

# दि न्यू इन्डिया एश्योरन्स कंपनी लिमिटेड

(भारत सरकार का उपक्रम)

# THE NEW INDIA ASSURANCE COMPANY LTD.

(Govt. of India Undertaking)

पंजीकृत एवं प्रधान कार्यालय : न्यु इन्डिया एश्योरन्स बिल्डिंग, 87, महात्मा गांधी मार्ग, फोर्ट, मुंबई - 400 001. Regd. & Head Office : New India Assurance Bldg., 87, M.G. Road, Fort, Mumbai - 400 001.

CIN No. L66000MH1919GOI000526



# **TENDER NOTICE**

Date: 08/08/2024

Tender No: 06/EST & ESTB /HO-RETENDER/2024-25

Re: Tender for Rennovation of Canteen, 5th Floor.

Tenders are invited in 2 bid system for Renovation of Canteen HO Building 5th Floor.

The work shall be executed as per Specifications & Supervision of the Architect, M/s Rajvilas D Gadkari .

Tender documents can either be downloaded from company's E-procurement portal <a href="https://www.tenderwizard.com/NIAEPROC">www.tenderwizard.com/NIAEPROC</a> or <a href="https://www.newindia.co.in">www.newindia.co.in</a>

The cost of tender is Rs. 1180/- (inclusive of GST) (non-refundable) to be paid by DD favoring The New India Assurance Co. Ltd. payable at Mumbai on or before the last date of submission at the office - Chief Manager, Estate Department, 6<sup>th</sup> Floor, Head Office. EMD for this work is Rs. 30000 /- (without interest) to be paid by DD, favoring The New India Assurance Co. Ltd. payable at Mumbai on or before the last submission at the office of Chief Manager, Estate Department, 6<sup>th</sup> Floor, Head Office. Scanned copy of same (tender fee DD and EMD DD) must also be uploaded on the website <a href="https://www.tenderwizard.com/NIAEPROC">www.tenderwizard.com/NIAEPROC</a>. MSE registered firms are exempted from paying the tender cost and EMD on submission of valid certificate and the MSE certificate shall be uploaded on portal.

The estimated cost of the project is Rs. 25 Lakhs.

Bidders can submit their bid **on or before 02<sup>nd</sup> SEPTEMBER 2024 up to 03:00 PM** through e-procurement only i.e., through www.tenderwizard.com/NIAEPROC. No other mode of bid submission is accepted.

PRE BID MEETING WILL BE HELD ON 16<sup>TH</sup> AUGUST 2024, 03:00 PM at site.

The New India Assurance Company Ltd do not bind themselves to accept any or all bids and reserves the right to accept any or all bids without assigning reason.

Note: No documents except tender fee and EMD DD and MSME certificate to be submitted offline.



Chief Manager

**Estate and Establishment Department** 

## **SPECIAL INSTRUCTIONS TO BIDDERS FOR E-TENDERING**

- 1. Tender document with detailed terms and conditions is available on our Website <a href="www.tenderwizard.com/NIAEPROC">www.tenderwizard.com/NIAEPROC</a>. Interested parties may download the same and participate in the tender as per the instructions given therein, on or before the due date of the tender. The tender shall have to be submitted online through the e-Procurement system on www.tenderwizard.com/NIAEPROC.
  - 2. As a prerequisite for participation in the tender, vendors are required to obtain a valid Digital Certificate of Class IIB (with both signing and encryption component) and above as per Indian IT Act from the licensed Certifying Authorities (For ex. N-codes, Sify, E-mudra etc.) operating under the Root Certifying Authority of India (RCIA), Controller of Certifying Authorities (CCA). The cost of obtaining the digital certificate shall be borne by the vendor. In case any vendor so desires, he may contact our e-Procurement service provider M/s. Antares Systems, for obtaining the Digital Signature Certificate.
  - 3. Corrigendum / amendment, if any, shall be notified on the site www.tenderwizard.com/NIAEPROCIn case any corrigendum / amendment is issued after the submission of the bid, then such vendors, who have submitted their bids, shall be intimated about the corrigendum/amendment by a system-generated email (In case of open tender corrigendum / amendment will be on the public dashboard and no mail will be fired for the vendor who has not participated by that time). It shall be assumed that the information contained therein has been taken into account by the vendor. They have the choice of making changes in their bid before the due date and time.
  - 4. Vendors are required to complete the entire process online on or before the due date of closing of the tender.
  - 5. The Commercial/Price bid of only those vendors shall be opened whose Technical bid is found to be acceptable to us. The schedule for opening the price bid shall be advised separately.
  - 6. Directions for submitting online offers, electronically, against e-Procurement tenders directly through internet:
  - i. Vendors are advised to log on to the website <a href="www.tenderwizard.com/EPROC">www.tenderwizard.com/EPROC</a> and arrange to register themselves at the earliest.
  - ii. The system time (IST) that will be displayed on e-Procurement web pages shall be the time considered for determining the expiry of the due date and time of the tender and no other time shall be taken into consideration.
  - iii. Vendors are advised in their own interest to ensure that their bids are submitted in the e-Procurement system well before the closing date and time of bid. If the vendor intends to change/revise the bid already entered, he may do so any number of times till the due date and time of submission deadline. However, no bid can be modified after the deadline for submission of bids.
  - iv. Once the entire process of submission of online bid is complete, the vendors are required to go to option own bid view through dashboard and take the print of the envelope receipt as a proof of submitted bid.
  - v. Bids / Offers shall not be permitted in the e-Procurement system after the due date / time of tender. Hence, no bid can be submitted after the due date and time of submission has elapsed.
  - vi. No manual bids / offers along with electronic bids / offers shall be permitted.

- 7. Once the Commercial/Price bids are opened, vendors can see the rates quoted by all the participating bidders by logging on to the portal under their user ID and password and clicking on other bid view.
- 8. No responsibility will be taken by and/or the e-Procurement service provider for any delay due to connectivity and availability of website. They shall not have any liability to vendors for any interruption or delay in access to the site irrespective of the cause. It is advisable that vendors who are not well conversant with e-tendering procedures, start filling up the tenders much before the due date /time so that there is sufficient time available with him/her to acquaint themselves with all the steps and seek help if they so require. Even for those who are conversant with this type of e-tendering, it is suggested to complete all the activities ahead of time. It should be noted that the individual bid becomes viewable only after the opening of the bid on/after the due date and time. Please be reassured that your bid will be viewable only to you and nobody else till the due date/ time of the tender opening. The non-availability of viewing before due date and time is true for e-tendering service provider as well as New India Assurance officials.
- 9. New India Assurance and/or the e-Procurement service provider shall not be responsible for any direct or indirect loss or damages and or consequential damages, arising out of the bidding process including but not limited to systems problems, inability to use the system, loss of electronic information etc.
- 10. Bidders should arrange for the Tender Cost/EMD as specified in the tender. The original should be posted/couriered/given in person to the Tender Inviting Authority, within the bid submission date and time of the tender.
- 11. The bidder has to submit the tender document(s) online well in advance before the prescribed time to avoid any delay or problem during the bid submission process.
- 12. The details of the Tender Cost and EMD document submitted physically to the Department before due date of submission of tender and the scanned copies furnished at the time of bid submission online <a href="mailto:should-be-the-same">should-be-the-same</a> otherwise the Tender will be summarily rejected. Ensure that the copies of Tender Cost and EMD are submitted under their respective heads only.
- 13. The Tender Inviting Authority (TIA) will not be held responsible for any sort of delay or the difficulties faced during the submission of bids online by the bidders due to local issues.
- 14. Bidder should take into account all the corrigenda published before submitting the bids online.
- 15. The bidder should see that the bid documents submitted should be free from virus/ and if the documents could not be opened, due to virus, during tender opening, the bid is liable to be rejected
- 16. Please note that if rates are not filled in BOQ, then system will show it as zero. *If bidder fails to quote any rates in the BOQ, then their bid will be considered 'incomplete bid' and their bid will be rejected*. Only complete bids will be considered for further evaluation.
- 17. Tender cost/exemption will be as per government rules applicable to MSME. Please submit relevant certificates in respective heads along with hard copies of the documents in the department for preverification.
- 18. Only bids submitted through online mode will be considered for evaluation.
- 19. If the amount quoted by the L1 bidder is less than 25% of the estimated cost, she/he shall submit a bank guarantee of amount equal to the difference in the amount quoted and total estimated cost. In case of freak

rates for particular items, the L1 bidder shall submit a bank guarantee equal to the difference between the amount quoted and the estimated rate of particular items.

