replacement up to his complete satisfaction.

- 25.4 Special attention shall be paid towards line and level of internal and external plastering, exposed smooth surface of RCC members by providing fresh shuttering plates, rubberized linings to all the shuttering joints, accurate joinery work in wooden doors and windows, thinnest joints in stone/ tiling / cladding work, non-hollowness in floor and dado tiles work, protection of scratches over flooring by impounding layer of plaster of Paris, water tight pipe linings, absence of hollow vertical joints in brick masonry, proper compaction of filled up earth etc. to achieve an Institution of International standards and up keeping of quality assurance shall be of paramount importance, as such.
- 25.5 The Contractor shall submit, within 15 days after the date of award of work, a detailed and complete method statement for the execution, testing and Quality Assurance, of such items of works, as directed by the Engineer-in-Charge. All the materials to be used in the work, to 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 with concurrence of the Employer.
- 25.6 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.
- 25.7 All materials and fittings brought by the contractor to the site for use shall conform to the samples approved by the Engineer-in-charge which shall be preserved till the completion of the work. If a particular brand of material is specified in the item of work in Schedule of Quantity, the same shall be used after getting the same approved from Engineer-In-Charge. Wherever brand / quality of material is not specified in the item of work, the contractor shall submit the samples as per suggested list of brand names given in the tender document / particular specifications for approval of Engineer-In-Charge and Employer. 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 and Employer.
- 25.8 The Contractor shall procure and provide all the materials from the manufacturers / suppliers as per the list attached with the tender documents, as per the item description and particular specifications for the work. The equivalent brand for any item shall be permitted to be used in the work, only

when the specified make is not available. This is, however, subject to documentary evidence produced by the contractor for non-availability of the brand specified and also subject to independent verification by the Engineer-in-Charge. In exceptional cases, where such approval is required, the decision of Engineer-in-Charge subject to clearance by Employer as regards equivalent make of the material shall be final and binding on the Contractor. No claim, whatsoever, of any kind shall be entertained from the Contractor on this account. Nothing extra shall be payable on this account. Also, the material shall be procured only after written approval of the Engineer-in-Charge with concurrence of Employer. 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.

25.9 The testing for materials, as necessary, shall be conducted in the laboratory approved by the Engineer-in-Charge with concurrence of Employer. The samples shall be taken for carrying out all or any of the tests stipulated in the particular specifications and as directed by the Engineer-in-Charge or his authorized representative.

25.10 All the registers of tests carried out in approved laboratories and all material at site (MAS) registers including cement register shall be maintained by the contractor. All the entries in the registers will be made by the designated Engineering Staff of the contractor and same should be regularly reviewed by Engineer-in-Charge and/or Employer. Contractor shall be responsible for safe custody of all the registers.

25.11 The Contractor shall at his own risk and cost make all arrangements and shall provide all such facilities including material and labour, the Engineer-in-Charge may require for collecting, preparing, forwarding the required number of samples for testing as per the frequency of test stipulated in the contract specifications or as considered necessary by the Engineer-in-Charge, at such time and to such places, as directed by the Engineer-in-Charge. Nothing extra shall be payable for the above.

25.12 The Contractor or his authorized representative shall associate in collection, preparation, forwarding and testing of such samples. In case he or his authorized representative is not present or does not associate him, the result of such tests and consequences thereon shall be binding on the Contractor. The Contractor or his authorized representative shall remain in contact with the Engineer-in-Charge or his authorized representative associated for all such operations. No claim of payment or claim of any other kind, whatsoever, shall be entertained from the Contractor.

25.13 The cost of test required for all the materials shall be borne by the Contractor. In case of concrete and reinforced concrete work also the contractor shall be required to make arrangement for carrying out compression strength tests at his own cost. He shall render all assistance for the preparation of cubes, safe

custody of the same, proper curing and carriage up to the laboratory where the test is to be performed.

25.14 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.

25.15 The contractor shall have to execute guarantee bonds in respect of water proofing works as per [Annexure-23](#) enclosed.

25.16 The Contractor shall arrange electricity at his own cost for testing of the various electrical installations as directed by Engineer-in-Charge and for the consumption by the contractor for executing the work. Also all the water required for testing various electrical installations, fire pumps, wet riser / fire fighting equipments, fire sprinklers etc. and also testing water supply, sanitary and drainage lines, water proofing of underground sump, overhead tanks, water proofing treatment etc. shall be arranged by the contractor at his own cost. Nothing extra shall be payable on this account.

26 Inspection & Audit of works:

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

26.2 Any instructions given by the above authorities in writing with respect to ongoing activities in the work and deficiencies, shortcomings, inferior workmanship pointed out shall be followed by the contractor. Further any recoveries ordered by the above authorities shall be made from the amount payable to the contractor or such amounts shall be paid by the contractor to the Bank.

27 REFUND OF PERFORMANCE GUARANTEE

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

28 DEFECT LIABILITY PERIOD (Refund of Security Deposit)

The defect liability / maintenance period shall be 12 months after the date of completion work for this contract agreement. The Security Deposit shall be released after the defect liability period of 12 months after completion of entire project work and for this the contractor shall have to produce a certificate stating that no defects are pending for rectification from the Engineer-in-Charge, but subject to other provisions specified elsewhere in the contract agreement.

29 Warranty or Guarantee period for specialized works:

The warranty or Guarantee period for the works of water proofing and anti-termite shall be **Ten (10) years** from the date of completion of the works unless otherwise specified elsewhere in the contract agreement. The contractor shall make good / rectify the defects occurring during the above period. **Security deposit equivalent to 10%** of the value of the item shall be retained by the Bank for a period of warranty/guarantee. The warranty/ guarantee shall be provided by the principal company for both material & application.

30 Insurance Policies:

30.1 Before commencing the execution of work, the Contractor shall, without in any way limiting his obligations and liabilities, insure at his own cost and expense against any damage or loss or injury, which may be caused to any person or property, at site of work. The Contractor shall obtain and submit to the Employer proper Contractor All Risk Insurance Policy for an amount equivalent to contract value for this work, with the Employer as the first beneficiary. The insurance shall be obtained in joint names of the Employer and the Contractor (who shall be second beneficiary). Also, he shall indemnify the Employer from any liability during the execution of the work. Further, he shall obtain and submit to the Employer, a third party insurance policy for maximum Rs.10 lakh for each accident, with the Employer as the first beneficiary. The insurance shall be obtained in joint names of the Employer and the Contractor (who shall be second beneficiary). The Contractor shall, from time to time, provide documentary evidence as regards payment of premium for all the Insurance Policies for keeping them valid till the completion of the work. The Contractor shall ensure that Insurance Policies are also taken for the workers of his Sub-Contractors / specialized agencies also. Without prejudice to any of its obligations and responsibilities specified above, the Contractor shall within 10 days from the date of letter of acceptance of the tender and thereafter at the end of each quarter submit a report to the Bank giving details of the Insurance Policies along with Certificate of these insurance policies being valid, along with documentary evidences as required by the Employer. No work shall be commenced by the Contractor unless he obtains the Insurance Policies as mentioned above. Also, no payment shall be made to the Contractor on expiry of insurance policies unless renewed by the Contractor. Nothing extra shall be payable on this account. No claim of hindrance (or any other claim) shall be entertained from the contractor on these accounts.

31 Applicable Permits

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

32 SUBMISSION AND DOCUMENTATION

- 32.1 The contractor shall display all permissions, licenses, registration certificates, bar charts, other statements etc under various labour laws and other regulations applicable to the works, at his site office. He should also keep at site at least one set of latest version of BIS Codes and other relevant codes at site and produce the same if asked for by Engineer-In-charge. In case of non-compliance, these codes will be purchased from the market and actual cost of purchase will be recovered from the next RA Bill of the contractor.
- 32.2 The contractor shall make available four (04) sets of completed drawings, "As Built Drawings" along with literatures, manuals, warranty certificates etc. of various installed fittings, fixtures and equipment for the completed projects. This shall be the prerequisite for payment of final bill.
- 32.3 The Contractor shall make available three (03) sets of all drawings of internal and external services i.e. Water Supply, Sanitary line and Drainage lines. This shall be the prerequisite for payment of final bill. These drawings shall have the following information:
- i. Run off for all piping and their diameters including soil, waste pipes and vertical stacks.
 - ii. Ground and invert level of all drainage pipes together with locations of all manholes and connections, up to outfall.
 - iii. Run off for all water supply lines with diameters location of control valves, access panels etc.
- 32.4 The contractor will submit measurement sheet for the work carried out by him for making payment as per the Conditions of Contract. For casting of RCC members and other hidden items the corrected and duly test checked measurement sheets of reinforcement or that of other hidden items shall be deposited with Engineer in charge or his authorized representative, before casting of RCC or other hidden items. The delay in submission of corrected and duly checked measurement sheet may, therefore, delay casting of RCC or execution of hidden item for which no hindrance shall be recorded.
- 32.5 To avoid delay, contractor should submit all samples well in advance so as to give timely orders for procurement.

33 PROJECT PROGRAM CHART:

The Contractor shall prepare an integrated program chart (Bar chart) within 7 (Seven) days as per [clause-5](#) of Conditions of Contracts of issue of award letter including civil as well as E & M activities for the execution of work, Showing clearly all activities from the start of work to completion, with details of manpower, equipment and machinery required for the fulfillment of the program within the stipulated period and submit the same to Engineer-In-Charge for approval with concurrence of the Employer within **fifteen days** of the award of the work. These shall be submitted by the contractor through electronic media besides forwarding hard copies of the same. The integrated program chart so submitted should not have any discrepancy with the physical milestones attached in the contract agreement.

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 5th of every month. The progress report shall contain the following, apart from whatever else may be required as specified above:

- (i) Construction schedule of the various components of the work through a bar chart for the next three months (or as may be specified), showing the micro-milestone/milestones, targeted tasks (including material and labour requirement) and up to date progress. Digital photographs showing all the parts of construction site along with video of executions of different items whenever required in soft copy have to be submitted in every monthly progress report.
- (ii) Progress chart of the various components of the work that are planned and achieved, for the month as well as cumulative up to the month under reckoning, with reason for deviations, if any in a tabular format.
- (iii) Plant and machinery statement, indicating those deployed in the work.
- (iv) Man-power statement indicating:
 - Individually the names of all the staff deployed on the work, along with their designations.
 - No. of skilled workers (trade wise) and total no. of unskilled workers deployed on the work and their location of deployment i.e. blocks.
- (v) Financial statement, indicating the broad details of all the running account payment received up to date, such as gross value of work done, advances taken, recoveries effected, amount withheld, net payments details of advance payment received, extra/substituted/deviation items if any, etc.

34 Progress and monitoring of work:

The Contractor shall do proper sequencing of the various activities by suitably staggering the activities within various pockets in the plot so as to achieve early completion.

35 Project review meetings:

The contractor, immediately on award of work shall submit details of his key personnel to be engaged for the work at site. In addition, he shall furnish the Employer detailed organization involved with the work.

Monthly Review Meetings: Shall be attended by Contractor / their representatives who can take independent decisions along with Engineer-in-charge and Bank's representatives.

36 TEMPORARY WATER/ ELECTRICITY/ TELEPHONE CONNECTION

Arrangement of temporary telephone connection, water and electricity required by Contractor, shall be made by him at his own cost and also necessary permissions shall be obtained by him directly from concerned authorities, under intimation to the Employer. Also, all initial cost and running charges, and security deposit, if any, in this regard shall be borne by him. The Contractor shall abide by all the rules/ bye laws applicable in this regard and he shall be solely responsible for any penalty on account of violation of any of the rules/byelaws in this regard. Nothing extra shall be payable on this account.

- (i) The Contractor shall be responsible for maintenance and watch and ward of the complete installation and water / electricity meter and shall also be responsible for any pilferage, theft, damage, penalty etc. in this regard. The Contractor shall indemnify the Employer against any claim arising out of pilferage, theft, damage, penalty etc. whatsoever on this account. Nothing extra shall be payable on this account.
- (ii) The Employer shall in no way be responsible for either any delay in getting electric and/or water and/or telephone connections for carrying out the work or not getting connections at all. No claim of delay or any other kind, whatsoever, on this account shall be entertained from the Contractor. Also contingency arrangement of stand-by water & electric supply shall be made by the Contractor for commencement and smooth progress of the work so that work does not suffer on account of power failure or disconnection or not getting connection at all. No claim of any kind whatsoever shall be entertained on this account from the Contractor. Nothing extra shall be payable on this account.

37 External Laboratory:

Wherever tests are stipulated for the Materials, concrete etc the same shall be tested at any government, semi government or NABL approved private laboratories.

38 Licensed agencies:

The contractor shall engage licensed plumbers, electricians of required class as per the statutory rules for the works related to plumbing, sanitary, electrical works. Prior approval of the Employer shall be obtained by producing the copy of the Licenses before commencing these works.

39 Prevention of nuisance and pollution:

- 39.1 The Contractor shall take all necessary precautions to prevent any nuisance or inconvenience to the owners, tenants or occupants in the site and to the public in

general and to prevent any damage to such properties and any pollution. He shall make good at his own cost and to the entire satisfaction of the Employer and/or Engineer in Charge any damage to roads, paths, cross drainage works or public or private property what so ever caused due to the execution of the work or by traffic brought thereon by the contractor. All waste or superfluous materials shall be cleaned away by the contractor without any reservations entirely to the satisfaction of the Employer and/or Engineer in charge.

39.2 Utmost care shall be taken to keep the noise level to the barest minimum so that no disturbance as far as possible is caused to the occupants / users of adjoining buildings. No claim what so ever on account of site constraints mentioned above or any other site constraints not specifically stated here, shall be entertained from the contractor. Therefore, the contractors are advised to visit site and get firsthand information of site constraints. Accordingly, they should quote their tenders. Nothing extra shall be payable on this account.

39.3 No inflammable materials including P.O.L (Petroleum, Oil, and Lubricant) shall be allowed to be stored in huge quantity at site. However, reasonable quantity may be permitted for storage, subject to the compliance of all rules / instructions issued by the relevant authorities and as per the direction of Employer and/or Engineer -in- Charge in this regard.

39.4 No Waiving of Legal Rights and Powers : The Employer and/or the Engineer-in-Charge shall not be precluded or stopped from taking any measurements, and framing of estimates or detaining any certificates made either before or after the completion and acceptance of the work and payment, from showing the true amount and character of the works performed and materials furnished by the contractor and from showing that any such measurements, estimates or certificates untrue or incorrectly made and that Employer shall not be precluded or stopped from recovering from the contractor such damages as it may be sustained by reasons of his failure to comply with the terms and conditions of the contract.

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

39.6 The contractor shall ensure that at no point of time there should be any hindrance to the other construction activities giving on in the site. Therefore, he shall sequence his construction activity in different stretches accordingly. Nothing extra shall be payable on this account.

40 GENERAL CLARIFICATIONS

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

40.2 Unless otherwise specified in the schedule of quantities, the amount quoted shall be considered, as inclusive of pumping out or bailing out water, if required throughout the construction period for which no extra payment shall be made. This shall also include water encountered from any source such as rains, floods, sub soil water table being high and/or due to any other cause whatsoever.

40.3 All stone aggregate and stone ballast shall be of hard stone variety to be obtained from approved quarries.

40.4 The sand, coarse sand/Pulverized Stone sand/ crushed stone sand should be obtained from approved sources. The same shall be clean and sharp angular grit type. The sand shall be screened before using, if required. If the sand brought to site is dirty, it must be washed in clean water to bring the sand to the required specifications. Nothing extra shall be payable on this account.

40.5 The amount quoted for this work, shall unless clearly specified otherwise, include cost of all operations and all inputs of labour, material, T & P, scaffolding, wastages, watch and ward, other inputs, all incidental charges, all taxes, cess, VAT, GST, duties, levies etc. required for execution of the work.

41 Maintenance of Registers

The Contractor will be required to maintain the following registers at site of work and should produce the same for inspection of the Bank/ Engineer-in-charge whenever desired by them. Type of Register to be maintained are:

- i) Register No. - I : Cement
- ii) Register No. - II : Steel
- iii) Register No. - III : Materials at Site Account
- iv) Register No. - IV : Secured advance on materials at site
- v) Register No. - V : Bulkage test of sand
- vi) Register No. - VI : Silt Test
- vii) Register No. - VII : Sieve analysis of fine aggregate
- viii) Register No. - VIII : Sieve analysis of coarse aggregate
- ix) Register No. - IX : Slump Test
- x) Register No. - X : Concrete Cube Test
- xi) Register No. - XI : Hindrance to work
- xii) Register No. - XII : Running Account Bill
- xiii) Register No. - XIII : Labour attendance
- xiv) Register No. - XIV : Labour Payment

ADDITIONAL CONDITIONS

1. COMPLIANCE WITH LOCAL BYE-LAWS, RULES AND REGULATIONS

The work shall be carried out in the manner complying in all respects with the requirements of relevant bye-laws of the local body under the jurisdiction of which the work is to be executed or as directed by the Engineer-in-Charge and/or Employer 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 on 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.

2. PROTECTION OF EXISTING STRUCTURES / SERVICES AND INTERFERANCE WITH OTHER WORKS

The contractor shall protect existing drains, pipes, cables, overhead wires, sewer lines, water lines and other services encountered in the course of execution of the work, and shall repair any damage caused by him at his own expense. The contractor shall not store materials or otherwise occupy any part of the site in a manner likely to hinder the operation of such services.

The contractor shall carry out his work so as not to interfere with or hinder the progress or completion of the work being performed by other contractor(s) or by the Employer and shall as far as possible arrange his work and shall place and dispose of the materials being used or removed, so as not to interfere with the operations of other contractors. He shall arrange his work with that of the others in an acceptable and coordinated manner and shall perform it in proper sequence to the complete satisfaction of Engineer-in-Charge and/or Employer.

3. JURISDICTION OF COURT

Courts at **Ernakulam District, Kerala** alone shall have the jurisdiction to decide any dispute arising out of or in respect of this contract.

4. SAFETY PRACTICES AND SUPERVISION

(i) Necessary protective and safety equipment shall be provided to the Site Engineer, Supervisory staff, labour and technical staff of the contractor by the Contractor at his own cost and to be used at site.

(ii) No inflammable materials including P.O.L shall be allowed to be stored in huge quantity at site. Only limited quantity of P.O.L may be allowed to be

stored at site subject to the compliance of all rules / instructions issued by the relevant authorities and as per the direction of Engineer-in-Charge in this regard. Also all precautions and safety measures shall be taken by the Contractor for safe handling of the P.O.L products stored at site. All consequences on account of unsafe handling of P.O.L shall be borne by the Contractor.

- (iii) In addition to the supervision of work by Engineer-in-Charge, the safety teams deployed by the employer if any, shall also be carrying out regular and periodic inspection of the ongoing activities in the work and deficiencies, shortcomings, inferior workmanship pointed out by them shall be communicated by Engineer-in-Charge to the contractor. Upon receipt of instructions from Engineer-in-Charge these are also to be made good by necessary improvement, rectification, replacement upto his complete satisfaction.
- (iv) 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 record measurements in computerized measurement book duly checked shall be deposited with Engineer-in-Charge or his authorized representative, prior to hiding these items.
- (v) The contractor shall follow "Safety, Health and Environment Handbook-2019" issued by CPWD in 2019 or guidelines issued by any other statutory bodies from time to time.

GENERAL CONDITIONS FOR ALL E&M PACKAGES

1. The scope includes Design, Planning, Supply, Installation, Testing and Commissioning of following E&M Works/Services with best industry standards and practices, as per CPWD Specifications, Building Bylaws, Local Fire Service rules, NBC 2016, ECBC 2017, CPCB, Pollution Control Board, NABH, relevant IS Codes, Indian Electricity Rules and Acts all amended upto date. All working drawing/route plan for different E&M services shall be prepared and submitted by the contractor and shall be got approved from the Engineer-in-charge and Employer before execution of the work.
2. The Contractor shall prepare and submit to the Engineer-in-charge, an integrated programme chart. The integrated programme chart submitted by the contractor shall not have any discrepancy with the financial milestones attached in the contract agreement. The contractor shall execute the work according to the programme submitted to and approved by the Engineer-in-Charge with concurrence of Employer.
3. The CPWD specification to be followed are as mentioned below all amended upto date :
 - i. CPWD General Specifications for Electrical Works Part I Internal - 2023.
 - ii. CPWD General Specifications for Electrical Works: Part-II-External Work-2023.
 - iii. CPWD General Specifications for Electrical Works (Part-III-Lifts & Escalators) - 2003.
 - iv. CPWD General Specifications for Electrical Works Part IV Sub Station - 2013.
 - v. CPWD General Specifications for Electrical Works Part V Wet Riser & Sprinkler System- 2020.
 - vi. CPWD General Specifications for Electrical Works Part VI Fire Detection and Alarm System- 2018.
 - vii. CPWD General Specifications for Electrical Works Part VII D.G. Sets - 2013.
 - viii. CPWD General Specifications for Electrical Works Part VIII Gas Based Fire Extinguishing System - 2013.
 - ix. CPWD General Specifications for Heating, Ventilation & Air-Conditioning (HVAC) - 2017
4. In the case of discrepancy between the schedule of Quantities, the Specifications and/ or the Drawings, the following order of preference shall be observed:-
 - i. Description of Schedule of Quantities.
 - ii. Particular Specification and Special Condition, if any.
 - iii. Drawings.
 - iv. CPWD Specifications.

v. Indian Standard Specifications of B.I.S.

5. If any doubts of intending tenderers shall be clarified, besides discussions on any additional suggestion proposed by the tenderers can be clarified in pre-bid meeting (if it is in in tender). If the tenderers feels that specific departure from specifications are necessary for meeting requirements stipulated for any item, they may submit a list of such departures or proposed change in specifications in the pre-bid conference for discussions. If found necessary a corrigendum to the tender documents will be issued to all the intending tenderers and thereafter no further query/condition, change in technical specifications shall be entertained. The tenderer is advised not to leave blank or write irrelevant information in the schedules. In event no rate has been quoted for any item(s), leaving space both in figure(s), word(s) and amount blank, it will be presumed that the contractor has included the cost of this/ those item(s) in other items and rate for such items will be considered as “zero” and work will be required to be executed accordingly.
6. The competent authority on behalf of Employer reserves to himself the right of accepting the whole or any part of the tender and the tenderers shall be bound to perform the same at the rate quoted. In such case, the Employer also reserves the right to award the balance part of the tender and / or any other contracts to other agencies at the sole discretion of the Employer. The decision of the Employer in this regard shall be final and binding on the contractor and no claim of whatsoever nature shall be entertained from the contractor on this account.
7. The Contractor shall assume all liability, financial or otherwise in connection with his contract and shall protect and indemnify the Employer from any and all damages and claims that may arise on any account. The Contractor shall indemnify the Employer against all claims in respect of patent rights, royalties, design, trademarks of name or other protected rights, damages to adjacent buildings, roads or members of public in course of execution of work or any other reason whatsoever and shall himself defend all actions arising from such claims and shall keep the Bank saved harmless and indemnified in all respect from such actions, costs and expenses. Nothing extra shall be payable on this account.
8. Before commencing the work, the Contractor shall, without in any way limiting his obligations and liabilities, insure at his own cost and expense against any damage or loss or injury, which may be caused to any person or property. Nothing extra shall be payable on this account.
9. The Tenderer may, before submission of the tender, inspect the CPWD specifications. The Employer shall not bear responsibility for the lack of knowledge and also the consequences thereof to the Contractor. The information and data shown in the drawings and mentioned in the tender document have been furnished in good faith and for general information and guidance only. The

Accepting Authority in no case shall be held responsible for the accuracy thereof and / or interpretations or conclusions drawn there from by the Contractor and all consequences shall be borne by the Contractor and no claim, whatsoever, shall be entertained from the Contractor, if the data or information furnished in tender document is different from data / drawing for actual construction issued after the award of work or in-correct otherwise. It is presumed that the Contractor has satisfied himself for all possible contingencies, situations, bottlenecks and acts of coordination, which may be required between different agencies.

10. All incidental charges of any kind including cartage, storage, wastage and safe custody of material etc. shall be borne by the Contractor and no claim whatsoever shall be entertained on this account.
11. Storage and safe custody of all materials shall be the sole responsibility of the Contractor. Nothing extra shall be payable on this account.
12. The materials shall be procured only from the manufacturers and their authorized dealers and documentary proof for such procurement and supply shall be produced by the contractor. The Employer reserves the right to send such materials to the manufacturers / authorized test laboratory to verify the genuineness and quality of the product. All materials equivalent to the one specified should be got approved by the Engineer-in-charge and Employer before using the said materials in the work. The Contractor shall make available, on request from the Employer, for record, copies of challans, cash memos, receipts and other certificates, if any, vouchers towards the quantity and quality of various materials procured and the same shall be kept in record. Nothing extra shall be payable on this account.
13. If the Employer desires to send any samples of materials for testing in a accredited laboratory, the Contractor at his own expense shall supply all materials, labour for preparing and testing samples as required by the Engineer-in-Charge. The testing shall be carried out in the presence of the representative of the Engineer- in- Charge. The testing charges shall be borne by the Employer only when the samples satisfy the provision specified and conform to the requirement of the relevant specifications. If the results show that the samples do not satisfy the relevant specification, the testing charges shall be borne by the contractor.
14. The Contractor shall conduct his work so as not to interfere with or hinder the progress or completion of the work being performed by other Contractors or by the Employer and shall as far as possible arrange his work and shall place and dispose off the materials being used or removed so as not to interfere with the operations of other Contractors or shall arrange his work with that of the others in

an acceptable and coordinated manner and shall perform it in proper sequence to the complete satisfaction of others.

15. The Engineer-in-Charge and/or Employer shall not be precluded or stopped from taking any measurements, and framing of estimates or detaining any certificates made either before or after the completion and acceptance of the work and payment, from showing the true amount and character of the works performed and materials furnished by the Contractor and from showing that any such measurements, estimates or certificates untrue or incorrectly made and that Employer shall not be precluded or stopped from recovering from the Contractor such damages as it may be sustained by reasons of his failure to comply with the terms and conditions of the contract.
16. The tenderers shall take into account the element of wastage(s) those are likely to be there in all elements of the work and quote his price, taking that into account. The tenderers shall study all the items from the point of view of wastage(s), which are likely to take place.
17. The contractor or his authorized representative shall sign the site order book and comply with the remarks entered therein by the representative of the Engineer-in-Charge and/or Employer.
18. All sundry equipment, fittings, assemblies, accessories, hardware items, bolts, supports, termination lugs for electrical connection, cable glands, junction box and all other sundry items for proper assembly and efficient working of the various equipment and components of the work shall be deemed to have been included in the scope of work, irrespective of the fact whether such items are specifically mentioned in the tender document or not.
19. All cutting and making holes and finishing the same in building should be responsibility of the main contractor. Any Damage done to the building during the execution of electrical work shall be made good immediately at his own cost to the entire satisfaction of the Engineer-in-Charge and Employer.
20. It is the responsibility of the contractor to arrange required power supply and water supply for installation and testing purposes during the contract period. Nothing extra shall be paid on this account. The work will be considered as complete only after complete energisation and operation of of all E&M Systems and issue of test results as per CPWD specifications after completion of all work.

Defect liability period (DLP) for All equipments are 12 months (except LED fittings which shall have DLP for minimum 5 years), from the date of taking over the installation by the Employer, 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 DLP shall be forthwith repaired or replaced free of cost, to the satisfaction of the Engineer-in Charge and/or Employer. In case it is felt by the Employer that undue delay is being caused by the contractor in doing this, the same will be got done by the Employer at the risk and cost of the contractor. The decision of the Employer in this regard shall be final & binding on the contractor.

Any additional specifications/ conditions are to be read in conjunction with schedule of quantities for the work. However, nothing extra shall be paid on account of these additional specifications and conditions, as the same are to be read alongwith schedule of quantities for the work.

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

The acceptable makes of various equipments / components/ accessories have been indicated in "Acceptable Makes" indicated in the list attached. The tenderer shall work out the cost of the offer on this basis. Alternate makes are not acceptable. The makes and models offered should be as per the specification and BOQ of the NIT. The decision of Employer is final in this regard. The materials can be brought to site only after the due approval of drawings, makes, models from the Employer only.

21. Within prescribed time period as per the mile stone the contractor shall submit List of makes & Model of E&M equipments and accessories including technical documents e.g Catalogues, technical write up, design detailsetc. as required for the approval of the products.

22. **Documents to be provided on Completion of Work:-**Three sets of following documents shall be furnished to the Bank by the contractor on completion of work:-

- i. 3 sets of Completion drawings (as built).
- ii. 3sets of manufacturer's technical catalogues of all equipment and accessories.
- iii. Operation and maintenance manual of all major equipment, detailing all adjustments, operation and maintenance procedure.
- iv. Soft copy of as built drawings in AutoCAD format in CDs.
- v. Completion certificate as per CPWD specification if any.

SPECIAL CONDITIONS FOR ALL SPECIALIZED E&M COMPONENTS

1. The applicant should either himself meet the eligibility conditions for the respective E&M components or otherwise he will have to associate with agencies, fulfilling the eligibility requirements and hence consent letter from at least One eligible Associate Agency of the respective components of E&M work shall also be submitted.
2. The main contractor has to submit consent letters as per [Annexure-21](#) of this tender document from at least one eligible associate agency of the respective component of E&M work for each of the component of E& M works by clearly indicating the component of work within 30 days of award of work OR before start of minor component of work whichever is earlier.
3. In case the main contractor is himself eligible (as per eligibility criteria) for executing any specific minor component and intends doing the job himself, he may not be required to associate with another agency for that minor component of work. In such cases the main contractor also has to submit the documents as per eligibility criteria mentioned for associated agency of individual E&M component.
4. However, the contractor shall also be eligible to carry out himself any or all of these works without associating any specialized agency provided:
 - He fulfills the prescribed eligibility criteria respectively for these work(s)
 - Or
 - He directly procures the equipment of approved make from manufacturer and gets it installed from authorized agency/service provider of the manufacturer/specialized agency, all as per the eligibility criteria mentioned in NIT.
5. The main Bidder have to submit the following documents for association of contractor within one month of award of work. In support of the eligibility conditions of the proposed Associated Contractor, copy of their registration documents, Electrical License, GST Documents duly attested by the applicants (Main Contractor) shall be submitted to the Engineer-in-Charge who will submit these documents to the Employer for deciding the eligibility.
6. Each such Associated Contractor will certify that they are not debarred as on the day of application for sale of tender. Proposal for associating agency for minor components of work shall be submitted in [Annexure - 29](#) of this tender document from each associate independently for all electrical and mechanical components.

7. The main contractor will submit an Affidavit of MOU signed with eligible associated contractor. The Affidavit of MOU in the enclosed [Annexure - 22](#) shall be signed by both the parties, main contractor i.e.as 1st party and associated contractor as 2nd party independently for all electrical and mechanical components.
8. The main contractor has to enter into MoU with eligible E & M agencies/contractor(s) associated by him for each sub heads of E & M works. The Composite Contractor and the associated specialized agencies is to give required affidavit to confirm their association. Copy of such MoU shall be submitted to the office of Tender Accepting Authority. The **Eligibility Criteria for Association of Agencies for Execution of E&M** works as detailed below.
9. Tender accepting authority approves the change of Sub-Agency in case it is required during the currency of the contract. The new agency/agencies shall also have to satisfy the laid down eligibility criteria. In case Employer with/without recommendation of Engineer-in-Charge is not satisfied with the performance of any agency, he can direct the contractor to change the agency executing such items of work and this shall be binding on the contractor.
10. In event of the concerned E&M agency not performing satisfactorily or failure of associate/sub-contractor to complete the E&M work, the main contractor on the written direction of the Bank, shall remove the Associate/sub-contractor deployed on the work and shall submit name of new associate who fulfills the conditions mentioned in NIT to execute the leftover work without any loss of time or variation in cost to the Bank in this regard. Such associates shall also enter into Agreement with the main tenderer and shall meet all the guarantee for the equipments already supplied for which payment has been released by the Bank in part. If any equipment supplied for the work, during the currency of the earlier Associate/sub-contractor and paid partly by the Employer, becomes redundant /not in a position to be installed and commissioned and put to beneficial use due to change in agency for execution of E & M work, the main contractor shall be liable for replacement of the equipment(s) at no cost to Employer. No change of Electrical Contractor will be allowed without prior approval of the Tender accepting authority.
11. In respect of all works including Development & Bulk Services, the materials shall be procured only from the original equipment manufacturers/authorized dealers of OEM. The contractor shall submit all documentary details in fulfillment of this conditions regarding procurement of materials including relevant test certificates.

12. It will be obligatory on the part of the contractor/Bidder to sign the tender documents for all the component parts. The main contractor shall be responsible and liable for proper and complete execution of the E & M work and ensure coordination and completion of both civil and E & M work. The main contractor has to enter into agreement with contractor associated by him for execution of minor component. Copy of such agreement shall be submitted to Bank. The associate contractor shall attend the inspection of the work by the Engineer-in-Charge/Employer as and when required.
13. The main firm should submit the willingness from eligible electrical/specialized contractors to get associated with them for execution of the electrical component of works in wholesome manner and as per the conditions set out in the MOU to be entered into, between the one who is awarded the work and the associated eligible electrical contractor.
14. In support of the eligibility conditions of the proposed associated electrical Agencies, copy of their registration documents, Electrical Contractor's License, GST documents, eligibility documents, Experience Certificate by competent authority, shall have to be submitted. Such associate electrical Agencies will certify that they are not debarred as on the day of application by Central Govt /State Govt. Dept., Central/State Govt.PSU/ Autonomous Bodies.
15. The main contractor shall be responsible and liable for proper and complete execution of the E & M Services, and ensure coordination and completion of both civil and electrical works.
16. The associate or sub-contractor shall attend the inspection of the work by the authorized representative of Engineer-in- charge for E & M works as and when required. The agencies executing the electrical work should have valid license for LT/HT as applicable and as described in eligibility criteria.
17. Verifiable completion certificates of the work eligibility documents as the case may be, duly attested by the applicant shall be submitted. Valid Electrical Contractor' license, as the case may be, duly countersigned by the applicant as well as signed by the associate contractors shall also be submitted. Self-attested GST documents in respect of the associated agencies as well as signed by associate firms shall be submitted along with the tender documents.
18. For the different E&M subheads, the main contractor will have to engage the associate electrical contractor/specialized agency in the field after award of work as per following:-
 - i. The main contractor / firm should either himself meet the eligibility conditions for the respective E&M packages or otherwise he will have to associate an agency meeting the eligibility requirements given below.

- ii. The firm should have successfully completed similar works during the last 7 years ending upto previous day of last date of submission of tender for each sub heads:
 - iii. The value of executed works shall be brought to current costing level by enhancing the actual value of work at simple rate of 7% per annum, calculated from the date of completion to the last date of submission of bid.

19. In case of LED bulbs/fittings all the LED bulbs/fittings along with driver shall be guaranteed for a period of 2 years. The guarantee for Two years must be supported by the manufacturer and the warranty card must be given by the manufacturer along with the supply of material. Before completion of defect liability period of one year, the main contractor has to submit security deposit of 5% of price quoted by him for SITC of LED fittings, for the remaining 1 year warranty period in acceptable form i.e., Bank guarantee. The Security Deposit deducted from the bills of contractor shall be refunded to the main contractor only after submission of above security deposit for LED fittings by main contractor, failing which this LED security deposit @ 5% as above shall be deducted from Security Deposit deducted for total work and balance amount only will be refunded after completion of defect liability period. The LED Security Deposit will be released pro-rata basis each year. The same as above is applicable for Lift maintenance period (5 years after warranty period) also.

20. **Eligibility Criteria for Association of Agencies for Execution of E&M Works.**
 - a. **Sub-head wise total cost** is taken as below for the purpose of Eligibility Criteria only, which is rough cost and should not be used or interpreted for any other purpose.
 - b. SITC means: Supplying, Installation, Testing & Commissioning.
 - c. The main contractor/ lowest tenderer, is also eligible to carry out work himself / herself any or all of these works without associating any specialized agency provided:-
 - i. He fulfills the prescribed eligibility criteria respectively for these work(s).
 - OR
 - ii. He directly procures the equipment of approved make from manufacturer and gets it installed from authorized agency/service provider of the manufacturer or specialized agency as per criteria mentioned in NIT.

- d. The lowest tenderer/ main contractor has to submit, along with the performance guarantee after the acceptance of tender, an undertaking from the OEM regarding:-
- i. Authorization certificate.
 - ii. The OEM is unconditionally support the lowest tenderer technically throughout the execution of contract as well as for maintenance/comprehensive maintenance contract for the useful life of the system.
 - iii. OEM is providing all the spares required for healthy functioning of the equipment for at least **seven years** from the date of supply of equipment.
- e. The Eligibility criteria for association of agencies for execution of E & M works for respective subhead/package with definition of similar work are detailed in table below:

S. N	Components of E&M works	Estimated Cost in Lacs	Minimum eligibility Criteria
1	Wiring, MCB Distribution boards, Internal & External Electrical Installations, Raceways, Rising Mains, Earthing, Lightning Arrester, Compound lighting, LT Panels,	Rs.10.47 Lacs	<p>The main contractor shall either himself meet the eligibility conditions or may associate with contractor registered with CPWD or State PWD or MES or Railways or such other Government organizations or Registered in Public sector units or Public sector Bank's or Financial Institutions or NSE/ BSE Listed Private Companies/ Institutions as Electrical Contractor for execution of this Sub head of work, possessing valid Electrical Contractor License of appropriate Voltage issued by competent authority.</p> <p>Three similar completed works each of value not less than Rs. 4.19 Lakhs OR Two similar completed works each of value not less than Rs. 5.24 Lakhs OR One similar completed work of value not less than Rs. 8.38 Lakhs Similar work shall mean "SITC, Internal & External Electrical</p>

			Installations, including LT Panels for multi-storied building”
2	Fire Fighting System & Down comer System	Rs.2.58 Lacs	<p>The main contractor shall have to associate with agency fulfilling the following eligibility criteria successfully completed during last seven years ending up to previous day of last date of submission of tender as given.</p> <p>Three similar completed works each of value not less than Rs. 1.03 Lakhs</p> <p>OR</p> <p>Two similar completed works each of value not less than Rs. 1.29 Lakhs</p> <p>OR</p> <p>One similar completed work of value not less than Rs. 2.06 Lakhs</p> <p>Similar work shall mean "SITC of Fire Fighting & Down comer System."</p>
3	Passenger Lift	Rs.14.70 Lakhs	<p>The main contractor shall have to associate with agency fulfilling the following eligibility criteria successfully completed during last seven years ending up to previous day of last date of submission of tender as given.</p> <p>Three similar completed works each of value not less than Rs. 5.88 Lakhs</p> <p>OR</p> <p>Two similar completed works each of value not less than Rs. 7.35 Lakhs</p> <p>OR</p> <p>One similar completed work of value not less than Rs. 11.76 Lakhs</p> <p>Similar work shall mean "SITC of passenger lift."</p>

Note: 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 last date of submission of tender.

TECHNICAL SPECIFICATIONS

1. Specifications

1.1 Except for the items, for which Particular Specifications are given or where it is specifically mentioned otherwise in the description of the items in the schedule of quantities, the work shall generally be carried out in accordance with the "CPWD Specifications" additional / Particular Specifications, Architectural / structural drawings and as per instructions of Engineer-in-Charge.

1.2 All Technical Specifications in respect of all material to be used, method of execution, workmanship and quality for each item of the work shall be as per CPWD specifications and latest Indian Standard unless otherwise specified.

1.3 Any reference made to any Indian Standard Specifications, shall imply to the latest version of that standard, including such revisions / amendments as issued by the Bureau of Indian Standards up to last date of receipt of Tenders.

1.4 The Contractor shall keep at his own cost all such publications including relevant Indian Standard Codes applicable to the work at site.

A. TECHNICAL SPECIFICATIONS FOR CIVIL WORKS

1.1 Earthwork:

1.1.1 General:

All types of excavation work shall be done in accordance with CPWD specifications Volume - I & II with correction slips up to the last date of submission of tender documents. Any trenching and digging for laying sewer lines / water lines /cables etc. shall be commenced by the contractor only when all men, machinery's and materials have been arranged and closing of the trench(s) thereafter shall be ensured within the least possible time.

1.1.2 Setting Out:

The contractor shall be responsible for accurately setting out the works to the specified positions, dimensions, levels, and building lines and also checking the site survey for dimensional and level accuracy and reporting any discrepancies before any commences. Any errors in position, level, dimension or alignment of any part of the works at any time shall be rectified by the contractor at his own expense. The contractor shall provide the Engineer with all facilities, equipments and labourers to enable him to check the setting out and levels of the works at all times. The checking of any setting out point, line or level by the engineer shall not in any way relieve the contractor of his responsibility. All setting out points, benchmarks, site rails, pegs and other survey points shall be

clearly marked and protected from damage or disturbance during the execution of the works as per CPWD specifications.

1.1.3 Applicable Standards:

The contractor shall ensure to follow the applicable BIS and IS standards related to the excavation and local building regulations and statutory regulations.

1.1.4 Labour and Equipments:

The contractor shall provide all labourers, equipments, materials and any incidentals necessary to complete all aspects of work included in the drawings and specifications. The contractor shall submit Earth Management Plan which is to be approved by the Employer or Engineer's representative before commencing the work.

1.1.5 Related Works:

- a) Clearing, grubbing, and removing all vegetation from the site.
- b) Excavation including getting out and necessary dressing to make surface ready to receive blinding.
- c) Filling and back filling and compaction of fills
- d) Removal and disposal of surplus material.
- e) Dewatering, shoring and strutting, sheet piling (wooden & steel)
- f) Road, driveway, Paver, Concret block and Compound Wall Works
- g) Landscape or Horticulture Works

1.1.6 Disposal of Surplus earth:

All excavated material including excavated earth declared as surplus and not useful, shall be removed from the site by the contractor within the scope of agreement. The removal of surplus Material shall only be undertaken by the contractor when instructions in this regard are obtained from Engineer in charge.

Dumping shall be at designated place identified by the contractor. Contractor shall also obtain necessary permissions / approvals / authorization from the competent authority of local body / traffic / police /Mining & Geology department as the case may be for removal of excavated earth/materials. No payment/fees on this account shall be entertained by the Bank.

1.2 Concrete work :

1.2.1 Plain Cement Concrete / Lean Concrete:

Plain Cement Concrete / Lean Concrete in required thickness as per design shall be laid below the raft and all type foundation works, below kerb stone, under floors or wherever required as per CPWD Specifications Volume - I & II with correction slips up to the last date of submission of tender documents.

1.2.2 Reinforced Cement Concrete Work:

The work shall be done as per CPWD specifications Volume - I & II with correction slips up to the last date of submission of tender documents. IS:456-2000 Code of Practice for Plain and Reinforced Concrete (as amended up to date) shall be followed in regard to Concrete Mix Proportion and its production as under:

- (i) The Concrete Mix Design shall be done as "Design Mix Concrete" as prescribed under Clause-9 of IS:456-2000 mentioned above.
- (ii) Concrete shall be manufactured in accordance with Clause-10 of above mentioned IS:456-2000 covering all measures for achieving said Quality Assurance parameters. Contractor shall also depute a qualified Concrete Technologist during the manufacturing of concrete for certifying the quality of concrete produced either on site or at RMC plant. Minimum M25 grade or as specified in the structural design of concrete shall be used in all structural elements of RCC, both in load bearing and framed structure.

1.2.3 The mechanical properties such as modulus of elasticity, tensile strength, creep and shrinkage of concrete using fly ash blended cements (PPCs) are not likely to be significantly different and their values are to be taken same as those used for concrete made with OPC.

1.2.4 To control higher rate of carbonation in early ages of concrete in PPC based concrete, water/binder ratio shall be kept as low as possible, which shall be closely monitored during concrete manufacture. If necessitated due to low water/binder ratio, required workability shall be achieved by use of chloride free chemical admixtures conforming to IS:9103. The compatibility of chemical admixtures and super plasticizers with each set PPC received from different sources shall be ensured.

1.2.5 In environment subjected to aggressive chloride or sulphate attack in particular, PPC based concrete is recommended. In case, where structural concrete is exposed to excessive magnesium sulphate, fly ash content shall be limited to 18% by weight. Special type of cement with low C3A content may also be alternatively used. Durability criteria like minimum binder content and maximum water/binder ratio also need to be given due consideration in such environment.

1.2.6 Wet curing period shall be enhanced to a minimum of 10 days or its equivalent. In hot and arid regions, the minimum curing period shall be 14 days or its equivalent.

1.2.7 Subject to general guidelines detailed out as above, PPC manufactured conforming to IS:1489 (Part-I) shall be treated at par with OPC for manufacture of Design Mix Concrete for structural use in RCC.

1.2.8 Till the time, BIS makes it mandatory to print the percentage of fly ash on each bag of cement, the certificate from the PPC manufacturer indicating the same shall be supplied by the contractor. The contractor should submit the above certificate to the site engineer for every load.

1.2.9 While using PPC for structural concrete work, no further admixing of fly ash shall be permitted.

1.2.10 If the quantity of cement actually used in the work is found to be more than the theoretical quantity of cement including authorised variation, nothing extra shall be payable to the contractor on this account. The allowable variation shall be as per clause 38.

1.2.11 For non-scheduled items, the decision of the concerned Chief Engineer or Superintending Engineer (stipulated in station-wise respective Schedule-F) regarding theoretical quantity of the cement which should have been actually used shall be final and binding on the contractor.

1.2.12 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.