20. In case of any clarification pertaining to e-Procurement process, the vendor may contact the following agencies /personnel:

S.N	Particulars	Company Name	Contact Details
1	FOR e-Tendering Support	M/s. Antares Systems	09923972175 (Mr. Sushant) lokesh.hr@etenderwizard.com
2	For Tender related Queries	The New India Assurance Co. Ltd	022-22708514/511 utkarsh.koshta@newindia.co.in saimohan.patnaikuni@newindia.co.in

## MOST IMPORTANT INFORMATION

Reference No 06/EST.&ESTB/HO/2024-25				
Tender for Renovation of Canteen, 5 <sup>th</sup> Floor.				
Tender publishing date	08/08/2024			
Date of Pre-bid meeting at site	16/08/2024 at 11:00 AM			
Last Date of Bid submission	02/09/2024 before 03.00 PM			
Tender Fees(Non- Refundable)	Rs. 1180/- (inclusive of GST)			
EMD (refundable)	Rs. 30000/-			
Address for communication and submission of EMD and Tender fees.	Chief Manager, Estate Department, 6 <sup>th</sup> Floor, The New India Assurance Co. Ltd., Head Office, New India Assurance Building, 87, M G Road, Fort, Mumbai – 400 001			
Contact Details	Telephone: 022-22708 514/511/505 E-Procurement portal:www.etenderwizard.com/NIAEPROC or https://www.newindia.co.in/portal/TenderNotice			
Architect	M/s Rajvilas D Gadkari Contact no. 9821049457			

## INSTRUCTION FOR FILLING IN TENDER

## 1.0 THE TENDER OFFER:

- 1.1 The tender documents will be available on <a href="https://www.tenderwizard.com/NIAEPROC">www.tenderwizard.com/NIAEPROC</a> as well as www.newindia.co.in
- **1.2** The bidder has to use the E-Tender portal only for participating in the tender (Refer <u>SPECIAL INSTRUCTIONS TO</u> <u>BIDDERS FOR E-TENDERING</u>).
- 1.3 Downloading of tender documents from E-Tender portal is mandatory for tender participation.
- 1.4 The online bids under two bid systems consisting of (1) The Technical Bid and (2) Commercial Bid should be submitted online on E-Tender portal on or before 02/09/2024 before 3.00 PM. The commercial Bill should be quoted excluding GST & other Taxes (if any) which shall be payable by NIA as actuals. The various documents to be submitted Online and Offline along with the Technical and the Commercial Bid are motioned in the Section II and Annexure-1 of this document.
- 1.5 No Offline documents shall be accepted except for tender cost and EMD DD/MSE certificate.
- 1.6 At any time prior to the last date of receipt of bids, the Company may, for any reason, whether at its own initiative or in response to clarifications requested by the prospective bidders, modify the tender documents by clarifications.
- **1.7** The clarifications, if any, issued by the Company at any time before the due date of submission of the bid will become part of the tender document and would be notified on both the websites.
- **1.8** No bid will be accepted after the due date & time.
- 1.9 The details of the Tender Cost/ Bid Security Declaration document submitted physically to the Department before the due date of submission of tender and the scanned copies furnished at the time of bid submission online should be the same otherwise the Tender will be summarily rejected. Ensure that the copies of Tender Cost/Bid Security Declaration are submitted under their respective heads only

## SECTION - II

## **PART A-TECHNICAL BID (ONLINE)**

The scanned copies of the following documents

- **1)Demand Draft** for Tender Document Fees worth Rs. **1180/-(inclusive of 18% GST)** towards Tender Fee drawn in favour of **"The New India Assurance Co., Ltd.,"** payable at Mumbai.
- 2) EMD of Rs 30000/- (in form of Demand Draft/Fixed Deposit Receipt/Bank Guarantee/e-Bank Guarantee, insurance surety Bond)
  - a). Technical Bid as per Annexure-1 and supporting documents.

## PART A-TECHNICAL BID (OFF LINE)

The following documents

- a. Original DD towards tender document Fees i.e, DD of Rs. 1180/-(or MSME Certificate)
- b. Original DD towards EMD i.e, DD of Rs. 30000/-

are required to be submitted offline in physical/hard copies to **The Chief Manager, Estate Department, The New India Assurance Co.**, Ltd., Head Office, New India Assurance Building, 87, M G Road, Fort, Mumbai – 400 001 on or before 02/09/2024 before 3.00 PM in one sealed envelope super scribed as Offline Document Submission for "Tender for Renovation of Canteen, 5<sup>th</sup> Floor."

Failing which the bidder(s) is/are liable to be rejected and their tender may not be opened.

The details of the DD/any other accepted instrument, physically sent, should tally with the details available in the scanned copy and the data entered during submission time. Otherwise the submitted bid will not be acceptable.

## PART B-COMMERCIAL BID (ON LINE ONLY)

a) Commercial Bid as per Annexure-3

Note: No offline documents are required to be submitted for commercial bid.

## SECTION III

#### **GENERAL TERMS & CONDITIONS**

#### 1. PROCEDURE FOR PROCESSING THE TENDER DOCUMENTS:

- 1.1 The Committee constituted by the Company will open the "Technical Bid" electronically and off-line documents cover physically. In case, offline documents sealed cover does not contain Demand Draft towards Earnest Money Deposit and Tender documents fees, the bid offer may be rejected.
- 1.2 The Commercial Bids of Technically qualified bidders will be opened by the Committee electronically in the presence of the bidders who wish to be present for opening, L1 will be identified on the Total Price of the Commercial Bid & Summary.
- 1.3 Any Commercial Bid incomplete in any respect will be disqualified.
- 1.4 This procedure is subject to changes, if any, and the procedure adopted by the Company for opening the tender shall be final and binding on all the parties.

## 2. Location:

- 2.1 Address of the Premises: 5th Floor, New India Assurance Building, 87, M G Road, Fort, Mumbai.
- 2.2 Tenderers must get acquainted with the proposed work and study drawings, designs, specifications, conditions of contract and other conditions carefully before tendering. The Tenderer shall seek clarifications on any item, if required, prior to submitting his tender. No request of any change in rates or conditions for want of information on any particular point shall be entertained after receipt of the tenders.
- 2.3 The Tenderer is advised to inspect the site to ascertain the nature of site, access thereto, location, facilities for procurement of materials, labour rates and execution of the work. The Tenderer shall be deemed to have full knowledge of the site and drawings whether or not he actually inspects them.

#### **GENERAL CONDITIONS**

Contractor will not disclose details of the work to any person or persons except those engaged in its performance, and only to the extent required for the particular portion.

Contractor will not give any item concerning details of the work to the press or a news disseminating agency without prior written approval from NIA / Architect contractor shall not take any pictures / photographs on site without written approval of NIA /Architect.

## A. **DEFINITIONS**:

- 1. The "CONTRACT" means the documents forming the tender and acceptance thereof any the formal agreement executed between NIA and the Contractor together with the documents referred to therein including these conditions, the specifications bills of quantities, designs, drawings and instructions issued from time to time by NIA or any person authorized by the competent Authority, 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 required, have the meanings hereby respectively assigned to them.
- The expressions "Works" or "Work" shall unless there be something either in the subject or context repugnant to such construction, be constructed and taken to mean the works by or by virtue of the contract contracted to the executed whether temporary or permanent and whether original, altered, substituted or additional.
- 4. The "Contractor" shall mean the individual or firm or company whether incorporated or not undertaking the works and shall include the legal personal representative of such individual or the persons composing such firms or company and the permitted assigns of such individual or firm or firms or company.
- The "Contract **Sum"** shall mean in case of item rate contracts, the cost of the works arrived at after extension of the quantities shown in the schedule of quantities by the items rates quoted by the Contractor / Tenderer for the various items.
- **6.** A "Day" shall mean a day of 24 hours from midnight to midnight irrespective of the number of hours worked on that day.
- "Expected risks" are risks due to riots (otherwise than among Contractor's labors / employees) and civil commotions (in so far as both these are uninsurable), wars (whether declared or not), invasions, act of foreign enemies, Hostilities, Civil war, rebellion, insurrection military or usurped power, any act of Governments, damage from aircraft, acts of God such as earthquake, lighting and unprecedented floods, and other causes over which the contractor has no control and accepted as such by NIA of the part of works in respect of which a certificate of completions has been issued.
- **%.** "Market-Rate" shall be the rate as decided by Architects on the basis of the cost of materials and labour at site when the work is to be executed plus the percentage mentioned in **Schedule** `F' to cover all overheads and profits. This is applicable to Extra items.
- **9.** "Schedule" referred to in these conditions shall mean the relevant schedule (s) annexed to the Tender documents / papers issued by NIA of the standard schedule of rates prescribed by NIA and the amendments thereto issued from time to time.
- 10. "Project Architect" shall mean M/s. Rajvilas D Gadkari and will include duly authorized representatives or any other person empowered by them in this behalf to discharge all or any of their functions.
- **11. Architect** shall mean qualified Engineer or nominated official (Authorised official) duly appointed by NIA / Architect who will act on their behalf.
- 12. The competent authority shall mean The Chief Manager, Estate Department, The New India Assurance Co. Ltd., Head Office and will include duly authorised representative / officials or any other person empowered by NIA / Architect in this behalf to discharge all or any of their functions.
- 13. Where the context so requires words imparting the singular only include the plural and vice-versa.
- **14.** Headings and marginal notes to these conditions shall not be deemed to form part thereof or be taken into consideration in the interpretations or constructions thereof of the Contract.