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

1.2.14 REINFORCED CEMENT CONCRETE:

- a) CPWD Specifications and latest IS codes shall be followed.
- b) The RCC work shall be done with RMC of Design Mix Concrete, unless otherwise specified in the nomenclature of items, wherever letter M has been indicated, the same shall imply for the Design Mix Concrete. The Ready Mix Concrete shall be as per IS: 4926 and as per CPWD specification and guide lines. For the nominal mix in RCC, CPWD specification shall be followed. The Design Mix Concrete will be designed based on the principles given in IS:456, 10262 and SP 23. The contractor shall carry out design mixes for each class of concrete indicating that the concrete ingredients and proportions will result in concrete mix meeting requirements specified. **Extra cement up to 10% of the minimum specified cement content in design mix shall be payable separately. In case the cement content in design mix is more than 110% of the specified minimum cement content, the contractor shall have discretion to either re-design the mix or bear the cost of extra cement.** The cement shall be actually weighed as presumption of each bag having 50 kg shall not be allowed. In case of use of admixture, the mix shall be designed with these ingredients as well. **While using PPC for structural concrete work, no further admixing of fly ash shall be permitted.** The specification mentioned herein below shall be followed for Design Mix Concrete.

Ingredients :

- (i) Coarse Aggregate : As per CPWD specifications
 - (ii) Fine Aggregate : As per CPWD specifications
 - (iii) Water : As per requirements laid down in IS 456-2000 and CPWD specifications.
 - (iv) Cement : Cement arranged by the contractor will be PPC (in bags) conforming to IS: 1489: Part-I.
- c) The concrete mix design with and without admixture shall be got done by contractor at his own cost and will be carried out at accredited laboratory as approved by Engineer-In-Charge.
- d) The contractor shall submit the mix design report from approved institutions for approval of Engineer-in-Charge within 30 days from the date of issue of letter of acceptance of the tender. No concreting shall be done until the mix design is approved by the Engineer-in-charge.
- e) In case of change of source or characteristic properties of the ingredients used in the concrete mix during the work, a revised mix design report shall be conducted from approved Government institutions and shall be submitted by the contractor as per the direction of the Engineer-in-Charge.
- f) **Materials Specifications for RCC Works:**

Water: -

- (i) Water shall be tested in accordance with the relevant IS Code. IS:456-2000 and as per CPWD specifications.
- (ii) The contractor shall make its own arrangements for storing of water. Care shall be taken to ensure that water is not contaminated anyway.
- (iii) For RMC concrete, quality of water shall be got tested at concrete producing plant at every 2 months intervals from the reputed approved laboratory/any Government institutions as mentioned in para 3.2.13 or as approved by Engineer in charge.

Cement:

Cement arranged by the contractor will be conforming to IS 456: 2000 as mentioned in the additional condition for cement attached with tender documents.

Admixture:

The admixture shall be as per relevant BIS code and as per CPWD specifications.

The contractor shall not be paid anything extra for admixture required for achieving desired workability without any change in specified water cement ratio for RCC / PCC work.

g) **Additional Conditions and Particular Specifications FOR RCC WORK (DESIGN MIX CONCRETE):**

(i) **Grade of Concrete: -**

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

Sr. No	Grade	Compressive Strength on 15cm cubes minimum 7days (N/mm ²)	Specified characteristic compressive strength at 28days (N/mm ²)	Minimum cement content* (Kg per cum)	Maximum Water cement ratio
(i)	M-25	As per Design	25	330	0.4
(ii)	M-30	As per Design	30	340	0.4
(iii)	M-35	As per Design	35	350	0.4
(iv)	M-40	As per Design	40	360	0.4
(iv)	M-45	As per Design	45	370	0.4

The Concrete mix will be designed for minimum workability as specified in para 7 of IS-456-2000. In the designation of concrete mix letter M refers to the mix and the number to the specified characteristic compressive strength of 15 cm-cube at 28 days expressed in N/mm².

15.2.2 Frequency

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

Quantity of Concrete in the Work, m ³	Number of Samples
1 - 5	1
6 - 15	2
16 - 30	3
31 - 50	4
51 and above	4 plus one additional sample for each additional 50 m ³ or part thereof

NOTE—At least one sample shall be taken from each shift. Where concrete is produced at continuous production unit, such as ready-mixed concrete plant, frequency of sampling may be agreed upon mutually by suppliers and purchasers.

1 Sample = (3 specimen)

(ii) **Workability of Concrete (Unless otherwise specified elsewhere or as decided by Engineer-in-charge):**

Placing Conditions	Degree of Workability	Slump (mm)
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(1)	(2)	(3)
Mass concrete, Lightly reinforced sections in slabs, beams, walls, columns, floors, hand placed pavements, canal lining, strip footings	Low	25-75
Heavily reinforced section in slabs, beams, walls, columns	Medium	50-100
Slipform work, pumped concrete	Medium	75-100

The recommended values of slump for various members to confirm IS 456: 2000 with amendments.

(iii) Approval of Design Mix:

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

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

Where

Fck = Characteristic Compressive Strength at 28 days

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

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

(iv) Charges for Design Mix:

All cost of mix designing and testing connected therewith including charges payable to the Government institutions shall be **borne by the contractor**.

(v) Production of Concrete:

The concrete shall be RMC produced in a central batching and mixing plant (either installed at site or procured from outside approved RMC plant) with, computerized printing for contents and admixture dosage. The batching plant shall be fully automatic. Automatic batcher shall be charged by devices which, when actuated by a single starter switch will automatically start the weighing operation of each materials and stop automatically, when the designated weight of each materials have been reached. The batching plant shall have automatic arrangements for dispensing the admixture and shall also be capable of discharging water in more than one stage. A print out from the batching plant for every lot shall be submitted.

The batching plant shall be capable of determining and controlling the prescribed amounts of various constituent materials for concrete accurately i.e. water, cement, sand, individual size of coarse aggregates etc. The accuracy of the measuring devices shall fall within the following limits. (Refer IS:456-2000 para 10.2.2)

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

(vi) Mixing Concrete:

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

(vii) Transportation, Placing and Compaction of Concrete:

Mixed concrete from the batching plant shall be transported to the point of placement by transit mixers or through concrete pumps or steel closed bottom buckets capable of carrying 6 cum concrete. In case the concrete is proposed to be transported by transit mixer, the mixer speed shall not be less than 4 revolution/minute of the drum nor greater than a speed resulting in a peripheral velocity of the drum as 70 meter/minute at its largest diameter. The agitating speed of the agitator shall be not less than 2 revolution/minute nor more than 6 revolution/minute of the drum. The number of revolutions of the mixing drum or blades at mixing speed shall be between 70 to 100 revolutions for a uniform mix, after all ingredients, have been charged into the drum. Unless tempering water is added, all rotation after 100 revolutions shall be at agitating speed of 2 to 6 revolution/minute and the number of such rotations shall not exceed 250. The general construction of transit mixer and other requirements shall conform to IS: 5892. Time & transportation of RMC from plant to site (upto placing / laid in position) shall be less than 2 hours. If the RMC is transported from the outside approved RMC plant to the site of works, then nothing extra on this account will be payable and contractor has to quote the rate accordingly.

In case concrete is to be transported by pumping, the conduit shall be primed by pumping a batch of mortar / thick cement slurry through the line to lubricate it. Once the pumping is started, it shall not be interrupted (if at all possible) as concrete standing idle in the line is liable to cause a plug. The operator shall ensure that some concrete is always there in the pump-receiving hopper during operation. The lines shall always be maintained clean and shall be free of dents.

Materials for pumped concrete shall be batched consistently and uniformly. Maximum size of aggregate shall not exceed one-third of the internal diameter of the pipe. Grading of aggregate shall be continuous and shall have sufficient ultra-fine materials (materials finer than 0.25mm). Proportion of fine aggregates passing through 0.25mm sieve shall be between 15 and 30% and that passing through 0.125 mm sieve shall not be less than 5% of the total volume of aggregate. When pumping long distances and through hot weather, set-retarding admixtures may be used. Admixtures to improve workability can be added. Suitability of concrete shall be through pumping shall be verified by trial mixes and by performing pumping tests.

(viii) Preparation of Mixes as per approved design mix and conducting confirmatory test at field lab:

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

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

(ix) Work Strength Test:

Test Specimen:

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

Test Results of Sample:

The test results of the sample shall be the average of the strength of three specimens. The individual variation shall not be more than +/-15% of the average. 100% test should be done in NIT/IIT laboratory as directed by the Engineer-in-charge.

Standard for acceptance criteria:

Standard of acceptance shall be same as specified in clause 16 of IS 456-2000.

In order to keep the floor finish as per direction of Engineer-in-charge and as per Architectural drawings and to provide required thickness of the flooring as per specification, the level of top surface of RCC shall be accordingly adjusted at the time of its centering, shuttering and casting for which nothing extra shall be paid to the contractor.

h) Ultrasonic Pulse Velocity method of Test for RCC:

(i) The underlying principle of assessing the quality of concrete is that comparatively higher velocities are obtained when the quality of concrete in terms of density, homogeneity and uniformly is good. The consistency of the concrete as regards its general quality gets established. In case of poorer quality lower velocities are obtained. If there are cracks, voids or flaws inside the concrete which come in the way of transmission of pulse, lower velocities are obtained.

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

(iii) Velocity criterion for Concrete Quality Grading:

Sr. No.	Pulse velocity by Cross Probing (km/sec)	Concrete Quality Grading
1	Above 4.5	Excellent
2	3.5 to 4.5	Good
3	3.0 to 3.5	Medium
4	Below 3.0	Doubtful

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

(iv) Pulse velocity method of test of concrete is to be conducted for CPWD works as a routine test. The acceptance criteria as per the above table will be applicable which is as per IS 13311 (part-1): 1992. From the above “Good” and “Excellent” grading are acceptable and below these grading the concrete will not be acceptable.

(v) 5% of the total number of RCC members in each category i.e. beam, column, slab and footing may be tested by UPV test method for establishing quality of concrete. It is suggested that test be conducted on RCC beam near joint with column, on RCC column near joint with beam, in RCC footings and rafts. On RCC rafts a suitable grid can be worked out for determining number of tests. In addition doubtful areas such as honeycombed locations, where continuous seepage is observed, construction joints and visible loose pockets will also be tested.

(vi) The test results are to be examined in view of the above acceptance criteria “Good” and “Excellent” and wherever concrete is found with less than required quality as per acceptance criteria, repairs to concrete will

be made. Honeycombed areas and loose pockets will be repaired by grouting using Portland Cement Mortar/Polymer Modified Cement Mortar /Epoxy Mortar, etc. after chipping loose concrete in appropriate manner. In areas where concrete is found below acceptance criteria and defects are not apparently visible on surface, injecting approved grout in appropriate proportion using epoxy grout / acrylic Polymer modified cements slurry made with shrinkage compensating cement / plain cement slurry etc. will be resorted to for repairs.(refer relevant chapters from CPWD Hand Book on Repairs and Rehabilitation of RCC Buildings).Repair to concrete will be done till satisfactory results are obtained as per the acceptance criteria by retesting of the repaired area. If satisfactory results are not obtained dismantling and relaying of concrete will be done.

(vii) **Tolerances:** As per CPWD specifications.

- (a) In case of rejection of concrete on account of unacceptable compressive strength, governed by para 'Standard of Acceptance' as above, the work for which samples have failed shall be redone at the cost of contractors. However, the Engineer in charge may order for additional tests (like cutting cores, ultrasonic pulse velocity test, load test on structure or part of structure etc.) to be carried out at the cost of contractor to ascertain if the portion of structure wherein concrete represented by the sample has been used, can be retained on the basis of results of individual or combination of these tests. The contractor shall take remedial measures necessary to retain the structure as approved by the Engineer in charge without any extra cost.
- (b) As per general engineering practice, level of floors in toilet / bath, balconies, shall be kept 12 to 20mm or as required, lower than general floors shuttering should be adjusted accordingly. The landing level of mummy / staircase cabin shall be kept one riser level higher than adjoining slab level so as to accommodate water proofing treatment over terrace slab. In case of kitchen slab the portion of floor trap below kitchen platform is kept at lower level as per drawings. Nothing extra is payable on this account.
- (c) For the execution of centering and shuttering, the contractor shall use propriety "Reebole" chemical mould release agent or equivalent as shuttering oil as approved by Engineer-in-charge.

i) **Cover/Spacer Block:**

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

approved by the Engineer-in-charge, rate of RCC items is inclusive of cost of such cover blocks.

1.3 Form Work:

All the specifications for formwork/shuttering shall be as per CPWD Specifications. Centering and shuttering for all concrete and reinforced concrete wherever required shall be in steel mainly used for concrete purpose to produce a smooth straight level and sharp profiles shall be used for the works for uniform finish on all exposed surfaces. Panels to be in largest practicable sizes to reduce the number of joints, form work material shall have strength adequate to withstand pressure of newly placed concrete. However, all props, bracings, scaffolding etc., shall be in steel. In some restricted places where it is not feasible to use steel formwork, marine ply shall be used with the approval of engineer in charge. The entire responsibility of planning, design, erection and safety of formwork shall lie with the contractor.

Form work shall include all temporary or permanent forms or moulds required for forming the concrete which is cast-in-situ, together with all temporary construction required for their support.

1.4 REINFORCEMENT: (Only TMT Steel shall be used)

All reinforcement bars to be used in construction shall be deformed high strength TMT (thermo-mechanically treated bars) reinforcement bars of FE 500-grade of high yield strength and percentage elongation, minimum 14.5% as per IS:1786 and obtained from approved manufacturer. Plain MS bars shall be used only for 6mm dia bars.

Use only SAIL, VIZAG AND TATA, brand Steels. The contractor should submit company's (Original manufacture) test report.

(i) Fabrication of reinforcement

Reinforcement shall be fabricated as per the drawing. Bending shall be done mechanically or with hand nut to the correct radius with proper tools and platform and shall conform to IS. Bending of material shall be cold bending only. Material shall be inspected for visible defect such as cracks brittle excessive rust, loose mill scale, etc. Cracked ends of bars shall not be used in works. Also the bars should be free from any deleterious material and hence the best practice shall be to hose down reinforcement just prior to concreting. It is important that bending straightening, cutting etc. shall be carried out in a manner not injurious to the material and the safety of the persons working. Anchoring of bars and stirrup shall be provided exactly as detailed in the structural drawing or as directed by the Banks Engineer / Architect.

(ii) Cover to reinforcement

Reinforcement shall have concrete cover and the thickness of such cover (excluding of plaster or other decorative finish) shall be as specified in drawing or as directed by the Banks Engineer / Architect.

(iii) FIXING IN POSITION

Correctly cut and bent bars shall be accurately placed in position as detailed in the drawing unless otherwise specified by the Bank's Engineer / Architect reinforcement shall be positioned within the tolerance as under.

For effective depth 200mm or less +-10mm
For effective depth more than 200mm +-15mm

But in no case shall the cover be reduced by more than 5mm of that specified. There shall be no compromise on cover for foundation work.

Reinforcing bars shall be held in position during placing of concrete by use of concrete cover blocks (made of equal strength of well cured concrete in use) steel chair spacers steel hangers, supporting wires, etc. and secured by trying with an annealed binding wire or 16 to 18 gauge as approved by the Bank's Engineer / Architect. Chairs used for support will not be paid extra

(iv) Measurements

Reinforcement shall be measured as follows:
Lengths of different diameters of bars actually used shall be measured nearest to a centimeter and weight calculated.

If steel is procured by the contractor; respective unit weight per meter shall be used for different diameter. If material is supplied by the owner on tonnage basis per meter weight for each diameter of the bar shall be fixed by the Architect from actual stock available at site.

Wastage, laps, Chairs and spacer bars shall not be measured and paid .The contractor shall account for all these in his quoted price.

In case of welded coupled points measurements for payment shall be equivalent to the Length of overlap as per design.

For purpose of reconciliation, maximum wastage permitted shall be 5% of the actual material used.

The description of items of steel reinforcement has been completely elaborated with complete requirements, specifications & scope of work involved in main item of BOQ.

(v) TESTS

a. Elongation Test

FORMAT OF STEEL TEST REPORTS

Sl. No	Bar dia in mm	Area in mm	Yield load in KN	Ultimate load in KN	Breaking load in KN	Yield stress N/m ²	Ultimate stress N/mm ²	Breaking stress N/mm ²	Avg.Ultimate stress N/mm ²	% of elongation	Unit weight in kg
1	2	3	4	5	6	7	8	9	10	11	12

1.5 BRICKS:

It shall be first-class machine-made bricks approved by the Architect well burnt, sound, hard square and with sharp edges and shall conform to Indian Standards 1077 - 1992 having strength of 50 kg/sq.cm (5.0 N/mm²) as specified in the item.

BRICK MASONRY:

The bricks shall be machine made first quality of regular and uniform size, shape and colour, uniformly well burnt throughout but not over burnt. They shall have plane rectangular faces with parallel sides and sharp straight and right-angled edges. They shall be free from cracks or other flaws. They shall have a frog of 10mm depth on one of their flat faces.

They shall give a clear metallic ringing sound when struck.

They shall show a fine grained, uniform homogeneous and dense texture on fracture and be free from lumps of lime, lamination, cracks, air holes, soluble salts causing efflorescence or other defects which may in any way impair their strength, durability, appearance or usefulness for the purpose intended. They shall not have any part under-burnt. They shall not break when thrown on the ground on their flat face in a saturated condition from a height of 60 cm.

The size of brick shall be 23 x 11.5 x 7.5 cm. Only bricks of one standard size shall be used on one work unless specially permitted. The following tolerances are permitted in the standard conventional size adopted on a particular work:

Length --- plus or minus 3 mm (about 1/8")

Breadth --- plus or minus 1.5 mm (about 1/15")

Depth --- plus or minus 1.5 mm (about 1/16")

After immersion in water, absorption by weight shall not exceed 20 per cent of the dry weight of the brick when tested according to I.S. S.No.1077-1957.

Unless otherwise specified the load to crush the brick when tested according to I.S.S. No. 1077- 1957 shall not be less than 50 kg/sq. cm

SAMPLING & TESTS

a. Dimensional Tolerance

b. Water Absorption}

c. Efflorescence} - PHYSICAL CHARACTERISTICS

d. Compressive Strength

Above test should be performed in an NADH approved lab before unloading it to the site. The material should be bought to the site only after approval of the site engineer and Bank's Officer and the consultancy of the material should be ascertained. The Bank / owner is always a liberty to test a material at random from the material supplied. If found unsatisfactory the contractor should replace the material at his own cost.

FORMAT OF BRICK TEST REPORTS

WATER ABSORPTION TEST

Sl. No	Size (mm X mm X mm)	Dry weight kg	Wet weight kg	Water absorption
1	2	3	4	5
a	230x115x90	5.95	7.439	25%

EFFLORESCENCE TEST

Sl. No	Size (cm X cm X cm)	Efflorescence
1	2	3
a	230x115x90	

COMPRESSIVE STRENGTH TEST

Sl. No	Identification mark	Size cm L,B,H	Dry weight of specimen kg	Maximum load kg	Dry compressive strength (MPa)
1	2	3	4	5	6
a		230x115x90	5.95	13225	50kg/cm2

1.5.1 Shop Drawings:

The contractor shall prepare and submit shop drawings to the Engineer-In-Charge before starting the work. Comprehensive shop drawings showing all the details and procedures for the relevant parts of the works, Brick work, RCC work, Electrical Plumbing and Flooring works etc... shop drawings shall incorporate all interface details for all drain types.

1.6 Doors:

All doors shall be as per broad schedule of finishes and technical specification given in this document and as per CPWD Specification 2019 Volume-I&II. Contractor shall prepare the detailed architectural drawings, interior drawings, door detail sheets, hardware schedules etc through its consultants. Accessories for fixing of door frame, doors shall be of HILTI or equivalent make and inclusive in scope of work.

1.6.1 Door Frames:

All doors frames shall be as per broad schedule of finishes and technical specification given in this tender document and as per CPWD Specification 2019 Volume-I&II. Contractor shall prepare the detailed architectural drawings, interior drawings, door detail sheets, hardware schedules etc through its consultants. Door frames shall be fixed with expandable fasteners of HILTI or equivalent make of specified size with necessary plastic sleeves and galvanized M.S. screws including drilling holes complete as per the instruction of Engineer in charge. Size of fastener to be 10mm dia x 140mm long.

1.6.2 Glazed Doors and Flush Doors:

The contractor needs to refer indicative architectural drawings attached with this document and same shall be developed in detail by consultants of contractor as per broad schedule of finishes and specifications attached with tender document.

All Works will be done in accordance with CPWD specifications Volume - I & II with correction slips up to the last date of submission of tender documents with provision of IS Codes listed in CPWD specifications shall form a part of this document with all latest codes.

1.6.3 TESTING / INSPECTION AND GUARANTEE:

During the process of manufacturing of the door, the contractor shall arrange an inspection of the factory by the Engineer-in-charge or his authorised representative for approval. After installing the door, the specialized agency/sub-contractor shall test the performance of the door frame and shutter in the presence of Engineer-in-charge. The doors shall be smoothly operable under all ambient conditions. All control hardware's and locking devices shall give fault free performance.

Engineer-in charge or his authorized representative shall select the door on random basis from each lot received at site and shall get the required tests conducted at an approved laboratory for testing all required specifications. The contractor shall arrange for such tests of doors (lot wise) with specified hardware. The contractor shall ensure that the door should comply to all the set out criterion and technical specifications stipulated in the tender documents. Contractor shall accordingly quote the rates and nothing extra shall be payable on this account. Contractor shall also provide a Guarantee Certificate and Test certificate for the tested door in an acceptable format on a stamped paper to the Engineer-in-Charge.

1.6.4 Door Hardwares:

Contractor will submit all samples for hardware proposed of all makes to Engineer in charge for approval of selection of make. Hardware includes fixings, striker plates, shims, and escutcheons for a complete installation, whether indicated or not. All hardwares to be Satin Stainless Steel finish. All Hardware's to be installed as per the instruction of manufactures guideline, copy of same to be submitted to be Engineer in charge.

1.7 Structural Steel Work:

The scope include designe and built structural steel frame and trusses frame of covered walkways, entrance gates, compound wall fence, structural steel canopies, trusses for solar roof panels and miscellaneous work using structural steel. The staircase railing, balcony railings, closing of ducts etc shall be of stainless steel. It also include, labour, fabrication, delivery, assembly, erection, lifting, painting / finishing, supervision and Non-destructive testing of welded steelwork. All other incidental works not specified herein mentioned but necessary for the satisfactory completion of the works, shall be deemed to be included. All the specifications for structural steel works shall be as per CPWD Specifications Volume - I & II with correction slips up to the last date of submission of tender documents.

1.8 Plastering work:

The work shall be done in accordance with CPWD specifications Volume - I & II with correction slips up to the last date of submission of tender documents. Wherever directed by the Engineer in Charge, all joints between concrete frames and masonry in filling shall be expressed by a groove cut in the plaster. Where grooves are not called for, the joints between concrete members and masonry in filling shall be covered by fibre mesh over junctions of concrete and masonry or two dissimilar materials about 200mm wide fixed with GI wire nails etc. which shall be in position before plastering.

1.8.1 Internal/External cement mortar plaster:

Cement mortar plaster 1:4 (1 cement: 4 coarse sand) mixed with water proofing compound on walls which are in contact with water/wet areas shall be provided and finished with wallputty of approved brand and manufacture to make surface smooth as per directions of Engineer-in-charge.

1.8.2 Premixed formulated Gypsum lightweight Plaster:

Internal walls /internal masonry work which are not in contact with water shall be on both sides be plastered with 12mm thick with premixed formulated gypsum lightweight plaster having additives and light weight aggregates as vermiculite/ perlite respectively confirming to IS - 2547 (part I & II) 1976 on hacked / uneven surface such as bare brick/ block / RCC work except the wet areas. Ceiling which is not covered with false ceiling shall be plastered with 6mm thick gypsum plaster of approved makes as per the direction of Engineer-In-Charge.

1.9 Water Proofing Works:

1.9.1 General:

- a) The contractor shall be responsible for the water proofing design, proper installation and performance of waterproofing systems to make the sub grade and superstructure completely watertight.

Providing and applying integral crystalline slurry of hydrophilic in

- b) nature for waterproofing treatment to the RCC structures like retaining walls of the basement, water tanks, roof slabs, podiums, reservoir, sewage & water treatment plant, tunnels / subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 parts integral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 parts integral crystalline slurry : 1 part water) for horizontal surfaces and applying the same from negative (internal) side with the help of synthetic fiber brush. The material shall meet the requirements as specified in ACI212-3R-2010 i.e by reducing permeability of concrete by more than 90% compared with control concrete as per DIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystalline slurry shall be capable of self-healing of cracks up to a width of 0.50mm. The work shall be carried out all complete as per specification and the direction of the engineer-in-charge. The product performance shall carry guarantee for 10 years against any leakage.

- c) The contractor shall engage a qualified waterproofing specialist sub-contractor, preferably manufacturer authorized applicator to install or supply & install the waterproofing system, all in accordance with the manufacturer's recommendations & approved water proofing details.

For the quality assurance and quality of workmanship, waterproofing specialist applicator should be proficient in handling and installing water proofing membrane and the applicator shall be approved by CPWD qualification criteria.

Waterproofing specialist applicator should have the proven track record, technical reliability, capability and agreement to supply full technical assistance, expert supervision during installation and performance guarantee. The contractor shall submit the name of specialist waterproofing contractor (waterproofing applicator) for approval alongwith work experience certificate of satisfactorily completion of similar nature of three works each costing not less than 40% of estimated cost of water proofing work at that concerned station or two works or one work each costing not less then 60% or 80% respectively of estimated cost of water proofing work at that concerned station. The determination of estimated cost of water proofing work under this item shall be done by the contractor on prevailing market rates and submit it to the respective Engineer-in-charge whose decision shall be final and binding on the contractor.

1.9.2 Shop Drawings:

The contractor shall prepare and submit shop drawings to the Engineer-In-Charge before starting the work. Comprehensive shop drawings showing all the details and procedures for the relevant parts of the works, waterproofing shop drawings shall incorporate all interface details for all drain types. The manufacturer's standard application details shall be used only as a guide for the preparation of shop drawings. The contractor is deemed to have given due

consideration to the particular requirements of this contract. Wherever necessary, the contractor is expected to improve upon the manufacturer's standard details to suit the project requirements and such amendments shall be shown in the shop drawings for approval of the Engineer in Charge.

1.9.3 Systems for Waterproofing

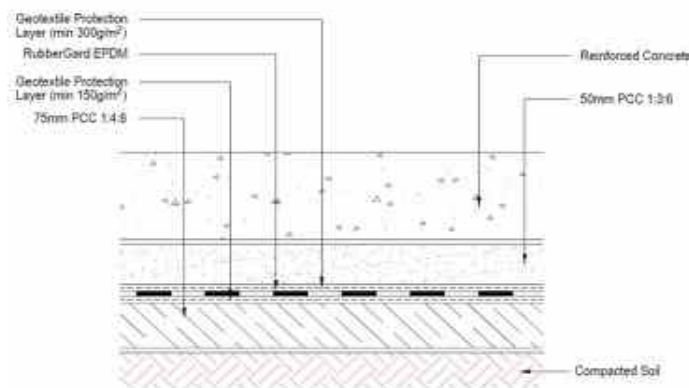
1.9.3.1 Horizontal Waterproofing Water tanks/Underground Sumps:

Providing and laying waterproofing treatment on compacted, levelled, cleaned lean concrete surface using following materials as per manufacturer specification and as per direction of engineer in charge:

- a) Providing and laying 150 g/sqm geotextile loose laid over lean concrete surface with 75 mm overlap at joints. The overlapping joint may be secured by stitching or bonding adhesive or hot air gun.
- b) Providing and laying EPDM membrane 1.5 mm thick loose laid over the geotextile layer. The EPDM sheet should be as large as possible but not less than 6 m unspliced width (no manual joints upto 6 m). Adjacent sheet shall be laid in similar fashion with an overlap of minimum 100 mm. Minimum 75 mm wide rubber polymers butyl splice double sided tape with synthetic rubber polymer prime plus should be used to make watertight quick seam between 2 EPDM membranes. Insertion, corners etc. will be finished using uncured EPDM wherever required.
- c) Providing and laying a layer of geotextile 300 g/sq.m all over the EPDM membrane. The geotextile membrane must be overlapped for 75 mm (The work shall be carried out from manufacturer approved applicator. The EPDM membrane and its accessories should be from the same manufacturer.)

PROTECTION: Above treatment to be protected by min 50 mm screed all over the treatment. Any civil activity to be carried only after EPDM treatment has been protected by 50mm screed.

METHOD OF LAYING EPDM BELOW RAFT/FOOTINGS

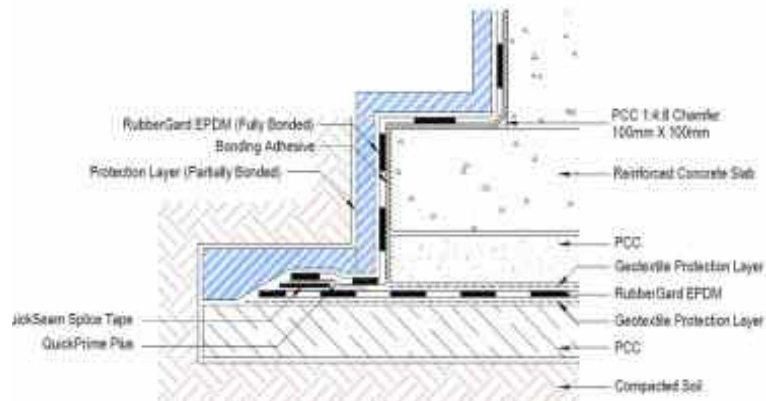


1.9.3.2 Vertical waterproofing in retaining wall/ walls with Raft/Vertical columns/Water tanks/Underground sumps:

Providing and laying waterproofing treatment on smooth, hard, dry and free from dust vertical surface using following materials as per manufacturer specification and as per direction of engineer in charge.

- a) 1.1mm thick EPDM MEMBRANE is fully bonded to the RCC surface using FM approved neoprene base bonding adhesive. Bonding adhesive is used to adhere the membrane to the retaining wall. The adjacent EPDM membrane should be overlapped for 100 mm. Overlap joints will be sealed using double sided splice tape 75 mm wide and quick prime plus primer. Membrane to have intermediate anchoring after every 3 meters peripherally. All the insertions shall be treated using uncured EPDM. The treatment to be terminated at least at the height of 300 mm above the ground level using termination bar and fasteners. Water block sealant should be used on top edge behind membrane and lap sealant should be applied.
- b) A protective layer of approved make dimpled/studded membrane having weight 500g/sq.m is spot stuck on the EPDM treatment with approved neoprene base bonding adhesive. (The work shall be carried out from manufacturer approved applicator. The EPDM membrane and its accessories should be from the same manufacturer.)

METHOD OF LAYING EPDM in retaining wall/ walls with Raft/Vertical Columns.



1.9.3.3 TERRACE SLAB/PODIUM SLAB WATER PROOFING :

RCC substrate should be hard dry and free from dust, grease and sharp protrusions. This EPDM is to be laid at the top of over deck insulation. Over deck insulation shall be designed for appropriate thickness complying in U-value as per the latest guidelines of ECBC.

Providing and laying waterproofing treatment on smooth, hard, dry and free from dust RCC roof surface with 1.1 mm thick EPDM membrane fully bounded to the RCC surface using factory mutual approved neoprene based bonding adhesive. The sheet should be as large as possible but not less than 6m unspliced width (nomannual joints up to 6 m). EPDM membrane to be loose laid over a layer of geotextile 200 g/sqm loose laid with over lap of 100 mm joint spot stuck with bonding adhesive or stitched. Minimum 75 mm wide rubber polymers butyl double sided tape with synthetic rubber polymer quick prime should be used to make water tight quick seam between two EPDM membranes. Insertions & corners etc. to be finished with using quick seam uncured EPDM wherever required. All the insertions shall be treated. The treatment to be terminated as per site situations and as per direction of Engineer-in-charge. For esthetic purpose, the top of EPDM membrane is to be finished with heat resistant tiles as per attached particular pecifications. EPDM is to be taken up to the height of 300 mm, which will be fully bonded & terminated with aluminum termination bar using water block sealantandlap sealant and fasteners as per manufacturer. Over the membrane 500 g/sqm to be loose laid joint spot stuck with bonding adhesive. (The work shall be carried out from manufacturer approved applicator.The EPDM membrane and its accessories should be from the same manufacturer). Terrace slab to be protected with heat resistant tiles (300mmx300mm) as per particular specifications given in this document.

Method of Laying EPDM, Insulation and HR Tiles on Terrace Slab (Figure-X)

Heat Resistant Tiles (300x300) as per attached Specifications
Geotextile Protection layer>500 gsm
EPDM Membrane
Geotextile Protection layer > 200gsm
Over deck Insulation as per attached specifications
RCC Structural Slab/Deck

Standards and Tests (Certificates must be submitted):

The testing shall confirm the manufacturer's specifications and results.

1.9.3.4 Crystalline Waterproofing:

- Water proofing of all water retaining structures such as underground tanks / sumps, stp sumps, overhead tanks etc. Shall be done by using crystalline chemical by mixing it in concrete. These structures shall be waterproofed by providing internal waterproofing layer by integral crystalline admix as per dsr 2021. Crystalline admixtures a cementations dry powder to be added minimum @ 0.8% (dosage) by weight of cement or higher in designed concrete mix of the entire thickness of raft and retaining wall.
- Water proofing of all water bodies / water falls etc. Shall also be done by using crystalline waterproofing chemical by mixing it in concrete.

- Crystalline chemical shall be mixed in manufacturer's dosage at the time of production of concrete in plant.
- Controlling specifications shall be of original manufacturer shop drawings (private label supplier shop drawings not acceptable) and original manufacturer method statement (pvt label supplier method statement not acceptable) after due approval of engineer-in-charge.

1.9.3.5 Toilet / Balcony / Kitchen/Canteen/Pantry Area Waterproofing System:

Cement slurry mixed with waterproofing cement compound system as per CPWD specifications and as per direction of Engineer in Charge.

1.10 Construction Joint:

Providing and placing in position suitable Synthetic Rubber swelling water stop specially designed for construction joints in concrete with the help of suitable adhesive. It should be capable to swell 1000% of its original volume to seal the construction joint and stop water. It should be trapezoid, flexible rubber strip of size 5x20mm having density of 1.2-1.25gm/cm³ having tensile strength more than 3mpa. It should be capable to withstand water pressure resistance more than 0.8mpa (8bar).

1.11 Pressure-Release Pipes penetrations:

Contractor shall provide pressure-release pipes penetrations in raft, min 50 mm diameters or as per design requirement for water pressure of soil. Pipes shall be sealed all around on the laid membrane with a 2 component liquid membrane as per system requirement and as per instruction of Engineer in charge. All systems to be installed as per system requirement, etc. complete.

1.12 Aluminium extrusions (Wherever applicable):

Accepted aluminum extrusions and / or sheet of alloy and grades suitable for the structural requirements and project conditions having required strength and durability of the alloy and designated in the relevant standards. Details including proposed alloy types with supporting justification data shall be submitted by the contractor for approval. Minimum wall thickness for the structural members shall be 2.5mm & non-structural member shall be 1.5mm thick. Extruded profiles shall be free from die lines, pressure marks, scratches or graphite lines. Solid Aluminum sheet shall be of Alloy 5005 H14 Series.

1.12.1 Finishes to Aluminium:

Different types of coatings / finishes applicable to Aluminium shall be used as per the approval of consultant appointed by the contractor in consultation with respective Engineer-in-Charge, CPWD.

1.12.2 Welding of Aluminium:

All welding work to be carried out, including detailing of all joints, welding procedures, appearance and quality of welds, and correction of defective work in accordance with approved samples. Finished welds shall be de-scaled, free of any surface & internal cracks and free of porosity.

1.12.3 EPDM Gasket:

All unexposed weather gaskets shall be of EPDM micro wave cured gaskets confirming to CPWD specifications.

1.12.4 Nuts, Bolts, Screws and Fasteners:

All Bolts & Nuts for non-visible area shall be Stainless steel A2 grade (304 Grade).

All Bolts & Nuts for visible area shall be Stainless Steel A4 Grade (316 Grade).

1.12.5 Sealants:

Comply with minimum dimensional requirements for edge clearance, edge cover, front clearance, back clearance as per CPWD specifications/ manufacturer specifications. Sealant manufacture shall be providing testing for adhesion, compatibility & non-staining where sealants are used to seal movement joints, movement capability of sealant shall be appropriate to expected maximum deflection or movement. All required accessories recommended by sealant manufacturer, including backing rods, bond breaker tape details to be submitted for review and acceptance to Engineer in Charge. Deglazing should be used as method of quality inspection for units which are structurally glazed.

1.12.6 Backer Rods:

Backer rods shall be silicone compatible, non-gassing, non-staining and non-combustible. They are to be compressed to limits specified by the manufacturer and shall be located in a manner which prevents them from dislodging from the rebate that is being sealed. Backer rods shall not inhibit movement joints from allowing the designed movement of the joint from occurring.

1.12.7 Setting Block/ Side Block/ Pads:

Setting blocks shall comply with CPWD specifications/ manufacturer specifications.

1.12.8 Hardware for openable vents and windows:

All fasteners shall be MS hot dip galvanized. Facade contractors shall submit technical catalogue including the test results of each hardware for approval to Engineer in charge. Friction / Casement hinges in SS 316 shall be self-balancing type with provision to hold open up to 150mm. It should comply with manufacturer specifications.

1.12.9 Glass for Structural Glazing / Windows / Railings / Canopy:

The glass will comply with ECBC 2017 and CPWD specifications.

1.12.10 Tests for Structural Glazing (If applicable):

Testing of structural glazing system shall be as per CPWD specifications/ manufacturer specifications/ECBC 2017 and relevant BIS codes.

1.12.11 Exterior Grade Aluminium Composite Panels and Horizontal Louvers:

The work of Exterior grade Aluminum Composite Panels (Fire Retardant) and Louvers work shall be got executed by a specialized contractor as approved by the Engineer-in-charge. Necessary shop drawings for the exterior aluminum composite panels shall be prepared by the specialized contractor and submitted to Engineer-in-charge for approval. Only after approval from the Engineer-in-charge, the specialized contractor will go ahead with procuring and installing the exterior grade perforated or Aluminium Composite Panels and Louvers works.

- a) The Contractor shall adhere to the detailed engineering design of entire work provided by architect and arrange for the provisions of all labourers, materials, fabrication, assembly, packing, installation, coordination with adjacent construction. Exterior grade Aluminium Composite Panels and Louvers shall be as per the Architectural drawings prepared by the consultant duly approved by Bank.
- b) This work shall be got executed through specialized contractor. The engagement of specialized contractor shall be as per condition number 1.29 for engagement of contractor for specialized works under chapter A. Only specialized contractor approved by Engineer-in-charge in accordance with terms and conditions will be allowed to execute this item/work.

The CPWD specifications shall be followed as per DSR 2021 for this work.

1.12.12 RCC Jali:

RCC Jali shall be 75 mm thick with M30 concrete and shall be smooth finished on both side with texture paint all over. Detailed drawings and design shall be prepared by consultant appointed by the contractor and as approved by Engineer -in-charge.

1.12.13 SS railing :

SS railing shall be of SS 304 grade and top of railing shall be 1200 mm from finished floor level, maximum centre to centre spacing between members shall not exceed 125 mm. Size of members should be not less than 50 mm dia. and thickness of members not less than 3 mm. Detailed drawings, pattern, design and fixing arrangements shall be prepared by consultant appointed by the contractor and as approved by Engineer -in-charge.

1.12.14 Plastered Surface:

The work shall be done in accordance with CPWD Specifications Vol. I to Vol. II with upto date Correction slips and IS Codes listed in CPWD specifications shall form a part of this document with all latest codes. Ceiling plaster shall be completed before commencement of wall plaster. Plastering shall be started from the top and worked down towards the floor. All putlog holes shall be properly filled in advance of the plastering as the scaffolding is being taken down. To ensure even thickness and a true surface, plaster about 15 × 15 cm shall be first applied, horizontally and vertically, at not more than 2 metres intervals over the entire surface to serve as gauges. The surfaces of these

gauged areas shall be truly in the plane of the finished plaster surface. The mortar shall then be laid on the wall, between the gauges with trowel. The mortar shall be applied in a uniform surface slightly more than the specified thickness. This shall be brought to a true surface, by working a wooden straight edge reaching across the gauges, with small upward and sideways movements at a time. Finally the surface shall be finished off true with trowel or wooden float according as a smooth or a sandy granular texture is required. Excessive troweling or over working the float shall be avoided. All corners, arises, angles and junctions shall be truly vertical or horizontal as the case maybe and shall be carefully finished. Rounding or chamfering corners, arises, provision of grooves at junctions etc. where required shall be done without any extra payment. Such rounding, chamfering or grooving shall be carried out with proper templates or battens to the sizes required. Where the thickness required as per description of the item is 20 mm the average thickness of the plaster shall not be less than 20 mm whether the wall treated is of brick or stone. In the case of brick work, the minimum thickness over any portion of the surface shall be not less than 15 mm while in case of stone work the minimum thickness over the bushings shall be not less than 12 mm. Curing shall be started as soon as the plaster has hardened sufficiently not to be damaged when watered. The plaster shall be kept wet for a period of at least 7 days. During this period, it shall be suitably protected from all damages at the contractor's expense by such means as the Engineer-in-Charge may approve. The dates on which the plastering is done shall be legibly marked on the various sections plastered so that curing for the specified period thereafter can be watched. The plaster shall be finished to a true and plumb surface and to the proper degree of smoothness as required. The work shall be tested frequently as the work proceeds with a true straight edge not less than 2.5 m long and with plumb bobs. All horizontal lines and surfaces shall be tested with a level and all jambs and corners with a plumb bob as the work proceeds. Any cracks which appear in the surface and all portions which sound hollow when tapped, or are found to be soft or otherwise defective, shall be cut out in rectangular shape and redone as directed by the Engineer-in-Charge.

1.13 Flooring Works:

1.13.1 General:

Various types of flooring, skirting, dado and window sill work shall be carried out by the contractor as per broad schedule of finishes attached in this NIT document and as per detailed drawings prepared by the consultant and approved by Bank. Contractor needs to refer various rooms in each building as per indicative attached architectural drawings in this NIT document.

- 1) Contractor will submit all material or finishing samples to Engineer in charge for approvals before executing the respective jobs.
- 2) Contractor shall need to protect the finished floor surface during execution of other activities using Cello or approved equivalent bubble guard of minimum 500 GSM thick (minimum size 8' x 4'), fixing the same over floor surface with mastic tape or other approved adhesives. Removing protective layer during handing over, disposal of all debris out

of site, cleaning the entire covered flooring area as directed by the Engineer-in-charge.

- 3) All flooring, skirting, dado and window sill works will be done in accordance with CPWD specifications Volume I & II with correction slips up to the last date of submission of tender documents. The provision of IS Codes listed in CPWD specifications shall form a part of this document with all latest codes.
- 4) Pattern for any type of flooring / dado shall be as per detailed drawings to be submitted. The cost of flooring work is inclusive of all materials, workmanship, labourers, pattern, colour, style, skirting etc. complete in all respect. No extra payment on this ground shall be entertained. The joints for all flooring to run in a straight line and should follow as mentioned below:
 - a) For Marble stone flooring and dado: 0mm (Zero mm) joint filled with approved adhesive other and else specified.
 - b) For any type of Tile / Granite / Kota Stone floor & dado: 3mm joint shall be maintained with spacer and joint filled with epoxy grout.

Contractor shall need to protect the finished floor surface during execution of other activities using Cello or approved equivalent bubble guard of minimum 500 GSM thick (minimum size 8' x 4'), fixing the same over floor surface with mastic tape or other approved adhesives. Removing protective layer during handing over, disposal of all debris out of site, cleaning the entire covered flooring area as directed by the Engineer in charge.

1.13.2 Window / Glazing Sill:

Stone for window / glazing sill to be in approved premium quality as mentioned in broad finishes details attached in the NIT document. Stone for sill to be minimum 16mm thick and all exposed edges of sills shall be chamfered, half or full bull nosing with mirror polishing should be factory finished and brought to site. All polishing work and laying details for stone work shall be as per CPWD specifications and as directed by Engineer in charge.

1.13.3 Granite Stone Work:

This can be read for Flooring / Skirting / Dado / Cladding works. Machine cut granite stone slabs shall be of thickness not less than 16mm thick. Color of granite shall be uniform and the slabs free from all defects. The granite color shall be proposed by the contractor in consultation with consultant and will be approved by Bank. Stone slabs used at site shall be machine-cut. The slabs shall be made from selected stock, which are hard, sound, homogeneous and dense in texture and free from flaws, angles and edges shall be true, square, and free from chipping and surface shall be plane. The slabs shall preferably to machine cut the required dimensions. In machine-cut slabs, edges shall be protected from any damages in transit. No breakage shall be permitted. All edges shall be sharp, perfectly rectangular. Edges shall be pencil-rounded and

polished for exposed corners and faces. Test for stone slabs shall be conducted in accordance of relevant BIS codes / CPWD specifications for stone properties. Stone sealer of approved makes which give excellent repellence against water and oil based stains is to be applied on top surface of the stone. One coat will be applied on the unpolished cut to size before installation and then the cut to size stones are installed. After the final polish the second coat of stone sealer will be applied on top side and a buffing done after about 24-36 hours. Laying of granite stone work shall be carried out as per CPWD specifications.

1.13.4 Glazed Vitrified tiles matt finish and Rectified Glazed Ceramic Tile Work:

The Vitrified tiles shall be matt finish and Ceramic tiles shall be Rectified Glazed Ceramic Tiles of 1st quality. The work shall be carried out in areas as mentioned in broad schedule of finishes attached with the NIT document and as approved by Engineer-in-Charge and as per the latest CPWD specifications Volume-I and II with correction slips up to the last date of submission of tender. The tiles shall be confirming to the related BIS codes up to the latest revisions. The testing shall also be got done from approved labs in accordance with the BIS codes for the various parameters and as referred. The contractor has to obtain prior approval of Engineer in charge for tiles makes, sizes, shades and colours as per Architectural drawings before bringing it to site.

1.14 Manholes and Chambers:

All manholes, chambers and other such works as specified shall be constructed in brick masonry as per CPWD specification or as specified in the drawings.

1.15 Engagement of contractor for specialized civil works:

Contractor has to engage specialized associate agencies for specialized items of works separately.

Contractor after executing these specialized works through its associated specialized agencies/specialized firm has to submit the guarantee bonds for 05/10 yrs (Five/Ten years) from date of completion of defect liability period mentioned in this NIT document for removal of any defects cropping up in these specialized works executed by them during the said guarantee period. The various forms of these guarantee bonds to be executed by both contractor and specialized agency are given as Annexures. The various specialized items of works under this agreement in respect of civil construction are as under:-

1. Water proofing treatment works (on roof, basement, UG tanks, toilets etc)
2. Exterior grade Aluminium Composite Panel & Louvers (if applicable)
3. Structural Glazing System (if applicable)

As mentioned above 05/10 years (Five/Ten years) guarantee bond shall be submitted by the contractor which shall also be signed by both the specialized agencies and the contractor to meet their liability / liabilities under the guarantee bond. However, the sole responsibility about efficiency of above mentioned specialized works shall rest with the contractor.

10% (Ten percent) of amount of the estimated cost of above mentioned specialized works shall also be retained as Security Deposit and the amount so deducted shall be released after completion of guarantee period from date of completion of defect liability period mentioned in this NIT document/ agreement, if the performance of the said executed items are found satisfactory by respective Engineer-in-Charge.

If any defect is noticed during the guarantee period, the contractor shall rectify it within 07days of receipt of intimation of defects in the work. If the defects **pointed** out are not attended to within the specified period, the same will be got done from another contractor at the risk and cost of contractor. Further this security deposit can be released in full after expiry of defect liability period, if bank Guarantee of equivalent amount for Full 5/10 (Five/Ten) years after completion of defect liability period mentioned in this NIT document, is produced and deposited with the respective Engineer-in-charge.

Approval of the specialized agencies for each specialized work shall be obtained from the Bank within one month of award of work. Even if, such specialized items of work shall be executed by the specialized agencies at later date the work shall be deemed to be executed by the tenderer for all purposes and the responsibility of the quality of items of works executed etc. shall continue to be that of the tenderer only.

B. TECHNICAL SPECIFICATIONS FOR SANITARY WORKS

1.1 SANITARY WORKS:

1.1.1 Fixture & installation:-

- 1) Work under this section shall consist of providing and fixing and installing all sanitary fixtures, chromium plated fittings and accessories as required as per drawings to be prepared by contractor and approved by Engineer-in-Charge/Architect.
- 2) Without restricting to the generality of the foregoing the sanitary fixtures & fittings shall include the following:
 - a) Sanitary fixtures
 - b) Chromium plated fittings
 - c) Stainless steel sinks
 - d) Accessories, e.g. toilet paper holders, coat hook, dispenser etc.
- 3) Whether specifically mentioned or not all fixtures and appliances shall be provided with all fixing devices, nuts, bolts, screws, hangers as required.
- 4) All exposed pipes within toilets and near fixtures shall be chromium plated brass or copper unless otherwise specified.

1.1.2 General:

- 1) All materials, sanitary fixtures and fittings shall be new and of best Premium quality confirming to CPWD specifications and subjected to the approval of Engineer-in-charge. Wherever particular makes are mentioned, the choice of selection shall remain with the Engineer in charge.
- 2) All appliances, fixtures and fittings shall be provided with all such accessories as are required to complete the item in working condition whether specifically mentioned or not in terms of specifications, and drawings. Accessories shall include proper fixing arrangements, brackets, nuts, bolts, screws and required connection pieces.
- 3) Fixing screws shall be half round head chromium plated brass screws with C.P. washers where necessary.
- 4) Porcelain sanitary ware shall be glazed vitreous china of first quality free from warps, cracks and glazing defects confirming to I.S. 2556.
- 5) Sinks for pantry or kitchen shall be stainless steel or as specified in the Drawings.
- 6) Chromium plated fittings shall be cast brass chromium plated of the best quality approved by Engineer in charge.
- 7) All Appliances, fittings and fixtures shall be fixed in a neat workmanlike manner true to level and heights shown on the drawings and in accordance with the manufacturer's recommendations. Care shall be taken to fix all inlet and outlet pipes at correct positions at proper locations and heights. Faulty locations shall be made good and any damages to the finished floor, Filing Plaster, Paint, insulation shall be made good by the Contractor at their own cost.
- 8) Sanitary appliances, subject to the type of appliance and specific requirements, shall be fixed in accordance with the relevant standards and the following :
 - a) Contractor shall, during the entire period of installation and afterwards protect the appliances by providing suitable cover or any other protection so as to absolutely prevent any damages to the appliances until handing over. (The original protective wrapping shall be left in position for as long as possible).
 - b) The appliances shall be fixed in a manner such that these will facilitate subsequent removal if necessary.
 - c) All appliances shall be securely fixed. Manufacturers' brackets and fixing methods shall be used wherever possible. Compatible rust-proofed fixings shall be used. Fixing shall be done in a manner that minimizes noise transmission.

- d) Pipe connections shall be made with demountable unions. Pipe work shall not be fixed in a manner that it supports or partially supports an appliance.
- e) Appliances shall be fixed so that water falls to the outlet.
- f) Appliances shall be fixed true to level firmly fixed to anchor or supports provided by the manufacturer and additional anchors or supports where necessary.
- 9) Sizes of Sanitary fixtures given in CPWD specifications or in the Drawings are for identification with reference to the catalogues of makes considered. Dimensions of similar models of other makes if allowed will not vary more than 2% of dimensions and the same shall be provided and no claim for extra payment shall be entertained nor shall any payment be deducted on this account.

1.1.3 Sanitary Fixtures:

- 1) WC, Urinal, partition, was basins, sinks, showers, toilet paper holder, towel rail, hand drier etc. shall be of premium quality of approved makes, as per architectural drawings prepared by the consultant and approved by Bank, requirement of space, location complete in all respects including accessories, labour, workmanship etc.
- 2) Colour shades, shapes, sizes shall be selected and approved by the consultant and Bank.
- 3) All appliances, fixtures and fittings shall be tested as per CPWD specifications. The contractor shall block the ends of waste and ventilation pipes and shall conduct an air test.

1.1.4 Fixture and Flow rates:

Supplying, installation testing and commissioning of all fixtures of given flow rates as per GHAR-Green Plus star norms shall be followed including SITC of all accessories, bottle trap, WC pan connector etc. Makes and models shall be got approved by Engineer in charge. Auto/ sensor operated faucets/ traps/ urinals/ WC etc. wherever required shall be adopted as GHAR-Green Plus standard norms and drawings prepared by Architectural consultant of the contractor.

1.1.5 Internal Drainage:

- 1) Internal drainage shall be designed by the contractor and got approved by Engineer-in-charge. The shop drawings shall be prepared by the architect of the contractor and got approved by the Engineer-in-charge.
- 2) Work under this section shall consist of providing and fixing all labourers, materials, equipment's and appliances necessary and required to completely install all soil, waste, vent, rain water pipe and fittings as per relevant BIS code and CPWD specifications.

- 3) Without restricting to the generality of the foregoing, the soil, waste, vent, rain water pipe system shall include the following:-
 - a) Soil, waste and vent pipes, Vertical and Horizontal and fittings, joints, clamps and connection to sewer line as shown on the drawings at Ground Floor level.
 - b) Floor and Urinal traps, Cleanout plugs and inlet fittings.
 - c) Waste pipe connection from all fixtures e.g. washes basins, sinks, urinals, kitchen equipments and plant room equipments.
 - d) Rain water pipes & fitting (Terrace Rain Water and Balcony Drain).
 - e) All pipe fittings exposed or on wall shall be painted with two or more coat of desired shade and color. All sanitary fittings, hanger where no sunken floor provided.
 - f) Testing of all pipes as per relevant codes from external labs.
- 4) The scope also include access doors/opening for clean out, accessible for maintenance i/c MS ladder, platform etc. at suitable locations with primer and paints complete.

1.1.6 SOIL, WASTE & VENT PIPE SYSTEM:

The soil, waste system above ground has to be planned as “Two Stack System” [Double Stack System] as defined in IS : 5329 having separate pipes for waste for wash basins, showers, bath tub, kitchen sinks, Floor drains, AHU’s, condensate drain and separate pipe for soil discharge. All piping work shall be executed as per CPWD specification and shall be got tested. All soil waste, vent, sanitary pipes of required diameter as per design shall be hubless centrifugally C.I. (Span) pipe epoxy coated inside & outside as per IS-15905.

1.1.7 CCI HUB-LESS PIPE :

- 1) Soil, waste, vent, anti-siphonage and sanitary pipes, fittings and accessories like P-traps, bends, wye’s, elbows, Tee’s, swept tee’s etc. shall be of Hubless Centrifugally cast (spun) iron pipes epoxy coated inside & outside including SS-304 grade coupling with EPDM rubber gasket of appropriate diameter conforming to IS:15905. All pipes shall be straight and smooth and their inside free from irregular bore, blow holes, cracks and other manufacturing defects.
- 2) All vertical stack shall be 100 mm away from the wall by providing adjustable clamps/angle etc whichever required.
- 3) All indirect water pipes inside toilet from wash basin, Sink, Urinal shall be GI heavy class.

- 4) CI Hubless Pipes and Fittings shall be conforming to IS: 15905. All pipes supports and clamps shall be as per specifications and recommendations of the manufacturer.

1.2 WATER SUPPLY:

1.2.1 Work under this section consists of providing and fixing stainless steel pipes and fittings as per DSR 2021 with all labourers, materials, equipments and appliances necessary as required to complete the water supply system (Domestic Water Supply + Dual Flushing Water Supply) as required as per design and water supply system. The contractor shall submit plan of water supply distribution system of the building both internal and external in accordance with relevant BIS Code and duly approved by Engineer in charge.

1.2.2 Without restricting to the generality of the foregoing, the water supply system shall include the following:-

- a) Hydro-pneumatic supply from Domestic / Flushing/ Soft Water/ Irrigation Water UGT to all fixtures/appliances.
- b) Thermal insulation to hot water pipes & valves.
- c) Connections to all fixtures etc.
- d) Ball valve/butterfly valve/Non Return valve/Pressure Reducing Valve/Water Meter.
- e) All supports made of galvanized iron.

1.2.3 All concealed pipes fittings bends for water supply shall be of stainless steel 316 grade of required diameter as per drawing and design. The scope includes smooth flow of water supply pipes with equitable and proper distribution of pressure.

1.2.4 Valves and other appurtenances shall be located as to provide easy accessibility for operations, maintenance and repairs. shall be securely fixed to wall and ceiling by suitable and adjustable clamps at intervals specified.

1.2.5 Stainless Steel Pipes: - Domestic, Flushing Water, Soft Water running in shafts, inside toilets, on terrace, in basement and in Pump Room.

1.2.6 Supplying, installing testing and commissioning of Stainless Steel 316 grade pipes including all bends, tee, union, coupling, adaptor, etc. Pipes supplied shall have a smooth outer surface, with external weld bead removed. Pipes to be supplied with ends capped to prevent ingress of deleterious material. Pipes shall be horizontally marked:

- a) Brand
- b) Standard

- c) Size - OD x thickness
- d) Pipe Fittings Brand: All pipe fittings shall like bends, tees, union, coupling, adaptors etc. Shall be of stainless steel 316 grade with press ends and shall be made as per relevant code suitable for hot and cold water applications and be capable of withstanding pressures up to 16 bar.

1.2.7 Ball Valves:

All ball valves shall be heavy duty of approved make. Valves shall have suitable for test pressure of 25 Kg/Sqcm. Ball valves shall conform to the following specifications.

Size	Construction	Ends
15 to 50 mm	Bronze body S.S. Working Part stainless steel balls, spindle, teflon seating and gland packing, steel handle.	Screwed

1.2.8 Butterfly Valves:

All butterfly valves shall be heavy duty cast iron of approved make. The valves shall be suitable for 15 Kg/Sqcm test pressure & shall conform to the following specifications Butterfly valve shall be of best quality conforming to IS: 13095:

Butterfly Valves shall be cast iron body with following details:-

- a) Disc shall be CI heavy duty electrolyses nickel plated abrasion resistant.
- b) The shaft be EN-8 Carbon Steel with low friction nylon bearings.
- c) The seat shall be drop tight constructed by bonding resilient elastomer inside a rigid backing.
- d) Built in flanged rubber seals.
- e) Actuator to level operated for valves above ground and T Key operated for valves below ground.
- f) Built in flanges for screwed on flanged connections.
- g) Manufacturer's details on fixing and installation will be followed.

1.2.9 Ductile Iron (DI) Pipes: - (For Water Line from Municipal line to UGT):

- a) Pipe laid in ground for water supply from municipal connection shall be laid in trenches/underground shall be of DI class K-9 of required dia and size as per drawing/design including trenching necessary fittings like collar bends and tees with titan joints. The technical specification of ductile iron pipe confirm to Indian standard IS: 8329-1994, IS: 2531-1998.
- b) The ductile from pipe shall be strong, both inner and outer surfaces are smooth, free from lumps, crakes blister and scares.
- c) The ductile iron fitting shall confirm to IS: 9523-1980.
- d) The joints for ductile iron pipe shall suitable for rubber gasket conforming to IS :5383
- e) Laying and jointing shall be similar to cast iron pipes.
- f) The test pressure shall be 1.5 times the maximum sustained operating pressure and the test pressure shall be as per IS: 8329-1994.

- g) Slotted angles/ channels shall be measured per linear metre of finished length and shall include support bolts and nuts, length embedded in the cement concrete blocks of 1: 2: 4 (1 cement: 2 coarse sand: 4 stone aggregate 20mm nominal size) formed in the masonry walls; nothing extra shall be paid for the cement concrete block and making good the masonry wall, anchor fasteners etc. complete.

1.2.10 Non-Return Valves:

- a) All non-return valves shall be provided as shown in the drawings conforming to relevant Indian Standards and in accordance with the following specifications.

Size	Construction	Ends
Upto 50 mm.	Gun metal	Screwed
65 mm and above	Gun metal/cast iron	Flanged

Non-return valves shall be of approved make.

1.2.11 GI Pipes and Fittings for fire-fighting:

Supply, installation, testing & commissioning of garden hydrant main pipe shall be of G.I. Pipes Class 'C' (Heavy grade) conforming to I.S. 1239 with G.I. Fittings conforming to IS: 1879 (Part I to X) such as tees, crosses, plug, socket, elbows, reducers, flange, check nut, flanges & clamps, hanger, structural steel supports as required/directed at Site.

1.2.12 CPVC Pipe and fittings for concealed work

Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, i/c fixing the pipe with pvc clamps with stainless steel screws at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge. :Concealed work, including cutting chases and making good the walls etc. with-in necessary accessories in joining bind, coupling, elbow, reducing tee, equal tee, union, cross tee etc.

1.2.13 PVC Pipe and fittings for external work

Providing and fixing PVC pipes, fittings including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes with one step PVC solvent cement and testing of joints complete as per direction of Engineer-in-Charge. Concealed work, including cutting chases and making good the wall etc. 75mm pipe 4kgf/cm² with in necessary accessories in joining bind, coupling, elbow, reducing tee, equal tee, union, cross tee etc.

1.3 External Sewer, Storm Water Drainage and Rain Water Harvesting Pits:

- 1) All underground Storm Water Drainage Pipe of the building shall be laid in proper slope and required pipe and material capable to smooth flow of water in accordance with designed system.

- 2) The scope includes all catch basin, storm manholes, gully chambers, gratings.
- 3) All underground Storm Water Drainage work include earth work in excavation for all type of soils, disposal, and compaction, pipe laying, pipe embedment and back filling, testing complete.
- 4) Submit shop drawings details and descriptive literature showing pipe dimension, joint and fitting details, recommended method of cutting pipes and other relevant detail etc. all complete for the approval of engineer in-charge.
- 5) Taking approvals and all liaisoning work shall be the responsibility of the contractor.

1.4 SANITARY INSTALLATIONS /WATER SUPPLY / DRAINAGE:-

The contractor shall be responsible for the protection of the sanitary and water supply fittings and other fittings and fixtures against pilferage and breakage during the period of installation and thereafter until the building is handed over. The contractor shall furnish all labour, materials and equipment, transportation and incidental necessary for supply, installation, testing and commissioning of the complete Plumbing / Sanitary system as described in the Specifications and as shown on the drawings. This also includes any material, equipment, appliances and incidental work not specifically mentioned herein or noted on the Drawings/Documents as being furnished or installed, but which are necessary and customary to be performed under this contract. The Plumbing / Sanitary System shall comprise of following:

- a. Sanitary Fixtures and Fittings.
- b. Internal and External Water Supply.
- c. Internal and External Drainage.
- d. Balancing, testing & commissioning.
- e. Test reports and completion drawings.

For the work of water supply and sanitary installations, the contractor shall engage the approved licensed plumbers and submit the name of proposed plumbing agencies with their credentials for approval of the Engineer-in-Charge. For quality control & monitoring of workmanship, contractor shall assign at least one engineer who would be exclusively responsible for ensuring strict quality control, adherence to specifications and ensuring top class workmanship for the installation.

The work in general shall be carried out as per CPWD Specifications with up-to-date correction slips. 14.5 The tendered rates shall include the cost of cutting holes in walls, floors, RCC slabs etc. wherever required and making good the same for which nothing extra shall be paid.

Nothing extra for providing & fixing CP Brass caps /extension pieces wherever required for CP Brass fittings shall be paid beyond the rates payable for corresponding CP Brass fittings.

The contractor shall examine all architectural, structural, plumbing, electrical and other services drawings and check the as-built works before starting the work, report to the Engineer In-Charge any discrepancies and obtain clarification. Any changes found essential to coordinate installation of his work with other services and trades, shall be made with prior approval of the Engineer In-Charge without additional cost to the Bank.

1.5 General Requirements:

- (i) All materials shall be new and of the best quality conforming to CPWD specifications.
- (ii) Establish and maintain quality control to assure compliance with contract document and local codes (Local municipal bye Laws).
- (iii) All Storm Water Drainage Line/Open Drain Channel shall be laid to the required gradients and profile as per CPWD specifications.
- (iv) All drainage work shall be done in accordance with Local Municipal bye laws.

List of References:

- Hand book of Water Supply and Drainage, Bureau of Indian Standards. SP-35 (S&T) 1987.
- Manual of water supply & Treatment-1997, Central Public Health and Environmental Engineering Organization.
- Manual on Sewerage and Sewage Treatment revised upto 1993 (Ministry of Urban Development, New Delhi), (Govt. of India)
- Schedule of specifications of C.P.W.D. revised upto 2019, (Govt. of India) with all latest amendments issued from time to time
- National Building Code -2016 by Bureau of Indian Standards.
- Code of practice for provision and maintenance of water supplies for firefighting IS: 9668:1990
- Other relevant ISI codes.
- Code of basic requirement for water supply, drainage and sanitation IS:1172:1983 by Bureau of Indian Standards.

C. TECHNICAL SPECIFICATIONS FOR ELECTRICAL & MECHANICAL WORKS

1. All types of panel shall be fabricated from approved firms and strictly as per CPWD specifications. The drawing of panel boards must be got approved from Engineer - in - charge before fabrication work. The panel board shall consist of

provision for installing four energy meters with required incomer, outgoing etc. as per standard sound engineering practice.

2. Staircase lighting shall be group controlled.
3. Lightning arresters shall be provided for all buildings irrespective of height as per IS 2309-1989 as amended up to date and CPWD specifications for internal work - 2013.
4. Wherever lift is provided, power supply to DBs located in Lift shaft at suitable location as approved by Engineer-in-charge shall be done using suitable XLPE insulated armored cable.
5. Inside the lift shaft there shall be arrangement of one light point at each floor level and one light point at overhead, one light point in lift pit. All light points shall be in group controlled and wired with 2.5 sq mm FRLS copper conductor cable. 15 amp power plug and 5 amp power plug shall be provided at alternate floor. Wiring of these power plugs shall be done with 4 sq mm FRLS copper wires. LED Bulk head fittings of suitable rating to provide minimum lux of 100 shall be connected with each point of lift shaft.
6. All distribution boards shall be double door type. RCBO of suitable rating shall be provided as main incomer in all DBs.
7. After completion of the execution of the work the agency will submit the form of completion certificate duly filled and signed by the authorised person of the agency and Electrical Engineer-in-charge of consultant as specified in CPWD General Specifications for Electrical Works Part I Internal - 2013.

8. Submittals

- a. Shop Drawings shall clearly indicate the fitting details used as reference in the development of the shop drawings and the names of the project, main contractor and associated agency for electrical works.
- b. The Contractor shall coordinate all his light fitting drawings with the drawings and details to the Architectural, Structural, Electrical, Mechanical, and other related trades to assure a correct and efficient installation.
- c. No variation from the general arrangement and details indicated on the drawings shall be made on the shop drawings unless required to suit the actual conditions on the premises, and then only with the written acceptance of the Engineer in Charge. All variations must be clearly marked as such on drawings submitted for approval.
- d. Catalogue lacking sufficient detail to indicate compliance with contract documents will not be acceptable.
- e. Timely submission: Shop drawings for all lighting fittings shall be within thirty days after award of Contract.
- f. Review of shop drawings or samples does not waive contract requirements.

9. Samples

- a. After shop drawing review, and prior to release for manufacturing, the Contractor shall furnish one sample of each fitting on the fitting schedule and contract drawings for which sample requirement is noted.
- b. Shipping: The samples shall be complete with specified lamps and compatible control gear, ready for hanging, energizing, and examining, and shall be shipped, prepaid by the Contractor to the Engineer in Charge and Designer.
- c. Not returnable: Samples are not returnable, nor included in quantities listed for a project. Samples must be actual working unit of materials to be supplied.

10. Specifications for General light fixtures (Internal)

- a. All light fixtures shall be LED having LM79 and LM80 certification from NABL accredited laboratory and relevant approved IES files for Dialux. Before dispatch of approved light fixtures, third party test shall be carried out by NABL accredited lab and the test reports shall be submitted, if demanded by E-in-C.
- b. The Service Life of the fixture including driver/control gear should be minimum 50,000 burning hours as per L70B50 certification.
- c. The CRI of the fixture should be minimum 80 unless otherwise mentioned.
- d. All lighting fixtures should be LED type having efficacy more than 100 Lumen / Watt except for down lighter for which efficacy shall be more than 80 lumen/watt. Colour temperature may be 4000 K to 6500 K as per site requirement.
- e. The THD should be less than 10%.
- f. The housing of the fixtures should be extruded aluminium/CRCA/die cast aluminium. The body of LED batten should be of extruded aluminium.
- g. The IP category should be IP20 or higher for indoor applications and IP 54 for semi outdoor applications like balcony, staircase porch, kitchen, etc.
- h. The Surge Protection to be provided conforming to relevant IS standards/IEC 61643-II Class-2 & EN 61643-II Type-2.
- i. The defect liability period on complete luminaire including driver/control gear, LED, all accessories should be 2 years from the actual date of completion of work. The Power factor should be 0.95 or higher.
- j. All light fixtures (internal) and drivers shall be BIS certified. The manufacturer shall submit BIS certificates with respective R codes for each fitting and driver for approval before execution.
- k. Before execution, the contractor should get light level calculations approved after selection of fixtures.

11. Specifications for General light fixtures (External)

- a. All light fixtures shall be LED having LM79 and LM80 certification from NABL accredited laboratory and relevant approved IES files for Dialux. Before dispatch of approved light fixtures, third party test shall be carried out by NABL accredited lab and the test reports shall be submitted, if demanded by E-in-C.

- b. The Service Life of the fixture including driver/control gear should be minimum 50,000 burning hours as per L70B50 certification.
- c. The CRI of the fixture should be minimum 70 unless otherwise mentioned.
- d. The THD should be less than 10%.
- e. The housing of the fixtures should be extruded aluminium/CRCA.
- f. The IP category should be IP65 or higher for outdoor applications.
- g. The Surge Protection to be provided conforming to relevant IS standards/IEC 61643-II Class-2 & EN 61643-II Type-2.
- h. The warranty period on complete luminaire including driver/control gear, LED, all accessories should be 2 years from the actual date of completion of work. The Power factor should be 0.95 or higher.
- i. All light fixtures (external) and drivers shall be BIS certified. The manufacturer shall submit BIS certificates with respective R codes for each fitting and driver for approval before execution.
- j. Before execution, the contractor should get light level calculations approved after selection of fixtures.

12. External lighting

The scope of this work consists of planning, designing and SITC of street lighting. (It is responsibility of the contractor to ensure that the work of external lighting has to be executed as per guidelines specified in NBC 2016).

1	Street lighting	LED Street light fittings of suitable wattage and on GI octagonal/normal poles of suitable height as per CPWD specifications and NBC 2016 and as per approved design with suitable armoured cabling laid as per norms and specifications.
2	Feeder pillar	To be fabricated with astronomical timer and as per CPWD specifications by fabricator as per approved make list.
3	Connecting Cables	Substations to feeder pillar and from feeder pillar to light poles with 4 core Aluminum armoured UG cables laid in DWC pipes as per approved norms and specifications.

13. LIST OF INDIAN STANDARDS (IS)

IS : 374 - 1979	Ceiling fans and regulators (3rd revision)
IS : 694 - 1990	PVC insulated Electric cable for working voltage up to and including 1100 volts.
IS : 732 - 1989	Code of practice for electrical wiring and installation
IS : 1258 - 1987	Bayonet lamp holders(Third revision)
IS : 1293 - 1988	Three pin plugs and sockets outlets rated voltage

	upto and including 250 volts and rated current up to and including 160 amps.
IS : 1554 - 1988 (Part - I)	PVC insulated (Heavy Duty) electric cables for working voltages upto and including 1100 volts.
IS : 1646 - 1982	Electrical installation fire safety of buildings (general) Code of practice.
IS : 1885 - 1971	Glossary of items for electrical cables and conductors
IS : 1913 - 1978	General and safety requirements for fluorescent lamps luminaries Tubular.
IS : 2071 - 1974 - 76	Methods of high voltage testing
IS : 2551-1982	Danger notice plate.
IS : 3043 - 1987	Code of practice for earthing.
IS : 4615 - 1968	Switch socket outlets.
IS : 5133 - 1969 (Part -I)	Boxes for the enclosure of electrical accessories.

14. SAFETY PROCEDURE

1. The Indian Electricity Rules 1956, as amended up to date, are to be followed in their entirety. Any installation or portion of installation which does not comply with these rules should be got rectified immediately.
2. The detailed instructions on safety procedures given in B.I.S. Code No. 5216-1969- "Code of Safety Procedures and Practices in Electrical Works" shall be strictly followed.
3. No inflammable materials shall be stored in places other than the rooms specially constructed for this purpose in accordance with the provisions of Indian Explosives Act. If such storage is unavoidable, it should be allowed only for a short period and in addition, special precautions, such as cutting off the supply to such places at normal times, storing materials away from wiring and switch boards, giving electric supply for a temporary period with the permission of Engineer-in-charge shall be taken.
4. The electrical switchgears and distribution boards should be clearly marked to indicate the areas being controlled by them.
5. Before energizing on an installation after the work is completed, it should be ensured that all tools have been removed and accounted, no person is present inside any enclosure of the switch board etc. any earthing connection made for doing the work has been removed.

15. LIFT:

Machine room less lifts: 1 number 13 passenger lift (4 Stops), Machine room less type with gearless of speed 1.25 m/sec shall be provided as per CPWD General Specifications for Electrical Works - Part III - Lifts and Escalators 2003 uploaded on CPWD website and as per the direction of Engineer-in-Charge.

The scope of work also includes any other items that may be required under relevant parts of NBC 2016, any work required as per the recommendation of an OEM supplying equipment for this subhead and any associated work that may be required for this package as per CPWD Specifications for Electrical Works Part I - Internal 2023. Nothing extra will be paid under any circumstances.

The contractor shall submit all drawings including but not limited to lift equipment, lighting layout, earth layout and any other schematic diagram to the Engineer-in-Charge and get it approved from him before commencing the work. After approval of drawings and execution any remarks pointed out by statutory agencies like Lift Inspectorate of State Government shall be done by the contractor within the tendered cost. The contractor shall get and the installations under this package tested by the respective OEM as per relevant standards and submit the certificates.

SPECIFICATION: Supplying, Installation, testing & Commissioning of Lift with machine room for 13 passenger (884 Kgs) capacity having contract speed of 1.25m/s of serving different floors the lift shaft as per detailed specification enclosed and as under

Sl. No	Parameters	Requirement
a	Speed	1.25m/s
b	Floors	4 floor (G+3)
c	Travel	14 Meters (Aprox)
d	Stop & Opening	4 stops centre opening
e	Type of control	Microprocessor based A.C. variable voltage & variable frequency
f	Operation	Non selective Collective
g	Automatic rescue device complete with dry maintenance free batteries as reqd.	Required
h	Power-Main power supply	AC 3 Phase, 50 Cycles, 415 Volts $\pm 10\%$
i	Light power supply	220 Volts 50Hz LNE
j	Size of lift well	1950 X 2300
k	Size of lift car inside as per latest PWD /NBC	1100 X 2000
l	Visual indication of floor position	Required
m	Type of machine	Gearless
n1	Type of doors	Stainless Steel

n2	car	Power Operated Centre Opening Sliding Door
n3	landing doors & door frame	1-4-Stainless Steel - Hairline Finish
n4	Hand Rail	SS Round Handrail
n5	Control panel	Car Operating Panel
o	car enclosure	
p	VVVF (V3F door operator)	Required
q	coated steel belt instead of conventional rope	Required
r	Type of signal system	
r1	Digital floor position indicator	Required
r2	Travel direction indicator	Required
r3	Visual indication through directional arrows on all landings for pre arrival of the car at all floors	Required
r4	Over load warning audio inside the car (lift should not start on over load)	Required
r5	Battery operated alarm bell and emergency light duly fed by a suitable inverter with SMF batteries for 30 minutes. Backup	Required
r6	Protection against over voltage, under voltage and single phasing should be provided	Required
r7	Lift in use/lift out of order	Required
s	Ventilation opening in the car body	Required with fan
t	Fireman's switch	Required at ground floor

D. TECHNICAL SPECIFICATIONS FOR FIRE-FIGHTING WORKS

Fire Fighting & Down comer System

Scope of work shall be as under:-

- i. To get the firefighting scheme approved first from Local Fire service Authority before taking up execution of work.
- ii. To execute the work as per approval of Local Fire service Authority.
- iii. Agency shall obtain clearance certificate from Local Fire service Authority for installations of Fire Fighting system.
- iv. The fire pump house and fire pumping sets shall be Supplied, Installed, tested and commissioned by the contractor as per the approved drawing and design.

- v. Fire extinguishers shall be installed at each floor near each staircase (as per NBC 2016 /Local Fire Services Authority norms). In addition to this fire extinguishers to be installed in Electrical rooms, fire pump house, LT rooms, Lift machine rooms (are as per NBC/Fire Services of State Govt. norms).
- vi. The agency must study specifications, provision for fire-fighting system for various buildings, NBC code - 2016, local byelaws and additional conditions carefully and execute the work accordingly. The work shall be executed in close co-ordination with the progress of building work.
- vii. Contractor shall provide all tools, equipment, metering and testing devices required for the purpose. On award of work, Contractor shall submit a detailed proposal giving methods of testing and gauging the performance of the equipment to be supplied and installed under this contract
- viii. All tests shall be made in the presence of the Engineer-in-charge or his representative or any inspecting authority. At least five working days notice in writing shall be given to the inspecting parties before performing any test.
- ix. Water flow rates of all equipment and in pipe lines through valves shall be adjusted to design conditions. Complete results of adjustments shall be recorded and submitted.
- x. Contractor shall ensure proper balancing of the hydraulic system and for the pipes / valves installed in his scope of work by regulating the flow rates in the pipe line by valve operation. The contractor shall also provide permanent Tee connection (plug) in water supply lines for ease of installing pressure gauge, temperature gauge & rotameters. Contractor shall also supply all required pressure gauge, temperature gauge & rota meter for system commissioning and balancing. The balancing shall be to the satisfaction of Consultant / Engineer-in-charge.
- xi. Three copies of all test results shall be submitted to the Engineer in A4 size sheet paper in two weeks after completion of the tests.

1. Specification:-The works shall be executed as per CPWD's General specification for Electrical Works, Part-I (Internal-2013); Part-II (External)-1994; Part-V (Wet Riser and Sprinkler System for Fire Fighting Installation)-2020, Part-VI (Fire Alarm System) IE Rules, provision laid down in NBC - 2016, and latest building byelaws of local body / Local Municipal Corporation and various Indian Standards amended up to date, and as per direction of Engineer-in-Charge.

2. Tender drawings, drawings for approval and completion drawings:-

Drawings for approval on award of the work -The contractor shall prepare & submit three sets of following drawings and get them approved from the Engineer-in-charge before the start of the work. The approval of drawings however does not absolve the contractor not to supply the equipment/materials as per agreement, if there is any contradiction between

the approved drawings and agreement. The decision of the Engineer-in-Charge shall be final & binding on the contractor.

- i. Lay out drawings of the equipments to be installed in pump room and terrace.
- ii. Drawings showing the details of erection of entire equipments including their foundations.
- iii. Plumbing drawings showing the layout of entire piping, dia. and length of pipes, hydrant, air vessel and isometric drawings showing connections to various equipments.
- iv. Lay out and isometric drawings of the equipment and pipe work, valves, nozzles to be installed in the building.
- v. Drawings including section, showing the details of erection of entire equipment including their supports/ mountings etc.
- vi. Electrical wiring diagrams for all electrical equipment and controls including the sizes and capacities of the various cables and equipment. Any other drawings relevant to the work.

Completion Drawings: Three sets of the following laminated drawings shall be submitted by the contractor while handing over the installation to the Bank. Out of this one of the sets shall be laminated on a hard base for display in the Control room. In addition one soft copy will be given on compact disc/pen drive which includes following:

- i. Installation drawings giving complete details of all the equipment, including their mountings/ supports.
- ii. Plumbing layout drawings giving sizes and lengths of all the pipes and the sizes and locations of valves, nozzles and including isometric drawings for the entire piping including the pipes connections to the various equipments.
- iii. Electrical wiring diagrams for all electrical equipment and controls including the sizes and capacities of the various cables and equipments.

SAFETY CODE

i.> Suitable scaffolds should be provided for workmen for all works that cannot safely be done from the ground, or from solid construction except such short period work as can be done safely from ladders. When a ladder is used an extra mazdoor shall be engaged for holding the ladder and if the ladder is used for carrying materials as well, suitable footholds and handholds shall be provided on the ladder and the ladder shall be given an inclination not steeper than $\frac{1}{4}$ to 1 ($\frac{1}{4}$ horizontal and 1 vertical).

ii.> Scaffolding or staging more than 3.6 m (12 feet) above the ground or floor, swung or suspended from an overhead support or erected with stationary support shall have guard rail properly attached bolted, braced and otherwise secured at least 90 cm (3 feet) high above the floor or platform of such scaffolding or staging and extending along the entire length of the outside and ends thereof with only such opening as may be necessary for the delivery of materials. Such scaffolding or staging shall be so fastened as to prevent it from swaying from the building or structure.

iii.> Working platform, gangways, and stairways should be so constructed that they should not sag unduly or unequally, and if the height of the platform or the gangway or the stairway is more than 3.6m (12 feet) above ground level or floor level, they should be closely boarded, should have adequate width and should be suitably fastened as described in (ii) above.

iv.> Every opening in the floor of a building or in a working platform be provided with suitable means to prevent the fall of persons or materials by providing suitable fencing or railing whose minimum height shall be 90 cm (3 feet).

v.> Safe means of access shall be provided to all working platforms and other working places. Every ladder shall be securely fixed. No portable single ladder shall be over 9 m. (30 feet) in length while the width between side rails in rung ladder shall in no case be less than 29 cm (11 $\frac{1}{2}$ ") for ladder upto and including 3 m (10 feet) in length. For longer ladders this width should be increased at least $\frac{1}{4}$ " for each additional 30 cm (1 foot) of length. Uniform step spacing shall not exceed 30 cm (12"). Adequate precautions shall be taken to prevent danger from electrical equipment. No materials on any of the sites of work shall be so stacked or placed as to cause danger or inconvenience to any person or the public. The contractor shall provide all necessary fencing and lights to protect the public from accident, and shall be bound to bear the expenses of defence of every suit, action or other proceedings at law that may be brought by any persons for injury sustained owing to neglect of the above precautions and to pay any damages and cost which may be awarded in any such suit, action or proceedings to any such person or which may, with the consent of the contractor, be paid to compromise any claim by any such person.

vi.> Excavation and Trenching :: All trenches, 1.2 m (four feet) or more in depth, shall at all times be supplied with at least one ladder for each 30 m. (100 feet) in length or fraction thereof. Ladder shall be extended from bottom of the trench to at least 90 cm (3 feet) above the surface of the ground. The side of the trenches which are 1.5 m (5 feet) or more in depth shall be stepped back to give suitable slope or securely held by timber bracing, so as to avoid the danger of sides to collapse. The

excavated material shall not be placed within 1.5m (5 feet) of the edges of the trench or half of the depth of the trench whichever is more. Cutting shall be done from top to bottom. Under no circumstances undermining or undercutting shall be done.

vii.> Demolition:: Before any demolition work is commenced and also during the process of the work :-

- a) All roads and open areas adjacent to the work site shall either be closed or suitably protected.
- b) No electric cable or apparatus which is liable to be a source of danger over a cable or apparatus used by the operator shall remain electrically charged.
- c) All practical steps shall be taken to prevent danger to persons employed from risk of fire or explosion or flooding. No floor, roof or other part of the building shall be so overloaded with debris or materials as to render it unsafe.

viii.> All necessary personal safety equipment as considered adequate by the Engineer-in-charge should be kept available for the use of the person employed on the site and maintained in a condition suitable for immediate use, and the contractor should take adequate steps to ensure proper use of equipment by those concerned :-

- a. Workers employed on mixing asphaltic materials, cement and lime mortars shall be provided with protective footwear and protective goggles.
- b. Those engaged in white washing and mixing or stacking of cement bags or any material which is injurious to the eyes shall be provided with protective goggles.
- c. Those engaged in welding works shall be provided with welder's protective eye shields.
- d. Stone breakers shall be provided with protective goggles and protective clothing and seated at sufficiently safe intervals.
- e. When workers are employed in sewers and manholes, which are in use, the contractors shall ensure that the manhole covers are opened and ventilated at least for an hour before the workers are allowed to get into the manholes, and the manholes so opened shall be cordoned off with suitable railing and provided with warning signals or boards to prevent accident to the public.
- f. When workers are employed in sewers and manholes, which are in active use, the contractor shall ensure that the following safety measures are adhered to :-
 - i) Entry for workers into the line shall not be allowed except under supervision of the Architect or any other higher officer.
 - ii) At least 5 to 6 manholes upstream and downstream should be kept open for at least 2 to 3 hours before any man is allowed to enter into the Manholes for working inside.
 - iii) Before entry, presence of toxic gases should be tested by inserting wet lead acetate paper, which changes colour in the presence of such gases and gives indication of their presence.
 - iv) Presence of oxygen should be verified by lowering a detector lamp into the manhole. In case, no oxygen is found inside the sewer line, workers should be sent only with Oxygen kit.

- v) Safety belt with rope should be provided to the workers. While working inside the manholes such rope should be handled by two men standing outside to enable him to be pulled out during emergency.
 - vi) No smoking or open flames be allowed near the blocked manholes being cleaned.
 - vii) The Malba obtained on account of cleaning of blocked manholes and sewer lines should be immediately removed to avoid accidents on account of slippery nature of the malba.
 - viii) Workers should not be allowed to work inside the manhole continuously. He should be given rest intermittently. The Engineer-in-charge/Architect may decide the time up to which a worker may be allowed to work continuously inside the manhole.
 - ix) Gas masks with oxygen cylinder should be kept at site for use in emergency.
 - x) Air blowers should be used for flow of fresh air through the manholes. Whenever called for, Portable air blowers are recommended for ventilating the manholes. The Motors for these shall be vapour proof and of totally enclosed type. Non sparkling gas engines also could be used but they should be placed at least 2 meters away from the opening and on the lowered side protected from wind so that they will not be source of friction on any inflammable gas that might be present.
 - xi) The workers engaged for cleaning the manholes/sewers should be properly trained before allowing to work in the manhole.
 - xii) The workers shall be provided with Gumboots or non-sparkling shoes, bump helmets and gloves, non-sparkling tools, safety lights and gas masks and portable air blowers (when necessary). They must be supplied with barrier cream for anointing the limbs before working inside the sewer lines.
 - xiii) Workmen descending a manhole shall try each ladder step or rung carefully before putting his full weight on it to guard against insecure fastening due to corrosion of the rung fixed to manhole wall.
 - xiv) If a man has received a physical injury he should be brought out of the sewer immediately and adequate medical aid should be provided to him.
 - xv) The extent to which these precautions are to be taken depend on individual situation but the decision of the Engineer in charge regarding the steps in this regard to be taken in an individual case will be final".
- g. The contractor shall not employ men below the age of 18 years and women on the work of painting with products containing lead in any form. Wherever men above the age of 18 are employed on the work of lead painting, the following precautions should be taken ::
- i) NO paint containing lead or lead products shall be used except in the form of paste or readymade paint.
 - ii) Suitable face masks should be supplied for use by the workers when paint is applied in the form of spray or a surface having lead paint dry rubbed and scrapped.
 - iii) Overalls shall be supplied by the contractors to the workmen and adequate facilities shall be provided to enable the working painters to wash during the cessation of work.

Whenever men above the age of 18 are employed on the work of lead painting, the following principles must be observed for such use::

I. a. White lead, sulphate of lead, or products containing these pigments shall not be used in painting operation except in the form of paste or of paint ready for use.

b. Measures shall be taken in order to prevent danger arising from the application of paint in the form of spray.

c. Measures shall be taken, whenever practicable, to prevent danger arising from dust caused by dry rubbing down and scraping.

II .a. Adequate facilities shall be provided to enable working painters to wash during and on cessation of work.

b. Overall shall be worn by all the working painters during the whole of the working period.

c. Suitable arrangements shall be made to prevent clothing put off during working hours being soiled by painting materials.

III .a. Cases of lead poisoning and of suspected lead poisoning shall be notified and subsequently verified by a medical man appointed by the competent authorities of the Employee.

b. The Employer may require, when necessary a medical examination of workers.

c. Instructions with regard to the special hygienic precautions to be taken if the painting work shall be distributed to working painters.

ix.> When the work is done near any place where there is risk of drowning, all necessary equipment's should be provided and kept ready for use and all necessary steps taken for prompt rescue of the person in danger and adequate provision should be made for prompt first aid treatment of all injuries likely to be sustained during the course of the work.

x.> Use of hoisting machines and tackle including their attachments, anchorage and supports shall conform to the following standards or conditions::

1) a. These shall be of good mechanical construction, sound material and adequate strength and free from patent defects and shall be kept in good repair and in good working order.

b) Every rope used in hoisting or lowering materials or as a means of suspension shall be of durable quality and adequate strength, and free from patent defects.

2). Every crane driver or hoisting appliance operator shall be properly qualified and no person under the age of 21 years should be in charge of any hoisting machine including any scaffolding winch or give signals to operator.

3). In case of every hoisting machine and of every chain ring hook, shackle swivel and pulley block used in hoisting or a means of suspension the safe working load shall be ascertained by adequate means. Every hoisting machine and all gear referred to above shall be plainly marked with the safe working load. In case of a hoisting

machine having a variable safe working load, each safe working load and the conditions under which it is applicable shall be clearly indicated. No part of any machine or any gear referred to above in this paragraph shall be loaded beyond the safe working load except for the purpose of testing.

4). In case of Employer's machines, the safe working load shall be notified by the Electrical Engineer-in-Charge. As regards contractors' machines the contractors shall notify the safe working load of the machine to the Engineer-in-charge whenever he brings any machinery to site of work and get it verified by the Electrical Engineer concerned.

xi.> Motors, gearing, transmission, electric wiring and other dangerous parts of hoisting appliances should be provided with efficient safeguards. Hoisting appliances should be provided with such means as will reduce to the minimum the risk of accidental descent of the load. Adequate precautions should be taken to reduce to the minimum the risk of any part of a suspended load becoming accidentally displaced. When workers employed on electrical installations which are already energised, insulating mats, wearing apparel, such as gloves, sleeves and boots as may be necessary should be provided. The workers should not wear any rings, watches and carry keys or other materials which are the good conductors of electricity.

xii.> All scaffolds, ladders and other safety devices mentioned or described herein shall be maintained in safe conditions and no scaffold, ladder or equipment shall be altered or removed while it is in use. Adequate washing facilities should be provided at or near places or work.

xiii.> These safety provisions should be brought to the notice of all concerned by display on a notice board at a prominent place at work spot. The person responsible for compliance of the safety code shall be named therein by the contractor.

xiv.> To ensure effective enforcement of the rules and regulations relating to safety precautions the arrangements made by the contractor shall be open to inspection by the Labour Officer of the Government, Engineer-in-charge/Architect of the Employer or their representatives.

xv.> Notwithstanding the above clauses from (i) to (xiv) there is nothing in these to exempt the contractor from the operations of any other Act or Rule in force in the Republic of India.