## 15. Foreclosure of Contract in full or in part due to Abandonment or Reduction in scope of work:

If at any time after acceptance of the Tender NIA 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, the Architect / NIA (Authorised official) shall give notice in writing to the effect to the contractor and the contractor shall have no claim to any payment of compensations or other issues 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.

#### **B. TERMINATIONS OF CONTRACT FOR DEATH:**

1. If the Contractor is an individual or a proprietary concern and the individual or the proprietor dies and if the Contractor is a partnership concern and one of the partner dies then unless the Competent Authority is satisfied that the legal representative of the individual contractor or of the proprietor of the concern and in the case of partnership,

the running partners are capable of carrying out and completing the contract, the Competent Authority shall be entitled to cancel the contract / terminate the contract as to liable for payment of any compensations to the estate of the deceased Contractor and / or to the surviving partners of the Contractor's firm on account of the cancellations of the contract. The decision of the competent Authority that the legal representatives of the deceased Contractor or the surviving partner of the Contractor's firm cannot carry out and complete the contract shall be final and binding on the parties. In the event of such cancellation NIA shall not hold the estate of the deceased Contractor and / or the surviving partners of the Contractor's firm liable in damages for not completing the contract.

#### C. CANCELLATIONS OF CONTRACT IN FULL OR PART:

If the Contractor

- 1) At any time makes default in proceeding with the work with due diligence and continues to do so after a notice in writing within 7 days from the NIA/Architect/Authorised Official.
- 2) 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 to given to him in that behalf by the NIA / Architect / Authorised official.
- 3) Fails to complete the works or items of works within individuals / particular date of completion on or before the date (s) of completion and does not complete them within the period specified in a notice given in writing on that behalf by the NIA/Architect.
- 4) Shall offer or give or agree to give to any person in NIA service or to any other person on his behalf any gift or considerations of any kind as an inducement or reward for doing or for bearing to do or for having done or fore borne to do any act in relations to obtaining or execution of this or any other contract for NIA.
- 5) Shall obtain a contract with NIA as a result of running tendering or other non bonafide methods of competitive tendering or.
- 6) Shall obtain / enter into a contract with NIA 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 payments thereof have previously been disclosed in writing to the competent Authority / NIA. Being an individual or if a firm any partner thereof shall at any time being adjudged insolvent or have a receiving order or order for administration of liquidations or composition (other than a voluntary liquidations for the purpose of amalgamation or construction) under an insolvent act for the time being in force or make any conveyance in assignment of his effective or composition or arrangement for the benefit of his creditors or purpose so to, or if any applications be made under any Insolvency Act for the time being in force for the sequestration's of his estate or if a trust deed be executed by him for the benefit of his creditor or.

- 7) Being a company shall pass a resolution or the court shall make an order for the liquidation of its affairs or a receiver or manager on behalf of the debenture holders shall be appointed or circumstances shall arise which entitle the court or debenture holders to appoint a receiver or manager or.
- 8) Shall suffer an execution being levied on his goods and allows it to be continued for a period of 35 days.
- 9) Assigns, transfer, sublets (engagement of labours 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 attempts to assign transfer or subject the entire works or any portion of the work without prior approval of the competent Authority. The competent Authority may without prejudice to any other right to remedy which shall have occurred or shall occur thereafter to the NIA by written notice cancel the contract as whole or only such items of work in default from the contract.
  - 10) NIA shall on such cancellation have power to:
    - i. Take possession of the site and any materials, constructional plant / building etc., implements, stores etc
    - ii. Cary out the incomplete work by any means at the risk and cost of the contractor.
  - 11) On cancellation of the contract in full or in part the site / authorized official shall determine what amount if any, is recoverable from the contractor for completion of the works or part of the works or in case of the works or part of the works is not to be completed the loss or damage suffered by NIA In determining the amount credit shall be given to the contractor for the value of contractor's materials taken over and incorporated in the work and use of tackle and machinery belonging to the contractor.
  - 12) Any excess expenditure incurred or to be incurred by NIA in completing the works or part of the works or the excess loss or damages suffered or may be suffered by NIA as aforesaid after allowing such credit shall be recovered from any money are not sufficient the contractor shall be called in writing to pay the same within 30 days. If the contractor shall fail to pay the required sum within the aforesaid period of 30 days the NIA / Architect / authorised official shall have the right to sell any or all of the Contractor's unused materials, construction plant, implements, temporary buildings etc., and apply the proceeds of the sale thereof towards the satisfaction of any sums due from the Contractor under the contract and if thereafter there by any balance outstanding from the Contractor it shall be recovered in accordance with the provisions of the contract.
  - 13) Any sums in excess of the amounts due to the NIA and unsold materials, construction plant etc., shall be returned to the contractor, provided always that if the cost or anticipated cost of completion by NIA of the work or part of the work is less than the amount which the contractor would have been paid and the completed the works or part of the works such benefit shall not accrue to the Contractor.

## D. TENDERS, RATES ETC.

- 1. The work to be carried out under the contract shall except as otherwise provided in these conditions include all labour, materials, tools, plants, equipments 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 shall unless otherwise stated be held to included waste on materials, carriage and cartage, carrying in, return of empties, hoisting, setting, fitting and fixing in position and all other labours necessary in and for the full and entire execution and completion as aforesaid in accordance with good practice and recognized principles.
- 2. The attached bill of quantities is our best estimate of the job.
- 3. All the quantities therein are approximate, payments will be made on the actual measurements / certified by the Architect / NIA authorised official & project Architect.

- 4. NIA will have the right to omit, alter, add or cancel any of the items of work shown in the schedule without assigning any reason whatsoever and no claim for compensation will be entertained for the same, NIA is further at liberty to carry out any items of work departmentally or through any other contractor and no compensation will be paid to the main contractor on that account.
- 5. Work contained in the Schedule of Quantities comprises the erection of a reinforced concrete structure, with masonry walls, windows / doors, plastering / filling etc. water tanks, plumbing / sanitary work, interior works, electrical work and exterior work within the premises such as roads, paving etc.
- 6. Before submitting the Tender, the contractor shall visit and examine the site situated at 5<sup>th</sup> Floor,New India Assurance Building, 87, M G Road, Fort, Mumbai satisfy himself /herself as to the nature of the existing roads or other means of communications, the character of the soil and of the excavations, the correct dimensions of the work facilities for procuring various construction and other materials and shall obtain generally his own information on all matters and conditions affecting the execution of the works. No extra charge made in consequence of any misunderstanding or incorrect information on any of these points or on the grounds of insufficient description will be allowed. 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.
- 7. It must be clearly understood that the whole of the conditions and specifications are intended to be strictly enforced and that no extra work will be allowed unless they are clearly outside the spirit and meaning of the conditions and have been ordered in writing by NIA / Architect (authorised official)
- 8. Before filling the Tender the Contractor will check all drawing and schedule of quantities and will get an immediate clarification from Architect / NIA as required on items not clearly understood. Any claim for any loss or compensation will not be entertained on this account.
- 9. The rates quoted by the Contractor shall be for finished work measured in site and should include supply of all materials labour, tools tackles, marking out and clearing of the site and liaison charges, with licensed plumbers for preparing plans, line out permission from Municipal Corporation, Statutory bodies etc. unless specifically mentioned otherwise. The rates shall be exclusive of all taxes such as GST & other Tax if any
- 10. The rates quoted by the Contractors should also include for providing all scaffolding, hoists, tackle and other plant, shuttering profiles and apparatus generally required for the proper execution of the work. The contractors shall provided without extra charges all labour and apparatus required by NIA for testing and measuring the works and for weighing measuring, providing or testing the efficiency of any portion of the works and shall also at his own cost provide all planking gang ways, etc. necessary for affording access to every part of the works.
- 11. The rates quoted by the Contractor should cover for necessary transport of materials from place of availability to the site of works.
- 12. The Contractor is expected to quote rate for each item after careful analysis of cost involved for the performance of the completed item considering all specifications and conditions of contract. This will avoid loss of profit or gain in case of curtailment or change of specification for any item. In case it is noticed that the rates quoted by the tenderer for any item are <a href="Abnormally Low Rate">Abnormally Low Rate</a>(ALR). Analysis for such rates will have to be furnished by the tenderer on demand, to satisfy NIA about the reasonableness of the rates. NIA may demand <a href="additional security deposit">additional security deposit</a> for such ALR items in form of Bank Guarantee for difference of amount i.e. estimated rate minus quoted rates. Such additional SD shall be released on successful completion of project and certificate is issued thereof.