**MODEL RULES FOR PROTECTION OF HEALTH AND SANITARY ARRANGEMENTS FOR
WORKERS EMPLOYED BY CONTRACTORS**

1>. Application::

These rules shall apply to all building and construction works in which twenty or more workers are ordinarily employed or are proposed to be employed on any day during the period during which the contract work is in progress.

2>. Definition::

Work place means a place where twenty or more workers are ordinarily employed or are proposed to be employed in connection with construction work on any day during the period during which the contract work is in progress.

3>. First Aid facilities::

(1) At every work place there shall be provided and maintained, so as to be easily accessible during working hours, first-aid boxes at the rate of not less than one box for 150 contract labour or part there of ordinarily employed.

(2) The first-aid box shall be distinctly marked with a red cross on white ground and shall contain the following equipment, namely:-

a.> For work places in which the number of contract labour employed does not exceed 50 -

Each first-aid box shall contain the following equipments:-

- i. 6 small sterilised dressings.
- ii. 3 medium size sterilised dressings.
- iii. 3 large size sterilised burn dressings.
- iv. 1 (30 ml.) bottle containing a two percent alcoholic solution of iodine.
- v. 1 (30 ml.) bottle containing salvolatile having the dose and mode of administration indicated on the label.
- vi. 1 snake-bite lancet.
- vii. 1 (30 gms) bottle of pottassium permanganate crystals.
- viii. 1 pair scissors.
- ix. 1 copy of the first aid leaf let issued by the Director General, Factory Advice Service and Labour Institutes, Government of India.
- x. 1 bottle containing 100 tablets (each of 5 grams) of aspirin.
- xi. Ointment for burns.
- xii. A bottle of suitable surgical antiseptic solution.

b.> For work places in which the number of contract labour exceed 50 -

Each first-aid box shall contain the following equipments:-

- i. 12 small sterilised dressings.

- ii. 6 medium size sterilised dressings.
- iii. 6 large size sterilised dressings.
- iv. 6 large size sterilised burn dressings.
- v. 6 (15 gms) packets sterilised cotton wool.
- vi. 1 (60 ml.) bottle containing a two percent alcoholic solution iodine.
- vii. 1 (60 ml.) bottle containing sulvolatile having the dose and mode of administration indicated on the label.
- viii. 1 roll of adhesive plaster.
- ix. 1 snake bite lancet.
- x. 1 (30 gms.) bottle of pottasium permanganate crystals.
- xi. 1 pair scissors.
- xii. 1 copy of the first-aid leaf-let issued by the Director General, Factory Advice Service and Labour Institutes, Government of India.
- xiii. A bottle containing 100 tablets (each of 5 grams) of aspirin.
- xiv. Ointment for burns.
- xv. A bottle of suitable surgical antiseptic solution.

(3) Adequate arrangements shall be made for immediate recoument of the equipment when necessary.

(4) Nothing except the prescribed contents shall be kept in the First- aid box.

(5) The first Aid box shall be kept in charge of a responsible person who shall always be readily available during the working hours of work place.

(6) A person in charge of the First Aid box shall be a person trained in First-Aid treatment, in work places where the number of contract labour employed is 150 or more.

(7) In work places where the number of contract labour employed is 500 or more and hospital facilities are not available within easy distance of the works. First/Aid posts shall be established and run by a trained compounder. The Compounder shall be on duty and shall be availabel at all hours when the workers are at work.

(8) Where work places are situated in places which are not towns or cities, a suitable motor transport shall be kept readily available to convey injured person or person suddenly taken ill to the nearest hospital.

4>. Drinking water::

(a) In every work place there shall be provided and maintained at suitable places, easily accessible to labour, a sufficient supply of cold water fit for drinking.

(b) Where drinking water is obtained from an intermittent public water supply, each work place shall be provided with storage where such drinking water shall be stored.

(c) Every water supply of storage shall be at a distance of not less than 50 feet from any latrine, drain or other source of pollution. Where water has to be drawn from an existing well which is within such proximity of latrine, drain or any other source of pollution, the well shall be properly chlorinated before water is drawn from it for

drinking. All such wells shall be entirely closed in and be provided with a trap-door which shall be dust and water-proof.

(d) A reliable pump shall be fitted to each covered well, the trap-door shall be kept locked and opened only for cleaning or inspection which shall be done at least once a month.

5>. Washing facilities::

- (i) In every work place adequate and suitable facilities for washing shall be provided and maintained for the use of contract labour employed therein.
- (ii) Separate and adequate screening facilities shall be provided for the use of male and female workers.
- (iii) Such facilities shall be conveniently accessible and shall be kept in clean and hygienic condition.

6>. Latrines and Urinals::

- (i) Latrines shall be provided in every work place on the following scale, namely:-
 - (a) Where females are employed there shall be at least one latrine for every 25 females.
 - (b) Where males are employed, there shall be at least one latrine for every 25 males.

Provided that where the number of males or female exceeds 100, it shall be sufficient if there is one latrine for 25 males or females, as the case may be, upto the first 100 and one for every 50 thereafter.

(ii) Every latrine shall be under cover and so partitioned off as to secure privacy, and shall have proper door and fastenings.

(iii) Construction of latrines:: The inside walls shall be constructed of masonry or some suitable heat-resisting non-absorbent materials and shall be cement washed inside and outside at least once a year. Latrines shall not be of a standard lower than bore-hole system.

(iv) a. Where workers of both sexes are employed, there shall be displayed outside each block of latrine and urinal, a notice in the language understood by the majority of the workers "For Men only" or "For Women Only" as the case may be.

a. The notice shall also bear the figure of a man or of a woman as the case may be.

(v) There shall be at least one urinal for male workers upto 50 and one for female workers upto fifty employed at a time. Provided that where the number of male or female workmen, as the case may be, exceeds 500, it shall be sufficient if there is

one urinal for every 50 males or females upto the first 500 and one for every 100 or part thereof, thereafter.

(vi) a. The latrines and urinals shall be adequately lighted and shall be maintained in a clean and sanitary condition at all times.

b. Latrines and urinals other than those connected with a flush sewerage system shall comply with the requirements of the Public Health Authorities.

(i) Water shall be provided by means of a tap or otherwise so as to be conveniently accessible in or near the latrines and urinals.

(viii) Disposal of excreta:: Unless otherwise arranged for by the local sanitary authority, arrangements for proper disposal of excreta by incineration at the work place shall be made by means of a suitable incinerator. Alternately excreta may be disposed of by putting a layer of night soil at the bottom of a pucca tank prepared for the purpose and covering it with a 15 cm layer of waste or refuse and then covering it with a layer of earth for a fortnight (when it will turn into manure).

(ix) The contractor shall, at his own expense, carry out all instructions issued to him by the Engineer-in-charge/Architect to effect proper disposal of soil and other conservancy work in respect of the contractors' workmen or employees on the site. The contractor shall be responsible for payment of any charges which may be levied by Municipal or Cantonment Authority for execution of such work on his behalf.

7>. Provision of shelter during rest::

At every place there shall be provided, free of cost, four suitable sheds, two for meals and the other two for rest separately for the use of men and women labour. The height of each shelter shall not be less than 3 meters from the floor level to the lowest part of the roof. These shall be kept clean and the space provided shall be on the basis of 0.6 sq.mt. per head.

Provided that the Engineer-in-charge/Architect may permit, subject to his satisfaction, a portion of the building under construction or other alternative accommodation to be used for the purpose.

8>. Creches::

(a) At every work place, at which 20 or more women worker are ordinarily employed, there shall be provided two rooms of reasonable dimensions for the use of their children under the age of six years one room shall be used as a play room for the children and the other as their bed-room. The rooms shall be constructed with the specification as similar to these given in para 2 (a) of clause 19 H.

(b) The rooms shall be provided with suitable and sufficient openings for light and ventilation. There shall be adequate provision of sweepers to keep the places clean.

(c) The contractor shall supply adequate number of toys and games in the play room and sufficient number of cots and bedding in the bed room.

(d) The contractor shall provide one dais to look after the children in the creches when the number of women workers does not exceed 50 and two dais when the number of women workers exceed 50.

(e) The use of the rooms earmarked as creches shall be restricted to children, their attendants and mothers of the children.

9>. Anti-Malarial precautions::

The contractor shall at his own expense, conform to all anti-malarial instructions including the filling up of any borrow pits which may have been dug by him.

10>. Amendments

Government may, from time to time, add to or amend these rules and issue directions - it may consider necessary for the purpose of removing any difficulty which may arise in the administration thereof.



LIST OF PREFERED MAKE

1. CIVIL & SANITARY WORKS

Sl. No.	Material Description	Material	
		Brand	Makes *
1	Actativ polypropylene (APP) Modified water proof membrane	Ardex endure	Ardex endure
		Bitumat Co Ltd	Bitumat Co Ltd
		Ferrous crete	Ferrous Crete (India) Pvt Ltd
		Hydrotech ltd	Hydrotech Ltd
		Pidilite	Pidilite industries
		STP	Shalimar tar products
2	Acrylic emulsion	Asian Tractor Premium emulsion	Asian paint
		Berger (BISM)	Berger Paints
		Dulux (Super Cover)	ICI Dulux
		Nerolac (Beauty Gold)	Nerolac
3	Acrylic smooth exterior paint	Apex	Asian Paints
		Berger	Berger
		Dulux	ICI duLux
		Nerolac	Nerolac
		Nippon	Nippon
4	Acrylic textured plaster	Apex Duracast	Asian Paints
		Asian paints	Asian Paints
		Heritage	Heritage Rajkamal Group
		Nerolac	Nerolac
		Spectrum paints	Spectrum paints Ltd.

5	Acrylic exterior Texture	Akzonobel	Akzonobel
		Asian paints	Asian paints
		Berger	Berger paints India ltd
		Ebco	Ebco
		Nerolac	Nerolac paints Ltd.
6	Adhesive	Asian Paints	Asian Paints
		CICO	CICO Industries
		Dunlop	India Tyre & Rubber Co (India) Ltd.
		Finical	Pidilite Industries
		Proofex of Adhesive	FOSROC India
		Sika	Sika India Pvt. Ltd
		Vamorganic	Vamorqanic Ltd.
7	Adhesive for AAC Block/Tiles	Ardex Endura/Gold star	Ardex Endura
		Ferrous Crete	Ferrous Crete (India) Pvt Ltd
		Tile Adhesive Plus	Berger Paints
		Ultra tech	Ultra tech cement ltd
		Kawneer	Kawnear India
		Schueco	Schueco India Pvt. Ltd.,
		Sigma	Sigma Corporation
8	Aluminium composite panels	Alpolic	Alpolic
		Alstone	Alstone
		Alstrong	Alstrong
		Alex panel	M/s Alex Panels
		Alucobond	3A composites India Pvt Ltd.

		Aludecor	M/S Aludecor lamination Pvt ltd.
		Eurobond	M/S Euro panel products Pvt ltd.
		Eurobond	Eurobond pvt Ltd.
		Hynadecor	Hynadecor
		Reynobond	Reynobond
9	Anchor/ SS Stone Cladding Clamps/ Dash fasteners	Anchor	Anchor Ltd.
		BOSCH	BOSCH Ltd.
		Canon	Canon
		Fischer	Fischer India
		Helfen	Helfen Gmbh
		Hilti	Hilti India Pvt. Ltd.
		Nutech	Nutech Concrete Products Pvt. Ltd.
		Trixel	Axel India Pvt. Ltd.
		Wurth	Wuerth India Pvt. Ltd.
10	Anti corrosive bit mastic paint	Bergar	Berger paints India Ltd
		Bituminous black	Asian Paints
		Shalimar	Shalimar paints India Ltd.
11	Butt Hinges /parliament openable window shutters	Alu Alpha	Alu Alpha India
		Dorma	Dorma India Pvt. Ltd.
		Dorset	Dorset Industries Pvt. Ltd.
		Earit Bihari	Earit Bihari India Pvt. Ltd.
		Hafela	Hafele India Pvt. Ltd.
		Helix	Helix India
12	Bamboo Wood Flooring and	AMITEX	AMITEX Enterprises, Delhi.

	wall paneling.	Eco green Flooring	Jupiter Traders Bangalore.
		Epitome Bamboo wood Products	Mutha Industries Pvt.,Ltd., Mumbai.
		Floor India	Flooring India Company, Panipat, Haryana.
		FLOSTO Tanks	Devi Polymer Pvt.,Ltd., Chennai.
		VIVANTA	VIVANTA Enterprises, Mumbai.
13	Cement OPC / PPC	Ambuja Cement	Ambuja Cements Ltd.
		ACC	ACC Cements Ltd
		Bharathi	Bharathi Cement Corporation Ltd.
		Birla	Birla Corporation Ltd
		Century Cement	Birla Gold Cement
		Chettinad	Chettinad Cements Corporation Ltd
		Coromandal	India Cements Ltd.
		Dalmia	Dalmia Cement Bharat Ltd.
		Jaypee Cement	Jaypee Cement Ltd
		J.K. Cement	J.K. Cement Pvt. Ltd.
		Konark Cement	Konark Cement
		Maha Cement	Myhome Industries Pvt. Ltd.
		Penna Cement	Penna Cement Industries Ltd.
		Ramco	Ramco
		L & T	Ultra Tech Cement Ltd
		Ultra Tech	Ultra Tech Cement Ltd
		Zuari	Zuari Cement Limited
		NU VISTA/INFRACEM	M/s. NU Vista
		SAGAR CEMENT	M/s Sagar Cements Limited

14	Cement Concrete Parking Tiles	Dazzle	Dazzle Designer tiles Pvt Ltd
		Eurocon	Eurocon tiles india
		Hindustan tiles	Hindustan tiles, Ranchi Pune
		NTC	NTC Parking tiles
		NITCO	NITCO Ltd
		Bharath	Bharath flooring & tile private Ltd
		Ultra	Ultra tile private Ltd
		Cemtech	M/s Cemtech Tiles,Uppal,Hyderabad
15	Cement based wall putty	Altek	NCL Alltek & seccold Ltd.
		Ardex Endura	Ardex Endura India Pvt. Ltd.
		Asian paints	Asian paints Ltd
		Berger	Berger
		Birla Wall Care	Birla Cements Ltd.,
		Ferrous Crete	Ferrous Crete (India) Pvt. Ltd
		J.K wall putty	J.K. Cement Ltd
16	Cement Board	Bison	Bison Group
		Everest	Everest Techno polis
17	Cement Primer	Asian paints	Asian Paints
		Berger	Berger paints India Ltd.
		JK Primaxx	JK Cement Ltd
		Surfa	M/s Surfa Coats(India) Pvt. Ltd. Banglore
18	Chemical water proofing system	BASF	BASF India Ltd.
		Dr. Fixit	Pidilite industries
		Ferrous Crete	Ferrous Crete (India) Pvt Ltd.

		Fosroc	Fosroc India
		Latex shield 2K/Tank shield PW	Berger Paints Ltd.
		MC- Bauchemie	MC- Bauchemie India Ltd.
		Perma construction Aid	Perma construction Aid Pvt Ltd
		Sika	Sika India
		Smart Care	Asian Paints Ltd.
		Sunanda speciality coating	Sunanda speciality coating Pvt Ltd.
19	Chloropyriphos	DURSBANTCT	DE-NOCIL Ltd.
		HILBAN	Hindustan Insecticides Ltd.
		NOBAN	Chemtts Wets & Flows Pvt. Ltd
		PIRAMID	AMVAC AGRI RASAYAN Pvt. Ltd.
		Premise Agenda	Bayer Ltd.
		Sarups Pest Control	Sarups Pest Control Ltd.
20	double flangad non return valve	Fluidtech	Fluidtech
		Kirloskar	Kirloskar Brothers Ltd.
		Zoloto	Zoloto Industries
21	FRP Manhole cover	BIC	Bengal iron corporation
		HEPCO	HEPCO India
		Neco	Jayaswal Neco Ltd..
		RPMF	M/s Raj Pattern Makers & Founders Pvt. Ltd.
		SKF	SKF Industries
22	Clamp, Rebar, Chemical fastener	Fischer	Fischer India
		Hilti	Hilti India Pvt.Ltd.
		Wurth	Wuerth

23	C.P.Brass Fittings	CERA	M/s Cera Sanitaryware Ltd.
		ESS Bathsense & Royal	Asian Paints Ltd.
		Hindware	HSIL Ltd.
		Jaquar	Jaquar Group
		Johnson	Prism Johnson Ltd.
		KEROVIT	M/s Kajaria Ceramic Limited
		Kingston	Kingston Brass India Pvt., Ltd.
		MARC	MARC Sanitation Pvt.Ltd.
		Parryware	Parryware Sanitaryware
		Player	M/s. Status Sanitech Pvt Ltd.
24	CPVC pipe and fittings	Ashirwad	Ashirwad PVC Pipes
		AKG	M/s AKG Extrusions Pvt. Ltd.
		Astral	Astral Polytechnik Ltd..
		Birla Aerocon	HIL Ltd.
		Finolex	Finolex Industries Ltd.
		Flowgard	Flowgard
		Prince	Prince Pipes and fittings Ltd,.
		Supreme	Supreme Industries Ltd.
		Truflo	HIS Ltd.
		Sentini	M/s Sentini Flopipes India Pvt. Ltd. Hyderabad
25	Concealed tower bolt	Alu Alpha	Alu Alpha India
		Dorma	Dorma India Pvt. Ltd.
		Dorset	Dorset Industries Pvt. Ltd.
		Ingersolrand	Ingersolrand (India) Ltd.

26	Damp Proof material	ACCO Proof	ACC Cements Ltd
		Asian Paints smart care damp proof	Asian Paints Ltd.
		BASF	BASF India Ltd.
		CICO	CICO Industries
		Dr. Fixit	Pidilite Industries
		Duraseal	Apurva India Pvt. Ltd.
		Ferrous Crete	Ferrous Crete (India) Pvt. Ltd.
		Fosroc	Fosroc Chemicals India Pvt. Ltd.
		Impermo	Snowcem Paints
		MAPEI	MAPEI Construction Products India P Ltd
		MYK	MYK LATICRETE India Pvt. Ltd.
		PIDILITE	Pidilite Industries
		SIKA	Sika India Pvt. Ltd.
		Weather Coat Roof Guard	Berger Paints India Ltd.
27	Engineered wood floor	Amstrong	Amstrong flooring
		Mikasa Real wood floors	Grean Lam Industries
		New wood	Naw Wood India ltd
		Pergo	Red floor India
		Werner	Dura floor wemer GmbH
28	EPDM water proofing Membrane	Ferrous Crete	Ferrous Crete (India) Pvt Ltd
		Fosroc	Fosroc India
		Pidilite	Pidilite Industries
		Smart care	Asian paints
		STP	Shalimar tar products

29	Epoxy	Ardex	Ardex Endura Ltd.
		Asian paints	Asian paints
		CICO Poxy	CICO Technologies Ltd.
		Ferrous Crete	Ferrous Crete (India) Pvt Ltd.
		Fosroc	Fosroc India
		Shalibons	Shalimar tar products
30	Epoxy Paint	Ardex Endura	Ardex Endura India Pvt. Ltd.
		Asian epoxy	Asian Paints
		Berger	Berger paints India Ltd.
		Nerolac	Nerolac
		Shalimar	Shalimar paints India Ltd.
		STP Ltd.	Shalimar Tar Products
31	Epoxy tile joint cements	Ardex Endura	Ardex Endura India Pvt. Ltd
		BASF	BASF India Ltd.
		Ferrous Crete	Ferrous Grete (India) Pvt. Ltd
		Fosroc	Fosroc indd
		Laticrete	MYK Laticrete India
32	Expansion Joint Bitumen board	Dura Board HD100	Supreme Industries
		DURAFILL	Supreme Industries
		STP	Shalimar Tar Products
33	False Ceiling	Aerolite	Andhra Polymers Pvt. Ltd./Aerolite Industnas Pvt. Ltd.
		Armstrong	Armstrong Wond Indusvies
		Diamond (GRG Tiles)	Diamond International Inex Pvt. Ltd.
		Griddsquare	Gridsquare Ceilings

		Gypframe steel	British Gypsum
		Knauf	Knauf Gypsum India Pvt. Ltd.
		Lloyd	Lloyd Insulation (India } Ltd
		Saint Gobain	Saint Gobain Gyproc
34	False ceilings Members (Perimeter, Ceiling section, intermediates, angles etc.,)	Aerolite	Andhra Polymers Pvt. Ltd. /Aerolite Industries Pvt. Ltd
		Anutone	Anutone Accoustics Ltd.
		Armstrong	Amstrong World Industries
		Gridsquare	Gridsquare Ceilings
		Hunter Dougals	Hunter Dougals
		Knauf	Knauf Gypsum India Pvt. Ltd.
		Saint Gobain Gyproc	Saint Gobain Gyproc India
		USG Boral	USG Boral
35	False Floor	Access floor sytem	Access Floor system
		Hewetson	Hewetson India
		Kebao	Inner Space (Distributors)
		PINNACLE	PINNACLE
		Unifloor	Unifloor India Ltd.
		Unitile	Unitile office systems Pvt. Ltd.
36	Fire Rated hardware	Backers FS	Backers FS
		Dorma	Dorma India Pvt. Ltd.
		Dorset	Dorset Industries Pvt. Ltd.
		Geze	Geze GMBH
		Ingersolrand	Ingersolrand (India) Ltd.
37	Fire rated glass	Contra Flam / Pyroswiss of Saint Gobain	Saint Gobain India Pvt. Ltd.

		Pilkinton	Pilkinton India
		Promat	Promat Fire & Insulation (P) Ltd.
		Pyran of Schott	Schott glass India Pvt. Ltd.
38	Fire retardant paint	Akzonobel	Dulex Akzonobel Paints
		Asian paints	Asian Paints
		Hilti	Hilti India Pvt. Ltd.
		Jotun	Jotun paints
		STPL Ltd.	STPL Ltd.
39	Fire Smoke Seal	Atroflame	Atroflame ltd.
		Hilti	Hilti India Pvt. Ltd.
		Promat	Promat Fire & Insulation (P) Ltd.
		Raven	Raven Global
40	Float Glass	Saint Gobain	Saint Gobain India Pvt. Ltd.
		Asahi	Asahi India Glass ltd.
		Pilkinton	Pilkinton India
		Modiguard	Gujarat Guardian Ltd.
		Gold Plus	M/s Gold Plus Glass IndustriesLtd, New Delhi
41	Float Valve (Ball valve)	Arco	Arco valve Pvt ltd
		IBP	IBP industries
		Leader	Leader valve Ltd
		Prayag	Prayag Polymers Pvt Ltd.
		Zoloto	Zoloto industries
42	Floor spring (For non DSR Items)	Dorma	Donna India Pvt Ltd.

		GEZE	GEZE GmbH
		Ingersolrand	Ingersolrand India Pvt Ltd
		OZONE	Ozone Hardware.
43	Flushing Cistern	Bath sense	Asian Paints
		CERA	CERA Sanitary ware Ltd.,
		Hindware	HSIL Ltd,
		Jaquar	Jaquar Group
		Kohler	Kohler
		Parryware	ROCA Bath Pvt. Ltd.,
		Somany	Somany
44	Fly ash cement bricks	Concerned Circle's engineer will approve based on local availability.	
45	FRP Door Frames shutter	Ambieance	Ambieance
		Cactus	Cactus
		Duroplast	Duroplast Extrusion pvt ltd.
		Jain doors Pvt. Ltd.	Jain doors Pvt. Ltd.
		Jayna	Jain wood industries
		Meena fibre glass	Meena fibre glass
		Polyline	Polyline
		Durasleek	M/s Fibrespace Composites Pvt. Ltd.
46	Friction stay hinges	Earl Bihari	Earl Bihari Pvt. Ltd.
		KINLONG	Kinlong Industriss
47	FRP covers	Everlast Composites	Everlast Composites Pvt.,Ltd.
		Fibrocast	Fibrocast FRP cover manufacturer

		Thermodrain	Poly products (I) Pvt.,Ltd.
48	Galvolume sheet for roofing, cladding, sandwich panel	Bhushan	Bhushan steel
		Essar	Essar Group
		JSW	JSW
		Llyod metal craft	Llyod Insulation
		Tata Blue Scope	Tata Blue Scope
49	Galvanising	Jenco	Jenco Group
		Karamtara	Karamtara Engineering Pvt.,Ltd.
		Steel lite	Galvanized Steel Ltd.
50	Glass door hardware	Classic	Classic Hardware
		Dorma	Dorma India Pvt. Ltd.
		Dorset	Dorset Industries Pvt. Ltd.
		Geze	Geze GMBH
		Godrej	Godrej
		Hafele	Hafele India Pvt. Ltd.
		Kich	Kich Architectural Products Ltd.
		Ozone	Ozone Hardware
		Squash	Squash glass doors
51	Glass mosaic tiles	Birla White	Birla Corportion Ltd.
		Bisazza	Bisazza Italy
		Coral	Coral tiles
		Italia	Tie italia mosaic Pvt Ltd
		JK White	JK Cement ltd.
		Mridul	Mridut tiles

		Paljadto	Palladto Mosaics
		PAVIT (Eco Tile)	PAVIT Ceramics Pvt Ltd.
52	Glazed Ceramic tiles (Also wall tiles)	Aparna	Vitero Tiles
		AGL	Asian Granite India Ltd.
		CERA	CERA Sanitaryware Ltd
		Jonson	Prism Jonson Ltd.
		Kajaria	Kajaria Ceramic Ltd.
		NITCO	NITCO Ltd.
		Oasis	M/s Oasis Vitrified Pvt.Ltd.
		Orient Bell	Orient Bell Ltd.
		RAK	RAK Ceramic India Pvt. Ltd.
		Somany	Somany Ceramic Ltd.
		Varmora Granito	Varmora Granite Granite Pvt. Ltd.
		Vitero	Vitero Tiles Floor and Wall Tile Manufactures India
		Ultra	Ultra Ltd.
53	GRC Jali & Tile	Ecovision	Ecovision Industries Pvt Ltd.
		Mahesh GRC	Mahesh Prefab Pvt Ltd.
		Terrafirma	Terrafirma GRC Industries
		Unistone	Unistone Interiors Pvt.,Ltd.
54	Grout	Asian Paints - Smart casre	Asian Paints Pvt. Ltd.
		Ardex	Ardex Endura Adhesive India Pvt. Ltd.
		BASF	BASF India Ltd.
		CICO	CICO Industries
		Dr. Fixit	Pidilite Industries

		Ferrous Crete	Ferrous Crete (India) Pvt. Ltd.
		Fosroc GP2	FOSROC India
		Fugabella, Porcelana	Kerakoll India Pvt. Ltd.
		Home shield super grout	Berger Paints India Limited.
		LATA POXY	MYK LATICRETE India Pvt. LTd.
		MYK Schomburg	MYK Arments Range of products
		SIKA	Sika India Pvt.Ltd.
		Weber	Saint Gobain India Pvt. Ltd.
55	Gypsum Board	Armstrong	Armstrong world Industries
		Gyproc Saint Gobain	Saint Gobain Gyprock India Ltd.
		Lafarge	Lafarge Gypsum India Pvt. Ltd.
		USG Boral board	USG Board India (P) Ltd.
56	Gypsum plaster	Ferrous crete (Ferro-500, Gypsum) Plaster)	Ferrous crete manufacturers
		Gyproc Saint Gobain (Elite 90)	The Saint-Gobain group
		Ultra tech	Ultra Tech Cement Ltd.
57	Heat resistant tiles on terrace	ABC Ceramics	ABC Ceramics
		Endura	Johnson India
		Johnson	Johnson India
		Somany	Somany Ceramic Tiles
		Swastik	Swastik Tiles
		Thermatek	Thermatek
58	High Density (HDF) Prelaminated board	Armstrong	Armstrong world industries Ltd.
		Green ply	Green Ply Industries Ltd.
		Pergo	Red Floor India

59	High end exterior Texture	Allura/ Graniza range	Asian paints
		Berger	Berger paints India ltd
		SKK Brand	SKK Ltd
60	Hydraulic door closers/ Floor springs	Dorma	Dorma India Pvt. Ltd.
		Dorset	Dorset Industries Pvt. Ltd.
		Everite	Everite agencies
		Godrej	Godrej locking solution & systems
		Hardwyn	Hardwyn hardware
		MAGNUM KIT	Mukund Overseas
61	Interlocking Concrete Paver Blocks	Basant Betons	Basant Betons
		BHARAT (NILSON)	Bharat
		Dazzie	Dazzle Designer tiles Pvt Ltd
		Hindustan tiles	Hindustan tiles, Ranchi Pune
		NITCO (ROCKARD)	NITCO
		REGENCY	Regency
		Shree	Shree Bharat Paver blocks
		Ultra	Ultra tile private Ltd
		Vyara Tiles	VYARA Tiles Pvt. Ltd. / Surat
		Cemtech	M/s Cemtech Tiles, Uppal, Hyderabad
		Any alternative tiles as approved by CE/SE based on local availability.	
62	Laminate	Archid ply	Archid ply industries ltd.
		A1 Teak	A1 Teak Products Pvt.,Ltd.
		Century	Centuray laminates
		Decolam	Decolam India Pvt. Ltd.

		Formica	Formica Laminates (India) Pvt. Ltd.
		Green Lam	Green lam Industries Ltd.
		KANCHAN PLY	M/s Vidya Ply & Board Pvt. Ltd
		Kitmica	Kitply Industries Ltd.
		Merino	Merino laminates
		Royal touche	Royal touche laminates
		Sonear	Sonear Laminates
		Sunmica	Sunmica Industries
63	Linoleum sports flooring	Armstrong	Armstrong flooring India Pvt. Ltd.
		Forbo	Forbo Flooring India Pvt. Ltd.
		Gerflor	Gerflor flooring
64	Locks & Latches	Dorset	Dorset Industries Pvt. Ltd.
		Godrej	Godrej locking solution & systems
		Hafele	Hafele India Pvt. Ltd.
		Harrison	Harrison locks
		Hitech	Globe Locks India
		Helix	Helix India
		Link	Link Locks
		Plaza	Bharat lock House
		Yale	ASSA ABOLOY India (P) Ltd.
65	Masking Tapes	3M	3M
		Roop	Roop Polymer Ltd.
		Sun	Sun
		Wonder polymer	Wonder Tape Industries

66	Melamine Polish	Asian paints	Asian paints
		Melamine Gold Wudfin	Pidilite industries
		Polycure	Polycure Malaysia
67	Mechanical coupler for reinforcement	Dextra	Dextra India Pvt Ltd.
		Sanfield	Sanfield India Ltd.
		Alchemica	Alchemica Ltd.
		Ardex Endura	Ardex Endura Ltd.
		Asian paints	Smart care water proofing products
68	Membrane water proofing system	BASF	BASF India Ltd.
		Dr. Fixit	Pidilite industries
		Ferrous Crete	Ferrous Crete (India) Pvt Ltd.
		Hydro tech	Hydro tech Ltd.
		MYK Schomburg	MYK Arments range of products
		STP Ltd	Shalimar tar products
		Texsa	Texsa India Ltd.
69	Metal Deck Sheet	Essar	Essar Steel Ltd.
		JSW	JSW Structural Metal Decking Ltd
		SAIL	SAIL
		TATA	TATA steel
70	Mild Steel Butt Hinges/ Piano hinges	Amit	Lovely metal Industries Pvt. Ltd.
		Deepak	Deepak
		Garg	D.P. Garg & Company
		Jolly	Jolly Engineering works
		Jyoti	Jyoti Architectural Pvt. Ltd.

		Saswat	Saswat
		Supreme	Supreme Industries
		Swift	Swift screws
71	Mirror	AIS Mirror	Asahi India Glass Ltd.
		Atul	Autl Glass Industries Ltd.
		Modi Guard	Gujarat Guardian Ltd
		Saint Gobain	Saint Gobain Glass India Ltd.,
		Gold Plus	M/s Gold Plus Glass Industries Ltd, New Delhi
72	Modular kitchen/ wardrobes/Hard ware and Accessories	Evoke	Evoke
		Godrej	Godrej & Boyce co
		Sleek	Asian Paints
		Spacewood	Spacewood
73	M.S. Pipe, Tubes	Apollo	Appolo Tubes Ltd.
		JINDAL	JSW
		Kalinga	Kalinga Tubes Ltd.
		SAIL	SAIL
		Surya	Surya Roshi Ltd.
		TISCO	TATA STEEL
74	Multy walled polycarbonate roofing sheets	Danapalon	Danapal Light architecture
		Lexan GE	GE lexan
		DPI-Flux	M/s DPI Day lighting Pvt. Ltd. Gurugram, Haryana
75	Non Asbestos Sheets	Everest	Everest Industries
		HIL	HIL Ltd.
		RAMCO	RAMCO Industries Ltd.

76	Pink primer	Berger	Berger Paints
		Dulex	ICI dutax
		Nerolac	Nerolac Kansia Nerolac Pains Ltd.
		Nippon	Nippon
		Wood primer	Asian paint
		Surfa	M/s Surfa Coats(India) Pvt. Ltd. Banglore
77	Plasticiser & Super Plasticiser	BASF	BASF India Ltd.
		Chryso-HP/ Delta / Optima	Chryso India Pvt. Ltd.
		CICO	CICO Industries
		Contrament, Power flow	MC Bauchemie (India) Pvt. Ltd.
		Conplast SP 430	FOSROC India
		MYK Schomburg	MYK Arments Range of products
		Plastiment, Sikament	Sika India Pvt. Ltd.
		Smart Care Techno Plast/Smart care maximo plast.	Asian Paints Limited
		Sunanda Chemicals	Sunanda Chemicals Ltd.
78	Plastic Encapsulated Foot Rest	Accurate Buildcon	Accurate Buildcon company
		KGM	KGM Exports
		KK India	KK Manhole and gratings Co Pvt Ltd.
79	Play Equipments	Koochie Play	Koochie Play systems Pvt ltd.
		Play world systems	Play world systems India.
80	Poly carbonate Sheet	Alcox	Hindeggan Alcox Ltd.
		Danapalan	Danapal Light architecture
		GE Lexon	GE Silicones

		MG Polyplast	MG Polyplast
81	Poly sulphide sealant	Dr. Fixit	Pidilite industries
		Ferrous Crete	Ferrous Crete (India) Pvt Ltd.
		Fosroc	Smart care sealant
		MYK Schomburg	MYK Arments range of products
		Pidilite	Pidilite Industries
		STP Ltd	Shalimar tar products
		Techseal	Choksey chemical Pvt ltd.
		Tuff seal	Bondit construction chemical
82	Polyurea Ultra	BASF	BASF
		Ferrous	Ferrous Crete (India) Pvt Ltd
		Pidilite	Pidilite Industries
		SIKA	SIKA India
		Smart care	Asian paints
83	Powder coating	Akzonoble	Akzonoble Coating Ltd.
		Berger	Berger Paints India Ltd.
		Jotun	Jotun Group
84	Prelaminated particle board Exterior Grade	Archid ply	Archid Ply Industries Ltd.
		Associate	Associate Décor Limited
		Centuary	Centuary MDF
		Ecoboard	Ecoboard Industries Ltd.
		Green Lam	Green lam Industries Ltd.
		Kitlam	Kit Ply Industries Ltd.

		Merino	Marino laminates
		Novapan	GVK Novapan Industries Pvt. Ltd.
		TESA Action Co.	TESA Action Co.
85	Premium Acrylic smooth exterior Paint with silicon additives	Berger	Berger
		Dulux	ICI dulux
		Nerolac	Nerolac
		ULTIMA	Asian paint
86	PVC water supply sanitary fittings, bibcocks, pillar cock Angle valve,	PEARL	Precision Products
		Prayag	Prayag Polymers (P) Ltd
		Supreme	Supreme industries
87	PVC / HDPE water storage tanks	Sintex	Sintex Plastic technology Ltd.
		Supreme	Supreme Industries Ltd.
		Vectus	Vectus Industries Ltd.
88	Ready mix cement plaster	Ferrous Crete	Ferrous Crete (India) Pvt. Ltd.
		Gyproc plasters	Saint Gobain Gyproc India
		Ramco super plaster melamine	Ramco super plaster melamine
		Read Plast	Ultratech cements Ltd
		Ultra tech	Ultra tech Cement Ltd
89	Red Oxide Zinc Chromate primer	Berger	Berger Paints
		Dulex	ICI dulex
		High performance yellow metal primer	Asian Paint
		Nerolac	Nerolac
		Nippon	Nippon
		Surfa	M/s Surfa Coats (India) Pvt. Ltd. Bangalore

90	Reflective glass	Asahi	Asahi India Glass Ltd.
		Glaverbel	Glaverbel India
		Modifloat	Gujarat Guardian Ltd.
		Pilkinton	Pilkinton India
		Saint Gobain	Saint Gobain India Pvt. Ltd.
91	RMC plants (Ready Mix Concrete)	ACC	ACC Cements Ltd
		A B Dinesh	A B Dinesh Concrete India Pvt., Ltd.
		Aparna	Aparna Ready Mix concrete
		Lafarge	Lafarge India Pvt. Ltd.
		NUVOCO	Nuvoco Vistas Corporation Ltd.
		RB Ready Mix	RB Ready Mix
		RDC	RDC Concrete (India) Pvt.Ltd.
		RMC (India)	RMC (India) Pvt. Ltd.
		Ultra Tech	Ultra Tech Cement Ltd
		First Choice Ready Mix	First Choice Ready Mix
92	SFRC Cover and grating	Nu-TEC	Nu-Tech concrete products (P) Lld,.
		KK	KK Manhole and gratings Co Pvt Ltd.,
		Kutty	Kutty Industries
93	Stainless Steel	Ark Product Pvt. Ltd.	Ark Product Pvt. Ltd.
		Connect	Connect Ltd.
		Jindal	JSW
		KINGSTON	KINGSTON
		Salem	SAIL
		SAIL	SAIL

94	Stainless Steel screws	Alloy	Alloy Ltd.
		Atul	Atul fasteners Ltd.
		GKW	GKW Limited
		Helix	Helix India
		Kundan	Kundan Industries Ltd.
		Nettlefold	Nettlefold Screws
		Pooja	Pooja Steel Corporation
95	Stainless steel Butt hinges	Dorma	Dorma India Pvt. Ltd.
		Helix	Helix India
		Prayag	Prayag Polymers (P) Ltd.
		Ozone	Ozone Hardware
96	Stainless steel friction hinges	Earl Bihari	Earl Bihari India Pvt. Ltd.
		EBCO	EBCO
		Hetich	Hetich India
		Haffle	Haffle India Pvt. Ltd.
		ROTO	ROTO Frank Asia
		Securistyle	Securityle India Pvt. Ltd.
97	Stainless steel Bolts, washers, nuts	Atul	Atul fasteners Ltd.
		Hilti	Hilti India Pvt. Ltd.
		Kundan	Kundan Industries Ltd.
		Pooja	Pooja Steel Corporation
98	Stainless steel pressure plate screws	Atul	Atul fasteners Ltd.
		Dorset	Dorset Industries Pvt.Ltd.
		Kundan	Kundan Industries Ltd.

		Pooja	Pooja Steel Corporation
99	Stainless Steel Kitchen sink	CERA	M/s Cera Sanitaryware Ltd.
		Diamond	Pheonix Appliances Pvt. Ltd.
		Franke	Franke India Ltd.
		Futura	Futura Kichen Sinks India Pvt. Ltd.
		Hindware	HSIL Ltd
		Jhonson	Prision Jhonson Ltd.,
		Jindal	Centuary polytech
		Joyna	Joyna
		Navkar	Shri Navkar Metals Ltd
		Nilkanth	Nilkant
		Nirali	Jyoti (India) Matel Industries Pvt Ltd
		Silver Shine	Blue stone sanitary Industries Pvt. Ltd.
100	Structural Steel	APL	Apollo Tubes Ltd
		JSPL	JSPL
		JSW	JSW
		SAIL	SAIL
		TISCO	TATA STEEL
		VIZAG	RINL
101	Structural sealant	Asian paints	Smart care sealant
		BASF	BASF India Ltd.
		Dow corning	Dow corning india
		Fosroc	Fosroc India
		GE	GE silicones

		STP Ltd.	Shalimar tar products
		Wacker	Wacker silicones
102	Synthetic enamel Paint	Berger	Berger Paints
		Dulex	ICI dulex Ltd
		Premium gloss enamel	Asian paint Ltd
		Nerolac	Nerolac Paints Ltd
		Nippon	Nippon Paint India Ltd.
		Surfa	M/s Surfa Coats (India) Pvt. Ltd, Banglore
103	SWR PVC Pipes & fittings	Astral	Astral poytechnik Ltd.
		Finolex	Finolex Industries Ltd .
		Flowgard	Ashirwad PVC Pipes
		Nandi	Nandi pipes Pvt., Ltd.
		Prince	Prince Pipes and fittings
		Sudhakar	Sudhakar PVC Pipes
		Supreme	Supreme Industries Ltd
104	Tempered reflective/ clear glass	Asahi	Asahi India Glass Ltd.
		FUSO	FUSO Glass India Pvt. Ltd.
		Gurind	Gurind India
		Imapct Safety	Impact Safety glass works Pvt. Ltd.
		Modiguard	Gujarat Guardian Ltd.
		Pilkington	Pilkington India Pvt. Ltd.
		Saint Gobain	Saint Gobain India Pvt. Ltd.
105	TMT Bars	JSW	JSW Steel Ltd.

		SAIL	Steel Authority of India Ltd.
		TISCO	TATA STEEL LTD.
		VIZAG	Rastriya Inspat Nigam Ltd.
		JSPL	Jindal Steel and Power Limited
106	UPVC Pipes and fittings (Rain water pipes)	AKG	AKG
		Astral	Astral polytechnik Ltd.
		Ashirwad	Aahirwad PVC Pipes
		Finolex	Finales Industries Ltd.
		KSR	KSR
		Prepoly	Premier PVC Industry
		Prince	Pnnce pipes and fittings Ltd.
		Supreme	Supeme industries Ltd.
		Sentini	M/s Sentini Flopipes India Pvt. Ltd. Hyderabad
107	UPVC doors, door frames and windows	Aluplast	Alu Alpha India
		Duroplast	Duro Plast Extrusion Pvt. Ltd.
		Encraft	Encraft India Pvt. Ltd.
		Fenesta	Fenesta DCM Shriman
		Komarling	Profile India Window Technology Pvt. Ltd.
		LG	LG India Pvt. Ltd.
		MARCOLINI	M/s Mathura Poly pack Pvt, Ltd.
		Prominance	M/s Prominance Window Systems
		Rehau	Rehau Unlimited Polymer Solutions
		Sintex	Sintex Plastic technology Ltd.
Venster/ OKOTECH	Aparna Enterprises limited		

		VEKA	M/s NCL Veka Ltd.
		Plast One	M/s Plast one UPVC Profiles Pvt, Ltd. Secunderabad.
108	UPVC Hardware	COAR	COAR
		DNV	DNV Global Pvt.,Ltd.
		HOPPE	HOPPE
		PULSE	LGF SYSMAC (India) Pvt.,Ltd.
109	Vitreous Commodes/ Washbasin	BATHSENSE	Asian paints(Bath division)
		CERA	CERA Sanitaryware Ltd.,
		Hindware	HSIL Ltd.
		Jaquar	Jaquar Group
		Kerovit	M/s Kajaria Ceramic limited
		Kohler	Kohler world Wide
		Parryware	ROCA Bath Pvt. Ltd.,
		Roca	ROCA Bath room products
		RAK Sanitaryware	RAK Sanitaryware
		Somany	Somany Ceramic Ltd.
110	Vitrified paving tiles	Durostone	Ever stone International
		Johnson	Johnson India
		Kajaria	Kajaria Ceramics
		PAVIT	PAVIT Ceramics Pvt. Ltd.
111	Vitrified Tiles	AGL	Asian Granite India Ltd.
		CERA	M/s CERA sanitary ware Ltd.
		Johnson	Prism Johnson Ltd.
		Kajaria	Kajaria Ceramic Ltd.

		Marbito	Marito tiles
		NITCO	NITCO Ltd.
		Oasis	M/s Oasis Vitrified Pvt.Ltd.
		RAK	RAK Ceramic India Pvt. Ltd.
		Restile	Restile Ceramic Ltd.
		Somany	Somany Ceramic Ltd.
		Varmora Granito	Varmora Granite Pvt. Ltd.
		Vitero	Aparna Enterprises limited
		Archidply	Archid Ply Industries Ltd.
		A1 Teak	A1 teak Industries Pvt. Ltd.
		Century ply	Century Flush Doors
		Duroply	Duro Ply Industries Ltd.
		Duroplast	Duroplast
		Dura sleek	Dura sleek
		Grassim ply	Shree Ram Industries
		Green panel	Green panel Industries Lid.
		Green Ply	Green Ply Industries Ltd.
		Jayna ply	Jain Wood Industries
		KANCHAN PLY	M/s Vidya Ply & Board Pvt. Ltd
		Kitply	Kitply Industries Ltd.
		Aamoda	M/s Jai Dayal Plywood Pvt. Ltd. Hyderabad
		Black Cobra	M/s Panjab Plywood industries, Yamunanagar ,Haryana
		Polyline	Polyline
113	Water Proof cement paint	Asian exterior wall primer	Asisn paint

		Berger	Bergar Paints
		Cem Colour	Snowcem Paints
		ICI DULUX	ICI DULUX
		Surfa	Surfactoats (India) Pvt. Ltd.
114	Water supply Valves	ARCO	Arco valves Pvt. Ltd ,
		leader	leader valves Ltd ,
		Nanda	Nanda Miller company
		Zoloto	Zoloto Industries
115	Water supply fixtures like bibcock, Shower panels	Johnson	Prism Jhonson Ltd
		Kerovit	M/s Kajaria Ceramic limited
		Kingston	Kingston brass India
		MARC	MARK Showers
		Metro	Metro sanitations Pvt. Ltd.,
		Parryware	ROCO bath roam products Pvt. Ltd,
		Prayag	Prayag polymers Pvt Ltd ,
		Seiko	Seiko Sanitations
		Waterman	Kewal brothers
116	Water proofing Compound	Accoproof	ACC cement Ltd.
		Alchemica	Alchemica Ltd.
		Ardex Endura	Ardex Endura (India) Ltd.
		Asian Paints	Asian Paints
		CICO	CICO Technologies Ltd.
		Cement Mix Plus/Advanced Latex Plus	Berger Paints India Ltd.

		Dr. Fixit	Pidilite industries
		Ferrous Crete	Ferrous Crete (India) Pvt Ltd.
		Fosroc	Fosroc India
		Impermo	Snoweem paints
		MYK Schomburg	MYK Schomburg range of products
		Penetron	Penetron India Pvt Ltd.
		Shalplast LW+	STP Ltd
		Sika	Sika India
		Kryton	M/s Kryton Building Co. Pvt, Ltd, Gurugram,Haryana
117	Water stops	Ardex Endura	Ardex Endura Ltd.
		BASF	BASF India Ltd.
		Dr. Fixit	Pidilite industries
		Ferrous Crete	Ferrous Crete (India) Pvt Ltd.
		Hydroswell	Sika India
		Hydrotite	Sika India
		Kryton	M/s Kryton Building Co. Pvt, Ltd, Gurugram,Haryana
118	Water proofing materials/ GP Grouts	Asian paints	Smart care SC GP grout grey
		BASF	BASF
		Care	Care
		Ferrous crete	Ferrous Crete (India) Pvt Ltd
		Home shield Super grout	Berger Paints Ltd.
		Pidilite	Pidilite Industries
		SIKA	SIKA India
		Kryton	M/s Kryton Building Co. Pvt, Ltd, Gurugram,Haryana

119	Weather silicon make and grade	Down corning	Down corning india
		Momentive (GE)	GE silicones
120	White Cement	Birla	Birla Corporation Ltd.
		J.K.	JK Cement Ltd.
		Travancore	Travancore Cements Ltd.
121	Wood Polymer composite material for door frames and shutters, plain/pre laminated boards for wall linings etc.	Alstone	Alstone Industries Pvt., Ltd., Jaipur, Rajastan.
		Century	M/s Century Ply Boards (I) Limited
		Ecoste	Ecoste wood polymer composite, Delhi.
		Echon	Kumar Arch Tech, Pvt.Ltd., Rajastan.
		Green ply	Greenply Industries Limited
		Qute	Qute Extractions Pvt.Ltd., Chennai.
		Rajasree	Rajeswari Products Pvt.,Ltd., Madya Pradesh.
122	Wooden Flush door shutters	ArchiPLY	ArchiPLY
		A1 Teak	A1 Teak Products Ltd.
		Century	Century Flush Doors
		Duro Flushdoors	Dura Ply industries Ltd.
		Greenlam	Greenlam Ply Industries Ltd.
		Indian Timber Products	Indian Timber Products
		Jain doors Pvt.Ltd.	Jain doors Pvt.Ltd.
		Jayna Flush Doors	Jain Wood Industries
		Kailash	Kailash Hi Tech Timber Industries India pvt. Ltd.
		KANCHAN PLY	M/s Vidya Ply & Board Pvt. Ltd
		Kenwood	Kenwood Ply & Board
		Kitply	Kitply Industries Ltd.

		Mayur	Mayur Ply industries
		MP Ply wood products	MP Wood products
		National plywood	National plywood
		Raavella door	Raavella Industries (P) Ltd.
		Shakthi	Shree Shakthi Modern Flush doors
		Swatic ply	Swatic ply
		Vidya ply	Vidya ply
		Black Cobra	M/s Panjab Plywood Industries, Yamunanagar ,Haryana
		Aamoda	M/s Jai Dayal Plywood Pvt. Ltd. Hyderabad

2. ELECTRICAL WORKS

Sl. No.	Product	Make
1	Wires (PVC insulated copper conductor cable FRLS-ISI marked)/Telephone cables / Submersable cables / Co-axial / TV cables	Havells, Anchor, Finolex, KEI, L&T, Gloster, Asmon, RR Kabel, AKG
2	PVC Conduits (ISI marked) (color of conduit : Ivory / Grey)	Avon Plast, Precision, AKG, BEC, GM, Clipsal, Norpack, BALCO
3	Steel Conduit (ISI marked)	BEC, Bharat, Gupta, AKG, RMCON, Steel Krafts
4	MCB DBs/ Industrial Socket outlets	Legrand, Schneider, L&T, ABB, SIEMENS, C&S
5	MCBs / RCBO / Isolators	Legrand, Schneider Electric, Hager, GreatWhite, L&T, ABB, SIEMENS, C&S
6	MCCBs	Legrand (DPX3), L&T (D-sine), Schneider Electric (Compact NSX/ EasyPact CVS), ABB(T-Max), SIEMENS (3VL), C&S (Winbreak1)
7	LAN cable (Structural Cabling)	Panduit, Belden, Schneider, Systimax (COMMSCOPE), Molex, Legrand, Extreme
8	Fibre Management System	Panduit, Belden, Schneider, Systimax (COMMSCOPE), Corning, Legrand
9	Modular Switches/Sockets/TV Socket / Telephone sockets / Data Sockets / Electronic Regulators / AC Starter Switch etc.	Legrand(Myris), MK (Blenze plus), Panasonic (Vision), Havells (Crabtree), Wipro, C&S, Anchor(woods)

10	Ceiling Rose	Antex, Leader, Emperor, Anchor
11	PVC batten / Angle Holders	Aristo, Antex, Prakash, Kinjal, Anchor
12	Exhaust fans	
A)	250 mm (plastic Body) (Medium duty)	Havells, Crompton, Orient, Bajaj, Almonard, Atomberg
B)	300mm / 230mm metallic body (Heavy duty)	Crompton, Orient, Bajaj, Almonard, Atomberg
13	Fans	
A)	1200 mm sweep ceiling fans with BLDC motor	Orient, Crompton, Havells, Atomberg, Halonix
B)	400 mm Wall mounted fan	Khaitan : Merlin HI Speed, Almonard, Crompton : Wmhiflo wave (Hi-Speed), Orient (Snow Fall 16WA01
14	LED Luminaries including street light fittings (ISI Marked)	Phillips, Wipro, Crompton greaves, Bajaj, Halonix, Havells, K-Lite, Osram
15	Network switch	Allied Tellies, Cisco, Netgear, HP
16	Rack	Netrack, WQ, Panduit, Rittal, Emerson, Schneider (APC), Valrack
17	Decorative Street light pole	Phillips, K-Lite, Bajaj, Disano, Twinkle
18	1.1KV grade aluminium conductor, XLPE insulated armoured UG Cables	CCI, Havells, KEI, Gloster, Finolex, NICCO, Universal, FortuneArt
19	Raising mains, Bus Trunking (Sandwich / Air insulated) & Tap-Off boxes	Schneider, Legrand, C&S, L&T, ABB
20	MV Panels	CPRI Fabricators with panels cleared by CPRI
21	Glands / Lugs	Dowells, Comet, Jaison
22	GI pipes	tata, Jindal, Zenith, Surya, SAIL
23	HighVolume low speed fans	Kelley, Kale Brayan, EcoAir, Macroair, Big Ass
24	Weather proof boxes	Obo Betterman, Hensel, Legrand, C & S
25	DWC Pipes	TeleRex, Dutron, Vekay Plast, Duroline
26	Day light / Occupancy Sensor	Legrand, Schneider, Johnson Control, ABB, Lutron, Hager, Wipro, Bajaj
27	Water Purifier	Eureka Forbes, Kent, Ion Exchange, LG
28	Electrical Geyser	Racold, A.O. Smith, Crompton, Bajaj, V-Guard

29	Emergency lighting system, components and Fixtures	Hochiki, Cooper, Tecknoware, ASM, TM
30	Lighting Control System	ABB, Schneider, Siemens, Philips
31	All other items not covered above	As per approval of the Enegineer-in-charge.

3. FIRE FIGHTING SYSTEM

Sl. No.	Product	Make
1	GI / MS 'C' class pipes duly ISI marked	Jindal (Hissar), TATA, Zenith, SAIL
2	Single / Double headed GM Landing Valve	NewAge (Mumbai), Safex, Padmini, Ceasefire, Gettech, Life guard
3	Sluice Valve (ISI marked only)	Zoloto, Leader, Kirloskar, Deepak, L&T Valve Limited
4	CI NRV / Sluice / Butterfly valves (ISI marked only)	Zoloto, Leader, Kirloskar, Deepak, L&T Valve Limited, KSB
5	GM gate valves (ISI marked only)	Zoloto, Leader, Kirloskar, Deepak, L&T Valve Limited
6	Branch pipe	Safex, Padmini, GeTech, Agni, Newage, Ceasefire
7	First Aid Hose Reel/Fire Hose/Gunmetal Branch pipe / Fireman Axe	Safex, Padmini, GeTech, Agni, Newage, Ceasefire, Life Guard, Kesaraplast
8	Hydrant Valve	Newage, Safex, Ceasefire, Kalpana, L&T Valves Limited, Life guard
9	Pressure Gauge	H Guru, Fiebig. L&T
10	Pipe anti corrosive protection (Pipe coating material)	IWL, Taxa, Mac-Polycoat
11	Main Fire / Terrace/ Sprinkler / Jockey / Priming Pump Sets	Grundfos, Kirloskar, Mather & Platt India Limited, KSB, Armstrong
12	Air release valve	Giacomini, AIP Valve, Jaison Industries, Zloto, RBM
13	Motors	Siemens, Kirloskar, ABB, ITT
14	LT Switchgear	L & T, Schneider, Siemens, ABB, Hager, Legrand
15	Starter	Crompton, L&T, Siemens, Eaton, BCH, ABB
16	Ammeter / Voltmeter	IMP, AE, MECO, L&T
17	Batteries	Panasonic, Exide, Amaron, HBL
18	Fire Extinguishers	Safex, Minimax, Padmini, Ceasefire, Agni

19	1.1KV grade aluminium conductor, XLPE insulated armoured UG Cables	CCI, Havells, KEI, Gloster, Finolex, NICCO, Universal, FortuneArt
20	LV Cable Glands / Lugs	Dowells, Jainsons, Braco, Comet
21	Flow Meters	H.Guru, Pricol, MECO, Victaulic
22	2-Way/4-Way FBC (Fire Brigade Connection)	Padmini, GeTech, Newage, Agni, Ceasefire
23	Sprinklers, UL Listed	Tyco, HD, Newage, Safex
24	All other items not covered above	As per approval of the Engineer-in-charge.

4. FIRE ALARM SYSTEM

Sl. No.	Product	Make
1	Wires (PVC insulated copper conductor cable FRLS-ISI marked)/ Telephone cables / Submersable cables / Co-axial / TV cables	Havells, Anchor, Finolex, KEI, L&T, Asmon, RR Kabel
2	Steel Conduit (ISI marked)	BEC, Bharat, Gupta, AKG, RMCON, Steel Krafts
3	Loop Control Panel / Repeater panel	Bosch, Siemens, Notifier, Edwards
4	Multi Sensor Detectors	Bosch, Siemens, Notifier, Edwards
5	Addressable Call Point	Bosch, Siemens, Notifier, Edwards
6	Response Indicators	Bosch, Siemens, Notifier, Edwards
7	Horn cum Strobe	Bosch, Siemens, Notifier, Edwards
8	Fire Control Modules	Bosch, Siemens, Notifier, Edwards
9	SMF Battery	Pamasonic, Exide, Amaron, HBL
10	LAN cable (Structural Cabling)	Panduit, Belden, Schneider, Systimax (COMMSCOPE), Molex, Legrand, Extreme
11	CO2 Fire Extinguisher / ABC Fire Extinguisher	Safex, Cease fire, Agni, Padmini, Minimax
12	PA System	As per OEM of Fire Control Module
13	All other items not covered above	As per approval of the Engineer-in-charge.

Governing Specifications:		
<p>i. Heat Detectors shall conform to IS-2175-1988 or BS-5445 (EN 54) Part 5 1977(VdS/LPCB approved) or NFPA72 (UL/ULC/FM approved) amended upto date.</p> <p>ii. Smoke Detectors shall conform to IS-11360-1985 or BS 5446 Part 1-1977 & Part VII-1985 (VdS/LPCB approved) or NFPA72 (UL/ULC/FM approved) amended upto date.</p> <p>iii. For other detectors/devices relevant IS or BS (EN 54) (VdS/LPCB approved) or NFPA 72 (UL/ULC/FM approved) amended upto date.</p> <p>iv. The FACP shall have proper listing and / or approval from the following recognized agencies:</p> <p>1) National Fire Protection Association (NFPA) -USA. This will cover the following approval: a) UL (Under writers Laboratories Inc.). b) ULC (Under writers Laboratories Canada) c) FM (Factory Mutual) d) CSFM (California State Fire Marshal)</p> <p>2) EN (European) This will cover the following approval: (LPCB (Loss Prevention Council Board) a) VDS (Vertauen Durch Sicherheit) b) BRE FACP shall be NFPA/EN listed independently and as per relevant IS Code as a Fire Alarm Control Panel.</p>		
6	Aspirating Smoke Detection System	Bosch, Siemens, Honeywell, Edwards, Ravel
7	SMF Battery	Panasonic, Exide, Amaron, HBL
8	Cables, Wire	Havells, Anchor, Finolex, KEI, L&T, Asmon, RR Kabel
9	All other items not covered above	As per approval of the Eneginer-in-charge.

5. LIFT

SI No.	Product	Make
1	Lifts	OTIS / KONE / SCHINDLER/ JOHNSON

LIFTS

- i. The Lift Manufacturer shall comply with BIS standards, duly certified by designated labs/certifying agencies.
- ii. The Manufacturer shall be PPP MII Order-2017 (as amended) compliant.
- iii. The experience of successful completion of similar works shall be as per CPWD Works Manual/SoP.
- iv. The manufacturer shall furnish an undertaking regarding availability of spares for the entire life of the lift i.e., 15 to 20years.
- v. The complete Lift installation including its components, safety devices, various types of controls etc., testing, Inspection, operation maintenance Codes/Standards/Code shall conform practices/ to relevant Guidelines/ Safety Rules/Inspection Manual(s)/Rules issued by Bureau of Indian Standards, as amended up to date.

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| <p>vi. Quality Standards shall conform to IS/ISO-9001:2015 as amended.</p> <p>vii. The Down Time of installed lifts, which are being maintained by the manufacturer, shall not be more than 8 hours (average) in case of minor faults and 7 days (average) in case of major faults in last one year. The data to be considered shall be for last financial year.</p> |
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Note:

Regarding selecting the make against each item among the preferred makes as specified above, decision of Employer shall be final. If the makes as mentioned above are not available at the time of execution, the contractor shall get the make approved from the Engineer-in-charge and employer before using the same in the work.

TENDER FORM

To,
The Assistant General Manager
Canara Bank
General Administration Section
P & E Section, Circle office, Thiruvananthapuram

Name of work: Construction of New Bank own Building at Sy. No: 438/3 and 463/2, Subash Chandra Bose Road, Jawahar Nagar, Ernakulam.

I/We have read and examined the Notice Inviting the Tender (NIT), General information and instructions for bidders for e-tendering, Brief Particulars of the work, Eligibility criteria, General rules and Directions to Tenderers, Schedules A to F, Conditions of contract, Clauses of Contract, Special conditions, Special conditions, General conditions for E&M works, Technical specifications, Safety code, Model rules for protection of Health & sanitary arrangements, List of preferred makes, Annexures, Integrity pact, Proformas, Appendices, Schedule of Quantity (SOQ) of items to be executed, indicative architectural plans and other necessary documents 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 Canara Bank within the time specified in Schedule 'F' at the rates specified in the attached Schedule 'A' viz., schedule of quantities and in accordance in all respects with the specifications, designs drawings and instructions in writing referred to in Rule-1 of General Rules and Directions and in Clause 11 of the conditions of contract and with such materials as are provided for, by, and in all respects in accordance with, such conditions so far as applicable.

I/We agree to keep the Tender open for hundred and twenty days from the due date of submission thereof and not to make any modifications in its terms and conditions.

A sum of Rs. _____ is hereby forwarded in Demand Draft / BG of Bank as Earnest Money Deposit. If I/We, fail to commence the work specified I/We agree that the Bank shall without prejudice to any other right or remedy, be at liberty to forfeit the said earnest money absolutely otherwise the said earnest money shall be retained by it towards security deposit to execute all the works referred to in the Tender documents upon the terms and conditions contained or referred to therein and to carry out such deviations as may be ordered, upto maximum of the percentage mentioned in Schedule 'F' and those in excess of that limit at the rates to be determined in accordance with the provision contained in Clauses 12.2 and 12.3 of the Tender form.

I/We hereby declare that I/We 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 persons other than a person to

whom I/We am / are authorised to communicate the same or use the information in any manner prejudiced to the safety of the state.

I/We fully understand that you are not bound to accept the lowest or any Tender you may receive.

Shri. _____, **Partner/Proprietor/** _____, is the person authorised to negotiate commercial and technical terms and conditions and sign on behalf of the firm any Agreement, Bills and receipts for this work.

I/We agree that should I/We fail to deposit the full amount of initial security deposit and/or fail to commence the work specified in the above memorandum, an amount equal to the amount of the earnest money mentioned in the form of invitation of Tender shall be absolutely forfeited to the Canara Bank and the same, may at the option of the Canara Bank be recovered without prejudice to any other right or remedy available in law, out of the deposit in so far as the same may extend in terms of the said bond and in the event of deficiency out of any other money due to me/us under this contract or otherwise.

I/We agree that until a formal agreement on stamp paper is prepared and signed, this Tender with your written acceptance thereof shall constitute a binding contract between us.

Signature of Contractor
Full Postal Address
Pin Code No. & Telephone
No.

Dated the: _____ day of _____ 2024

Witness:

Name:

Address:

Occupation:

◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆

ANNEXURE-1: BIO DATA OF THE TENDERER

1. (a) Name of the Tenderer :

Address of Main Office :

Address of Office in Kerala :

Telephone No. :

Office :

Residence :

Mobile :

Fax :

E-Mail :

2. a) Status of the Firm(Whether company/
Partnership / proprietary) :
(Please enclose copy of partnership deed/Articles of Association/Memorandum of
Association/Affidavit* as annexure)

b)Name of the Proprietor/ Partners/ Directors
(With professional qualifications, if any):

I)

II)

III)

(Please enclose documentary evidence as Annexure. ID Proof also to be attached)

c) Year of establishment :

3. Whether registered with Registrar of
Companies/ firm. If so, No. & Date :

4. Registration with Tax Authorities :

a) Income-tax No. PAN;
(Furnish copies of Income-tax returns)

b) GST Registration Number :
(Furnish the latest copies of the returns filed)

c) Electrical license number & name of:
associate if available

5. Names of the Bankers with address :

- a. Name of Bank, Full address, telephone number and E-mail
- b. Account Number & Type
- c. IFS Code

6. Registration / Empanelment with Government / Public Sector / Banks / Corporate if any (Copy of valid registration / empanelment copy should be enclosed relevant to **eligibility criteria 1**).

NAME OF THE ORGANISATION	NATURE OF WORKS	VALUE OF WORKS	DATE OF REGISTRATION

7. Details of the works executed during all 7 years up to 31.04.2024 (please mention only such works relevant to **eligibility criteria 3**)

Sl No.	Name of the work	Work executed for (name of the organization with address, concerned office and telephone number)	Nature of work (in brief)	Location of the work with month & year of execution	Actual Value of the works
Jun 17- May 18					
Jun 18- May 19					
Jun 19- May 20					
Jun 20- May 21					
Jun 21- May 22					
Jun 22- May 23					
Jun 23- May 24					

8. Turnover of the Company/firm (Please attach copy of documents in support of the details relevant to **eligibility criteria 4**).

FY	Assessment Year	Turnover	Net profit/Loss after tax
2021-22	2022-23		
2022-23	2023-24		
2023-24	2024-25		

9. Details of the works executed during the last 7 years prior to **31.03.2024** to meet eligibility Criteria 05

Sl. No	Name of Work	Work executed for (name of the organization with address, concerned office and telephone number)	Nature of work (in brief)	Location of the work	Actual Value of the works	Date of commencement & Completion.

Note: Bank may obtain **Original satisfactory completion certificate** as per [Appendix-III](#) enclosed. The bidder shall provide all the necessary assistance for liaising with their clients for issuing the certificates. The photo images of these works also shall be enclosed by the bidders.

10. Key personnel permanently employed in your organization:

Sl. No	Name	Qualifications	Experience	Particulars of work done	Employed in your firm since	Any other

11. Furnish the names of three responsible clients / persons to whom the major works carried out by the applicant with address and telephone number who will be in a position to certify about the quality as well as past performance of your organization.

NAME OF THE OFFICIAL	ORGANISATION & ADDRESS	CONTACT NUMBERS

12. What are your fields of activities? Mention the fields on preference Basis

1)

2)

3)

13. Furnish the details of AWARDS, CITATIONS, etc., received in recognition of your services in projects designed / associated

YEAR	Name of the Award details	Name of the organization from whom award was received	Name of the project for which such award was received

DECLARATION:

1. All the information furnished by me / us here above is correct to the best of my knowledge and belief.
2. I / we have no objection if enquiries are made about the work listed by me / us in the accompanying sheets / annexure.
3. I / We agree that the decision of Bank in selection will be final and binding to me / us.

Place :

SIGNATURE

Date :

NAME & DESIGNATION
SEAL OF ORGANISATION

ANNEXURE-2: ACCEPTANCE

The above Tender (as modified by us or negotiations as provided in the letters mentioned hereunder) is accepted by me for and on behalf of the Canara Bank for a sum of Rs. _____ (Rupees _____)

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

a)

b)

c)

For & on behalf of the Canara Bank

Signature: _____

Designation: _____

Dated this _____ day of 2024.



ANNEXURE-3: FORM OF AGREEMENT

This agreement made the _____ day of the month of _____ in the year **2024** BETWEEN, **Canara Bank** a body corporate constituted under the Banking Companies (Acquisition and Transfer of Undertakings) Act, 1970, having its Circle office, at **112, J C Road, Bangalore-560002** represented by Circle Office, _____ its duly constituted attorney (hereinafter referred to as Bank) of the ONE PART; and Shri/M/s _____ S/D/o _____ resident of _____

_____ the sole proprietor of M/s _____ having office at _____ /the partnership firm represented by its Managing / duly authorised partner, having an administrative / principal office at _____ / a company / body corporate being its registered office at _____

_____ duly represented at _____ duly represented by its constituted and authorised Managing Director, Shri _____ and (hereinafter called the Contractor) of the other part WHEREAS THE Bank is desirous that _____ certain works should be constructed viz., _____ and has accepted the Tender dt. _____ furnished by the contractor for the constructions, completion and performance of such works.

NOW THIS AGREEMENT WITNESSETH as follows:

1. In this agreement words and expression shall have the same meanings as are respectively assigned to them in the conditions of contract hereinafter referred to.
2. The following documents not inconsistent with these presents shall be deemed to form and be read and construed as part of this agreement viz.,
 - a) Notice inviting Tender
 - b) The Tender form
 - c) General Rules and Directions to Tenderers.
 - d) Conditions of contract and clauses of contract along with Annexures thereto and Schedules A to F.
 - e) Schedule of quantities (SOQ) includes Prices and Tendered amount.
 - f) Tender drawings.
 - g) Technical Specifications for the work.
 - h) Safety code and Model rules for the protection of health, sanitary arrangements for workers employed.
 - i) Letter of Acceptance.
 - j) Letters from and to the Contractor, if any, leading to and prior to acceptance letter.

3. In consideration of the payments to be made by the Bank to the Contractor the Contractor hereby covenants and agrees with the Bank to construct, complete and perform the works in conformity in all respects and subject to all terms and conditions/rules as mentioned in the aforesaid documents which shall form part of this agreement.

In witness whereof the parties hereto have hereunto set their respective hands and seals the day and year first above written.

Signed, sealed and delivered by the said contractor, _____ to bank _____ in the presence of:

Signature of the Contractor (with seal)

Signature of Bank Official (with seal)

◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆

ANNEXURE-4: DETAILED LIST OF CONSTRUCTIONAL PLANTS AND EQUIPMENT
AVAILABLE WITH THE CONTRACTOR FOR USE ON THIS WORK.

Sl. No	Name and Description of the Equipments	Make & Year
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		

Signature of the Contractor(with seal)

◆ ◆ ◆ ◆ ◆ ◆ ◆

**ANNEXURE-5: LIST OF RELATIVES EMPLOYED IN CANARA BANK AND WITH THE
BIDDER FOR THIS WORK.**

Sl. No	Name	Designation	Branch/ Office of Bank / Architect	Relationship with Contractor
1.				
2.				
3.				
4.				
5.				

Signature of the Contractor(with seal)

◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆

ANNEXURE-6: FORMAT OF RECEIPT OF MATERIALS AT SITE

Sr. No	Description	Opening balance	Receipt during month	Consumption during month	Closing balance	Total quantity received till date
1						
2						
3						
4						
5						
6						
7						
8						

Sl. No	Description of work	Date of Commencement	Due date of completion	Percentage progress achieved
1				
2				
3				
4				
5				
6				
7				

ANNEXURE-7: FORMAT OF CONCRETE CUBE TEST REPORT

1. Name of the Project_____
2. Name of the Contractor_____

Sl. No	Date of Casting	Identification Mark and location in which the representative concrete is placed	Mix proportion	Date of testing	Crushing strength as on the date of test
1	2	3	4	5	6

Crushing strength as on the 28 th day	Average crushing strength (average of 3 companion cubes) as on the 28 th day	Remarks	Signature of the Site Engineer
7	8	9	10

ANNEXURE-8: FORMAT OF MEASUREMENT BOOK

MEASUREMENT BOOK PAGES NOS. 1 TO

Tender Item No.	Description	Measurement details			Quantity	Remarks
		L	B	D/H		

Site Engineer

Architect

Contractor

Checking/Test checking Engineer Date of checking/Test checking

NOTE:

Checking and test checking pertains to items wherever initialed.

ANNEXURE-9:FORMAT FOR RUNNING BILL

I. Running A/C Bill

- i) Name of Contractor / Agency:
- ii) Name of work:
- iii) Sl. No. of this bill:
- iv) No. and date of previous bill:
- v) Reference to Agreement No:
- vi) Date of written order to commence:
- vii) Date of completion as per agreement:

Sl. No.	Item Description	Unit	Rate (Rs.)	As per Tender Qty, Amount (Rs.)
1.	2.	3.	4.	5.

Upto previous R/A Bill	Upto date (Gross)	Present Bill	Remark
Qty. Amount (Rs.)	Qty. Amount (Rs.)	Qty. Amount (Rs.)	
6.	7.	8.	9.

Note:

- 1) If part rate is allowed for any item, it should be _____
Indicated with reasons for allowing such a rate. Net value since
- 2) If adhoc payment is made, it should be mentioned previous bill specifically.

II. ACCOUNT OF SECURED ADVANCE, IF ADMISSIBLE ON MATERIALS HELD AT SITE BY THE CONTRACTOR

No.	Item	Quantity	Unit	Amount	Remarks
1.	2.	3.	4.	5.	6

Total value of materials at site.

Secured Advance @ _____ % of above value B

CERTIFIED (i) that the materials mentioned above have actually been brought by the contractor to the site of the work and no advance on any quantity of any of this item is outstanding on their security (ii) that the materials are of imperishable nature and are all required by the contractor for use in the work in connection with the items for which rates of finished work have been agreed upon.

Dated signature of Site Engineer

Preparing the bill

Designation _____

Dated signature of Bank's Architects

(Name of the Architects)

Dated signature of Contractor

CERTIFICATE

The measurements on the basis of which the above entries for the Running Bill No. _____ were made have been taken jointly on _____ and are recorded at pages _____ to _____ of measurement book No. _____

The work recorded in the above mentioned measurements has been done at the site satisfactorily as per Tender drawings, conditions and specifications.

Signature of Contractor or contractor's representative	Signature of Architect or Architect's representative
Date	Date
Seal	Seal

Test Check by Bank's authorized representative	
Signature of Bank Official	
Date	
Seal	

ANNEXURE-10: FORMAT FOR RATE ANALYSIS OF ITEMS

I.	MATERIAL	
	1. Basic Cost of Material	Rs. _____
	2. Wastage - 5%	- Rs. _____
II.	Labour: As per Standard	- Rs. _____
	Labour output and labour input required for the Particular item using quoted labour rates.	
III.	Machinery / Tools	- Rs. _____
	Inputs of Machinery / Tools requirements as per the item and hire charges as per market.	
	TOTAL (I) + (II) + (III)	Rs. _____
IV.	Tax Liability	
	[As per contractual clauses will be added]	Rs. _____
V.	Add - ½ % for water charges	Rs. _____
	½ % for Electricity	Rs. _____
VI.	Any other Expenditure (please specify)	Rs. _____
	TOTAL	
	Contractor Profit & OH - 15%	Rs. _____
	GRAND TOTAL	Rs. _____

TDS will be deducted as per standard norms and recovery shall be made for water and electricity as per Tender conditions.

ANNEXURE-11:FORMAT OF CERTIFICATE OF PAYMENT

Certificate No. Interim /	Dated	
	Project No.	Building work / interior work
	Particulars:	
Contractor:	Contract / Letter No.	Dated:
	Contractor's Bill No.	Dated:
<p>This is to certify that the amount given below (*) is due to your Contractors for the work done by them and/or against materials delivered at site and/or for advance towards contract on the above referred project.</p> <p>Advance against contract Rs _____ Less: Advance adjusted to-date Rs. _____ Balance Advance Rs. _____ Advance against material delivered at site Rs. _____ Amount of work done to-date Rs. _____ Total Rs. _____ Less: Retention on work done Rs _____ Less: previously certified upto Rs _____ PRESENT CERTIFICATE (*) Rs. _____ RUPEES.....</p> <p>The cost of cement or any other material supplied by you or payments made by you directly, if any and not covered herein above, should be adjusted before making the payment of the certificate amount (*).</p> <p>Necessary Deduction U/S194C of the income Tax 1961 and sales tax may be made before paying the above certified amount.</p> <p>By a copy of this letter, we are intimating the Contractors to call on you for the necessary payments.</p>		
Remarks if any:		
The details of Insurance policy are given in the next page.		
Signature of Architects		
Enclosures : Bill		

ANNEXURE-12:FORMAT OF SITE ORDER BOOK

Name of the work _____

Date of Commencement _____

Sl. No	Remarks/ Instructions of the site Engineer/ Architect	Dated Initials of site Engineer/ Architect	Initials of the Contractor for having received the instructions	Action taken with date	Dated initials of the site Engineer	Remarks of the Architects PMC/C.C. Officials
1	2	3	4	5	6	7

**ANNEXURE-13:FORMAT FOR APPLICATION BY CONTRACTOR FOR EXTENSION OF
TIME**

1	Name of the Contractor			
2	Name of the work as given in the Agreement			
3	Agreement WO			
4	Tender amount			
5	Date of commencement of work			
6	Period allowed for completion as per agreement			
7	Date of completion as per agreement			
8	Period for which extension of time has been given			
		<u>Date</u>	<u>Month</u>	<u>Year</u>
	a) 1 st extension vide Bank's Letter No.			
	b) 2 nd extension vide Bank's Letter No.			
	c) 3 rd extension vide Bank's Letter No.			
9	Reasons for which extensions have been previously given (copies of the previous applications should be attached)			
10	Period for which extension is applied for and the reasons thereof including hindrances, time for extra work assigned, if any etc.			

ANNEXURE-14: FORMAT OF HINDRANCE REGISTER

Name of Work		:		Date of start of work		:
Name of Contractor		:		Period of completion		:
Agreement No		:		Date of completion		:
Sl. No	Nature of Hindrance	Date of occurrence of hindrance	Date of which hindrance was removed	Period of hindrance	Signature Site Engineer / Architect Project Engineer	Remarks
1	2	3	4	5	6	7

ANNEXURE-15: BANK GUARANTEE FORMAT FOR EARNEST MONEY DEPOSIT

To
Assistant General Manager
P & E Section,
Canara Bank, Circle Office
Thiruvananthapuram.

WHEREAS _____(Name of Tenderer) (hereinafter called "the Tenderer" has submitted its Tender dated _____ (Date) for the execution of (Name of Contract)_____ (hereinafter called "the Tender") in favour of **CANARA BANK**, _____ hereinafter called the "Beneficiary";

KNOW ALL MEN by these presents that we, _____(name of the issuing Bank), a body corporate constituted under the _____having its Circle office at _____amongst others a branch / office at _____ (hereinafter called "the Bank" are bound unto the Beneficiary for the sum of Rs _____ (Rupees _____only) for which payment well and truly to be made to the said Beneficiary, the Bank binds itself, its successors and assigns by these presents;

THE CONDITIONS of this obligation are:

(a) If the Tenderer withdraws its Tender during the period of Tender validity specified in the Tender;

or

(b) If the Tenderer having been notified of the acceptance of his Tender by the Beneficiary during the period of Tender validity;

(i) fails or refuses to execute the Agreement, if required; or

(ii) fails or refuses to furnish the performance security, in accordance with clause _____ of conditions of Contract.

We undertake to pay to the Beneficiary up to the above amount upon receipt of his first written demand without the Beneficiary having to substantiate his demand, provided that in his demand the Beneficiary will note that the amount claimed by him is due to him owing to the occurrence of one or both of the two conditions, specifying the occurred condition or conditions.

Notwithstanding anything contained herein

i) Our liability under this Bank Guarantee shall not exceed Rs. _____ (Rupees _____only)

ii) This Bank Guarantee is valid up to _____ and

iii) We are liable to pay the guaranteed amount or any part thereof under this Bank Guarantee only and only if you serve upon us a written claim or demand on or before _____ (mention period of guarantee as found under clause (ii) above plus claim period)

Dated _____ day of _____ 2024

SIGNATURE & SEAL OF THE BANK

This Bank guarantee should be confirmed through SFMS by the issuing Bank and the details are as follows

Name of the Bank: Canara Bank

Name of the Branch: Trivandrum Cantonment

IFSC Code: CNRB0000819

ANNEXURE-16: BANK GUARANTEE FORMAT FOR SECURITY DEPOSIT

Guarantee No.....
Amount of Guarantee Rs.....
Guarantee cover from Dated:
To Dated:
Last Date for Lodgement of claim:

To:

In consideration of (hereinafter called "Beneficiary") having agreed to exempt Ltd., having its Registered Office situated at (hereinafter called the "the obligator(s)") from the demand of security deposit of Rs..... (Rupees only) under the terms and conditions of an agreement dated (hereinafter called the "said Agreement") for the due fulfillment by the said obligator of the terms and conditions contained in the said agreement, on production of the Bank Guarantee for Rs..... (Rupees only), at the request of the obligator _____ Bank, a body corporate constituted under the Banking Companies (Acquisition & Transfer of undertakings) Act, 1970 having its Circle office at _____ amongst others a branch at (hereinafter referred to as "the Bank") has agreed to give following guarantee in favour of the beneficiary for an amount not exceeding Rs..... (Rupees only) against any loss or damage caused to or suffered or would be caused to or suffered by reason of any breach by the said Obligator(s) of any of the terms and conditions contained in the said agreement.

1. We, the Bank to hereby undertake to pay the amount payable under this guarantee without any demur merely on a demand from the beneficiary stating that the amount claimed is due by way of loss or damage caused to or would be caused to or suffered by reason or any breach of the terms and conditions contained in the said agreement or by reason of the obligator's failure to perform the said agreement. Any such demand in writing made on the Bank shall be conclusive as regards the amount due and payable by the Bank under the guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs.....
2. We, the Bank further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said agreement and that it shall continue to be enforceable till all the dues of the beneficiary under or by virtue of the said agreement have been fully paid and its claims satisfied or till the beneficiary certifies that the terms and conditions of the said agreement have been fully discharged this guarantee. Unless a demand for claim under this guarantee is made on us in writing on or before we shall be discharged from all liabilities under this guarantee thereafter.

3. We, the Bank further agree that the beneficiary shall have the fullest liberty, without consent and without effecting in any manner or obligations hereunder, to extend time of performance the said obligator(s) from time to time or to postpone for any time any of the powers exercisable by the beneficiary against the said obligator(s) and to forbear or enforce any of the terms and conditions relating to the said agreement and we shall not be relieved of our liability by reason of any extension being granted to the said obligator(s) for any forbearance, act or omission on the part of the beneficiary or any indulgence by the beneficiary to the said obligator(s) or by any such matter or thing whatsoever which under the law relating to sureties would not for this provision have effect of so relieving us.
4. We, the Bank lastly undertake not to revoke this guarantee during its currency except with the previous consent of the beneficiary in writing.
5. Notwithstanding anything contained herein:
 - (i) Our liability under this Bank Guarantee shall not exceed Rs.
(Rupees only)
 - (ii) This Bank Guarantee is valid upto and
 - (iii) We are liable to pay the guaranteed amount or any part thereof under this Bank Guarantee only and only if you serve upon us a written claim or demand on or before (Mention period of the guarantee as found under clause (ii) above plus claim period)

PLACE:

DATE:

SIGNATURE

<p>This Bank guarantee should be confirmed through SFMS by the issuing Bank and the details are as follows Name of the Bank: Canara Bank Name of the Branch: Trivandrum Cantonment IFSC Code: CNRB0000819</p>

ANNEXURE-17: INTEGRITY PACT FORMAT

Pre Contract Integrity Pact **(This has to be submitted in the non-judicial Stamp Paper)**

1. GENERAL

1.1. This pre-bid contract Agreement (herein after called the Integrity Pact) is made on _____ day of the month _____ 20____, between, the Canara Bank, a body corporate constituted under Banking Companies (Acquisition and transfer of undertakings), Act 1970 having its Head office at 112, J.C. Road, Bangalore - 560 002, with branches spread over India and abroad (hereinafter referred to as BUYER which expression shall include its successors and assigns) acting through Shri/Smt/Ms _____, Assistant General Manager, Circle Office, Thiruvananthapuram representing Canara Bank, of the BUYER, of the FIRST PART

AND

M/s. _____ represented by Shri _____ Chief Executive Officer/Authorised Signatory (hereinafter called the "BIDDER/SELLER/CONTRACTOR/SERVICE PROVIDER", which expression shall mean and include, unless the context otherwise requires, his successors and permitted assigns), of the SECOND PART

1.2. WHEREAS the BUYER proposes to select _____ and the BIDDER/SELLER/CONTRACTOR/SERVICE PROVIDER is willing to offer/has offered the stores/services and

1.3. WHEREAS the BIDDER/SELLER/CONTRACTOR/SERVICE PROVIDER is a private company/ public company/Government undertaking/ partnership/ LLP/registered export agency/service provider, duly constituted in accordance with the relevant law governing its formation/incorporation/constitution and the BUYER is a body corporate constituted under Banking Companies (Acquisition and transfer of undertakings), Act 1970.

1.4. WHEREAS the BIDDER/SELLER/CONTRACTOR/SERVICE PROVIDER has clearly understood that the signing of this agreement is an essential pre-requisite for participation in the bidding process in respect of Stores/Equipment/Items/Services proposed to be procured by the BUYER and also understood that this agreement would be effective from the stage of invitation of bids till the complete execution of the agreement and beyond as provided in clause 13 and the breach of this agreement detected or found at any stage of the procurement process shall result into rejection of the bid and cancellation of contract rendering BIDDER/SELLER/CONTRACTOR/SERVICE PROVIDER liable for damages and replacement costs incurred by the BUYER.

2. NOW, THEREFORE, the BUYER and the BIDDER/SELLER/CONTRACTOR/SERVICE PROVIDER agree to enter into this pre-contract integrity agreement, hereinafter referred to as Integrity Pact, which shall form part and parcel of RFP as also the contract agreement if contracted with BIDDER, in the event that the BIDDER turns out to be successful bidder, and it is intended through this agreement to avoid all forms of corruption by following a system that is fair, transparent and free from any influence/prejudiced dealings prior to, during and subsequent to the Contract to be entered into with a view to:-

- 2.1. Enabling the BUYER to obtain the desired Stores/Equipment/Work/Service/Materials at a competitive price in conformity with the defined specifications by avoiding the high cost and the distortionary impact of corruption on public procurement, and
- 2.2. Enabling BIDDER/SELLER/CONTRACTOR/SERVICE PROVIDER/SERVICE PROVIDER to refrain from bribing or indulging in any corrupt practices in order to secure the contract, by providing assurance to them that the BUYER shall not be influenced in any way by the bribery or corrupt practices emanating from or resorted to by their competitors and that all procurements shall be free from any blemish or stain of corruption and the BUYER stays committed to prevent corruption, in any form, by its officials by following transparent procedures.

The parties hereto hereby agree to enter into this integrity Pact and agree as follows:

3. COMMITMENTS OF THE BUYER

The BUYER commits itself to the following: -

- 3.1. The BUYER represents that all officials of the BUYER, connected whether directly or indirectly with the procurement process are duty bound by rules and regulations governing their service terms and conditions not to demand, take promise for or accept, directly or through intermediaries, any bribe, consideration, gift, reward, favour or any material or immaterial benefit or any other advantage from the BIDDER/SELLER/CONTRACTOR/SERVICE PROVIDER either for themselves or for any person, organization or third party related to the contract in exchange for an advantage in the bidding process, bid evaluation, contracting or implementation process related to the contract.
- 3.2. The BUYER will, during the pre-contract stage, treat all BIDDERS/SELLERS/CONTRACTORS/SERVICE PROVIDERS alike, and will provide to all BIDDERS/SELLERS/CONTRACTORS/SERVICE PROVIDERS the same information and will not provide any such information to any particular BIDDER/SELLER/CONTRACTOR/SERVICE PROVIDER which could afford an advantage to that particular BIDDER/SELLER/CONTRACTOR/SERVICE PROVIDER in comparison to the other BIDDER/SELLER/CONTRACTOR/SERVICE PROVIDERS.
- 3.3. The BUYER shall report to the appropriate Government Regulators/Authorities any attempted or completed breaches of the above commitments as well as any substantial suspicion of such a breach, as and when the same is considered necessary to comply with the law in force in this regard.

In case any such preceding misconduct on the part of such official(s) is reported by the BIDDER/SELLER/CONTRACTOR/SERVICE PROVIDER to the BUYER with the full and verifiable facts and the same is prima facie found to be correct by the BUYER, necessary disciplinary proceedings, or any other action as deemed fit, including criminal proceedings may be initiated by the BUYER and such a person shall be debarred from further dealings related to the contract process. In such a case, while an enquiry is being conducted by the BUYER, the proceedings under the contract would not be stalled.

4. COMMITMENTS OF BIDDER/SELLER/CONTRACTOR/SERVICE PROVIDERS

The BIDDER/SELLER/CONTRACTOR/SERVICE PROVIDER commits itself to take all measures necessary to prevent corrupt practices, unfair means and illegal activities during any stage of its bid or during any pre-contract or post-contract stage in order to secure the contract or in furtherance to secure it and in particular commit itself to the following:-The BIDDER/SELLER/CONTRACTOR/SERVICE PROVIDER will not offer,

directly or through intermediaries, any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the BUYER, connected directly or indirectly with the bidding process, or to any person, organization or third party related to the contract in exchange for any advantage in the bidding, evaluation, contracting and implementation of the contract.

- 4.1. The BIDDER/SELLER/CONTRACTOR/SERVICE PROVIDER further undertakes that it has not given, offered or promised to give, directly or indirectly any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage, or inducement to any official of the BUYER or otherwise for procuring the Contract or for forbearing to do or for having done any act in relation to the obtaining or execution of the contract or any other contract with the BUYER or for showing or forbearing to show favour or disfavour to any person in relation to the contract or any other contract with the BUYER.
- 4.2. The BIDDER/SELLER/CONTRACTOR/SERVICE PROVIDER further confirms and declares to the BUYER that the BIDDER/SELLER/CONTRACTOR/SERVICE PROVIDER is the original Manufacturer/Integrator/Authorized government sponsored export entity of the stores/Authorised Service Provider having necessary authorizations, intellectual property rights and approvals from the intellectual property right owners of such materials/services and has not engaged any individual or firm or company whether Indian or foreign to intercede, facilitate or in any way to recommend to the BUYER or any of its functionaries, whether officially or unofficially to the award of the contract to the BIDDER/SELLER/CONTRACTOR/SERVICE PROVIDER, nor has any amount been paid, promised or intended to be paid to any such individual, firm or company in respect of any such intercession, facilitation or recommendation.
- 4.3. The BIDDER/SELLER/CONTRACTOR/SERVICE PROVIDER, either while presenting the bid or during pre-contract negotiations or before signing the contract, shall disclose any payment he has made, is committed to or intends to make to officials of the BUYER or their family members, agents, brokers or any other intermediaries in connection with the contract and the details of services agreed upon for such payments.
- 4.4. The BIDDER/SELLER/CONTRACTOR/SERVICE PROVIDER will not collude with other parties interested in the contract to impair the transparency, fairness and progress of the bidding process, bid evaluation, contracting and implementation of the contract.
- 4.5. The BIDDER/SELLER/CONTRACTOR/SERVICE PROVIDER will not accept any advantage in exchange for any corrupt practice, unfair means and illegal activities emanating from other competitors or from anyone else.
- 4.6. The BIDDER/SELLER/CONTRACTOR/SERVICE PROVIDER shall not use improperly, for purpose of competition or personal gain, or pass on to others, any information provided by the BUYER as part of the business relationship, regarding plans, technical proposal and business details, including information contained in any electronic data carrier. The BIDDER/SELLER/CONTRACTOR/SERVICE PROVIDER also undertakes to exercise due and adequate care lest any such information is divulged.
- 4.7. The BIDDER/SELLER/CONTRACTOR/SERVICE PROVIDER commits to refrain from giving any complaint directly or through any other manner without supporting it with full and verifiable facts.
- 4.8. The BIDDER/SELLER/CONTRACTOR/SERVICE PROVIDER shall not instigate or cause to instigate any third person to commit any of the acts mentioned above.