#### E. EXTRA ITEMS

1. The NIA (authorised official) shall have the power to make any alterations in, omission from, addition to or substitutions for the schedule of rates the original specifications, drawings, designs and instructions that may appear to him to be necessary or advisable during the progress of the work and the Contractor shall be bound to carry out the such altered / extra / new items of work in accordance with any instructions which may be given to him in writing signed by the NIA, and such alterations, omissions, additions or substitutions shall not invalidate the contract and any altered additional or substituted work which the

contractor on the same conditions in all respects on which he agreed to do the main work. The time for completion of work may be extended for the part of the particular job at the discretion of the NIA, for only such alternations, additions or substitutions of the work, as he may consider as just and reasonable. The rates for such additional, altered or substituted work under this clause shall be worked out in accordance with the following provisions: :-

- a. If the rates for the additional, altered or substituted work are specified in the contract for the work, the contractor is bound to carry out the additional, altered or substituted work at the same rates as are specified in the contract.
- b. If the rates for the additional, altered or substituted work are not specifically provided in the contract for the work, the rates will be derived from the rates for similar class of work as are specified in the contract for the work. The opinion of the Architect / NIA, as to whether or not the rates can be reasonably so derived from the items in this contract, will be final and binding on the contractor.
- c. If the rates for the altered, additional or substituted work cannot be determined in the manner specified in sub clause (a) & (b) above, then the contractor shall, within 7 days of the date of receipt of order to carry out the work, inform the NIA / Architect (authorised official) of the rate which it is his intention to charge for such class of work, supported by analysis of the rate or rates claimed, based on standard market rate analysis hand book published by NBO, and the NIA / Architect shall determine the rates on the basis of the prevailing market rates of materials, transport and labour plus 15% for overheads and contractor profit and pay the contractor accordingly. The opinion of NIA / Architect (authorised official) as to current market rates of materials and labour involved will be final.
- 2. Architect / NIA (authorised official) shall issue instructions to the contractor in regard to what is to be done concerning on object reported by the contractor under the proceeding sub clause and such instruction may be required to contractor to permit the examinations, excavations, or removal by a third party. Architect / NIA (authorised official) may issue instructions to the contractor in regard to be removal and disposal of the same at the expenses of NIA If in the opinion of the Architect / NIA, the above activity has involved the contractor indirect loss of time the NIA / Architect may allow extension of time for the completion of work equal in period to assessed loss of time on this account. The contractor shall not be eligible to claim any financial compensation due to any delay caused in this account.
- 3. NIA shall have the right to direct the contractor to purchase and use materials from any source for the proper execution of work.
- 4. Except if and to the extent otherwise provided by the contract, the provision of the General conditions of contract and special conditions shall prevail over those of any other documents forming part of the contract. Several documents forming the contract are to be taken as mutually, explanatory. Should there be any discrepancy inconsistency error or omission in the contract or any of them the matter may be referred to Architect / NIA who shall give his decisions and issue to the contractor instructions directing in what manner the work is to be carried out. The decision of the Architect / NIA (authorized official) shall be final and conclusive and the contractor shall carry out work in accordance with this decision.
- 5. Works shown upon the drawing but not mentioned in the specifications or described in the specifications without being shown on the drawings shall nevertheless be held to be included in the same manner as if they had been specifically shown upon the drawings and described in the specifications.
- 6. NIA reserves the right to accept or reject any or all the tenders without assigning any reasons. In other words, NIA do not bind themselves to accept the lowest of any tender.
- 7. Tender submitted by tenderer shall remain valid for acceptance for a period of 120 days from the date of opening of the tender. The tenderer shall not be entitled during the said period of 120 days, without the consent in writing of NIA to revoke, or cancel his tender. In case of revoking or cancelling his tender, varying any terms in regard whereof without the consent of NIA in writing the tenderer shall forfeit earnest money paid by him along with the tender.
- 8. In case of discrepancies between schedules of quantities, the specifications and or the drawings thereof, the following order of preference shall be observed.
  - i. Descriptions in Schedule of Quantities.

- ii. Particular specification and special conditions, If any.
- iii. Drawings:

In any case the most stringent of the above three shall apply. The decision of the NIA / Architect in this regard is final. In case of varying or conflicting provisions made in any one document forming part of the Contract NIA shall be the deciding authority with regard to the intentions of the documents.

Any error in descriptions, quantities or rates in schedule of quantities or any omissions there from shall not
vitiate the contract or release the contractor from the execution of the whole or any part of the work
comprising therein according to drawings and specifications or from any of his obligations under the
contract.

#### F. PAYMENT TERMS

- 1. Only One Bill will be paid to the L-1 Contractor after completion of work and certification by the architect subject to retention and other deductions. 10% of the total bill will be retained towards retention money. The same will be paid after completion of the Defect Liability Period.
- 2. Income tax / cess / taxes / other / statutory levies if any shall be deducted from every running bills and final bill payment as applicable from time to time as per Government of India / State Government.
- 3. All running bills (if any) as well as final bills submitted in approved proforma shall be submitted to the Architect by the contractor in quadruplicate for certification. All the bill copies shall be accompanied by measurement sheets and quantity calculation in support of the quantities contained in the bill with soft & hardcopies.
- 4. All the works in progress will be jointly measured by the representative of NIA and the contractor progressively. Such measurements will be recorded in the measurement book by the NIA / Architect or his authorities representative and signed in token of acceptance by the contractor or his authorized representative.
- 5. All items having a financial value shall be entered in the measurement books, level book etc. prescribed by NIA that complete record is obtained of all work performed under the contract.
- 6. For the purpose of taking joint measurements the contractor's representative shall be bound to be present whenever required by the Architect. If, however, he is absent for any reason whatsoever the measurements will be taken by the NIA / Architect or his representative and these will be deemed to be correct and binding on the contractor.
- 7. The contractor shall without extra charges provide assistance with every appliance, labour and other things necessary for measurement of work

#### **G. METHODS OF MEASUREMENTS:**

1. Except where any general or detailed description of work in quantities expressly shows to the contrary schedule of quantities shall be deemed to have been prepared and measurements shall be taken in accordance with the procedure laid forth in specifications not withstanding any provisions in the relevant standard method of measurement or any general or local custom. In the case of items which are not covered by the specifications, measurements shall be taken in accordance with the relevant and latest standard method of measurement issued by the Bureau of Indian Standards. (All Measurements will be noted as per actual without any rounding off)

## H. DEFECT LIABILITY PERIOD (DLP)

- 1. The contractor shall guarantee the installation/work for a period of 12 months from the date of issue of completion certificate. Any damage or defect that may arise or lie undiscovered at the time of issue of completion certificate, connected in any way with the equipment or materials supplied by him or in the workmanship shall be rectified or replaced by the contractor at his own expense as deemed necessary by NIA or in default, NIA may cause the same to be made good by other workmen and deduct expenses (of which the certificate of NIA shall be final) from any sums that may be the or at any time thereafter, become due to the contractor or from his security deposit, or the proceeds of sale thereof, or of a sufficient portion thereof.
- At the end of the defects liability period the contractor shall submit a written application for release of retention money, EMD and Security Deposit. NIA shall release the money only after ensuring that all the defects pointed out by NIA/Architect till completion of DLP have been rectified by the contractor satisfactorily.
- 3. Any amount found due from the contractor to NIA from time to time will be recovered currently from the running bills. Similarly if, at any time, should there evidence of any lien or claim for which NIA might have become liable and which is chargeable to the contractor, NIA shall have the right to retain out of any payment then due or thereafter to become due an amount sufficient to completely indemnify NIA against such lien or claim and if such lien or claim remain unsettled after all payments are made, the contractor shall refund or pay to the owner all money that the latter may be complied to pay in is charging such lien or claim including all costs reasonable expenses.
- 4. The contractor will be fully responsible for rectifying any defects brought to his notice by NIA / project Architect in writing within **seven days of receipt of the intimation**. In case the contractor fails to attend to defects as stipulated therein, NIA reserves the right to complete the rectification through another agency of its choice and recover the cost of such repairs from the contractors dues against running bills/ final bill / retention money for this or any other job.