5. PREVIOUS TRANSGRESSION

- 5.1. The BIDDER/SELLER/CONTRACTOR/SERVICE PROVIDER declares that no previous transgression occurred in the last three years immediately before signing of this Integrity Pact with any other company in any country in respect of any corrupt practices envisaged hereunder or with any Public Sector Bank, Public Sector Enterprise/Undertaking in India or any Government Department in India that could justify BIDDER's exclusion from the tender process.
- 5.2. If the BIDDER/SELLER/CONTRACTOR/SERVICE PROVIDER makes incorrect statement on this subject, BIDDER/SELLER/CONTRACTOR/SERVICE PROVIDER can be disqualified from the tender/bid process or the contract, if already awarded, can be terminated for such reason.

6. EARNEST MONEY (SECURITY DEPOSIT)

- 6.1. Every BIDDER/SELLER/CONTRACTOR/SERVICE PROVIDER while submitting commercial bid, shall deposit an amount as specified in RFP/Tender Documents as Earnest Money/Security, Deposit, with the BUYER through any of the instruments as detailed in the tender documents.
- 6.2. The Earnest Money/Security Deposit shall be *valid for a period till* the complete conclusion of the contractual obligations or for such period as mentioned in RFP/Contract, including warranty period, whichever is later to the complete satisfaction of BUYER.
- 6.3. In the case of successful BIDDER/SELLER/CONTRACTOR/SERVICE PROVIDER, a clause would also be incorporated in the Article pertaining to Performance Bond in the Purchase Contract that the provisions of Sanctions for violation shall be applicable for forfeiture of Performance Bond in case of a decision by the BUYER to forfeit the same without assigning any reason for imposing sanction for violation of this Pact.
- 6.4. No interest shall be payable by the BUYER to the BIDDER/SELLER/CONTRACTOR/SERVICE PROVIDER on Earnest Money/Security Deposit for the period of its currency.

7. SANCTIONS FOR VIOLATIONS

- 7.1. Any breach of the provisions herein contained by the BIDDER/SELLER /CONTRACTOR/SERVICE PROVIDER or any one employed by it or acting on its behalf (whether with or without the knowledge of the BIDDER/SELLER/CONTRACTOR/SERVICE PROVIDER shall entitle the BUYER to take all or any one of the following actions, wherever required: -
- i. To immediately call off the pre contract negotiations without assigning any reason or giving any compensation to the BIDDER/SELLER/CONTRACTOR/SERVICE PROVIDER. However, the proceedings with the other BIDDER/SELLER/CONTRACTOR/SERVICE PROVIDER(s) would continue.
 - ii. To forfeit fully or partially the Earnest Money Deposit (in pre-contract stage) and/or Security Deposit/Performance Bond (after the contract is signed), as decided by the BUYER and the BUYER shall not be required to assign any reason therefor.
 - iii. To immediately cancel the contract, if already signed, without giving any compensation to the BIDDER/SELLER/CONTRACTOR/SERVICE PROVIDER.
 - iv. To recover all sums already paid by the BUYER, and in case of the Indian BIDDER/SELLER/CONTRACTOR/SERVICE PROVIDER with interest thereon at 2% higher than the prevailing Prime Lending Rate of (Name of the Bank/Financial Institution) while in case of a BIDDER/SELLER/CONTRACTOR/SERVICE PROVIDER from a country other than India with Interest thereon at 2% higher than the LIBOR. If any outstanding

- payment is due to the BIDDER/SELLER /CONTRACTOR from the BUYER in connection with any other contract such outstanding payment could also be utilized to recover the aforesaid sum and interest. The BUYER shall also be entitled to recover the replacement costs from BIDDER/SELLER/CONTRACTOR/SERVICE PROVIDER.
- v. To encash the advance bank guarantee and performance bond/warranty bond, if furnished by the BIDDER/SELLER/CONTRACTOR/SERVICE PROVIDER, in order to recover the payments, already made by the BUYER, along with interest.
 - vi. To cancel all or any other contracts with the BIDDER /SELLER/CONTRACTOR/SERVICE PROVIDER and the BIDDER/SELLER /CONTRACTOR/SERVICE PROVIDER shall be liable to pay compensation for any loss or damage to the BUYER resulting from such cancellation/rescission and the BUYER shall be entitled to deduct the amount so payable from the money(s) due to the BIDDER/SELLER/CONTRACTOR/SERVICE PROVIDER.
 - vii. To debar the BIDDER/SELLER/CONTRACTOR/SERVICE PROVIDER from participating in future bidding processes of the BUYER for a minimum period of five years, which may be further extended at the discretion of the BUYER.
 - viii. To recover all sums paid in violation of this Pact by BIDDER/SELLER/CONTRACTOR/SERVICE PROVIDER(s) to any middlemen or agent or broker with a view to securing the contract.
 - ix. In cases where irrevocable Letters of Credit have been received in respect of any contract signed by the BUYER with the BIDDER/SELLER/CONTRACTOR/SERVICE PROVIDER, the same shall not be opened.
 - x. Forfeiture of The Performance Bond in case of a decision by the BUYER to forfeit the same without assigning any reason for imposing sanction for violation of this Pact.
 - xi. The BIDDER/SELLER/CONTRACTOR/SERVICE PROVIDER shall not lend to or borrow any money from or enter into any monetary dealings or transactions, directly or indirectly, with any employee of the BUYER, and if he does so, the BUYER shall be entitled forthwith to rescind the contract and all other contracts with the BIDDER/SELLER/CONTRACTOR/SERVICE PROVIDER. The BIDDER/SELLER/ CONTRACTOR shall be liable to pay compensation for any loss or damage to the BUYER resulting from such rescission and the BUYER shall be entitled to deduct the amount so payable from the money(s) due to the BIDDER/SELLER/CONTRACTOR/SERVICE PROVIDER.
- 7.2. The BUYER will be entitled to take all or any of the actions mentioned at para 7.1 (i) to (xi) of this Pact, also in the event of commission by the BIDDER/ SELLER/CONTRACTOR/SERVICE PROVIDER or anyone employed by it or acting on its behalf (whether with or without the knowledge of the BIDDER), of an offence as defined In Chapter IX of the Indian Penal code, 1860 or Prevention of Corruption Act, 1988 or any other statute enacted for prevention of corruption.
- 7.3. The decision of the BUYER to the effect that a breach of the provisions of this pact has been committed by the BIDDER/SELLER/ CONTRACTOR shall be final and conclusive on the BIDDER/SELLER /CONTRACTOR. However, the BIDDER/SELLER/ CONTRACTOR/ SERVICE PROVIDER can approach the Independent External Monitor(s) appointed for the purposes of this Pact.

8. FALL CLAUSE

- 8.1. The BIDDER/SELLER/CONTRACTOR/SERVICE PROVIDER undertakes that it has not supplied/is not supplying similar product/systems or subsystems/services at a price lower than that offered in the present bid to any other Bank or PSU or Government Department or to any other organization/entity whether or not constituted under any law and if it is found at any stage that similar product/systems or sub systems/services was supplied by the BIDDER/SELLER/CONTRACTOR/SERVICE PROVIDER to any other Bank or PSU or Government Department or to any other organization/entity whether or not constituted under any law, at a lower price, then that very price, with due allowance for

elapsed time, will be applicable to the present case and the difference in the cost would be refunded by the BIDDER/SELLER/CONTRACTOR/SERVICE PROVIDER to the BUYER, if the contract has already been concluded.

9. INDEPENDENT EXTERNAL MONITORS

- 9.1. The BUYER has appointed two Independent External Monitors (hereinafter referred to as Monitors) for this Pact in accordance with the recommendations and guidelines issued by Central Vigilance Commission.
- 9.2. The task of the Monitors shall be to review independently and objectively, whether and to what extent the parties comply with the obligations under this Pact.
- 9.3. The Monitors shall not be subject to instructions by the representatives of the parties and perform their functions neutrally and independently.
- 9.4. Both the parties accept that the Monitors have the right to access all the documents relating to the project/procurement, including minutes of meetings. The Monitors shall on receipt of any complaint arising out of tendering process jointly examine such complaint, look into the records while conducting the investigation and submit their joint recommendations and views to the Management and Chief Executive of the BUYER. The MONITORS may also send their report directly to the CVO and the commission, in case of suspicion of serious irregularities.
- 9.5. As soon as any event or incident of violation of this Pact is noticed by Monitors, or Monitors have reason to believe, a violation of this Pact, they will so inform the Management of the BUYER.
- 9.6. The BIDDER(s) accepts that the Monitors have the right to access without restriction to all Project /Procurement documentation of the BUYER including that provided by the BIDDER/SELLER/CONTRACTOR/SERVICE PROVIDER. The BIDDER/SELLER/CONTRACTOR/SERVICE PROVIDER will also grant the Monitors, upon their request and demonstration of a valid interest, unrestricted and unconditional access to his documentation pertaining to the project for which the RFP/Tender is being /has been submitted by BIDDER/SELLER/CONTRACTOR/SERVICE PROVIDER. The same is applicable to Subcontractors. The Monitors shall be under contractual obligation to treat the information and documents of the BIDDER/Subcontractors () with confidentiality.
- 9.7. The BUYER will provide to the Monitors sufficient information about all meetings among the parties related to the Project provided such meetings could have an Impact on the contractual relations between the parties. The parties may offer to the Monitors the option to participate in such meetings.
- 9.8. The Monitors will submit a written report to the BUYER at the earliest from the date of reference or intimation to him by the BUYER/BIDDER/SELLER/CONTRACTOR/SERVICE PROVIDER and submit proposals for correcting problematic situations.

10. FACILITATION OF INVESTIGATION

In case of any allegation of violation of any provisions of this Pact or payment of commission, the BUYER or its agencies shall be entitled to examine all the documents including the Books of Accounts of the BIDDER/SELLER/CONTRACTOR/SERVICE PROVIDER and the BIDDER/SELLER/CONTRACTOR/SERVICE PROVIDER shall provide necessary information of the relevant documents and shall extend all possible help for the purpose of such examination,

11. LAW AND PLACE OF JURISDICTION

This Pact is subject to Indian Law and the place of jurisdiction is Thiruvananthapuram.

12. OTHER LEGAL ACTIONS

The actions stipulated in this Integrity Pact are without prejudice to any other legal action that may follow in accordance with the provisions of the any other law in force relating to any civil or criminal proceedings.

13. VALIDITY

13.1. The validity of this Integrity Pact shall be from the date of its signing and extend up to 5 years or such longer period as mentioned in RFP/Contract or the complete execution of the contract to the satisfaction of the BUYER whichever is later. In case BIDDER/SELLER/CONTRACTOR/SERVICE PROVIDER is unsuccessful, this Integrity Pact shall expire after six months from the date of the signing of the contract.

13.2. If one or several provisions of this Pact turn out to be invalid; the remainder of this Pact shall remain valid. In such case, the parties will strive to come to an agreement to their original intentions.

14. The parties hereby sign this Integrity Pact at Thiruvananthapuram on

BUYER BIDDER
Name of the Officer
Designation
Name of Wing/Circle
Canara Bank

CHIEFEXECUTIVEOFFICER/AUTHORISED SIGNATORY

Witness

1)

2)

Witness

1)

2

ANNEXURE-18: DETAILS OF EX-EMPLOYEES

Name of work:

Details on List of Retired Government / PSU / Bank employees, employed by the Tenderer:

NAME OF THE RETIRED OFFICIAL	DESIGNATION	NAME & ADDRESS OF THE PREVIOUS EMPLOYER

Name & Signature of Tenderer
(with seal)

ANNEXURE-19: BASE PRICE OF MATERIALS

Sl. No	Material	Basic Rate in Rs.
1.	Cement	380/50 kg
2.	Tor Steel	67/kg
3.	Mild Steel	85/kg
4.	Brick	10/each
5.	Coarse aggregate	70/cft
6.	Fine aggregate	65/cft
7.	Vitrified floor Tile	90/sqft
8.	Ceramic glazed floor tiles	65/sqft
9.	Ceramic glazed wall tiles	70/sqft
10.	Granite Slab	145/sqft
11.	Kota stone Slab	45/sqft
12.	WC	5500/each
13.	Wash basin	2500/each
14.	Piller trap/Bib cock/Shower	500/each
15.	Kitchen sink	4000/each
16.	PVC Tank	10/Litre

ANNEXURE-20: INDEMNITY FORMAT

THIS DEED OF INDEMNITY executed at (Place) on this day ofmonth of year two thousand and nineteen (2019) By.....(herein after called the contractor) duly represented by proprietor/one of its partners/director Sri, aged.....years, son of Sri.....residing at

In favour of

Canara Bank, a body corporate constituted under the Banking companies (Acquisition and Transfer of undertakings) Act, 1970, having its Circle office, at 112, J.C.Road, Bangalore - 560002 & represented by its Circle Office_____.

Whereas the contractor had applied for the Tender

Whereas the Tender submitted by the contractor for the above mentioned work was accepted by Canara Bank and the work of has been awarded in favor of the contractor vide Ref No

And whereas for undertaking the work awarded as per the above noted reference, the contractor has entered into contract with Canara Bank on

Now this Deed Witnessed that in pursuance of the aforesaid contract datedand in consideration of Canara Bank having agreed to make payment on the bills claimed by the contractor herein based on the works completed in respect of the above referred contract, the contractor hereby indemnifies and keep harmless Canara Bank & its Architect/consultant and its officials/staff from time to time and at all times against all actions, prosecutions proceedings, claims, suits, liabilities (including statutory liability), penalties, demands, charges, costs (including legal costs) and expenses, damages, losses and any other expenses which may be caused to or suffered by or made or taken against the Employer arising out of:

- i) The breach, default or non-performance of undertakings, warranties, covenants or obligations by the contractor, non-compliance of safety rules, regulations, instructions by the contractor and mishaps occurring at the site due to faulty work executed by the contractor.
- ii) Any contravention or Non compliance with any applicable laws, regulations, rules, statutory or legal requirements by the contractor.

Further, the Contractor indemnifies to protect and save Canara Bank & its Architect/consultant and its officials / staff from against all claims, losses, costs, damages, expenses, action suits and other proceedings, resulting from infringement

of any law pertaining to patent, trademarks, copyrights etc. or such other statutory infringements in respect of the services offered by the contractor.

All Indemnities shall survive notwithstanding expiry or termination of the contract and contractor shall continue to be liable under the indemnities.

There is no limit to claims made by the Employer/third parties in case of infringement of Intellectual property rights or for claims relating to the loss of damage to real property and tangible personal property and for bodily injury or death and in these cases the liability will be unlimited ”.

Signature of Contractor with seal

**ANNEXURE-21: WILLINGNESS CERTIFICATE FROM CONCERNED COMPETENT
ELECTRICAL CONTRACTOR**

(Separate for each sub head of E&M)

Name of Work :

.....
.....

I hereby give my willingness to work as E&M Contractor for Sub Head_____of the above mentioned work. I will execute the work as per specifications and conditions for the agreement and as per direction of the Employer and Engineer-in-charge. Also I will employ full time technically qualified supervisor for the works.

I will attend inspection of officers of the Employer and Engineer-in-charge as and when required.

Dated:

Signature of Main Contractor

Signature of Associate Electrical Contractor

Address

and Registration detail Address:

Telephone:

Telephone:

FAX:

FAX:

Email:

Email:

ANNEXURE-22: AFFIDAVIT OF MEMORANDUM OF UNDERSTANDING (MOU)

(to be submitted for each and every E&M component)

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

For the execution of E &M Component Works -

We state that M.O.U between us will be treated as an agreement and has legality as per Indian Contract Act (amended up to date) and the Bank (Canara Bank) can enforce all the terms and conditions of the agreement for execution of the above work. Both of us shall be responsible for the execution of work as per the agreement to the extent this MOU allows. Both the parties shall be paid consequent to the execution as per agreement to the extent this MOU permits. In case of any dispute, either of us will go for mediation by the Accepting Authority. Any of us may appeal against the mediation to the Appellate Authority. His decisions shall be final and binding on both of us. We have agreed as under:

1. The Associated Contractor will execute all E & M works in the wholesome manner as per terms and conditions of the agreement.
2. The Associated Contractor shall be liable for disciplinary action if he fails to discharge the action(s) and other legal action as per agreement.
3. All the machinery and equipments, tools and tackles required for execution of the E & M works, as per agreement, shall be the responsibility of the Associated Contractor.
4. The site staff required for the E & M work shall be arranged by the Associated Contractor as per terms and conditions of the agreement.
5. Site order book maintained for the said work shall be signed by the main contractor as well as by the Engineer of the Associated Contractor and by Associated Contractor himself.
6. All the correspondence regarding execution of the E & M work shall be done by the Employer with the Associated Contractor with a copy to the main contractor. In case of non-compliance of the provisions of agreement, the main contractor, as well as the associated contractor shall be responsible. The action under clauses 2 and 3 shall be initiated and taken against the main contractor.

SIGNATURE OF MAIN CONTRACTOR Date: Place:	SIGNATURE OF ASSOCIATED CONTRACTOR Date: Place:
1. Witness with address	2. Witness with address
(From major component contractor side)	(From minor component contractor side)

**ANNEXURE - 23: GUARANTEE FOR REMOVAL OF DEFECTS AFTER COMPLETION IN
RESPECT OF WATER PROOFING WORKS.**

This agreement made the _____ day of the month of _____ in the year 2019 BETWEEN, Canara Bank a body corporate constituted under the Banking Companies (Acquisition and Transfer of Undertakings) Act, 1970, having its Circle office, at 112, J C Road, Bangalore-560002 represented _____ by _____ Circle Office, _____ its duly constituted attorney (hereinafter referred to as Bank) of the ONE PART; and Shri/M/s _____ S/D/o _____ resident of _____

_____ the sole proprietor of M/s _____ having office at _____ /the partnership firm represented by its Managing / duly authorised partner, having an administrative / principal office at _____ / a company / body corporate being its registered office at _____

_____ duly represented at _____ duly represented by its constituted and authorised Managing Director, Shri _____ and (hereinafter called the Guarantor) of the other part

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

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

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

Provided that the Guarantor will not be responsible for leakage caused by earthquake or structural defects or misuse of roof or alteration and for such purpose:
(I) Misuse of roof shall mean any operation which will damage proofing treatment like chopping of firewood and the things of same nature which might cause damage to the roof

(II) Alteration shall mean construction of an additional storey or a part of the roof or construction adjoining to existing roof whereby proofing treatment is removed in parts.

(III) The decision of the Bank with regard to cause of leakage shall be final.

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

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

In witness whereof the parties hereto have hereunto set their respective hands and seals the day and year first above written.

SIGNED, sealed and delivered by (OBLIGOR) _____

in the presence of.

- 1.
- 2.

Signed for and on behalf of the Bank by

in presence of:

- 1.
- 2.

**ANNEXURE- 24: LIST OF FIELD TESTING EQUIPMENT AND INSTRUMENTS TO BE
PROVIDED BY THE CONTRACTOR AT HIS OWN COST**

E. Testing Equipment at Field Laboratories (Minimum numbers specified against each of them)

1. Balances

1Kg to 10 kg capacity, semi-self-indicating type- Accuracy 10 gm

500 gm capacities, semi-self-indicating type- Accuracy 1 gm

Pan balance- 5kg capacity- Accuracy 10 gms

2. Sieves as per IS 460-1962.

IS sieves - 450mm internal dia, of sizes 100mm, 80mm, 63mm, 50mm, 40mm, 25mm, 20mm, 12.5mm, 10mm, 6.3mm and 4.75mm complete with lid and pan.

IS sieves - 200mm internal dia (brass frame), consisting of 2.36mm, 1.18mm, 600 microns, 425 microns, 300 microns, 212 microns, 150 microns, 90 microns, 75 microns with lid and pan.

3. Equipment for slump test-slump cone, steel plate, tamping rod, steel scale, scoop.

Dial gauges, 25mm travel- 0.01mm/division least count - 1 nos.

Graduated measuring cylinders 200 ml capacity - 2 Nos.

Enamel trays (for efflorescence test for bricks)

(i) 300 mm x 250 mm x 40 mm - 1 Nos.

(ii) Circular plates of 250mm dia - 2 Nos.

Concrete cube moulds 15 x 15 x 15cm - 30 Nos.

F. FIELD TESTING INSTRUMENTS

1. Steel tapes-3m

2. Vernier calipers.

3. Micrometer screw 25mm gauge.

4. A good quality plumb bob.

5. Spirit level, minimum 30cms long with 3 bubbles for horizontal vertical.

6. Wire gauge (circular type) disc.

7. Foot rule

8. Long Nylon thread

9. Magnifying glass.

10. Screw driver 30cms long

11. Ball pin hammer, 100 gms

12. Plastic bags for taking samples.

13. Universal Testing Machines - 1 Nos (Properly calibrated)

Field testing equipment shall be arranged by the contractor as per the requirement of work.

**ANNEXURE -25 LIST OF MACHINERY, TOOLS AND PLANTS TO BE DEPLOYED BY
CONTRACTOR AT SITE**

SI No	Machine/Tool	Qty Required
1	Drilling equipments of DMC Pile	
2	Generator	
3	Tanks for storage of water	
4	Motor, slurry pump, sludge pump, Pressure pump	
5	Welding set, cutting equipments	
6	Metallic sheet for shoring	
7	Bar bending equipments and machines	
8	Girders for performing load test	
9	Digital meters for measuring settlement	
10	Mixer machine, Vibrator, compactor, Trolley, Lift/crane	
11	Cube moulds, slump cone	
12	Beaker and weighing machine upto 1Kg	
13	Shuttering sheet, a crowspan and jacks	
14	Different sizes of Sieve for sieve analysis	
15	Equipments for testing compressive strength	
16	Levelling equipment	
17	Water pump	
18	Metallic scaffolding	
19	Multimeter	
20	Ohm's meter	
21	Exterior yard lighting	
22	Megger	

Note: The list is indicative only and not exhaustive. The bidder shall be required to deploy any such T&P as per work requirement and contract condition as directed by Engineer-in-charge and / or employer.

ANNEXURE -26 - TABLE OF MILESTONES

Sl. No.	Description	Period of completion (from date of start)	Amount to be withheld in case of non-achievement of milestone. (% of tender amount)
1	Completion of tree cutting, levelling of ground, sample Piling, Curing of pile (2weeks), cleaning the site and mobilisation of equipments. Arranging temporary Electrical connection, water supply arrangements, Temporary site office. Approval of all associate agencies, obtaining provisional fire NOC and other municipal approvals.	1 st month	0.1 % value of the work
2	Completion of Pile test (loading and unloading of weight 350 tonnes for pile load test). Approval of Lift Drawing and make / model of passenger Lift.	2 nd month	0.1 % value of the work
3	Completion of balance RCC piles and pile chipping. Completion of RCC work for Pile cap, Grade beam, Lift pit and column shoe. Approval of make / model of IEI works, conduits, required shop drawing approval, LT panels, shop drawing for fire alarm and firefighting & make and model of all other E&M materials.	3 rd month	0.1 % value of the work
4	Completion of column casting upto G+1 floor, roof slab for ground floor including ground floor masonry work. Completion of slab conduiting upto ground floor	4 th month	0.1 % value of the work
5	Completion of column casting upto second floor, roof slab casting, Underground water tank, including masonry works upto one floor below. Completion of slab conduiting of second floor and wall conduiting, GI Box fixing, DB works upto G+1 floors.	5 th month	0.1 % value of the work

6	<p>Completion of column casting upto third floor, roof slab casting, including masonry, plumbing and plastering works upto one floor below, Slab of underground water tank and completion of putty works, tile works and fixing of door frames and window grills upto 2 floors below.</p> <p>Completion of slab conduiting of third floor and wall conduiting, GI Box fixing, DB works of second floor. Wiring and DB dressing upto G+1 floors.</p>	6 th month	0.1 % value of the work
7	<p>Completion of column casting for stair cabin and overhead water tank including brick work, roof slab casting including masonry, plumbing and plastering works in third floor and completion of putty works, tile works and fixing of door frames and window grills in second floor.</p> <p>Completion of wall conduiting, GI Box fixing, DB works of third floor. Wiring and DB dressing of second floor.</p>	7 th month	0.1 % value of the work
8	<p>Completion of putty works, tile works and fixing of door frames and window grills in third floor and completion of painting and cleaning upto second floor.</p> <p>Completion of plastering of stair cabin, lift well and exterior.</p> <p>Completion of water proofin works in terrace and water tank.</p> <p>Completion of Fixing of doors, windows, sanitary fittings, all other accessories and ancillary works.</p> <p>Completion of wiring and DB dressing of third floor and electrical fittings upto G+2 floors.</p> <p>Completion of plumbing works in terrace and exterior.</p> <p>Supply and erection of Lift, Fire fighting pipe laying.</p>	8 th month	0.1 % value of the work

9	<p>Completion of all remaining masonry work, plastering, flooring, water proofing, external and internal painting, completion of fixing doors, windows, hand rail , steel stair, jali work, fixing of anti-bird net, all plumbing, water supply line, sanitary lines, manholes, UG sump, overhead tank etc. Completion of exterior boundary wall masonry, plastering and painting including fixing of gate. Initiation of paper works for all statutory clearance/certificates from respective authorities for handing over in all respect.</p>	9 th month	0.1 % value of the work
10	<p>Completion of paver block, removal of all debris & cleaning. Testing and commissioning of all E&M services, getting final NOC for fire/lift etc., occupancy certificate from local body authorities, permanent electrical service connection from KSEB, permanent water connection from KWA, demonstration and handing over in all respect.</p>	10 th month	0.1 % value of the work

**ANNEXURE-27 GUARANTEE BOND FOR REMOVAL OF DEFECTS AFTER COMPLETION
IN RESPECT OF ALUMINIUM/UPVC DOORS, WINDOWS AND VENTILATOR WORKS**

This agreement made the _____day of the month of _____ in the year 2024 BETWEEN, Canara Bank a body corporate constituted under the Banking Companies (Acquisition and Transfer of Undertakings)Act, 1970, having its Circle office, at 112, J C Road, Bangalore-560002 represented _____ by _____ Circle Office, _____its duly constituted attorney (hereinafter referred to as Bank) of the ONE PART; and Shri/M/s _____ S/D/o _____ resident of _____

_____ the sole proprietor of M/s _____ having office at _____/the partnership firm represented by its Managing / duly authorised partner, having an administrative / principal office at _____ / a company / body corporate being its registered office at _____

_____ duly represented at _____ duly represented by its constituted and authorised Managing Director, Shri _____ and (hereinafter called the Guarantor) of the other part

WHEREAS THIS agreement is supplementary to a contract (Hereinafter called the Contract) dated and made between the GUARANTOR OF THE ONE PART AND the Bank of the other part, whereby the contractor inter alia, undertook to render the work in the said contract recited structurally stable, workmanship, powder coating, anodizing, UPVC coating, colouring and sealing etc.

AND WHEREAS THE GUARANTOR agreed to give a guarantee to the effect that the said work will remain structurally stable and guaranteed against faulty material and workmanship, defective anodizing/ powder coating, UPVC coating for **five** years from the date of completion of work.

NOW THE GUARANTOR hereby guarantee that work executed by him will remain structurally stable and guaranteed against faulty material and workmanship, defective anodizing/ powder coating for five years to be reckoned from the date of completion of the work.

The decision of the Bank with regard to nature and cause of defect shall be final.

During this period of guarantee, the guarantor shall make good all defects and in case of any defect to satisfaction of Bank at his cost and shall commence the work for such rectification within seven days from the date of issue of the notice from the Bank calling upon him to rectify the defects failing which the work shall be got done

by the Bank by some other contractor at the guarantor's cost and risk. The decision of the Bank as to the cost payable by the Guarantor shall be final and binding.

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

In witness whereof the parties hereto have hereunto set their respective hands and seals the day and year first above written.

SIGNED, sealed and delivered by (OBLIGOR) _____

in the presence of.

1.

2.

Signed for and on behalf of the Bank by _____

in presence of:

1.

2.

ANNEXURE - 28 - FORMAT FOR PERFORMANCE GUARANTEE

(To be submitted on Non-Judicial stamp paper of appropriate value Purchased in the name of the issuing Bank)

To,

Canara Bank,
General Administration Section
Canara Bank Circle Office
Thiruvananthapuram

WHEREAS (Name and address of M/s XXXX (hereinafter referred to as "the CONTRACTOR") has undertaken to carryout "Construction of Bank's Staff Quarters at Jawahar Nagar, Ernakulam" upto satisfaction of the bank, and also includes documentation, warranty, annual maintenance, if contracted, as per their Contract dated _____ with you (hereinafter referred to as "the CONTRACT")

AND WHEREAS in terms of the Conditions as stipulated in the Contract, the CONTRACTOR is required to furnish, a Bank Guarantee by way of Performance Guarantee, issued by a Scheduled Bank in India, in your favour, as per Clause _____ of the CONTRACT, to secure due and satisfactory compliance of the obligations by the CONTRACTOR on their part, in accordance with the CONTRACT, (which guarantee is hereinafter called as "the PERFORMANCE GUARANTEE")

AND WHEREAS the CONTRACTOR has approached us, (Name of the issuing Bank) for providing the PERFORMANCE GUARANTEE,

AND WHEREAS in consideration of the fact that the CONTRACTOR is our valued constituent and the fact that he has entered into the CONTRACT with you, WE (Name of the Bank) having our Registered Office at, _____ and local office at _____, India have agreed to issue the PERFORMANCE GUARANTEE,

THEREFORE WE (Name of the issuing Bank) through our local office at _____ India furnish you the PERFORMANCE GUARANTEE in manner hereinafter contained and agree with you as follows:

We (Name of the issuing Bank), undertake to indemnify you and keep you indemnified from time to time to the extent of Rs _____ (Rupees _____) an amount equivalent to 10% of the Contract Price against any loss or damage caused to or suffered by or that may be caused to or suffered by you on account of any breach or breaches on the part of the CONTRACTOR of any of the terms and conditions contained in the Contract and in the event of the CONTRACTOR default or defaults in carrying out any of the work or discharging any obligation in relation thereto under the CONTRACT or otherwise in the observance and performance of any of the terms and conditions relating thereto in accordance with the true intent and meaning thereof, we shall forthwith on demand pay to you such sum or sums not exceeding the sum of Rs _____ (Rupees _____) may be claimed by you on account of breach on the part of the CONTRACTOR of their obligations in terms of the CONTRACT.

Notwithstanding anything to the contrary we agree that your decision as to whether the CONTRACTOR has made any such default or defaults and the amount or amounts to which you are entitled by reasons thereof will be binding on us and we shall not be entitled to ask you to establish your claim or claims under Performance Guarantee but will pay the same forthwith on your demand without any protest or demur.

This Performance Guarantee shall continue and hold good until it is released by you on the application by the CONTRACTOR after expiry of the relative guarantee period of the Contract and after the CONTRACTOR had discharged all his obligations under the Contract and produced a certificate of due completion of the work under the Contract and submitted a "No Demand Certificate" provided always that the guarantee shall in no event remain in force after the day of _____ without prejudice to your claim or claims arisen and demanded from or otherwise notified to us in writing before the expiry of three months from the said date which will be enforceable against us notwithstanding that the same is or are enforced after the said date.

Should it be necessary to extend Performance Guarantee on account of any reason whatsoever, we undertake to extend the period of Performance Guarantee on your request under intimation to the CONTRACTOR till such time as may be required by you. Your decision in this respect shall be final and binding on us.

You will have the fullest liberty without affecting Performance Guarantee from time to time to vary any of the terms and conditions of the Contract or extend the time of performance of the Contract or to postpone any time or from time to time any of your rights or powers against the CONTRACTOR and either to enforce or forbear to enforce any of the terms and conditions of the Contract and we shall not be released from our liability under Performance Guarantee by the exercise of your liberty with reference to matters aforesaid or by reason of any time being given to the CONTRACTOR or any other forbearance, act, or omission on your part or any indulgence by you to the CONTRACTOR or by any variation or modification of the Contract or any other act, matter or things whatsoever which under law relating to sureties, would but for the provisions hereof have the effect of so releasing us from our liability hereunder provided always that nothing herein contained will enlarge our liability hereunder beyond the limit of Rs _____ (Rupees _____) as aforesaid or extend the period of the guarantee beyond the said day of _____ unless expressly agreed to by us in writing.

The Performance Guarantee shall not in any way be affected by your taking or giving up any securities from the CONTRACTOR or any other person, firm or company on its behalf or by the winding up, dissolution, insolvency or death as the case may be of the CONTRACTOR.

In order to give full effect to the guarantee herein contained, you shall be entitled to act as if we were your principal debtors in respect of all your claims against the CONTRACTOR hereby guaranteed by us as aforesaid and we hereby expressly waive all our rights of surety ship and other rights, if any, which are in any way inconsistent with any of the provisions of Performance Guarantee.

Subject to the maximum limit of our liability as aforesaid, Performance Guarantee will cover all your claim or claims against the CONTRACTOR from time to time arising out of or in relation to the Contract and in respect of which your claim in writing is

lodged on us before expiry of three months from the date of expiry of Performance Guarantee.

Any notice by way of demand or otherwise hereunder may be sent by special courier, telex, fax or registered post to our local address as aforesaid and if sent by post it shall be deemed to have been given when the same has been posted.

The Performance Guarantee and the powers and provisions herein contained are in addition to and not by way of limitation of or substitution for any other guarantee or guarantees heretofore given to you by us (whether jointly with others or alone) and now existing un-cancelled and that Performance Guarantee is not intended to and shall not revoke or limit such guarantee or guarantees.

The Performance Guarantee shall not be affected by any change in the constitution of the CONTRACTOR or us nor shall it be affected by any change in your constitution or by any amalgamation or absorption thereof or therewith but will endure to the benefit of and be available to and be enforceable by the absorbing or amalgamated company or concern.

The Performance Guarantee shall come into force from the date of its execution and shall not be revoked by us any time during its currency without your previous consent in writing.

We further agree and undertake to pay you the amount demanded by you in writing irrespective of any dispute or controversy between you and the CONTRACTOR.

Notwithstanding anything contained herein

- i. Our liability under this guarantee shall not exceed Rs. _____
(Rupees _____ only)
- ii. This guarantee shall be valid upto _____ and ;
- iii. We are liable to pay the guaranteed amount or any part thereof under this guarantee only and only if you serve upon us a written claim or demand at **Thiruvananthapuram** on or before _____
(mention period of the guarantee as found under clause ii. above plus claim period).

We have the power to issue Performance Guarantee in your favour by statute and the undersigned has full power to execute Performance Guarantee under the Power of Attorney given to him by the Bank.

Dated this _____ day of _____ 2024.

For and on behalf of

_____ BRANCH MANAGER SEAL ADDRESS PLACE

This Bank guarantee should be confirmed through SFMS by the issuing Bank and the details are as follows

Name of the Bank: Canara Bank

Name of the Branch : Trivandrum Cantonment

IFSC Code: CNRB0000819

**ANNEXURE-29 - PROPOSAL FOR ELIGIBLE ASSOCIATING AGENCIES FOR MINOR
COMPONENTS OF WORK**

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

Sl No	Name of Associated Contractor	Copy of certificates attached	Validity of license/authorised dealership	Consent letter attached (yes/No)
C1. Internal EI, fittings, distributiou boards, cables, lightning protection, earthing, external lightings				
C2. Lifts				
C3. Firefighting				

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

Signature of contractor

PROFORMA I - UNDERTAKING FOR GST REGISTRATION
(To be submitted in the letter head of firm)

To

Assistant General Manager,
Premises & Estate Section,
Circle Office,
Trivandrum.

Subject: Construction of New Bank Own Building For Staff Quarters at Jawahar Nagar,
Ernakulam District

Ref: _____

I / We hereby declare that 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 Bank, 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 Bank or GST department in this regard.

Date:
Place:

Signature of Bidder with seal

PROFORMA II - UNDERTAKING FOR OFFICE SET-UP IN KERALA

(To be submitted in the letter head of firm)

To

Assistant General Manager,
Premises & Estate Section,
Circle Office,
Trivandrum.

Subject: Construction of New Bank own Building at Sy. No: 438/3 and 463/2, Subash Chandra Bose Road, Jawahar Nagar, Ernakulam.

Ref: _____

I / We hereby declare that If work is awarded to me, I/we shall open office at the State, in which work is to be taken up, within 30 days from the date of receipt of award letter by Bank, failing which Bank shall take necessary action including forfeiting of security deposit/EMD.

Date:
Place:

Signature of Bidder with seal

APPENDIX - I - AFFIDAVIT FOR SOLE PROPRIETORSHIP OF FIRM

(On Non-Judicial Stamp Paper of Rs.200/- in case the individual who is the sole proprietor of the firm)

I, S/o Age
years, occupation business R/o
..... do hereby
state on oath as under:

That I am residing in
.....
..... locality of District
..... Since last Years.

That I am the sole proprietor of a proprietary concern name and style as
“.....” having its office at
..... District dealing in
the business of Government's/Private civil contracts and ancillary works attached
therefor.
Hence this affidavit.

Deponent
.....

Note: This Affidavit should be Notarized.

APPENDIX - II - CHARTERED ACCOUNTANT'S CERTIFICATE

(In Letter Head of Auditor Firm)

No.

Date:

To

The Assistant General Manager,
General Administration Section,
Canara Bank Circle Office,
Thiruvananthapuram - 695001

Dear Sir,

Tender Reference No. _____

This is to certify that we,
_____,

vide our registration No. _____, Auditors of the company/firm
M/s _____ do hereby certify

that, the company/firm has turnover and net profit/Loss for last three financial
Year from civil construction works is given as under:-

FY	Assessment Year	Turnover	Net profit/Loss after tax
2020-21	2021-22		
2021-22	2022-23		
2022-23	2023-24		

The certificate has been based on information and documents produced before us.
(Copy of the certified documents attached for your reference)

We hereby certify that Net worth of the firm is not be negative and has not eroded
more than 30% in the last 3 years as of XX.XX.2024.

Yours faithfully
(Name & Signature with Seal)

For and on behalf of M/s _____ (UDIN: _____)

Place:

Note: This CA Certificate should be on the letter head of the Auditor Firm and should be signed by a
competent person of the Firm.

APPENDIX - III - CLIENT'S CERTIFICATE

Name of Client with full address:

Details of work executed by: Shri / M/s

Sr. No.	Particulars	Remarks
1	Name of work with brief particulars	
2	Agreement No. and date	
3	Agreement amount	
4	Date of commencement of work	
5	Stipulated date of completion	
6	Actual date of completion	
7	Details of compensation levied for delay (indicate amount) if any	
8a	Final certified amount of the construction work completed**	
8b	Gross amount paid to the architect**	
9	Name and address of the authority under whom works executed	
10a	Whether the architect employed qualified staff?	
10b	Whether the supervision of construction was included in scope of work? If yes, mention period of supervision	
11	i. Quality of work (indicate grading)	
	ii. Amount of work paid on reduced rates	
12	i. Did the architect go for arbitration?	Outstanding / Very Good / Good / Satisfactory / Poor
	ii. If yes, total amount of claim	
	iii. Total amount awarded	
13	Comments on the capabilities of the	
	a) Technical Proficiency	Outstanding / Very Good / Good / Satisfactory / Poor

	b) Financial soundness	Outstanding / Very Good / Good / Satisfactory / Poor
	c) Mobilization of adequate T&P	Outstanding / Very Good / Good / Satisfactory / Poor
	d) Mobilization of manpower	Outstanding / Very Good / Good / Satisfactory / Poor

Note: All columns should be filled in properly please tick one of the multiple options.

Signature of the Reporting Officer* with office seal

*Officer of the rank of Asst. Executive Engineer/Divisional/Chief Manager or equivalent

** Amount excluding GST.

(Reports must be submitted in sealed cover addressed to The Assistant General Manager, General Administration Section, Canara Bank Circle Office, Thiruvananthapuram - 695001)

APPENDIX- IV - AUTHORISATION LETTER

(To be submitted in the letter head of firm)

To,

Assistant General Manager,
Premises & Estate Section,
Circle Office,
Trivandrum.

Name of work: Construction of New Bank Own Building For Staff Quarters at Jawahar Nagar, Ernakulam District
--

This has reference to your above subject Mr/Ms is hereby authorized to attend the bid opening on _____ on behalf of our organization.

The specimen signature is attested below:

Specimen Signature of Representative

Signature of Authorizing Authority
of the Bidder

Signature of Attesting Authority

Name of Authorizing Authority
of the Bidder

APPENDIX-V - REGISTER OF MATERNITY BENEFITS

Name and address of the Contractor.....

Name and location of the work.....

The contractor shall maintain a register of Maternity (Benefit) in the Prescribed Form ::

Name of the Employee	Father's /Husband's name	Nature of employ-ment	Period of actual employ-ment	Date on which notice of confine-ment given.
1.	2.	3.	4.	5.

Date on which maternity leave commenced and ended

Date of delivery/ Miscarriage	In case of delivery		In case of miscarriage	
	Commenced	ended	Commenced	ended
6.	7.	8.	9.	10.

Leave pay paid to the employee

In case of delivery		In case of miscarriage		Remarks
Rate of leave pay	Amount paid	Rate of leave pay	Amount paid	
11.	12.	13.	14.	15.

APPENDIX-VI- SPECIMEN FORM OF THE REGISTER, REGARDING MATERNITY BENEFIT
ADMISSIBLE TO THE CONTRACTOR'S LABOUR IN GENERAL PUBLIC WORKS
EMPLOYER WORKS

NAME OF THE WORK ::

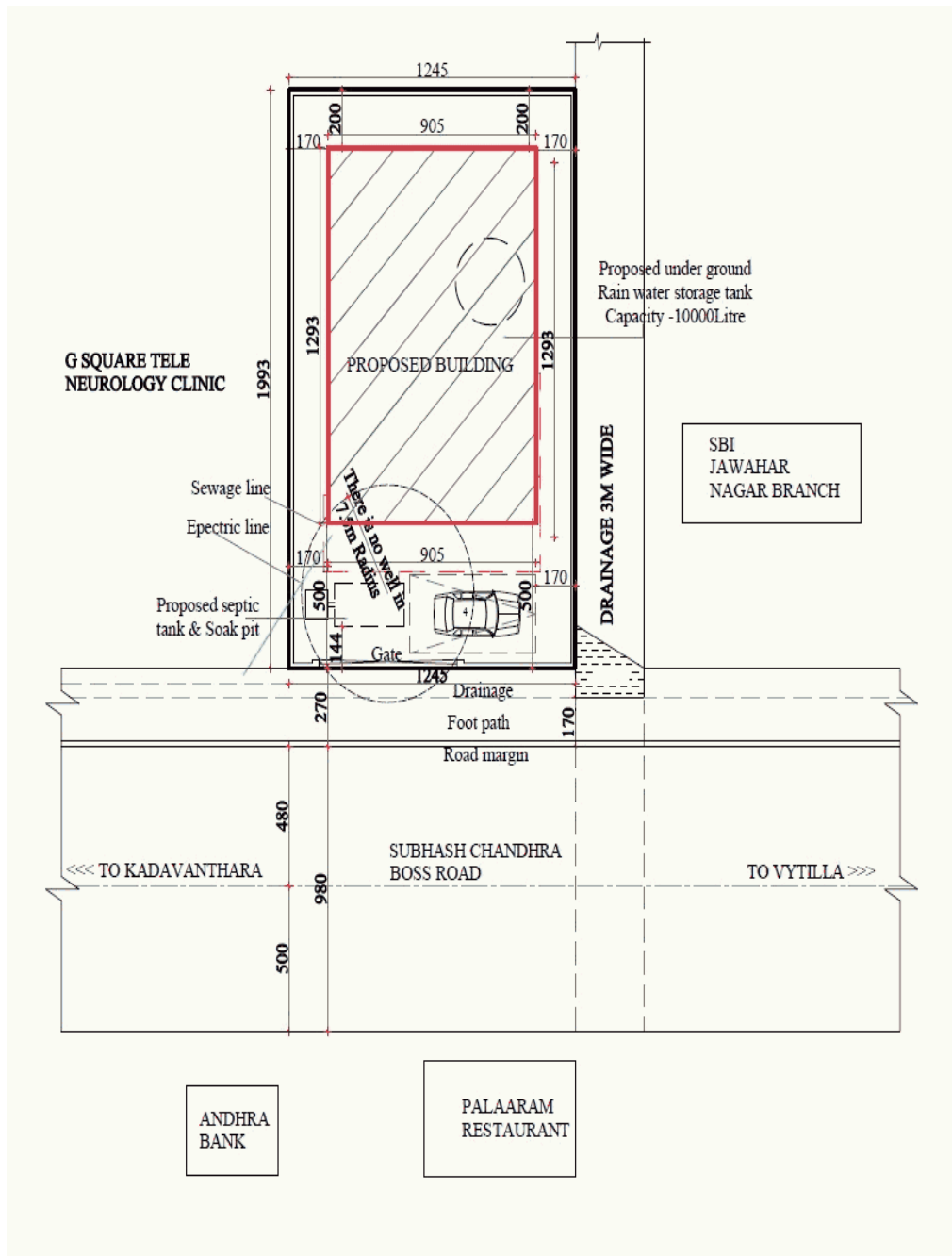
NAME OF THE CONTRACTOR ::

- 1 Name of the woman and her husband's name :
- 2 Designation :
- 3 Date of appointment :
- 4 Date with months and years in which she is employed :
- 5 Date of discharge/dismissal, if any :
- 6 Date of production of certificates in respect of pregnancy :
- 7 Date on which the woman informs about the expected delivery :
- 8 Date of delivery/miscarriage/death :
- 9 Date of production of certificate in respect of delivery/miscarriage :
- 10 Date with the amount of maternity/death benefit paid in advance of expected delivery :
- 11 Date with amount of subsequent payment of maternity benefit :
- 12 Name of the person nominated by the woman to receive the payment of the maternity benefit after her death :
- 13 If the woman dies, the date of her death, the name of the person to whom maternity benefit amount was paid, the month thereof and the date of payment :
- 14 Signature of the contractor authenticating entries in the register :
- 15 Remarks column for the use of Inspecting officer :

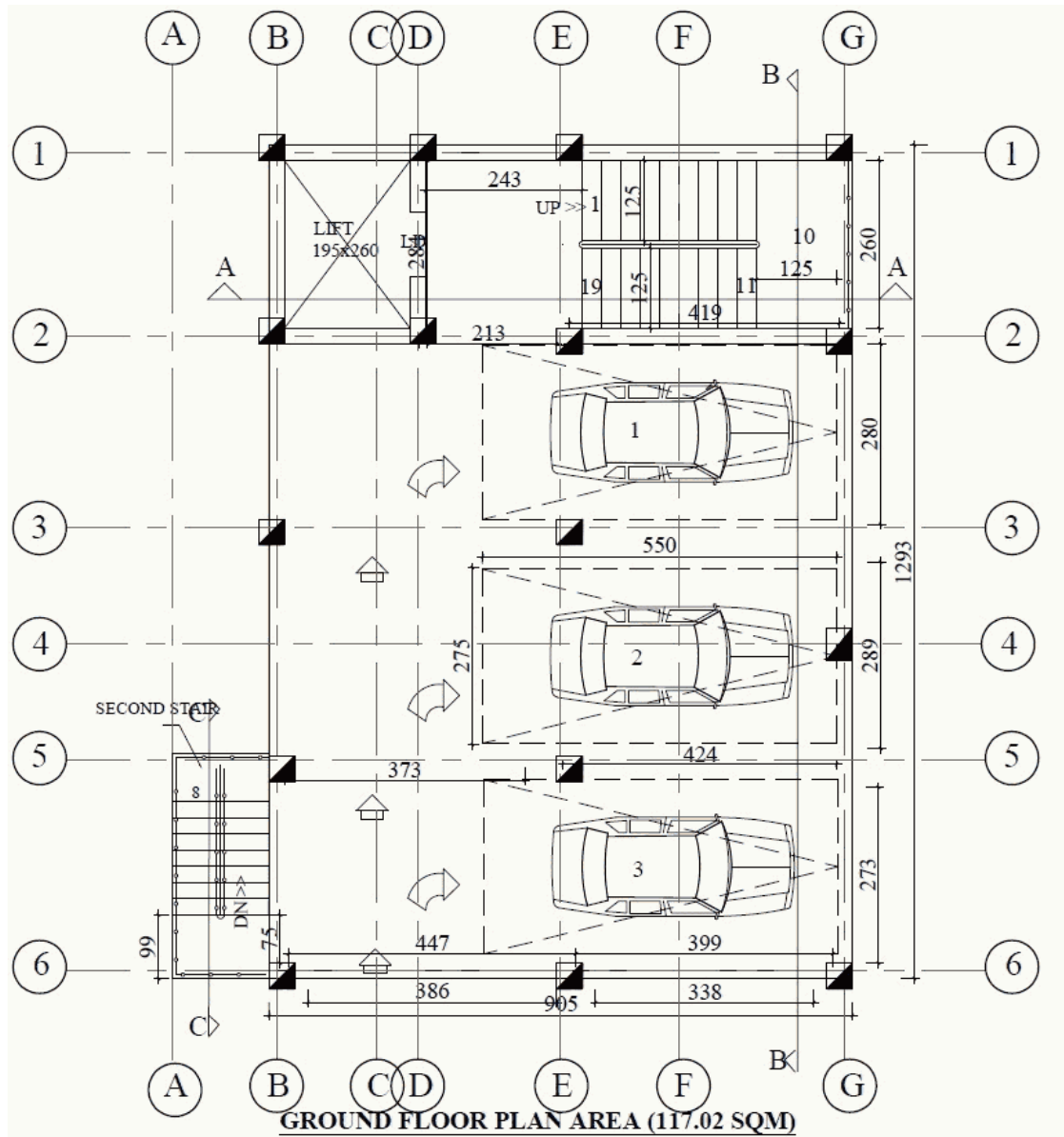
TENDER DRAWINGS



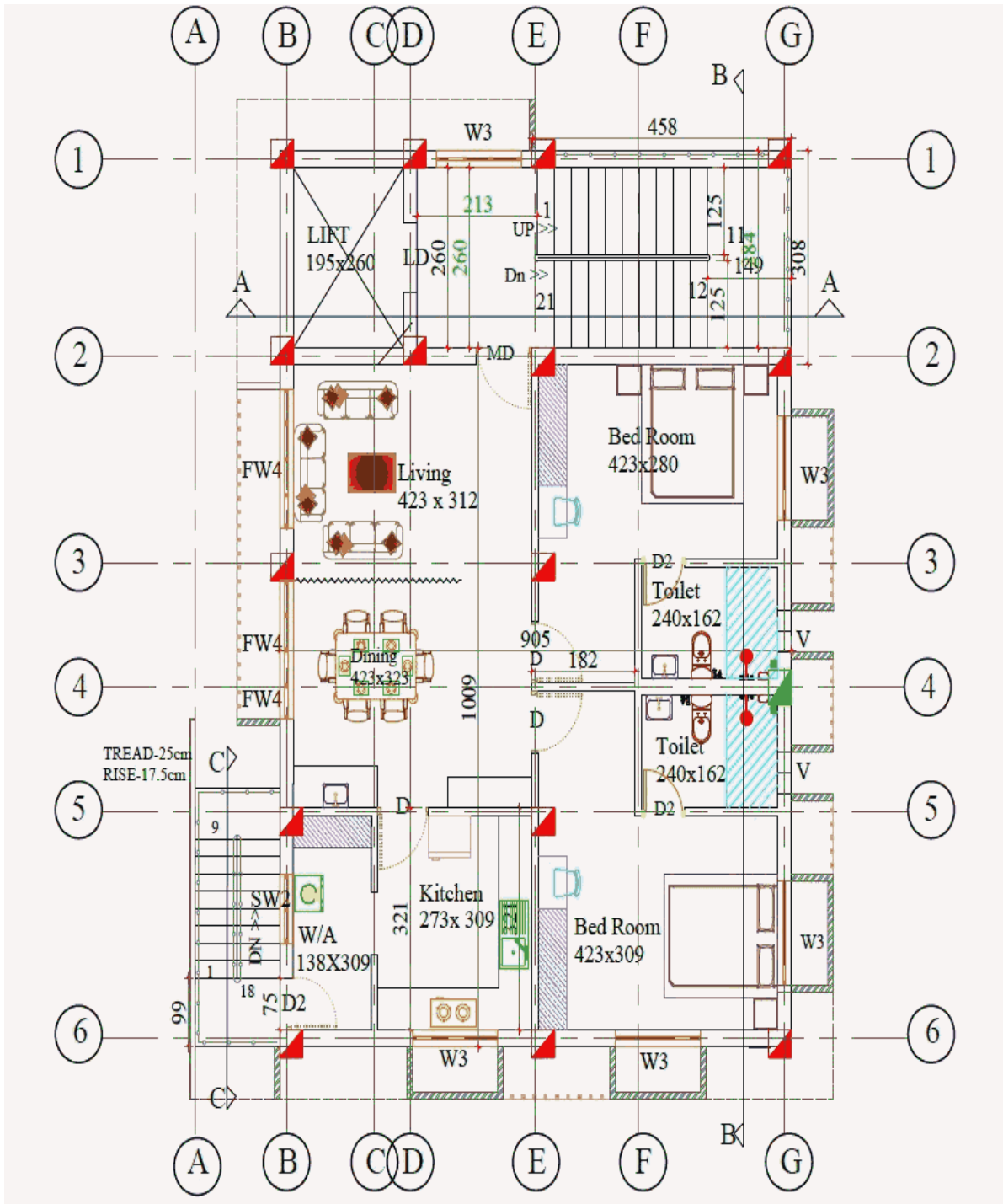
1. SITE LAYOUT:



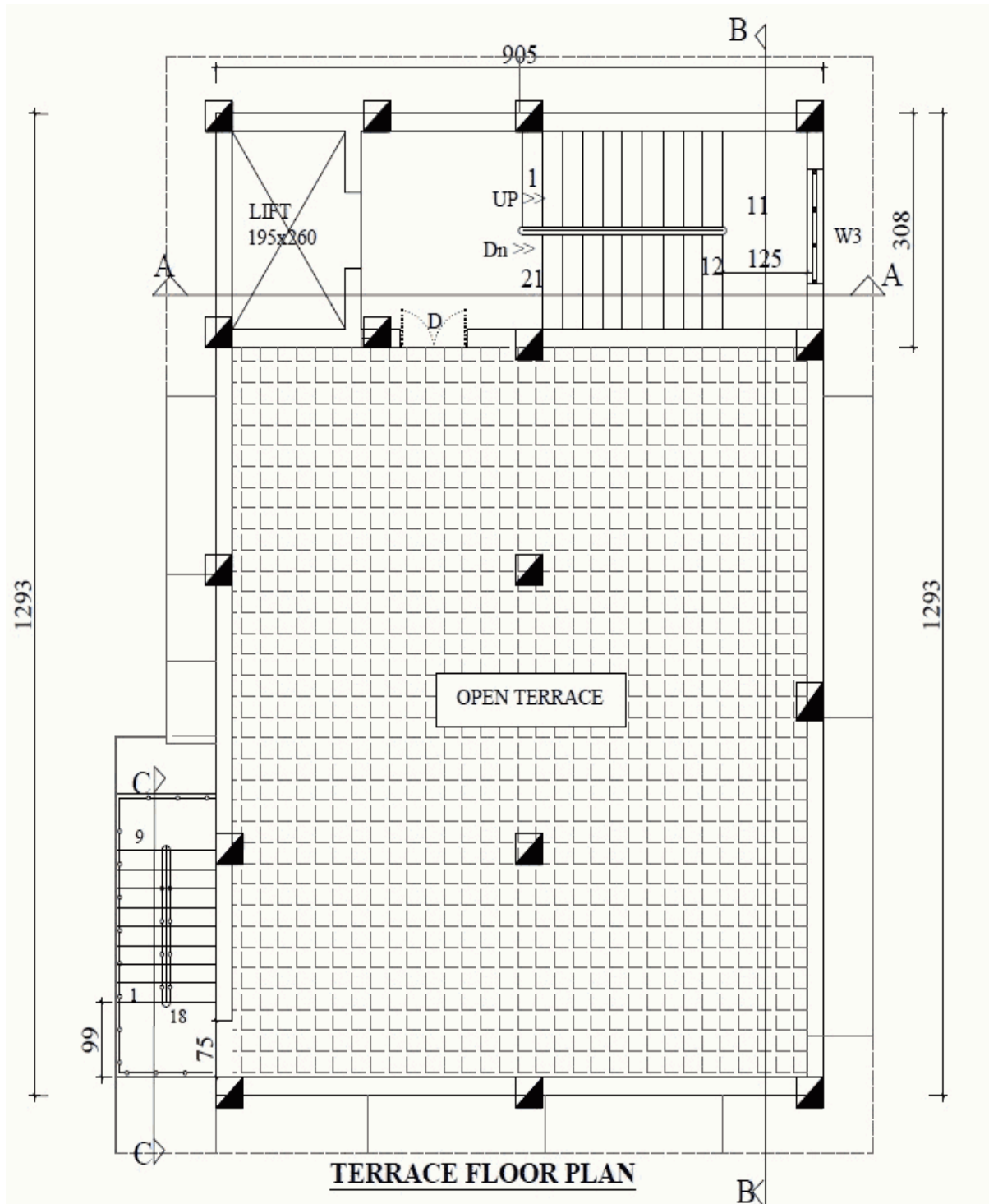
2. GROUND FLOOR PLAN:



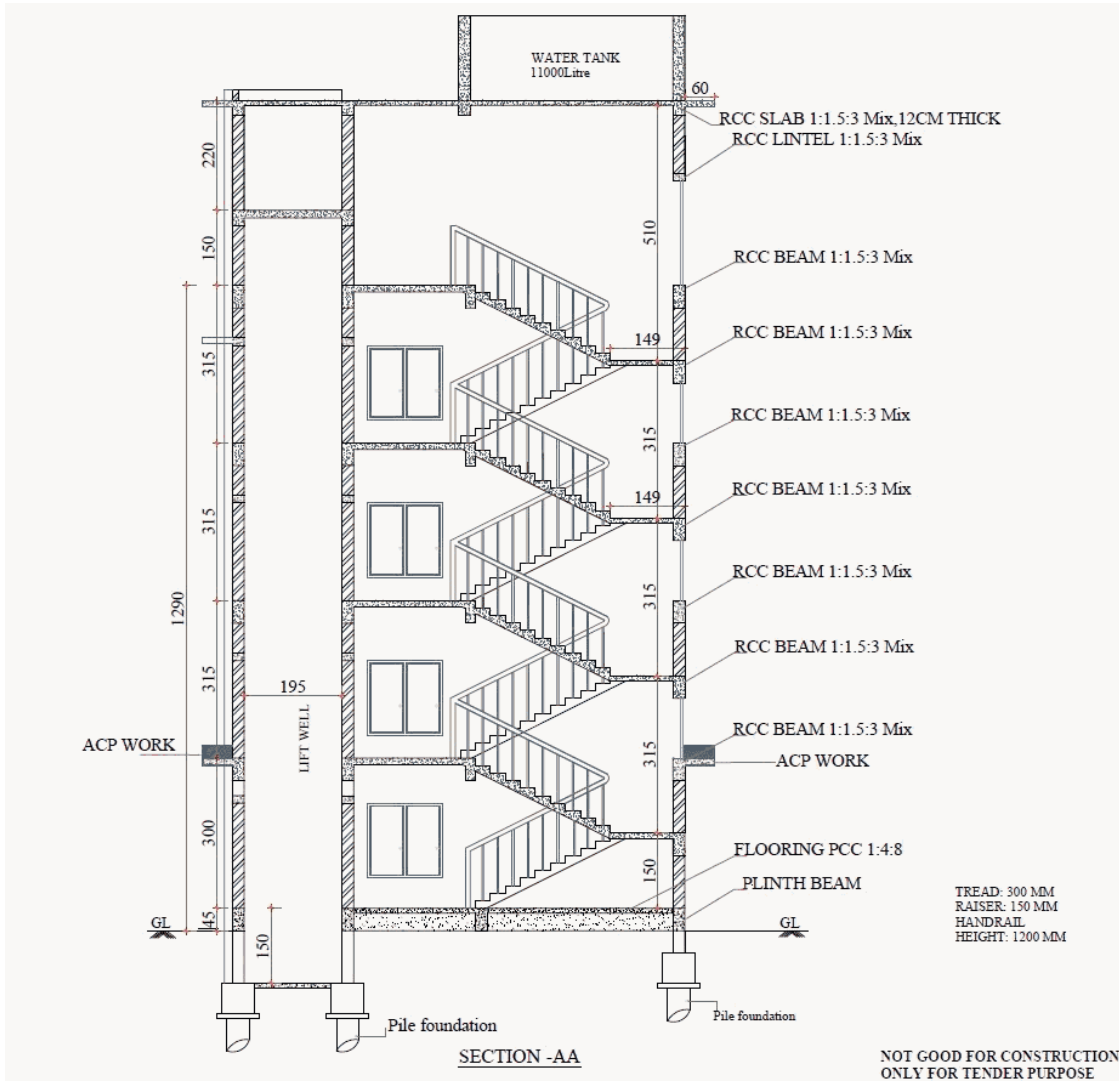
3. FIRST,SECOND AND THIRD FLOOR PLAN



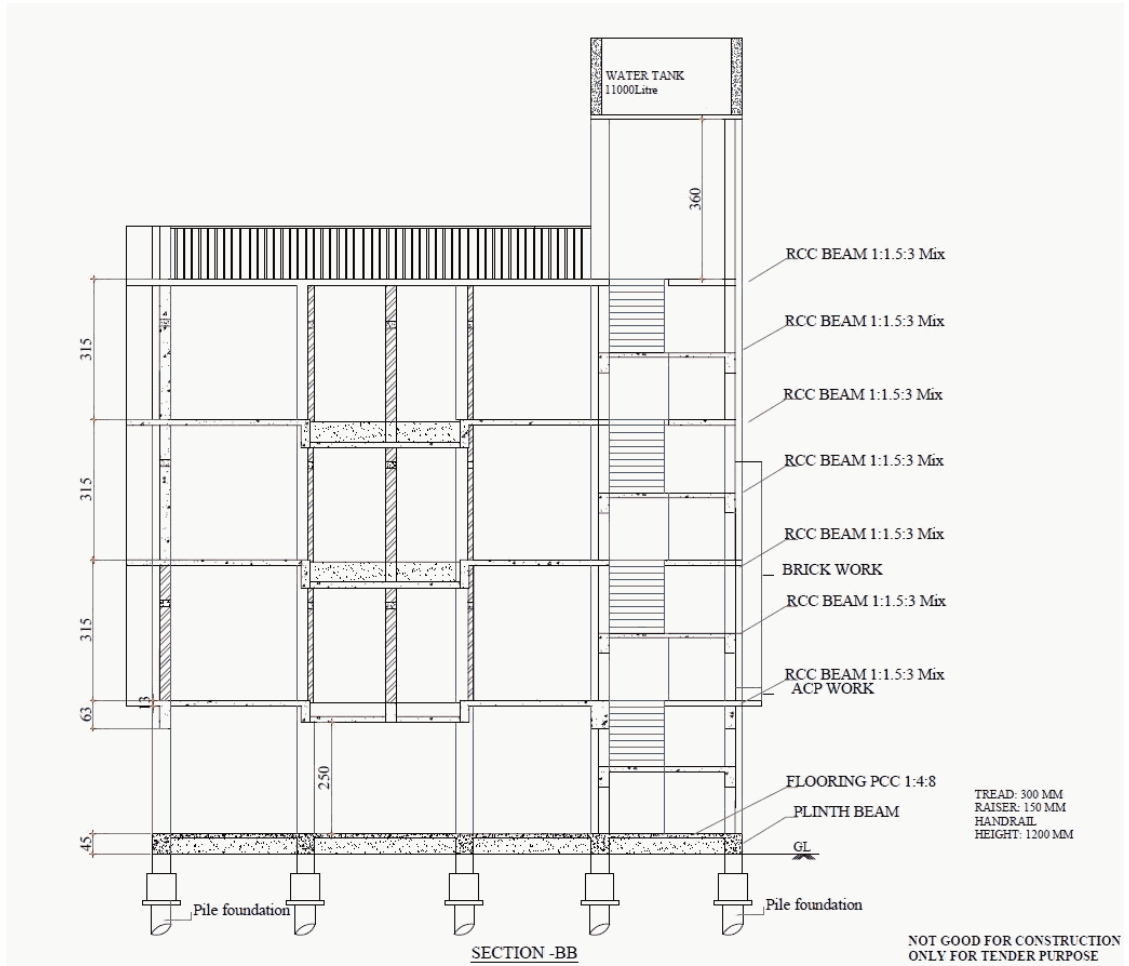
4. TERRACE FLOOR PLAN



5. BUILDING SECTION



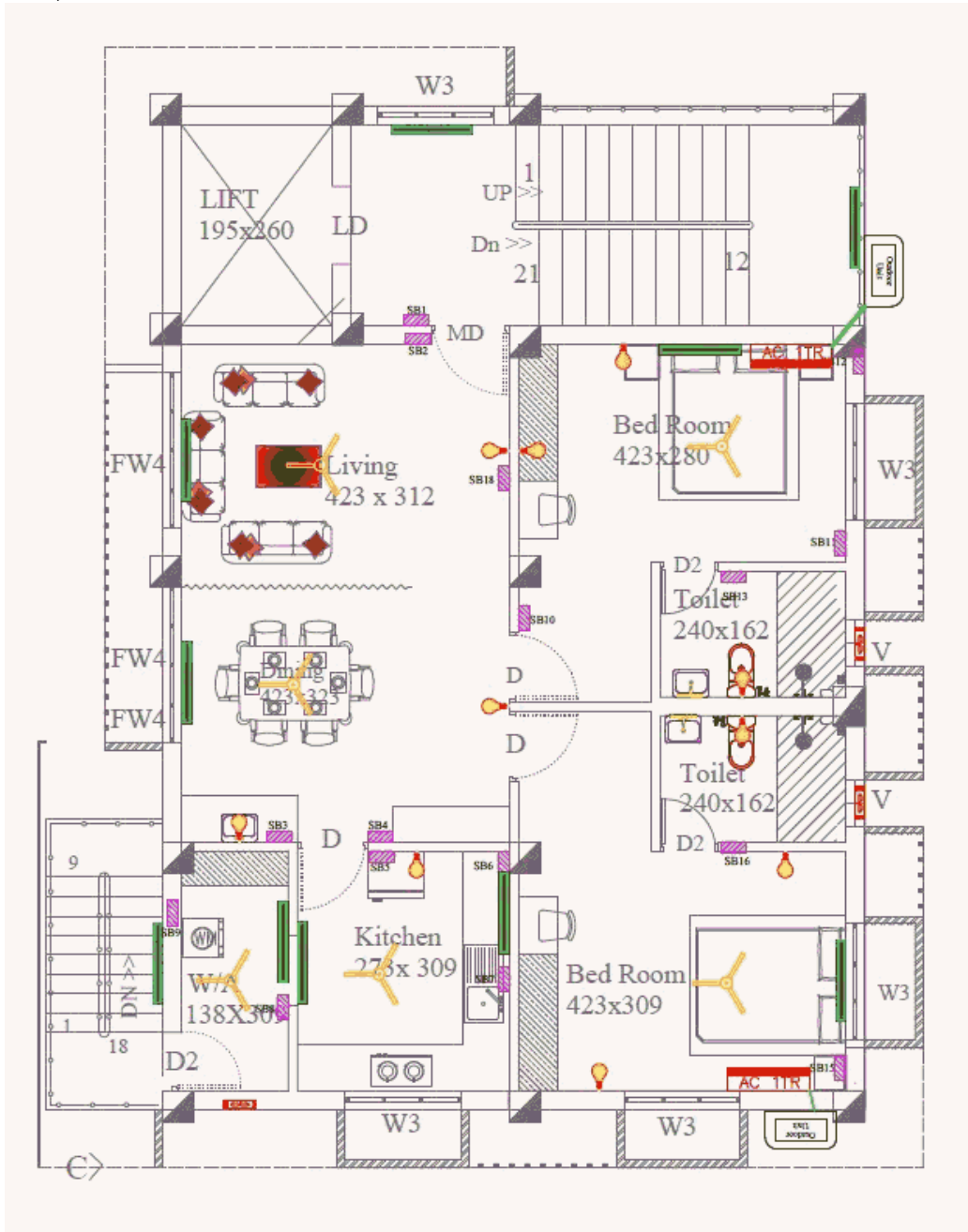
6. BUILDING SECTION



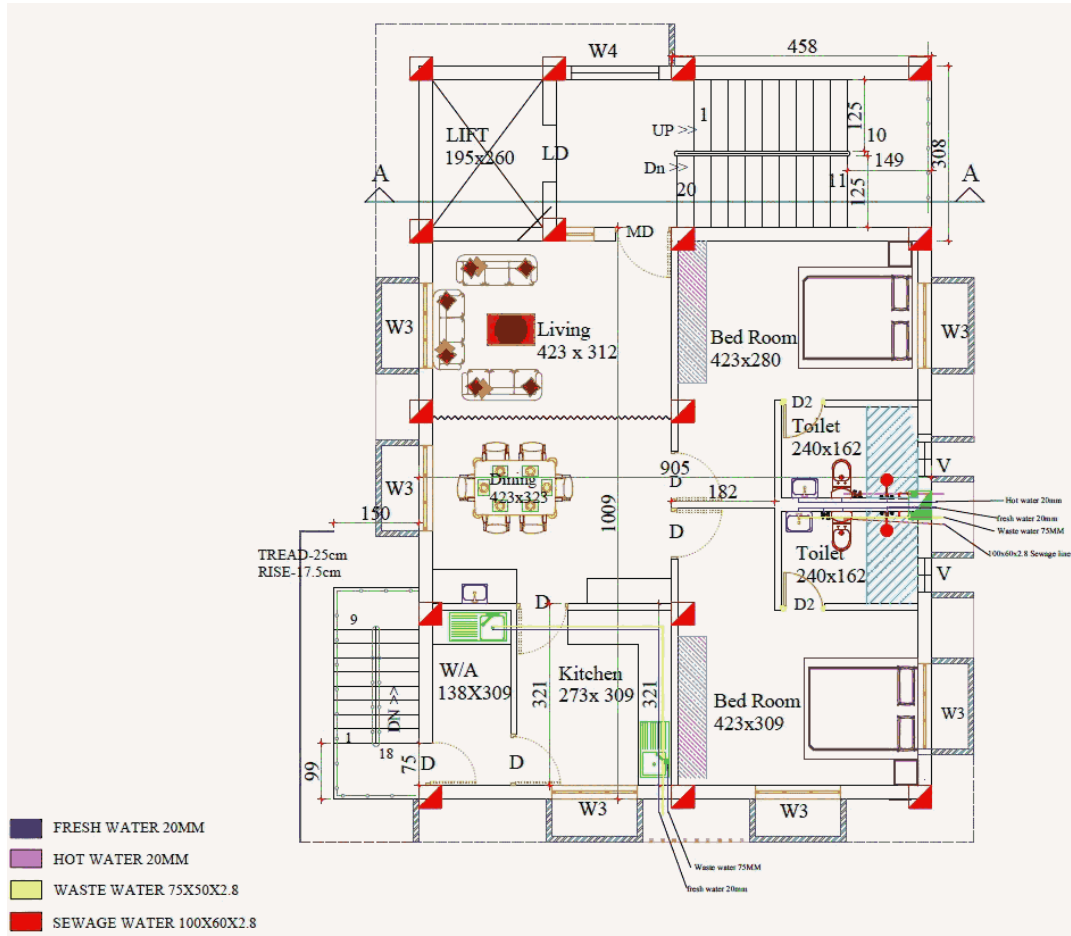
7. BUILDING SECTION



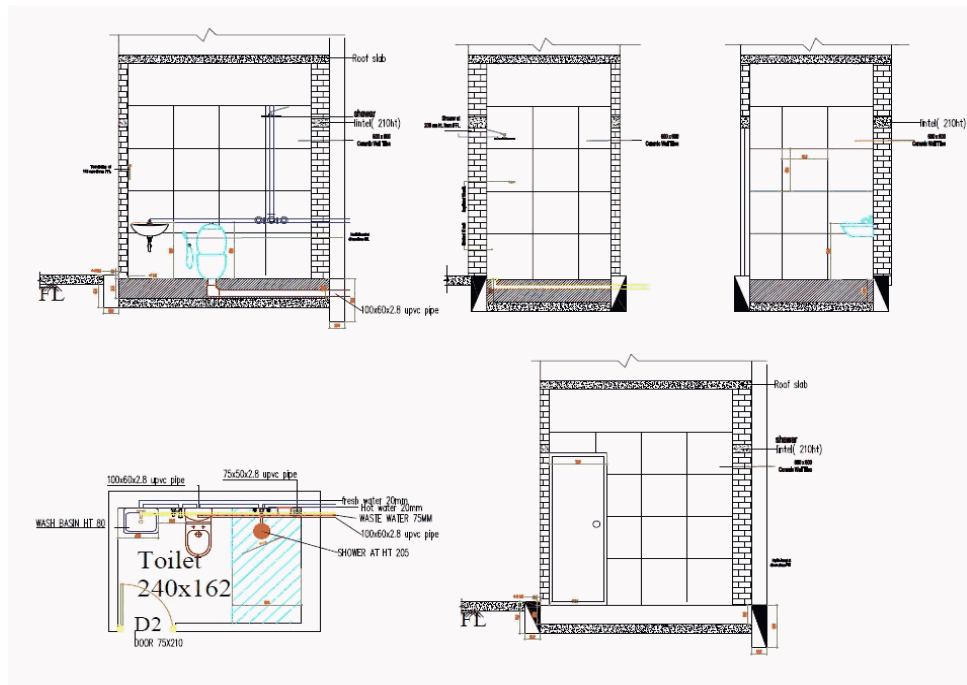
8. FIRST,SECOND AND THIRD ELECTRICAL LAYOUT



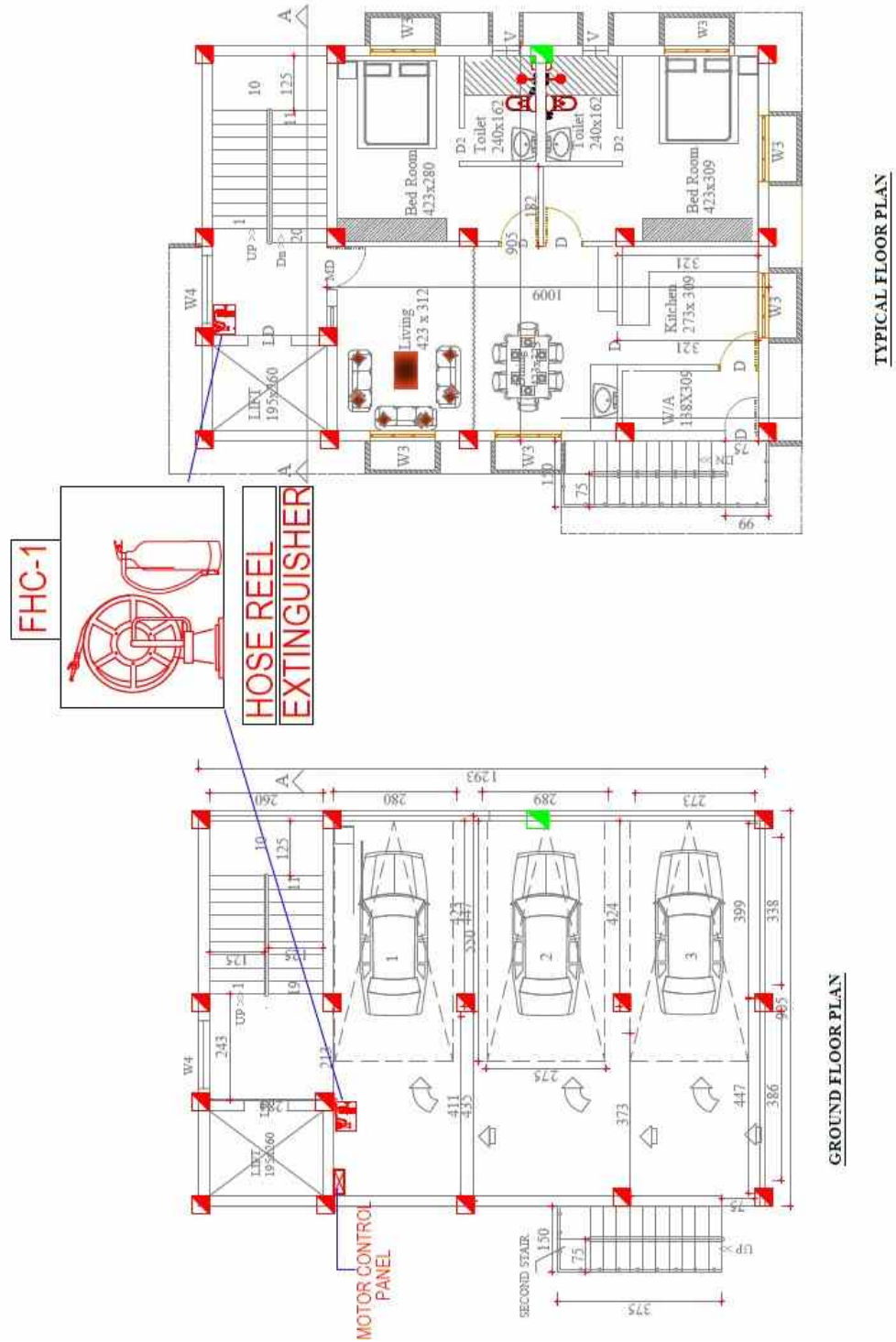
9. PLUMBING LAYOUT



10. TOILET DETAILS



11. FIRE FIGHTING



FINANCIAL BID

SCHEDULE OF QUANTITIES					
NAME OF WORK: CONSTRUCTION OF NEW BANK OWN BUILDING FOR STAFF QUARTERS AT SY. NO: 438/3 AND 463/2, SUBASH CHANDRA BOSE ROAD, JAWAHAR NAGAR, ERNAKULAM					
SCHEDULE OF QUANTITIES (CIVIL)					
SI.NO	DESCRIPTION	QTY	UNIT	UNIT RATE INCL. GST	AMOUNT INCL. GST
I	CIVIL WORKS				
I A	LAND DEVELOPMENT				
1	Filling Earth from outside (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift up to 1.5 m. (Appro. 1m filling)(Refer technical specification-I/16)	89.11	CUM		
2	Providing and laying 60mm thick factory made cement concrete interlocking paver block of M -30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required colour and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with fine sand etc. all complete as per the direction of Engineer-in-charge.	193.21	SQM		
3	Random rubble masonry with hard stone in foundation and plinth including levelling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20 mm nominal size) upto plinth level with :	15.30	CUM		
				SUB TOTAL	₹
I B	RESIDENTIAL BUILDING				
	GROUND FLOOR (PARKING)				
	PILE FOUNDATION				

1	Boring, providing and installation bored cast-in-situ reinforced cement concrete piles of grade M-30 of specified diameter and length below the pile cap, to carry a safe working load not less than specified, excluding the cost of steel reinforcement but including the cost of boring with bentonite solution and temporary casing of appropriate length for setting out and removal of same and the length of the pile to be embedded in the pile cap etc. by percussion drilling using Direct mud circulation (DMC) or Bailer and chisel technique by tripod and mechanical Winch Machine all complete, including removal of excavated earth with all its lifts and leads length of pile for payment shall be measured up to bottom of pile cap. The pile should be embedded into the pile cap atleast half the depth of the pile cap with good concrete. All the lean concrete should be chipped off.				
a)	500mm dia piles	750.00	M		
b)	600mm dia piles	250.00	M		
2	Vertical load testing of piles in accordance with IS 2911 (Part IV) including installation of loading platform by Kentledge/Anchor piles method and preparation of pile head or construction of test cap and dismantling of test cap after test etc. complete as per specification & the direction of Engineer in-charge.				
a)	Single pile above 50 tonne and upto 100 tonne Safe capacity				
(i)	Initial test. (Test load 2.5 times the safe capacity)	1.00	TEST		
3	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete up to plinth level.				
a)	Thermo-Mechanically Treated bars of grade Fe-500 D or more.	15248.63	KG		

	PILE CAP				
4	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30cm in depth, 1.5m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth, lead up to 50m and lift up to 1.5m, as directed by Engineer-in-Charge. Disposed earth to be levelled and neatly dressed .including necessary pumping out of water.The item shall also include refilling the sides of foundation with excavated earth other than sand in layers with well ramming and compacted and depositing the surplus earth in places shown by the departmental officers with an initial lead of 100m and initial lift of 2m and clearing and leveling the site etc. complete complying with standard specification.				
a)	All kinds of soil	65.36	CUM		
5	Close timbering /shoring/sheet pile protection trenches including strutting, shoring and packing cavities (wherever required) complete. (Measurements to be taken of the face area timbered). Using suitable material				
a)	Depth not exceeding 1.5 m.	40.62	SQM		
b)	Depth exceeding 1.5 m but not exceeding 3 m	6.04	SQM		
6	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - level :All work up to plinth level				
a)	1:4:8 (1 Cement : 4 coarse sand (zone-III) derived from natural sources : 8 graded stone aggregate 40 mm nominal size derived from natural sources)	6.45	CUM		
7	Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of				

	centering, shuttering, finishing and reinforcement -using coarse aggregate and fine aggregate derived from natural sources, Portland Pozzolana / Ordinary Portland /Portland Slag cement, admixtures in recommended proportions as per IS: 9103 to accelerate / retard setting of concrete, to improve durability and workability without impairing strength; including pumping of concrete to site of laying, curing, carriage for all leads; but excluding the cost of centering, shuttering, finishing and reinforcement as per direction of the engineer-in-charge; All work up to plinth level : necessary required water stopper should be provided for all tanks wherever there is a joint in concrete (for every lift).				
a)	Concrete of M25 grade with minimum cement content of 330 kg /cum	39.69	CUM		
8	Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement -using coarse aggregate and fine aggregate derived from natural sources, Portland Pozzolana / Ordinary Portland /Portland Slag cement, admixtures in recommended proportions as per IS: 9103 to accelerate / retard setting of concrete, to improve durability and workability without impairing strength; including pumping of concrete to site of laying, curing, carriage for all leads; but excluding the cost of centering, shuttering, finishing and reinforcement as per direction of the engineer-in-charge. necessary required water stopper should be provided for all tanks wherever there is a joint in concrete (for every lift).All works above plinth level upto floor V level				

a)	Concrete of M25 grade with minimum cement content of 330 kg /cum	29.31	CUM		
9	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete up to plinth level.				
a)	Thermo-Mechanically Treated bars of grade Fe-500 D or more.	5519.65	KG		
	FORM WORK				
10	Centering and shuttering including strutting, propping etc. and removal of form for all heights:				
a)	Foundations, footings, bases of columns, etc. for mass concrete.	81.84	SQM		
b)	Walls (any thickness) including attached pilasters, buttresses, plinth and string courses etc.	82.60	SQM		
c)	Suspended floors, roofs, landings, balconies and access platform.	120.89	SQM		
d)	Lintels, beams, plinth beams, girders, bressumers and cantilevers.	137.13	SQM		
e)	Columns, Pillars, Piers, Abutments, Posts and Struts.	74.82	SQM		
f)	Stairs, (excluding landings) except spiral-staircases.	17.84	SQM		
	WATER PROOFING				
11	Providing and applying integral crystalline slurry of hydrophilic in nature for waterproofing treatment to the RCC structures like retaining walls of the basement, water tanks, roof slabs, podiums, reservoir, sewage & water treatment plant, tunnels / subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 parts integral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 parts integral crystalline slurry : 1 part water) for horizontal surfaces and applying the same from negative (internal) side with the help of synthetic fiber brush. The material shall meet the requirements as specified in ACI212-3R-2010 i.e by reducing permeability of concrete by more than 90% compared with control concrete as				

	per DIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystalline slurry shall be capable of self-healing of cracks up to a width of 0.50mm. The work shall be carried out all complete as per specification and the direction of the engineer-in-charge. The product performance shall carry guarantee for 10 years against any leakage.				
	For vertical surface two coats @ 0.70 kg per sqm	16.38	SQM		
12	Providing and applying integral crystalline slurry of hydrophilic in nature for waterproofing treatment to the RCC structures like retaining walls of the basement, water tanks, roof slabs, podiums, reservoir, sewage & water treatment plant, tunnels / subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 parts integral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 parts integral crystalline slurry : 1 part water) for horizontal surfaces and applying the same from negative (internal) side with the help of synthetic fiber brush. The material shall meet the requirements as specified in ACI212-3R-2010 i.e by reducing permeability of concrete by more than 90% compared with control concrete as per DIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystalline slurry shall be capable of self-healing of cracks up to a width of 0.50mm. The work shall be carried out all complete as per specification and the direction of the engineer-in-charge. The product performance shall carry guarantee for 10 years against any leakage.				
	For horizontal surface one coat @1.10 kg per sqm	20.07	SQM		
13	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 4.0 in superstructure	13.76	CUM		

	above plinth level up to floor V level in all shapes and sizes in Cement mortar 1:4 (1 cement : 4 coarse sand)				
	PLASTERING				
14	20 mm cement plaster of mix :				
a)	1 cement: 6 coarse sand	174.02	SQM		
15	12 mm cement plaster of mix :				
a)	1:6 (1 cement: 6 coarse sand)	54.87	SQM		
16	6 mm cement plaster of mix :				
a)	1:3 (1 cement: 3 fine sand)	376.96	SQM		
	PAINTING				
17	Applying one coat of water thinnable cement primer of approved brand and manufacture on wall surface :				
	Water thinnable cement primer	605.85	SQM		
18	Providing and applying white cement based putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete.	186.00	SQM		
19	Wall painting with acrylic emulsion paint of approved brand and manufacture to give an even shade :				
	Two or more coats on new work	186.00	SQM		
20	Distemping with 1st quality acrylic distemper, having VOC (Volatile Organic Compound) content less than 50 grams/ litre, of approved brand and manufacture, including applying additional coats wherever required, to achieve even shade and colour. (Two coats)	419.85	SQM		
21	Finishing walls with Acrylic Smooth exterior paint of required shade :				
	New work (Two or more coat applied @ 1.67 ltr/10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/10 sqm)	174.02	SQM		
22	Finishing walls with textured exterior paint of required shade				
	New work (Two or more coats applied @ 3.28 ltr/10 sqm) over and including priming coat of exterior	60.00	SQM		

	primer applied @ 2.20kg/10 sqm				
23	Kota stone slab flooring over 20 mm (average) thick base laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab, including rubbing and polishing complete with base of cement mortar 1 : 4 (1 cement : 4 coarse sand) :				
	25 mm thick	7.39	SQM		
24	Vitrified Tiles Flooring: Providing and laying vitrified floor tiles in different sizes (thickness not less than 12 mm) with water absorption less than 0.08% and conforming to IS : 15622 of approved make in all colours and shades, laid on min. 20mm (or thickness to make floor level as per site conditions & requirement) thick cement mortar 1:4 (1 cement : 4 coarse sand) set in cement slurry or Gum and pointing the joints to correct lines and levels with 5mm spacer with Epoxy Grout , mixed with matching colour pigment, etc. The rate shall include for making boarder/ inlays of desired width/ dimensions using different shade of tiles if necessary as directed, cost and conveyance of all materials to site, labour charges for laying, loading and unloading, charges for cutting and finishing to the required level/line etc. including cleaning the surface with cleaning solution etc. all complete as directed by Bank Engineer , including grouting the joints with white cement and matching pigments etc., complete				
a)	Size of Tile not less than 1200X600 mm	15.09	SQM		
25	Providing and laying gang saw cut 20 mm thick, mirror polished pre-moulded and pre polished machine cut granite stone of required size and shape of approved shade, colour and texture in walls-wall cladding ,				

	laid over 20mm thick base of cement mortar 1:4 (1cement : 4 coarse sand) including grouting the joints with white cement mixed with matching pigment, epoxy touch ups etc. complete as per direction of Engineer-in-Charge.				
a)	With granite stone of area less than 0.50 sqm.	12.15	SQM		
26	Providing and fixing MS hand rail of approved size by welding etc. to steel ladder railing, balcony railing, staircase railing and similar works, including applying priming coat of approved steel primer and two coats of enamel paint.(for payment purpose only weight of steel members shall be considered excluding fixing accessories such as nuts, bolts,fasteners etc.)make of the M.S. tube as per approval of Engineer-incharge.	78.70	KG		
		SUB TOTAL			₹
I C	FIRST,SECOND AND THIRD FLOOR (RESIDENCE)				
1	Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement -using coarse aggregate and fine aggregate derived from natural sources, Portland Pozzolana / Ordinary Portland /Portland Slag cement, admixtures in recommended proportions as per IS: 9103 to accelerate / retard setting of concrete, to improve durability and workability without impairing strength; including pumping of concrete to site of laying, curing, carriage for all leads; but excluding the cost of centering, shuttering, finishing and reinforcement as per direction of the engineer-in-charge. necessary required water stopper should be provided for all tanks wherever there is a joint in concrete (for every lift).All works above plinth level upto floor V level				

a)	Concrete of M25 grade with minimum cement content of 330 kg /cum	87.79	CUM		
2	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete up to plinth level.				
a)	Thermo-Mechanically Treated bars of grade Fe-500 D or more.	7900.65	KG		
3	Providing and laying Lean concrete mix 1:5:10	17.71	CUM		
	FORM WORK				
4	Centering and shuttering including strutting, propping etc. and removal of form for all heights:				
a)	Suspended floors, roofs, landings, balconies and access platform.	402.55	SQM		
b)	Lintels, beams, plinth beams, girders, bressumers and cantilevers.	334.44	SQM		
c)	Columns, Pillars, Piers, Abutments, Posts and Struts.	224.46	SQM		
d)	Stairs, (excluding landings) except spiral-staircases.	41.15	SQM		
5	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 4 in superstructure above plinth level up to floor V level in all shapes and sizes in Cement mortar 1:6(1 cement : 6coarse sand)	100.38	CUM		
	PLASTERING				
6	20 mm cement plaster of mix :				
a)	1 cement: 6 coarse sand	890.57	SQM		
7	12 mm cement plaster of mix :				
a)	1:6 (1 cement: 6 coarse sand)	919.26	SQM		
8	6 mm cement plaster of mix :				
a)	1:3 (1 cement: 3 fine sand)	597.67	SQM		
	PAINTING				
9	Applying one coat of water thinnable cement primer of approved brand and manufacture on wall surface :	2281.38	SQM		
	Water thinnable cement primer				
10	Providing and applying white cement based putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface	224.21	SQM		

	even and smooth complete.				
11	Wall painting with acrylic emulsion paint of approved brand and manufacture to give an even shade :				
	Two or more coats on new work	224.21	SQM		
12	Distempering with 1st quality acrylic distemper, having VOC (Volatile Organic Compound) content less than 50 grams/ litre, of approved brand and manufacture, including applying additional coats wherever required, to achieve even shade and colour. (Two coats)	1166.60	SQM		
13	Finishing walls with Acrylic Smooth exterior paint of required shade :	890.57	SQM		
	New work (Two or more coat applied @ 1.67 ltr/10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/10 sqm)				
14	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 : 3coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm, including pointing in white cement mixed with pigment of matching shade complete	126.13	SQM		
15	Providing and laying Ceramic glazed floor tiles of size 300x300 mm(thickness to be specified by the manufacturer) of 1st quality conforming to IS : 15622 of approved make in colours such as White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick cement mortar 1:4 (1 Cement :4 Coarse sand), jointing with grey cement slurry @ 3.3kg/sqm including pointing the joints with white cement and matching pigment etc. complete.	23.33	SQM		