## I. SECURITY DEPOSIT

- On acceptance of the tender, the successful tenderer shall, within the time stipulated in the letter of intent, deposit with the Employer by Demand Draft, a security deposit of 1% (one percent) of the value of the contract, before he is allowed to execute the contract and commence work.
- 2. Failure to deposit this additional amount, within the stipulated time which shall include any extension granted by the Employer at its discretion, will make the earnest money deposited by the tenderer liable to forfeiture and the acceptance of his tender shall be considered as withdrawn.
- 3. The Security Deposit will be returned after completion of Defect Liability Period.

## J. LIABILITY FOR DAMAGE, DEFECTS AND RECTIFICATION THEREOF

1. If the Contractor or his workmen or employee shall injure or destroy any part of the building in which they may be working or any building road, fence etc., contiguous to the premises on which the work or any part of it is being executed or if any damage shall happen to the work while in progress, the contractor shall upon receipt of a notice in writing in the behalf make the same good at his own expenses. If it shall appear to the NIA / Architect or his representative at any time during the construction or reconstruction or prior to expiration of defects liability period that any work has been executed with unsound, imperfect or unskilled workmanship or that any materials or articles provided by the contractor for execution of the work are unsound or of a quality inferior to that contract for, or otherwise not in accordance with the contract or that any defect, shrinkage or other faults have appeared in the work arising out of defective or improper materials or workmanship, the contractor shall upon receipt of a notice in writing in that behalf from the Architect / NIA

- forthwith rectify or remove or reconstruct the work so specified in whole or in part as the case may require or as the case may be and / or remove the materials or articles so specified and provide other proper and suitable material or article.
- 2. At his own expenses, notwithstanding that the same may have been inadvertently passed, certified and paid for and in the event of his failing to do so within the period to specified by the NIA / Architect may rectify or remove and re execute the work and / or remove and replace with other, materials or articles complained of, as the case may be by either means at the risk and expense of the Contractor.
- 3. In case of repairs and maintenance works, splashes and droppings from white washing, painting etc., shall be removed and surface cleared simultaneously with completing of these items of wok in individual rooms, quarters or premises etc., where the work is done without waiting for completion of all other items of work in the contract. In case the contractor fails to comply with the requirement of this condition the Architect / NIA shall have the right to get the work done by other means at the cost of the Contractor. Before taking such action, however, the NIA / Architect (authorized official) shall give three days' notice in writing to the contractor.

#### K. OVERPAYMENTS AND UNDERPAYMENTS:

- Wherever any claim for the payment of a sum of money to NIA out of or under this contract against the
  Contractor the same may be deducted by NIA from retention money / Security
   deposit or any sum then due or which at any time thereafter may become due to the contractor under this contract
  and failing that under any other contract with NIA or from any other sums due to the contractor from NIA which may
  be available with NIA he shall pay within ten days the claim in cash / Demand Draft on demand.
  - 2. NIA reserves the right to carry out post payment audit and technical examinations of the Running / final bill including all supporting vouchers, abstracts etc. NIA further reserves the right to enforce recovery of any overpayments when detected, notwithstanding the fact that the amount of the final bill may be included by one of the parties as items of disputes before an arbitrator appointed under condition of this contract and notwithstanding the fact that the amount of the final bill figures in the arbitration award.
  - 3. If as a result of such audit and / or technical examinations any overpayments is discovered in respect of any work done by the contractor or alleged to have been done by him under the contract it shall be recovered by NIA from the Contractor by any of all methods or made of recovery as prescribed above or if any under payment is discovered, the amount shall be duly paid to the contractor by NIA.

## L. COMPLETION PERIOD AND COMPENSATION CLAUSE

- 1. The Contractor shall commence work within 7 days from the date of receipt of letter of intent / email from NIA confirming that the purchase order is being awarded to him. The formal purchase order will be typed and mailed in due course after the letter of intent. Completion period for the entire work contained in the tender and such of the extra items, if any, which form an integral part of the contract, contained in the tender is 60 days from the date of commencement of work at site as specified in above. The time limit specified herein will be strictly adhered to and will form the essence of the Contract. 0.5% of total contract value per week up to maximum of 5%, there after the owner may get the work done at contractor's risk and cost.
- 2. The successful contractor will be required to submit PERT / CPM analysis of the entire work within 10 days of issuing the LOI showing completion period as 60 days. Progress of the work shall be checked with the PERT / CPM analysis at various stages of completion. NIA shall have the right to terminate the contract exparty if progress of the work is found to be unsatisfactory and there are no efforts from the contractor's side to make up for the delays if any.

## M. COMPLETION CERTIFICATE

1. The work shall be considered "Virtually Complete" only after the Contractor submits to Architect / NIA the following documents obtained by him through his licensed plumber / Licensed electricians.

a. As soon as the work is completed the contractor shall give notice of such completion to Architect / NIA and within thirty day of receipt of such notice,

Architect /NIA shall inspect the work and shall furnish the contractor with a certificate of completion indicating.

- i. The date of completion.
- ii. Defects to be rectified by the Contractor and /or.
- iii. Items for which payment shall be made at reduced rates.
- 2. When the separate periods of completion have been specified for items or groups of items, Architect / NIA shall issue a separate completion certificate for such item or group of items. No certificate of completion shall be issued, nor shall the work considered to be complete till the contractor shall have removed from the Employers premises on which the work has been executed all scaffolding, sheds, temporary structures and surplus materials except such as are required for rectification of defects, removal all huts and sanitary arrangements required for his workmen on the site in connection with the execution of work as such have been erected by the Contractor or the workmen and clear all dirt from all parts of the building (s) in upon or about which the work has been executed thereof and clean floor, all gutters and drains, ease doors and shutters, oil locks and fastenings, labeled keys clearly and handed them over to the NIA or his representative and made the whole premises fit for immediate occupations or use to the satisfaction of the NIA.
- 3. If the contractor shall fail to comply with of the requirements of these conditions as aforesaid on or before the date of completion of the works, NIA may at the expense of contractor arrange to remove scaffoldings, surplus materials and rubbish etc., as he thinks fit and the contractor shall have no claims in respect of any such scaffolding or surplus materials except for any sum actually realized by the sale there of less the cost of fulfilling to requirements any other amount that may be due from the contractor. If the expense of fulfilling such requirements is more than the amount realized on such disposal as aforesaid the contractor shall forthwith on demand pay such excess.
- 4. The whole of the work including all extra and additional items if any and when ordered are to be completed in the time stated in the contract and the contractor will be required if necessary to work overtime to stick to NIA requirements to complete all the works by the stipulated date. No extra claim for extension of completion period will be allowed on account of this factor.
- 5. The completion period of the entire work as stated above shall be deemed to be the essence of the contract. In case of delay in completing the work beyond the specified completion date the contractor will be required to pay a penalty at the rate of 0.5% of the total contract value per week subject to maximum of 5% of the actual cost of the project, there after the owner may get the work done at contractor's risk. The penalty will be recovered either from the contractor's bills or from the Security Deposit / Retention Money.
- 6. In case of delay of over 5 weeks in completion of the work beyond a stipulated completion date, NIA reserves the right to terminate the contract and get all the jobs completed through another agency of its choice. Any extra expenditure that NIA will have to incur for completion of the balance jobs through another agency on account of higher rates quoted by the agency will be recovered from the contractor's Security Deposit, Retention Money and pending bills.

## N. Extension of completion period

If the work is delayed by

- 1. Force Majeure
- 2. Serious loss or damage by fire or
- 3. Civil commotions, local combinations of workmen, strikes or lockout affecting any of the trades employed on the work, or
- 4. Delay on the part of other contractors or tradesman engaged by NIA in executing work not forming part of contract.
- 5. Non availability of stores, which are the responsibility of NIA to supply.
- 6. Non-availability or breakdown of tools and plant to be supplied or supplied by NIA.