16	Vitrified Tiles Flooring: Providing and laying vitrified floor tiles in different sizes (thickness not less than 12 mm) with water absorption less than 0.08% and conforming to IS : 15622 of approved make in all colours and shades, laid on min. 20mm (or thickness to make floor level as per site conditions & requirement) thick cement mortar 1:4 (1 cement : 4 coarse sand) set in cement slurry or Gum and pointing the joints to correct lines and levels with 5mm spacer with Epoxy Grout , mixed with matching colour pigment, etc. The rate shall include for making boarder/ inlays of desired width/ dimensions using different shade of tiles if necessary as directed, cost and conveyance of all materials to site, labour charges for laying, loading and unloading, charges for cutting and finishing to the required level/line etc. including cleaning the surface with cleaning solution etc. all complete as directed by Bank Engineer , including grouting the joints with white cement and matching pigments etc., complete				
a)	Size of Tile not less than 1200X600 mm	237.40	SQM		
17	Kota stone slab flooring over 20 mm (average) thick base laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab, including rubbing and polishing complete with base of cement mortar 1 : 4 (1 cement : 4 coarse sand) :				
a)	25 mm thick	22.16	SQM		
18	Providing and laying gang saw cut 20 mm thick, mirror polished pre-moulded and pre polished machine cut granite stone of required size and shape of approved shade, colour and texture in walls-wall cladding, laid over 20mm thick base of cement mortar 1:4 (1cement: 4 coarse sand) including grouting the joints with				

	white cement mixed with matching pigment, epoxy touch ups etc. complete as per direction of Engineer-in-Charge.				
a)	With granite stone of area less than 0.50 sqm.	42.50	SQM		
19	Providing and fixing MS hand rail of approved size by welding etc. to steel ladder railing, balcony railing, staircase railing and similar works, including applying priming coat of approved steel primer.(for payment purpose only weight of stainless steel members shall be considered excluding fixing accessories such as nuts, bolts, fasteners etc.)M.S. tube	384.30	KG		
20	Providing and fixing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of required dia & hold fast required concrete for fixing length etc., complete.				
a)	Second class teak wood	0.23	CUM		
b)	Anjili wood	0.34	CUM		
21	Providing, commissioning and installation of panelled or panelled and glazed shutters for doors, windows and clerestory windows, including ISI marked M.S. pressed butt hinges bright finished of required size with necessary screws, all complete as per direction of Engineer-in-charge. including brass hinges 100mm-4 nos 3mm thick.200mm brass tower bolt,7 lever mortise lock with 3 key, fixing bright finished brass handles with screws ,door stopper, etc., including all necessary fixing and locking accessories fixed using brass screws.(NF)				
a)	Second class teak wood				
	30 mm thick shutters	11.02	SQM		
22	Providing and fixing ISI marked flush door shutters conforming to IS : 2202 (Part I) decorative type, core of block board construction with frame				

	of 1st class hard wood and well matched commercial 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters including SS hinges, mortise lock, door closer, handle, door stopper, Tower bolt 2 nos. 200mm long and all the necessary fittings and accessories of made of stainless steel. All screws should be Stainless steel.				
a)	30 mm thick including ISI marked Stainless Steel butt hinges with necessary steel screws	16.20	SQM		
23	Providing, supplying, fixing and installation of three channel sliding aluminium windows, ventilators with extruded built up standard tubular sections/ appropriate sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc with provision for mosquito net and grill, locking system . Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge including all necessary fittings and accessories.	59.97	SQM		
24	Painting wood work with Deluxe Multi Surface Paint of required shade. Two or more coat applied @ 0.90 ltr/10 sqm over an under coat of primer applied @0.75 ltr/10 sqm of approved brand and manufacturer	73.24	SQM		

25	Window Grills:- Providing and fixing Tubular Steel Sections of using 25mm SHS 2mm thick welded together required pattern in frames of windows etc. Including applying priming coat with approved steel primer all complete.as per specifications, drawings and direction of Engineer-in-charge complete.				
a)	Fixed to steel windows grills by welding.	521.07	KG		
26	Providing and fixing factory made single extruded WPC (Wood Polymer Composite) solid decorative type flush door shutter of required size comprising of virgin polymer of K value 58-60 (Suspension Grade), calcium carbonate and natural fibers (wood powder/ rice husk/wheat husk) and non toxic additives (maximum toxicity index of 12 for 100 gms) having minimum density of 650 kg/ cum and screw withdrawal strength of 1800 N (Face) & 900 N (Edge), minimum compressive strength 50 N/mm ² , modulus of elasticity 850 N/mm ² and resistance to spread of flame of Class A category with property of being termite/borer proof, water/moisture proof and fire retardant. WPC to be laminated with PVC foil of minimum 14 microns thick of approved design pasted with hot melt adhesive on both faces of shutter and fixing with stainless steel butt hinges of required size with necessary full body threaded star headed counter sunk S.S screws, all as per direction of Engineer-In-Charge including mortise lock, hinges, tower bolt, screws etc. and all necessary fittings and accessories.				
	Frame size 45 x 85 mm	34.20	SQM		
27	Providing and fixing factory made single extruded WPC (Wood Polymer Composite) solid decorative type flush door shutter of required size				

	<p>comprising of virgin polymer of K value 58-60 (Suspension Grade), calcium carbonate and natural fibers (wood powder/ rice husk/wheat husk) and non toxic additives (maximum toxicity index of 12 for 100 gms) having minimum density of 650 kg/ cum and screw withdrawal strength of 1800 N (Face) & 900 N (Edge), minimum compressive strength 50 N/mm², modulus of elasticity 850 N/mm² and resistance to spread of flame of Class A category with property of being termite/borer proof, water/moisture proof and fire retardant. WPC to be laminated with PVC foil of minimum 14 microns thick of approved design pasted with hot melt adhesive on both faces of shutter and fixing with stainless steel butt hinges of required size with necessary full body threaded star headed counter sunk S.S screws, all as per direction of Engineer-In-Charge including mortise lock, hinges, tower bolt, screws etc. and all necessary fittings and accessories.</p>				
	30 mm thick	34.20	SQM		
28	<p>Providing and applying integral crystalline slurry of hydrophilic in nature for waterproofing treatment to the RCC structures like retaining walls of the basement, water tanks, roof slabs, podiums, reservoir, sewage & water treatment plant, tunnels / subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 parts integral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 parts integral crystalline slurry : 1 part water) for horizontal surfaces and applying the same from negative (internal) side with the help of synthetic fiber brush. The material shall meet the requirements as specified in ACI212-3R-2010 i.e by reducing permeability of concrete by more than 90%</p>				

	compared with control concrete as per DIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystalline slurry shall be capable of self-healing of cracks up to a width of 0.50mm. The work shall be carried out all complete as per specification and the direction of the engineer-in-charge. The product performance shall carry guarantee for 10 years against any leakage.				
	For vertical surface two coats @ 0.70 kg per sqm	126.13	SQM		
29	Providing and applying integral crystalline slurry of hydrophilic innature for waterproofing treatment to the RCC structures like retaining walls of the basement, water tanks, roof slabs, podiums, reservoir, sewage & water treatment plant, tunnels / subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 parts integral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 parts integral crystalline slurry : 1 part water) for horizontal surfaces and applying the same from negative (internal) side with the help of synthetic fiber brush. The material shall meet the requirements as specified in ACI212-3R-2010 i.e., by reducing permeability of concrete by more than 90% compared with control concrete as per DIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystalline slurry shall be capable of self-healing of cracks up to a width of 0.50mm. The work shall be carried out all complete as per specification and the direction of the engineer-in-charge. The product performance shall carry guarantee for 10 years against any leakage.				
	For horizontal surface one coat @1.10 kg per sqm	23.33	SQM		
	SUB TOTAL				₹

I D	TERRACE FLOOR				
1	Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement -using coarse aggregate and fine aggregate derived from natural sources, Portland Pozzolana / Ordinary Portland /Portland Slag cement, admixtures in recommended proportions as per IS: 9103 to accelerate / retard setting of concrete, to improve durability and workability without impairing strength; including pumping of concrete to site of laying, curing, carriage for all leads; but excluding the cost of centering, shuttering, finishing and reinforcement as per direction of the engineer-in-charge. necessary required water stopper should be provided for all tanks wherever there is a joint in concrete (for every lift).All works above plinth level upto floor V level				
a)	M30 GRADE	23.23	CUM		
2	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete up to plinth level.				
a)	Thermo-Mechanically Treated bars of grade Fe-500 D or more.	1858.57	KG		
	FORM WORK				
3	Centering and shuttering including strutting, propping etc. and removal of form for all heights:				
a)	Suspended floors, roofs, landings, balconies and access platform.	154.95	SQM		
b)	Lintels, beams, plinth beams, girders, bressumers and cantilevers.	31.90	SQM		
c)	Columns, Pillars, Piers, Abutments, Posts and Struts.	40.32	SQM		
4	Brick work with common burnt clay F.P.S. (non-modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level in all shapes and sizes in Cement	10.40	CUM		

	mortar 1:4 (1 cement : 4 coarse sand)				
	PLASTERING				
5	20 mm cement plaster of mix :				
a)	1 cement: 6 coarse sand	80.06	SQM		
6	12 mm cement plaster of mix :				
a)	1:6 (1 cement: 6 coarse sand)	156.62	SQM		
7	6 mm cement plaster of mix :				
a)	1:3 (1 cement: 3 fine sand)	171.94	SQM		
	PAINTING				
8	Applying one coat of water thinnable cement primer of approved brand and manufacture on wall surface :	408.62	SQM		
	Water thinnable cement primer				
9	Providing and applying white cement based putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete.	42.11	SQM		
10	Wall painting with acrylic emulsion paint of approved brand and manufacture to give an even shade :				
	Two or more coats on new work	198.74	SQM		
11	Distempering with 1st quality acrylic distemper, having VOC (Volatile Organic Compound) content less than 50 grams/ litre, of approved brand and manufacture, including applying additional coats wherever required, to achieve even shade and colour. (Two coats)	328.56	SQM		
12	Finishing walls with Acrylic Smooth exterior paint of required shade :	80.06	SQM		
	New work (Two or more coat applied @ 1.67 ltr/10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/10 sqm)				
13	Providing and fixing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of required dia & length (hold fast lugs or dash fastener shall be paid for separately).				

	Second class teak wood	0.04	CUM		
14	Providing, commissioning and installation of panelled or panelled and glazed shutters for doors, windows and clerestory windows, including ISI marked M.S. pressed butt hinges bright finished of required size with necessary screws, all complete as per direction of Engineer-in-charge. including brass hinges 100mm-4 nos. 3mm thick.200mm brass tower bolt,7 lever mortise lock with 3 key, fixing bright finished brass handles with screws ,door stopper, etc. including all necessary fixing and locking accessories fixed using brass screws.(NF)				
	Second class teak wood				
	30 mm thick shutters	2.10	SQM		
15	Polishing on wood work with ready mixed wax polish of approved brand and manufacture :	2.10	SQM		
16	Vitrified Tiles Flooring: Providing and laying vitrified floor tiles in different sizes (thickness not less than 12 mm) with water absorption less than 0.08%and conforming to IS : 15622 of approved make in all colours and shades, laid on min. 20mm (or thickness to make floor level as per site conditions & requirement) thick cement mortar 1:4 (1 cement : 4 coarse sand) set in cement slurry or Gum and pointing the joints to correct lines and levels with 5mm spacer with Epoxy Grout , mixed with matching colour pigment, etc. The rate shall include for making boarder/ inlays of desired width/ dimensions using different shade of tiles if necessary as directed, cost and conveyance of all materials to site, labour charges for laying, loading and unloading, charges for cutting and finishing to the required level/line etc. including cleaning the surface with cleaning solution etc. all complete as	3.94	SQM		

	directed by Bank Engineer , including grouting the joints with white cement and matching pigments etc., complete				
17	Kota stone slab flooring over 20 mm (average) thick base laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab, including rubbing and polishing complete with base of cement mortar 1 : 4 (1 cement : 4 coarse sand)				
	25 mm thick	7.39	SQM		
18	Providing and laying gang saw cut 20 mm thick, mirror polished pre-moulded and pre polished machine cut granite stone of required size and shape of approved shade, colour and texture in walls-wall cladding, laid over 20mm thick base of cement mortar 1:4 (1 cement: 4 coarse sand) including grouting the joints with white cement mixed with matching pigment, epoxy touch ups etc. complete as per direction of Engineer-in-Charge.				
	With granite stone of area less than 0.50 sqm.	12.86	SQM		
19	Window Grills:- Providing and fixing Tubular Steel Sections of using 25mm SHS 2mm thk welded together required pattern in frames of windows etc. Including applying priming coat with approved steel primer all complete.as per specifications, drawings and direction of Engineer-in-charge complete.				
a)	Fixed to steel windows by welding.	1215.37	KG		
20	Providing, supplying, fixing and installation of three channel sliding aluminium windows, ventilators with extruded built up standard tubular sections/ appropriate sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the	2.25	SQM		

	gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc with provision for mosquito net and grill, locking system . Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge including all necessary fittings and accessories.				
	WATER PROOFING				
21	Providing and applying integral crystalline slurry of hydrophilic in nature for waterproofing treatment to the RCC structures like retaining walls of the basement, water tanks, roof slabs, podiums, reservoir, sewage & water treatment plant, tunnels / subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 parts integral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 parts integral crystalline slurry : 1 part water) for horizontal surfaces and applying the same from negative (internal) side with the help of synthetic fiber brush. The material shall meet the requirements as specified in ACI212-3R-2010 i.e., by reducing permeability of concrete by more than 90% compared with control concrete as per DIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystalline slurry shall be capable of self-healing of cracks up to a width of 0.50mm. The work shall be carried out all complete as per specification and the direction of the engineer-in-charge. The product performance shall carry guarantee for 10 years against any leakage.				
	For vertical surface two coats @ 0.70	37.28	SQM		

	kg per sqm				
22	Providing and laying six courses water proofing treatment with bitumen felt over roofs consisting of first, third and fifth courses of blow or/ and residual bitumen applied hot at 1.45, 1.20 and 1.70 kg per square metre of area respectively, second and fourth courses of roofing felt Type 2 Grade II (glass fibre base self-finished bitumen felt) and sixth and final course of stone grit 6mm and down size or pea sized gravel spread at 6cubic dm per sqm including preparation of surface but excluding grading, complete.				
	For horizontal surface one coat @1.10 kg per sqm	117.02	SQM		
		SUB TOTAL			₹
I E	FRONT CLADING TILES				
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	108.00	SQM		
2	Providing and fixing Jaali wall with necessary steel frame (Steel will paid in KG basis in item no I F 1	18.00	SQM		
		SUB TOTAL			₹
I F	FIRE STAIR				
1	Providing and fixing structural steel frame RHS 50x25x2mm	3221.62	100KG		
2	Painting Steel work with Deluxe Multi Surface Paint to give an even shade. Two or more coat applied @ 0.90 ltr/10 sqm over an under coat of primer applied @ 0.80 ltr/ 10 sqm of approved brand or manufacture	162.00	SQM		

3	Providing and fixing anti bird net including all necessary fitting accessories	143.49	SQM		
SUB TOTAL					₹
I G	SANITARY & WATER SUPPLY				
1	Providing and fixing white vitreous china pedestal type water closet (European type W.C. pan) with seat ,seat cover and lid, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever), conforming to IS : 7231, angle cock, flexible pipe and with all fittings and fixtures complete, including cutting and making good the walls and floors wherever required :				
	W.C. pan with ISI marked white solid plastic seat and lid	6.00	EACH		
2	Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever required CP brass waste coupling with rubber plug, pattern, 32mm dia CP brass bottle trap, pillar tap, angle cock, flexible PVC tub including all necessary fittings and accessories				
a)	White Vitreous China Wash basin size 630x450mm with a pair of 15 mm C.P. brass pillar taps	9.00	EACH		
3	Providing and fixing 8 mm dia C.P. / S.S. Jet with flexible tube upto 1 metre long with S.S. triangular plate to European type W.C. of quality and make as approved by Engineer - in - charge.	4.00	EACH		
4	Bottle trap 31mm single piece moulded with height of 270 mm, effective length of tail pipe 260 mm from the centre of the waste coupling, 77 mm breadth with 25 mm minimum water seal, weighing not less than 260 gms	6.00	EACH		
5	Providing and fixing C.P. brass shower rose with 15 or 20 mm inlet	6.00	EACH		

6	Providing and fixing Stainless Steel A ISI 304 (18/8) kitchen sink as per IS:13983 with C.I. brackets and stainless steel plug 40 mm, including painting of fittings and brackets, cutting and making good the walls wherever required :				
a)	470x420 mm bowl depth 178 mm	6.00	EACH		
7	Providing and fixing 600x450 mm bevelled edge mirror of superior glass (of approved quality) complete with 6 mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washers complete.	9.00	EACH		
8	Providing & fixing 15 mm SS pillar cock of approved make & quality				
a)	15 mm nominal bore.	15.00	EACH		
9	C.P. Brass long body bibcock 15 mm				
a)	15 mm nominal bore	6.00	EACH		
10	Providing and fixing C.P. brass stop cock (concealed) of standard design and of approved make conforming to IS:8931.				
a)	15 mm nominal bore.	6.00	EACH		
11	Providing and fixing C.P. brass angle valve for basin mixer and geyser points of approved quality conforming to IS:8931				
a)	15mm nominal bore	18.00	EACH		
b)	Providing and fixing PTMT towel rail complete with brackets fixed to wooden cleats with CP brass screws with concealed fittings arrangement of approved quality and colour.	6.00	EACH		
12	Providing and fixing PTMT soap Dish Holder having length of 138mm, breadth 102mm, height of 75mm with concealed fitting arrangements, weighing not less than 106 gms.	9.00	EACH		
13	Supplying & fixing Stainless steel floor trap of 100mm inlet & 75mm outlet of self-cleansing design with ss steel grating without vent arm complete, including cost of cutting and making good walls & floor surface etc. complete.	9.00	EACH		

14	Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end) :				
a)	25 mm nominal bore	4.00	EACH		
15	Providing and fixing ball valve (brass) of approved quality, High or low pressure, with plastic floats complete :				
a)	20 mm nominal bore	12.00	EACH		
16	Providing and fixing PTMT towel ring trapezoidal shape 215 mm long, 200 mm wide with minimum distances of 37 mm from wall face with concealed fittings arrangement of approved quality and colour, weighing not less than 88 gms.	3.00	EACH		
17	Providing and fixing rectangular high density polyethylene water storage loft tank with cover, conforming to ISI : 12701, colour of opaque white or as approved by Engineer-in-charge. The rate includes making necessary holes for inlet, outlet & over flow pipes including all necessary fittings & fixtures for tank	2000.00	PER LITRE		
18	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge.				
a)	20 mm nominal outer dia .Pipes.	43.00	RM		
b)	25 mm nominal outer dia .Pipes.	80.00	RM		
19	Providing and fixing PVC pipes, fittings including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes with one step PVC solvent cement and testing of joints complete as per direction of Engineer-in-Charge. Concealed work, including cutting chases and	90.00	RM		

	making good the wall etc. 75mm pipe 4kgf/cm ² with in necessary accessories in joining bint, coupling, elbow, reducing tee, equal tee, union, cross tee etc				
20	Providing and fixing PVC pipes, fittings including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes with one step PVC solvent cement and testing of joints complete as per direction of Engineer-in-Charge. Concealed work, including cutting chases and making good the wall etc. 110mm pipe 4kgf/cm ² with in necessary accessories in joining bint, coupling, elbow, reducing tee, equal tee, union, cross tee etc	100.00	RM		
21	Constructing masonry Chamber 90x90x100 cm inside, in brick work in cement mortar 1:4 (1 cement : 4 coarse sand) for sluice valve, with C.I. surface box 100 mm top diameter, 160 mm bottom diameter and 180 mm deep (inside) with chained lid and RCC top slab 1:2:4 mix (1cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), i/c necessary excavation, foundation concrete 1:5:10 (1cement : 5 fine sand:10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick finished with a floating coat of neat cement complete as per standard design :				
a)	With common burnt clay F.P.S.(non-modular) bricks of class designation 7.5	4.00	EACH		
22	Constructing masonry Chamber 90x90x100 cm inside, in brick work in cement mortar 1:4 (1 cement : 4 coarse sand) for sluice valve, with C.I. surface box 100 mm top diameter, 160 mm bottom diameter and 180 mm deep (inside) with chained lid and RCC top slab 1:2:4 mix (1cement : 2 coarse sand : 4 graded stone aggregate 20 mm				

	nominal size), i/c necessary excavation, foundation concrete 1:5:10 (1cement : 5 fine sand:10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick finished with a floating coat of neat cement complete as per standard design :				
a)	With common burnt clay F.P.S.(non-modular) bricks of class designation 7.5	5.00	EACH		
23	Making soak pit 2.5 m diameter 3.0 metre deep with 45 x 45 cm dry brick honey comb shaft with bricks and S.W. drain pipe 100 mm diameter, 1.8 m long complete as per standard design.				
a)	With common burnt clay F.P.S. (non-modular) bricks of class designation 7.5	3.00	EACH		
		SUB TOTAL			₹
I H	BORE WELL				
	Boring/drilling bore well of required dia for casing/ strainer pipe, by suitable method prescribed in IS: 2800 (part I), including collecting samples from different strata, preparing and submitting strata chart/ bore log, including hire & running charges of all equipments, tools, plants & machineries required for the job, all complete as per direction of Engineer -in-charge, up to 90 metre depth below ground level.				
1	All types of soil				
	300 mm dia	10.00	RM		
	Supplying, assembling, lowering and fixing in vertical position in bore well, unplasticized PVC medium well casing (CM) pipe of required dia, conforming to IS: 12818, including required hire and labour charges, fittings& accessories etc. all complete, for all depths, as per direction of Engineer-in-charge.				
2	150 mm nominal size dia	10.00	RM		

		SUB TOTAL			₹
II	UNDER GROUND WATER STORAGE TANK				
1	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30cm in depth, 1.5m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth, lead up to 50m and lift up to 1.5m and including bailing out of water as directed by Engineer-in-Charge.				
a)	All kinds of soil	18.54	CUM		
2	Close timbering in trenches including strutting, shoring and packing cavities (wherever required) complete. (Measurements to be taken of the face area timbered).				
a)	Depth not exceeding 1.5 m.	24.64	SQM		
3	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - level :All work up to plinth level				
a)	1:4:8 (1 Cement : 4 coarse sand (zone-III) derived from natural sources : 8 graded stone aggregate 40 mm nominal size derived from natural sources)	1.43	CUM		
4	Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement -using coarse aggregate and fine aggregate derived from natural sources, Portland Pozzolana / Ordinary Portland /Portland Slag cement, admixtures in recommended proportions as per IS: 9103 to accelerate / retard setting of concrete, to improve durability and workability without impairing strength; including pumping of concrete to site of laying, curing, carriage for all leads; but excluding the cost of centering, shuttering, finishing and reinforcement as per				

	direction of the engineer-in-charge; All work up to plinth level : necessary required water stopper should be provided for all tanks wherever there is a joint in concrete (for every lift).				
a)	Concrete of M25 grade with minimum cement content of 330 kg /cum	8.56	CUM		
5	Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. above plinth level up to floor five level, excluding cost of centering, shuttering, finishing and reinforcement :				
a)	M30 grade	5.08	CUM		
6	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete up to plinth level.				
a)	Thermo-Mechanically Treated bars of grade Fe-500 D or more.	508.00	KG		
	FORM WORK				
7	Centering and shuttering including strutting, propping etc. and removal of form for all heights:				
a)	Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.	30.00	SQM		
b)	Suspended floors, roofs, landings, balconies and access platform.	13.50	SQM		
	WATER PROOFING				
8	Providing and applying integral crystalline slurry of hydrophilic in nature for waterproofing treatment to the RCC structures like retaining walls of the basement, water tanks, roof slabs, podiums, reservior, sewage & water treatment plant, tunnels / subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 parts integral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 parts integral crystalline slurry : 1 part water) for				

	horizontal surfaces and applying the same from negative (internal) side with the help of synthetic fiber brush. The material shall meet the requirements as specified in ACI212-3R-2010 i.e by reducing permeability of concrete by more than 90% compared with control concrete as per DIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystalline slurry shall be capable of self-healing of cracks up to a width of 0.50mm. The work shall be carried out all complete as per specification and the direction of the engineer-in-charge. The product performance shall carry guarantee for 10 years against any leakage.				
	For vertical surface two coats @ 0.70 kg per sqm	15.00	SQM		
9	Providing and applying integral crystalline slurry of hydrophilic innature for waterproofing treatment to the RCC structures like retaining walls of the basement, water tanks, roof slabs, podiums, reservoir, sewage & water treatment plant, tunnels / subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 parts integral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 parts integral crystalline slurry : 1 part water) for horizontal surfaces and applying the same from negative (internal) side with the help of synthetic fiber brush. The material shall meet the requirements as specified in ACI212-3R-2010 i.e by reducing permeability of concrete by more than 90% compared with control concrete as per DIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystalline slurry shall be capable of self-healing of cracks up to a width of 0.50mm. The work shall be carried out all complete as per specification and the direction of				

	the engineer-in-charge. The product performance shall carry guarantee for 10 years against any leakage.				
	For horizontal surface one coat @1.10 kg per sqm	13.50	SQM		
	PLASTERING				
9	12 mm cement plaster of mix :				
a)	1:6 (1 cement: 6 coarse sand)	21.00	SQM		
	SUB TOTAL				₹
I J	SOUCER DRAIN				
1	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - level :All work up to plinth level				
a)	1:4:8 (1 Cement : 4 coarse sand (zone-III) derived from natural sources : 8 graded stone aggregate 40 mm nominal size derived from natural sources)	3.20	CUM		
	SUB TOTAL				₹
SUMMARY					
I A	LAND DEVELOPMENT				₹
I B	FOUNDATION+GROUND FLOOR				₹
I C	FIRST ,SECOND AND THIRD FLOOR				₹
I D	TERRACE FLOOR				₹
I E	FRONT CLADING TILES				₹
I F	FIRE STAIR				₹
I G	SANITARY & WATER SUPPLY				₹
I H	BORE WELL				₹
II	UNDER GROUND WATER STORAGE TANK				₹
I J	SOUCER DRAIN				₹
I (GT)	GRAND TOTAL OF CIVIL WORKS [I A + I B + I C + I D + I E + I F + I G + I H + II + I J]				₹

SCHEDULE OF QUANTITIES (E&M Services)					
SI.NO	DESCRIPTION	QTY	UNIT	UNIT RATE INCL. GST	AMOUNT INCL. GST
I	ELECTRICAL WORKS				

A	DB, MCB, PANEL, CABLES				
A1	MAIN PANEL BOARD				
1	Supply Design, Fabrication, erection, Testing and Commissioning of Cubicle type fully compartmentalised, freestanding type . Switch boards dust tight and vermin proof fabricated out of 16SWG CRCA sheet, Chemically treated against corrosion and powder coated with approved shade and colours The switch board should have a set of suitably rated TPN Aluminium busbars with the specified current and fault level insulated with heat shrinkable colour coded PVC sleeves and supported using DMC/SMC type busbar support. The design should include 4 KSEB Meters as per the standards of Kerala State Electrical Inspectorate.	1.00	LS		
A2	DISTIBUTION BOARDS				
2	Supplying and fixing following way, horizontal type three pole and neutral, sheet steel, MCB distribution board, 415 V, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. (MCB/RCCB/Isolator)				
	6 way (4 + 18), Double door	3.00	No		
3	Supplying and fixing of following ways surface/ recess mounting, vertical type,415 V, TPN MCB distribution board of sheet steel, dust protected, duly powder painted, inclusive of 200 A tinned copper bus bar, common neutral link, earth bar, din bar for mounting MCBs (but without MCBs and incomer) as required. (Note: Vertical type MCB TPDB is normally used where 3 phase outlets are required.)				
	8 way (4+24), Double Door (Common VDB)	1.00	No		

A3	MCB/ISOLATORS				
4	Supplying and fixing 5 A to 32 A rating, 240/415 V, 10 kA, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required.				
i	Triple Pole 32 A 3 Pole MCB for Lift & Fire Panel	2.00	No		
ii	40A, 4P RCBO 100 mA sensitivity	4.00	No		
iii	6/16/32A Single Pole MCB	35.00	No		
5	INVERTER CIRCUIT CHANGE OVER Supply, Installation, testing and commissioning Inverter changing unit using the followings				
	15A modular socket controlled by 15A modular indicator switch for inverter charging	3.00	No		
	15A modular socket controlled by 15A 2 way modular switch for inverter discharging.	3.00	No		
B	WIRING SYSTEM				
B1	POINT WIRING				
6	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable etc. as required.				
	Group A	59.00	No		
7	Wiring inside the lift shaft for arrangement of one light point at each floor level and one light point at overhead, one light point in lift pit. with 2.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 2.5 sq.mm FRLS PVC insulated copper conductor single core cable etc. as required.				

	Group Control Point	4.00	No		
8	Wiring for twin control light point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, 2 way modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc. as required	18.00	No		
B2	CIRCUIT/SUBMAIN WIRING				
9	Wiring for circuit/ sub-main wiring along with earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required.				
i	2 X 1.5 sq. mm + 1 X 1.5 sq. mm earth wire (DB to SB)	350.00	Mtr		
ii	2 X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire (DB to SB)	300.00	Mtr		
iii	2 X 4 sq. mm + 1 X 4 sq. mm earth wire (Power Socket, AC, Geyser, Inside Lift pit provided at alternate floor etc.)	400.00	Mtr		
B3	CABLES				
10	Supply of PVC/XLPE insulated armoured cable with aluminium conductors for working voltages up to and including 1100 volts conforming IS 1584/part I/1988 for PVC IS 7098 part I for XLPE grade of following size				
i	4 sqmm 2 core PVC/ XLPE insulated armoured cable with aluminium conductors for working voltages up to and including 1100 volts conforming IS 1584/part/1988 for PVC IS 7098/part I for XLPE Out Side Lighting & Water Pump	45.00	Mtr		
ii	16 sqmm 4 core PVC/XLPE insulated armoured cable with aluminium conductors for working voltages up to and including 1100 volts conforming IS 1584/part I/1988 for PVC IS 7098 part I for XLPE MP to LDB	63.00	Mtr		

11	Laying of one number XLPE power cable of 1.1 KV grade of following size direct in ground in the same trench in one tier horizontal formation including excavation and refilling the trench etc. as required, but excluding sand cushioning and protective covering.				
	Upto 35 sq. mm				
i	Supplying of 4cx16 Sqmm AYFY Cable(MP to LDB)	45.00	Mtr		
ii	Supplying of 2cx4 Sqmm AYFY Cable(Out Side Lighting)	63.00	Mtr		
12	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.				
i	2 X 4 sq. mm (19mm)	10.00	No		
ii	4 X 16 sq. mm (28mm)	8.00	No		
C	PLUG SOCKET				
13	<u>5A Socket</u>				
	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.				
	3 pin 5/6 A socket outlet with 5/6 A switch	48.00	No		
14	<u>TV Power Point</u>				
	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 2 nos. 3 pin 5/6 A modular socket outlet, 2 nos. 5/6 A modular switch, connections, 2 nos. TV antenna socket outlet etc. as required.				
15	<u>16A Socket</u>	3.00	No		
	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 6 pin 5/6 & 15/16 A modular socket outlet and 15/16 A modular switch,	24.00	No		

	connections etc. as required. (Also for geyser in toilet)				
16	<u>1 Ton A/C Point</u>				
	Supplying all materials and fixing modular type 20 A power plug point with 20A 3 pin socket controlled with 20 A DP modular switch with moulded front plate, housed in a suitable factory built MS box using 4 sqmm 1100 V, FRLS PVC insulated stranded Copper conductor and earthing with 4 sqmm green Cu wire continuously run through 25 mm PVC conduit as per IS giving inter connection etc. complete as required.(AC point) the switch shall be fixed at a height of 120 cm from finished floor level . Rate shall be for the average length from DB to the switch board. No claim for additional wire and conduit.				
	Item rate	6.00	No		
D	LIGHT FITTINGS AND FANS				
17	Supplying and fixing call bell/ buzzer suitable for single phase, 230 V, complete as required.	3.00	No		
18	Installation, testing and commissioning of pre-wired, LED Blub fitting / compact LED fitting of all types, complete with all accessories and tube/lamp etc. directly on ceiling/ wall, including connections with 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable and earthing etc. as required.	30.00	No		
19	<u>LED TUBE FITTING</u>				
	Supply and Installation of 1x18 W (4 feet white) patty LED tube fitting on wall or ceiling	38.00	No		
20	<u>BULK HEAD LIGHT</u>				
	Supplying and fixing of Industrial type Oval LED Bulkhead Light with Aluminium Metal Mesh around light	9.00	Each		
21	<u>EXTERIOR LIGHTING</u>				

	Supplying and fixing of Outdoor 5 Watts LED Down Wall Light Aluminium Body Black Colour, Water Proof, Square for fencing wall.	12.00	No		
	Supplying and fixing of 9W High Intensity Discharge Led Bulkhead Light, For Outdoor Lighting.	6.00	No		
	Supplying and fixing of LED 30W LED Flood Light, IP65 Rated Outdoor Light.	3.00	No		
22	<u>EXHAUST FAN</u>				
	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed steel conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable etc. as required.				
i	Group A	10.00	No		
ii	Installation of exhaust fan in the existing opening, including making good the damage, connection, testing, commissioning etc. as required.	10.00	No		
iii	150mm sweep Light Duty Exhaust fan in plastic body with self-opening louvers working on 230V single phase A/C.	10.00	No		
23	<u>CEILING FAN POINT</u>				
i	Supply and Installing 20mm ISI grade rigid PVC conduit and SS hook open on Steel structure ceiling with all accessories (Conduit drops in walls to be concealed) and carrying out wiring using 1.5 sq mm PVC insulated FRLS single core copper conductor wires, for phase & neutral along with 1 sq.mm PVC insulated FRLS single core copper conductor wire for earth.	18.00	No		
ii	Supplying and fixing two module stepped type electronic fan regulator on the existing modular plate switch box including connections but excluding modular plate etc. as required.	18.00	No		

F	EARTHING STATIONS				
24	<u>PIPE EARTH</u>				
	Earthing with G.I. earth pipe 4.5 metre long, 40 mm dia including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. with charcoal/ coke and salt as required.	4.00	No		
25	<u>EARTHING CONDUCTORS</u>				
i	Providing and fixing 4.00 mm dia copper wire on surface or in recess for loop earthing as required.	75.00	Mtr		
ii	EARTH BENCH Supply and fixing copper earth bench 25x3 mm with all termination using cu sockets etc.	1.00	No		
26	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required.				
i	20 mm	60.00	Mtr		
ii	25 mm	45.00	Mtr		
iii	32 mm	25.00	Mtr		
G	Other items				
27	Lift Panel: Mild Steel Electric Lift 3 Phase Control Panel with following fittings:- 40 A MCCB 4 Pole Isolator as incomer RCBO 40A 4 Pole - 2 no (for Lift motor and control panel) 10 A SP MCB- 6 no (for each floor lift control)				
	Item rate	1.00	No		
28	63A, 4 pole On-Load Change Over Switches In SS Enclosure for connecting external generator to common DB	1.00	No		
29	Single Phase DOL starters for 0.25 to 3 HP motor	1.00	No		
30	2 HP - Single Phase Centrifugal Water Pump	1.00	No		
31	Supply & providing electrical grade rubber floor mats	20.00	sq ft		
32	Supply & providing Caution Boards made from Aluminium metal	3.00	nos		

33	Supply & providing electrical shock treatment chart in three languages (English, Malayalam & Hindi) the chart should be in a wooden frame	1.00	no		
34	Supply & providing First Aid Kit	1.00	no		
H	Lightning Protection				
35	Providing and fixing G.I. tape 20 mm X 3 mm thick on parapet or surface of wall for lightning conductor complete as required.(For horizontal run)	75.00	Mtr		
36	Providing and fixing G.I. tape 20 mm X 3 mm thick on parapet or surface of wall for lightning conductor complete as required.(For vertical run)	55.00	Mtr		
37	Providing and fixing testing joint, made of 20 mm X 3 mm thick G.I. strip, 125 mm long, with 4 nos. of G.I. bolts, nuts, chuck nuts and spring washers etc., complete as required	20.00	Each		
38	Providing and laying C.I. tape 32 mm X 6mm from earth electrode directly in ground as required.	10.00	Mtr		
39	Copper Lightning Arrester 9.2 mm diameter and 915 mm in length with 5 spikes and base plate 8.5x8.5 cm	2.00	Each		
I	Earthing for Lightning Protection				
40	Earthing with G.I. earth pipe 4.5 metre long, 40 mm dia including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. with charcoal coke and salt as required.	1.00	Each		
41	Earthing with G.I. earth plate 600 mm X 600 mm X 6 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. (but without charcoal/ coke and salt) as required.	1.00	Each		
J	Exterior and Outdoor Wall Lighting Accessories				
42	Daily Weekly Programmable Electronic Crono Timer Switch	2.00	Each		

43	SMC (Sheet Moulding Compound) rectangular Junction Box with door fixed to base with hinges for single phase low wattage based lighting system for external illumination with weather proof (IP65) and fire retardant.	4.00	No		
I (ST)	SUB TOTAL OF ELECTRICAL WORKS				₹
II	LIFT (4 STOPS)				
1	Supplying, Installation, testing & Commissioning of Lift with machine room for 13 passenger (884 Kgs) capacity having contract speed of 1.25m/s of serving and handing over in satisfactory working condition of Lifts -4 floor (G+3) approx. travelling 14m (Incl. GST)	1.00	No		
	Requirements				
	opening-centre opening				
	Type of control-Microprocessor based A.C. variable voltage & variable frequency				
	Operation-Microprocessor Based Simplex Selective Collective Control With / Without Attendant				
	Power-Main power supply-AC 3 Phase, 50 Cycles, 415 Volts $\pm 10\%$				
	Light power supply-220 Volts 50Hz LNE				
	Size of lift well-1950 X 2300				
	Size of lift car inside as per latest PWD /NBC-1100 X 2000				
	Type of machine-Gearless				
	Type of doors-Stainless Steel				
	car-Power Operated Centre Opening Sliding Door				
	landing doors & door frame-1-4-Stainless Steel - Hairline Finish				
	Hand Rail-SS Round Handrail				
	Control panel-Car Operating Panel - Fully computerized - based on low-energy multiprocessor technology				
	car enclosure-Stainless Steel				

	including Automatic rescue device complete with dry maintenance free batteries, Visual indication of floor position, VVVF (V3F door operator),coated steel belt instead of conventional rope, Digital floor position indicator, Travel direction indicator, Visual indication through directional arrows on all landings for pre arrival of the car at all floors, Over load warning audio inside the car (lift should not start on over load),Battery operated alarm bell and emergency light duly fed by a suitable inverter with SMF batteries for 30 minutes Backup, protection against over voltage, under voltage and single phasing, ventilation opening in the car body, firemans switch				
	13 passengers lift as above including Annual comprehensive maintenance of 13 passenger MRL lift,1.25MPS, 4 stops, simplex selective collective with/without attendant lifts which include routine preventive and breakdown maintenance for a period of 5 years (after 1year defect liability period) i/c repair, replacement of worn out items with minimum down time warranty & guarantee of repaired/replaced items i/c lamps, battery of ARD lighting system etc. after completion of one year of guarantee period. (Rate quoted shall be including comprehensive maintenance for 5 years. The agency needs to enter into Maintenance contract agreement executed with the Manufacturer and Bank. SD will be released only after drawing supplementary agreement and maintenance of the same for the prescribed years)				
II (ST)	SUB TOTAL OF LIFT WORKS				₹
III	FIRE FIGHTING WORKS				
III A	FIRE HYDRANT SYSTEM				

1	Supply, Installation, Testing and Commissioning Electrically driven Mono block Terrace pump of capacity 450 LPM with all the necessary accessories operating on 3 Ph. 50 Hz. 415 V including foundation bolts etc. complete, The Pump set shall be of 5 HP .	1.00	Nos		
2	Supply, installation, testing and commissioning of Pressure Gauge with required range/capacity.	1.00	Nos		
3	Supply, installation, testing and commissioning of DOL panel for automatic operation of terrace pump with necessary fittings etc., complete	1.00	Nos		
4	Supply, installation, testing and commissioning of Pressure switch	1.00	Nos		
5	Supplying, Installing, testing and commissioning CI Butterfly valve slim seal standard lever operated type PN.10 with required flanges, nuts, bolts etc. complete.	3.00			
	100 mm Dia		Nos		
6	Supply, installation, testing and commissioning of C.I. Non-Return Valve slim seal type PN.10 with required flanges, nuts & bolts, gasket etc. complete				
	100 mm Dia	1.00	Nos		
7	Supplying, installing, testing and commissioning of Cast iron Ball valves with fittings of screwed end type.				
	25 mm Dia	5.00	Nos		
8	Supply, erection, testing and commissioning of Above Ground Piping with M.S 'C' class Pipes confirming to IS: 1239 part - I with fittings confirming to IS:1239 part - II, such as elbows, reducers, flanges etc. Including cutting, Welding, fixing in / on walls, ceiling by using suitable supports. The pipe shall be painted with one coat of primer and two coats of synthetic enamel paint of approved colour.				
a)	100 mm Nominal Dia	36.00	Mtrs		

b)	25 mm Nominal Dia	1.00	Mtrs		
9	Supply, erection, testing and commissioning of Under Ground Piping with M.S 'C' class Pipes confirming to IS: 1239 part - I with fittings confirming to IS:1239 part - II, such as elbows, reducers, flanges etc. Including cutting, Welding, laying underground, by using suitable supports and wrapping with polymer corrosion protection tape with proper overlapping, trimming etc. complete.(Excavation is under client scope)				
	100 mm Nominal Dia	6.00	Mtrs		
10	Supply, erection, testing and commissioning of Hose Reel drum completed with swinging type drum with 19mm dia Rubber braided hose of 30M length and Shut off nozzle, with necessary fittings etc. complete.	4.00	Nos		
11	Supply, installation, testing and commissioning of single acting Air Release Valve with screwed inlet 20 mm dia etc.	1.00	Nos		
12	Supply, fabricating, testing and commissioning of Fire Brigade Inlet connection with 2 nos. of 63 mm dia. built - in NRV instantaneous coupling type arranged on 100 mm dia. etc.	1.00	Nos		
13	Core cutting for walls and beams	6.00	Nos		
14	MS Chanel Supports for laying pipe	10.00	KG		
		SUB TOTAL			₹
III B	FIRE EXTINGUISHERS				
1	Supplying, and fixing of DCP type fire extinguisher of 4 Kgs. Capacity, with initial filling in brand new cylinder with powder coated finish, fitted with Gun metal union, discharge hose, wall mounting bracket etc. complete,	5.00	Nos		
		SUB TOTAL			₹
III C	Fire Signages				
1	Supplying and fixing in position self glowing "FIRE DUCT" sign boards made of luminescent safely, rigid	4.00	EACH		

	sheet in green colour, photo luminescent with two hanging chains & necessary supports to hang it on ceiling.				
2	Supplying and fixing in position self glowing "FIRE EXIT" sign boards made of luminescent safely, rigid sheet in green colour, photo luminescent with two hanging chains & necessary supports to hang it on ceiling.	4.00	EACH		
3	Supplying and fixing in position self glowing "EXIT" sign boards made of luminescent safely, rigid sheet in green colour, photo luminescent with two hanging chains & necessary supports to hang it on ceiling.	4.00	EACH		
SUB TOTAL					₹
SUMMARY					
III A	FIRE HYDRANT SYSTEM				₹
III B	FIRE EXTINGUISHERS				₹
III C	FIRE SIGNAGES				₹
III (ST)	SUB TOTAL OF FIRE FIGHTING WORKS [III A + III B + III C]				₹

SUMMARY FOR E&M WORKS					
I (ST)	SUB TOTAL OF ELECTRICAL WORKS				₹
II (ST)	SUB TOTAL OF LIFT WORKS				₹
III (ST)	SUB TOTAL OF FIRE FIGHTING WORKS				₹
II (GT)	GRAND TOTAL OF E&M WORKS [I (ST) + II (ST) + III (ST)]				₹

TOTAL AMOUNT FOR CIVIL AND E&M WORKS					
I (GT)	GRAND TOTAL OF CIVIL WORKS				₹
II (GT)	GRAND TOTAL OF E&M WORKS				₹
	TOTAL AMOUNT FOR CIVIL AND E&M WORKS [I (GT)+ II (GT)]				₹