- 7. Request for extension of time to be eligible for considerations, shall be made by the contractor in writing within fourteen days of the happening of the event causing delay. The contractor may also if practicable, indicate in such a request the period for which extension is desired.
- 8. In any such case NIA may give a fair and reasonable extension of time for completion of work. Such extension shall be communicated to the Contractor by NIA in writing within one month of, the date of receipt of such request by NIA.

#### SITE FACILITIES

#### A. SETTING OUT OF WORK

1. The NIA / Project Architect shall supply dimensioned drawings levels and other information necessary to enable the Contractor to set out the works. The Contractor shall provide all setting out apparatus required and set out the works and be responsible for the accuracy of the same. He shall amend at his own cost and to the satisfaction of the NIA / Project Architect any error found at any stage which may arise thought inaccurate setting out unless such error(s) is / are based on incorrect data furnished in writing by NIA / Project Architect in which case the cost shall be on the account of NIA. The Contractor shall protect and preserve all bench marks liability period unless the NIA / Architect directs their removal.

## **B. SITE DRAINAGE:**

1. All water which may accumulate on the site during the progress of works or in trenches and excavations from other than the expected risks shall be removed from the site to the satisfaction of the NIA / Architect at the Contractor's expenses.

#### C. NUISANCE

- 1. The contractor shall not at any time do cause or permit any nuisance on the site or do anything which shall cause unnecessary disturbance or inconvenience to others at or near the site of work.
- 2. The contractor shall all times give access to the staff of statutory bodies as well as other agencies associated with the project and shall provide them all facilities like scaffolding, water, lighting etc. at site for discharging their duties.
- 3. No residential accommodation provided to the workmen/labor at the site. NIA reserve the right for the
- 4. The Contractor shall provide at his cost all temporary lighting arrangement required for the works and to enable contractors and sub-contractors to complete the works in the specified time including that for the workmen of any sub-contractors or special tradesmen.
- 5. NIA may provide **Electricity power on non-chargeable basis** for the works mentioned in the tender at one point. The necessary all electrification, wiring, lighting arrangement (including separate meter installation) shall be made available by the contractor and for which contractor shall not be paid any charges for the same. Misuse of electricity power shall be charged as 0.1% of contract value.

#### D. WATCHING AND LIGHTING:

1. The contractor shall provide and maintain at his own expense all lights, guards, fencing and watching when and wherever necessary or required by the NIA / Project Architect for the protection of the works or for the safety and convenience of those employed on the works or the public.

## E. EQUIPMENT & STAFF ASSISTANCE FROM THE CONTRACTOR

- Theodolite, levels, plumb bobs, prismatic compass, chain, steel and metallic tapes and all other surveying instruments found necessary on the works shall be provided by the Contractor for the due performance of their contract as instructed by NIA. The NIA /Architect will use any or all measurement instruments or tools belonging to the Contractor as and when he chooses for checking the complete works as well as the work in progress.
- 2. All scaffolding and ladders that may be necessary for taking measurement at site will be provided by the Contractor.

- 3. The Contractor shall provide the following minimum equipment and machinery in good working condition at site during the entire period of construction/renovation as and when required.
- 4. The Contractor will be allowed to work for 8 (Eight) hours a day and 7 (Seven) days a week. However, no concreting shall be done during night or in the absence of the NIA / Architect. For working beyond normal working hours the Contractor shall obtain prior permission from the NIA /Architect.

### **EXECUTION**

#### A. Admission to Site:

- 1. The Contractor shall not be permitted to enter on (other than for inspection purposes) or take possession of site until instructed to do so by the Architect / NIA in writing. The portions of the site to be occupied by the Contractor shall be defined and / or marked on the site plan failing which these shall be indicated by the NIA / Architect at site and the operations beyond the areas. In respect of any land permitted by NIA for the use of the Contractor for the purpose of or in connection with the contract. The same shall be subject to the following and such other terms and conditions as may be imposed by NIA.
- **2.**The such use or occupations shall not confer any right of tenancy of the land to the contractor.
- 3. The Contractor shall have no right to put up any constructions of his own of any nature or type on NIA land except temporary constructions for storage of equipment for the work under the contract or as a resting place for labourers employed by him for the work provided that he obtained the requisite previous permission in writing from NIA or from the Architect in accordance with NIA procedure which permission they would be entitled to refuse in their absolute discretion. Such construction will be erected at the contractor's own cost.
- **4.** If any electricity is used in any of such constructions the Contractor shall himself pay for the same. The Contractor shall at his own cost demolish all such constructions and remove the debris thereof, as also all his materials and equipment's and clean and level the site thereof before handing over the completed work to NIA.
- 5. The Contractor shall provide if necessary or if required on the site all temporary access thereof and shall alter adapt and maintain the same as required from time to time and shall take up and clear them away as and when no longer required and as and when ordered by the NIA / Architect and made good all damages done to the site. The Contractor shall note that the final bill will not be certified for the payment till the action as above is completed by the Contractor to the entire satisfaction of the NIA / Architect (Authorised official)
- **6.** All the work shall be carried out as per detailed drawings and instructions of the Architect / NIA (Authorised official)
- 7. All drawings, tracings, photo prints and writings (except letter) shall be the sole property of Architect / NIA and must be returned to them on completion of the works.
- **8.** The drawings maintained on the site are to be carefully mounted on boards of appropriates size and covered with a coat of approved varnish. They are to be protected for ravages of termites, ants, silver fish and other insects.
- **9.** The completion of the work may entail working in the monsoon also.
- 10. The contractor must maintain a minimum labour force as may be required for the job and plan and execute the construction and erection according to the prescribed schedule. No extra rate will be considered for such work in monsoon.
- 11. During the execution of the work, Contractor must check his work with the drawings. The Contractor shall be responsible for all the errors in this connection and shall have to rectify all defects and / or error at his own cost, failing which NIA reserves the right to get the same rectified at the risk and cost of the Contractor.

## B. MATERIAL TO BE PROVIDED BY THE CONTRACTOR.

1. The Contractor shall at his own expense and without delay supply to the NIA / Project Architect, samples of materials proposed to be used in the work. The NIA / / Project Architect shall within 15 days of supply of samples or within such period as he may require intimate to the Contractor in writing and inform the

Contractor whether samples are approved by him or not. If the samples are not approved, the Contractor shall forthwith arrange to supply to the NIA / Project Architect for his approval fresh samples complying with the specification laid down in the contract. A set of all approved samples shall be maintained at site under lock& key by the Architect / NIA.

- 2. Architect / NIA shall have full power to require removal of any or all the materials brought to the site by the Contractor which are not in accordance with the contract specifications or do not confirm in character or quality to sample approved by him. In case of default on the part of the Contractor in removing rejected materials, the Architect / NIA shall be at liberty to have them removed by other means. The Architect / NIA shall have full power to procure other proper materials and in the event of the Contractor refusing to comply, he may cause the same to be supplied by other resources. All costs which may attend upon / incurred upon such removal and / or substitution shall be borne by the Contractor.
- 3. The Contractor shall indemnify NIA or any employee of NIA against any action, claim or proceeding relating to infringement or use of any patent or design or any alleged patent design rights and shall pay any royalties or other charges which may be payable in respect of any articles or materials or part thereof included in the contract. In the event of any claim being made or action being brought against NIA or any agent, servant or employees of NIA in respect of any such matters as aforesaid the Contractor shall immediately be notified thereof.
- 4. NIA / Project Architect shall be entitled to have tests carried out as specified in the contract for any materials supplied by the Contractor, other than those for which as stated above, satisfactory proof has already been furnished, at the cost of the Contractor and the Contractor shall provide at his expense all facilities which the NIA / Project Architect require for the purpose. IF no tests are specified in the contract and such tests are required for the purpose and the charges for these tests shall be borne by the Contractor only. The cost of materials consumed in the test shall be borne by the Contractor in all cases except when otherwise provided.
- 5. Representative of NIA connected with the contract, shall be entitled at any time to inspect and examine any materials intended to be used in or on the work, either on the site or at factory or workshop or at other place (s) manufactured or at any places where these are laying or from which these are being obtained and the Contractor shall give such facilities as may be required for such inspection and examination.
- 6. Trees designated by the NIA / Project Architect shall be protected from damages during the course of the works and earth level within 1 metre of each such tree shall not be damaged, when necessary such trees shall be protected by providing temporary fencing.

#### C. LABOUR

- The Contractor shall employ labour in sufficient number either directly or through sub contractors
  when such subletting is permitted to maintain the required rate of progress and of quality to ensure
  workmanship of the degree specified in the contract and to the satisfaction of the NIA / Architect. The
  Contractor shall not employ in connection with the works any person who has not completed his
  Eighteenth year of age.
- 2. In case of any class of work for which there is no such specification supplied by NIA as is mentioned in the tender documents, such work shall be carried out in accordance with Indian Standard Specifications and if the Indian Standard Specifications do not cover the same the work should be carried out as per standard Engineering practice subject to the approval of the Architect /NIA.
- 3. The contractor shall on the written request of NIA / Architect immediately dismiss from the works any person employed by him therein who may in the opinion of NIA be incompetent or misconduct himself and such person shall not again be employed on the works without the written permission of NIA/Architect(authorized official)
- 4. The Contractor or his agent shall be in **attendance at the site (s)** during all working hours and shall supervise / superintend the executions of works with such additional assistance in each trade as the NIA / Architect may consider necessary. Order given to the Contractor agent shall be considered to have the same force as if they have been given to the Contractor himself.
- 5. Architect / NIA shall communicate or confirm his instructions to the Contractor in respect of the executions of work in a "work site order book" maintained in the office authorised representative shall

- confirm receipt of such instructions by signing the relevant entries in the book.
- 6. Any instructions issued by the Architect / NIA orally, shall be of no immediate effect but shall be confirmed in writing by the Contractor to the site NIA / Architect within seven days and if not dissented from in writing by the Architect / NIA to the Contractor within 7 days from receipt contractor's confirmation shall take effect as from the expirationsofthelettersaid7daysofgivingsuchoralinstructionsshall himself confirm the same in writing, then the Contractor shall not be obliged to confirm as aforesaid and the said instruction shall take effect as from the date of NIA / Architect confirmation and provided that if neither the Contractor nor the Architect / NIA shall confirm such oral instructions in the manner and at the time aforesaid but the Contractor shall nevertheless comply with the same then the Architect / NIA may confirm the same in writing at any time prior to the issue of the Final certificate and the said instructions shall thereupon be deemed to have taken effect on the date on which it was issued.
- 7. The Contractor shall provide and do everything necessary for the proper execution of the works according to the true intent and meaning of the drawings and specifications taken together, whether the same may or may not be particularly shown on the drawings, or described in the Schedule of Quantities, provided that the same can be reasonably inferred therein from. Figured dimensions and all dimensions and particulars to be taken from the actual work.
- 8. The whole of the work must be proceed with such sections and at such times as directed by NIA
- 9. Architect / NIA (authorised official) may from time to time issue further drawings or written instructions which are hereafter collectively referred to as `Architect's Instructions' in regard to:
  - The variation or modification of the design, quality or quantity of works or the addition or omission or substitution of any work.
  - ii. Any discrepancy in the drawings or between the schedule of quantities and / or drawings and / or specifications.
  - iii. The removal from the site of any materials brought thereon by the contractor and the substitution of any material therefor.
  - iv. The removal or re-execution or both of any works executed by the Contractor.
  - v. The dismissal from the works of any persons employed thereupon.
  - vi. The opening up for inspection of any work covered up.
  - vii. The amending and making good of any defects of works improperly carried out.
- 10. The contractor shall forthwith comply with and execute any work comprised in such Architect's Instructions. Any instructions given verbally shall be deemed as instructions for the proper execution of the works as long as they do not involve any extra charges.
- 11. If the Contractor after receipt of written notice form the Architect / NIA requiring compliance within seven days fails to comply with such drawings or Architect instructions or both as the NIA / Architect may issue, NIA may employ and pay other persons to execute any such drawings or Architect instructions and all cost incurred in connection therewith as certified by the Architect shall be borne by the Contractor or may be deducted from any amount due or that may become due to the contractor under the contract or may be recovered as a debt.

#### D. INSPECTIONS AND APPROVALS:

- All works embracing more than one process shall be subject to examinations and approval at each stage
  thereof and the Contractor shall give due notice to the NIA / Project Architect shall be entitled to appraise
  the quality and extended thereof.
- 2. No work shall be covered up or put out of view and without approval of Architect NIA or his authorized representative and the Contractor shall afford full opportunity for examination and measurement of any work which is about to be covered up or put out of view and for examination or foundations before permanent work is placed thereon. The Contractor shall give due notice to the NIA / Project Architect or his authorised representative wherever any such work or foundation is ready for examination and the NIA

/ Project Architect or his representative shall without unreasonable delay unless he considers it unnecessary and advises the Contractor accordingly attend for the purpose of examination and measuring such work or of examining such foundation he shall, if

required by the NIA / Project Architect uncover such work at the Contractor's expenses.

- 3. Duties and powers of NIA / Project Architect and his authorised representative and other officers of NIA. The duties of the representative of the NIA / Project Architect are to watch and supervise the progress of works and to test and examine any materials to be used or workmanship employed in connection with the works. They shall have no authority to order any work involving any extra payment by NIA or to make any variations in the works except when authorised by the NIA. The NIA / Architect may from time to time in writing delegate to his representative any of the powers and authorities vested in him and shall furnishes to the contractor a copy of all such written delegation of powers and authorities. Any written instructions of written approval given by the representative of NIA / Architect to the Contractor within terms of such delegations shall bind the Contractor and NIA as though it had been given by the NIA / Architect.
- 4. Failure of the representative of Architect to disapprove any work or materials shall not prejudice the power of the NIA / Architect thereafter to disapprove such work or material and to order pulling down removal or breaking upthere of.
- 5. If the Contractor shall be dissatisfied with any decisions of the representative of the Architect / NIA he shall be entitled to refer the matter to the Architect / NIA who shall thereupon confirm, reverse or vary such decisions.
- 6. The whole of the materials (except where otherwise described), stores and equipment required for the faithful performance of the contract must be provided through normal trade channel, and must be the best of their kind available at the time and the Contractor must be responsible for the proper and efficient carrying out of the work. The work must be done in best and most workmanlike manner.
  Samples of all materials to be used must be submitted to the Architect / NIA on the site for approval prior to procurement. The Contractor shall furnish to the Architect / NIA for approval when requested or if required by the specifications, adequate samples of all materials and finished to be used in the work.
  Such samples shall be submitted before the work is commenced and in ample time to permit tests and examinations thereof. All materials finished and applied in actual work shall be fully equal to the approved samples.
- 7. During inclement weather the Contractor shall suspend concreting and plastering for such time as the Architect / NIA may direct and shall protect from injury all works in the course of erection.
- 8. Should the work be suspended by reason of rain, strike, lockouts or other cause the Contractor shall take all precautions necessary for the protection of the work and at his own expense shall make good any damages arising from any of these causes.

- 9. The Contractor shall keep accurate records of weather, temperature, visitors and any other occurrences affecting the progress or quality of the works.
- 10. All shavings, cuttings and other rubbish as it accumulates from time to time during the progress of the works and at completion including that of sub Contractor and specific tradesman to be cleared and carted away and all materials condemned by the Architect / NIA shall be removed from site as and when required during the entire duration of the work at no extra cost.
- 11. The Contractor shall protect all projecting cills and mouldings and all concrete steps from injury during the progress of the work by rough timber casings securely fixed.
- 12. The Contractor shall provide all necessary templates, moulds for circular or shaped work, carpenters or joiners work or any other trade.
- 13. The Contractor shall protect joinery and make good all damages to the same from any cause whatsoever during the performance of the contract and leave perfect to the satisfaction of the Architect / NIA at the time of completion. Before giving up possession, the contractor must see that all doors sashes etc. work easily and shall make all necessary adjustments.
- 14. The Contractor shall provide suitable stone with flat tops and build the same in concrete for temporary bench marks. All the pegs for setting out the work and fixing the necessary levels required for the execution thereof shall if desired by the Architect / NIA likewise be built in masonry at such places and in such manner as NIA may determine.
- 15. Particular care must be taken to see that the floors are not overloaded by stacks of materials during construction. It is important that no load comes on the reinforced concrete floors until they are at least 3 weeks old and at no time must the load placed upon them exceed the load for which they are designed
- 16. The Contractor has to provide all necessary holes, slits and depression etc. in form work and concrete to place pipelines or ancillary services in any form as shown in the drawings or as directed by NIA
- 17. The Contractor shall cover up and protect from injury from any cause all new work also for supplying all temporary doors, protection to windows and any other requisite protection for the whole of the works executed whether by himself or specified tradesmen or sub contractors and any damage caused must be made good by the contractors at his own expenses.
- 18. The Contractor shall provided temporary teakwood barricading upto 4' 0" height from the floor level to all lift walls and / or shafts opening on all floors to safeguard against any accidental fall and maintain them till such time as permanent enclosures are installed. No extra payment will be allowed on the contract sum for complying with this clause.

## E. STATUTORY

1. The contractor shall conform to the provisions of any regulations and by – laws of any water or lighting companies with whose system the structures are proposed to be connected and shall before making any

variations from the drawings that may be necessitated by so conforming give to the Architect / NIA on site written notice specifying the variations proposed to be made and the reason for making to and apply for instructions thereon. In case the contractor shall in due course receive instructions, he shall proceed with the work, conforming to the provision regulations or by-laws to the supply companies and shall provide for and pay all fees and charges.

- 2. The contractor will be fully responsible for complying with all relevant provisions of the Contractor Labour Act and shall pay rates of Wages and observe hours of work/ conditions of employment according to the rules in force from time to time.
- 3. The contractor shall comply with provisions of payment as per the following acts: Payment of wages Act,1936, Workmen's Compensation Act,1923 Industrial Dispute Act, 1947 Minimum Wages Act, 1948 Employees State Insurance Act, 1948 Maternity Benefit Act, 1961, Mines Act, 1952 or
- 4. Any amendments / modifications thereof or any other law relating thereto and rules made there under from time to time. NIA / Architect shall on a report having being made by an inspecting office as defined in the contract labour regulations have the power to deduct from the money due to the Contractor any sum required or estimated to be required for making good the loss suffered by a worker (s) by reasons of no fulfillment of conditions of contract for the benefit of workers no payment of wages or of deductions made from his or their wages which are not justified by the terms of contract or non observance of the said contractor's labour Regulation.
- 5. The contractor shall pay to labour employed by him, and in the case of his giving any part of the work on sub contract he shall ensure and be responsible to see that the sub contractor pays to labour employed by such contractor, wages not less than wage or remuneration as provided in the contract labour (Regulations and Abolition Act) and in the Rules, Regulations andorders.
- 6. The Contractor shall indemnify the NIA against any payments to be made under and for observance of the Regulations aforesaid without prejudice to his rights to claim indemnity from his sub contractor.

## F. SAFETY CODE:

- 1. The Contractor shall at his own expenses arrange for the Safety provisions as amended to these conditions or as required by the NIA / Architect in respect of all labours directly or indirectly employed for performance of the works and shall provide all facilities in connections therewith. In case the contractor fails to make arrangements and provide necessary facilities as aforesaid, the NIA / Architect shall be entitled to do so and recover the cost thereof from the Contractor. Safety precaution to be taken in all respects (till completion of works) including for all concern human being. The contractor shall be responsible for any damage or loss of part / limb or death human being.
- 2. From the commencement to the completion of the works, the contractor shall take full responsibility for the care thereof and of all the temporary works (defined as meaning all temporary works of every kind required in or for the execution, completion or maintenance of the works). In case damage, loss or injury

shall happen to the works or to any part thereof or to temporary works or to any cause whatsoever (save except the Expected Risks as defined in) repair at his (Contractor's) own cost and make good the same so that at the time of completion, the works shall be in good order and condition and in conformity in every respect with the requirements of the contract and NIA instructions. In the event of any such damage, loss or injury happening from any of the Expected Risks the contractor shall if any to the extent required by NIA repair and make good the same as aforesaid at the cost of NIA.

#### G. INSURANCES

- 1. The Insurance for the following will be covered and paid for by the contractor, and contractor shall indemnify the NIA and hold the NIA harmless in respect of all and any expenses arising from any such injury and / or damages in respect of:
  - a. Workmen's Compensation and Risk of Accidents to contractor's own employees.
  - b. Contractors all risk Insurance to cover the total cost of project with third party coverage.
- 2. The contractor has to insured building/site under construction/renovation till completion and it should be place to be employer in the name of the NIA. Contractor shall submit the copy of policy details within 15 days of receipt of LOI/Work order.
- 3. If the contractor and / or his sub contractor fails to effect and keep in force the Insurance referred to above or else where in the contract or any other insurance which he may be required to effect and keep in force, NIA reserves the right to keep in force and such insurances and pay such premium or premia as may be necessary for the purpose and from time to time deduct the amount so paid by NIA as aforesaid from any moneys due or which becomes due to the contractor or recover the same as a debt from the contractor.
- 4. The aforesaid insurance policy / policies shall not be cancelled till the Architect / NIA has agreed to their cancellation.
- 5. The Contractor shall prove to the Architect / NIA from time to time that he has taken out all insurance policies referred to above and has paid the necessary premium for keeping the policies alive till the expiry of the defects liability period.
- 6. The contractor shall ensure that similar insurance policies are taken out by his sub—contractor (if any) and shall be responsible for any claims of losses to NIA resulting from their failure to obtain adequate insurance protections in connection thereof. The contractor shall produce or cause to be produced by his sub—contractor (if—any) as the case may be, the relevant policy or policies and premium receipts as and when required by the Architect /NIA.

## H. NOTICE TO LOCAL BODIES.

1. The contractor shall comply with and give all notices required under any Government authority, instrument, rule or order made under any act of parliament, state laws or any regulations or by-laws of any local authority relating to the works. He shall before making any variations from the contract drawings necessitated by such compliance give to the NIA / Architect a written notice giving reasons for the proposed variations and obtain the Architect instruction therein.

#### I. ARBITRATION

- 1. All disputes or differences of any kind whatsoever which shall at any time arise the parties hereto touching them or concerning the work or execution or maintenance thereof this Contract or the construction operation or effect thereof or to the rights or liabilities of the parties or arising out of or in relation thereto whether during or after determination, foreclosure or breach of this contract (other than those in respect of which the decision of any person is by the contract expressed to be final and binding) shall after written notice by either party to the contract or the other of them and to the Appointing Authority who shall be appointed for this purpose by the Employer, be referred for adjudication to a sole arbitrator to be appointed as here in after provided.
- 2. For the purpose of appointing the sole Arbitrator referred to above, the Appointing Authority will send within thirty days of receipt by him of the written notice aforesaid to the Contractor, a panel of the three names of persons who shall be presently unconnected with the organization for which the work is executed.
- 3. The Contractor shall on receipt by him of the names as aforesaid, select any one of the persons named to be appointed as a sole Arbitrator and communicate his name to the Appointing Authority within thirty days of receipt by his the names. The Appointing Authority shall thereupon without any delay appoint the said person as the sole Arbitrator, if the Contractor fails to communicate such selections as provided above within the period specified, the appointing authority shall made the selection and appoint the selected person as the sole Arbitrator.
- 4. If the appointing Authority fails to send the Contractor the panel of three names as aforesaid within the period specified, the Contractor shall send the Appointing Authority a panel of three names of persons who shall be unconnected with either party. The Appointing Authority shall on receipt by him of the names as aforesaid select any one of the persons named and appoint him as a sole Arbitrator. If the Appointing Authority fails to select the person and appoint him as the sole Arbitrator within 30 days of receipt by him of the panel and inform the Contractor accordingly, the Contractor shall be entitled to appoint one of the person from the panel as a sole arbitrator and communicate his name to the Appointing Authority.
- 5. If the Arbitrator so appointed is unable or unwilling to act or resign his appointment or vacate his office due to any reason whatsoever another sole arbitrator shall be appointed as aforesaid.
  - 6. The work under the Contract shall, however continue during the Arbitration proceeding and no payment due or payable to the Contractor shall be withheld notice on account of such proceedings.
  - 7. The Arbitrator shall be deemed to have entered on the reference on the date he issues notice to both the parties fixing the date of the first hearing.
  - 8. The Arbitrator may from time to time, with the consent of the parties, enlarge the time for making and publishing the Award.
  - 9. The Arbitrator shall give a separate award in respect of each dispute in accordance with the terms of the Contract and give a reasonable award.
  - 10. It is also a term of the Contract that if Contractor (s) do/does not make any demand for arbitration in respect from the Clients / Architects that the bill after due verification is passed for payment of a lesser amount, or otherwise, the arbitration shall be deemed to have been forfeited and Client / Architects shall be relieved and discharged of their liability under this agreement in respect of such claim(s). Further, it is agreed that for the purpose of this clause such notice is deemed to have been received by the

- Contractor(s) within 2 days of posting of the letter by Clients / Architects or when delivered by hand immediately after receipt thereof by the Contractor(s), whichever is earlier. Further, a letter signed by the officials of Clients / Architects that the letter was so posted to the Contractor(s) shall beconclusive.
- 11. The Fees, if any of the Arbitrator shall, if required be paid before the award, be paid half and half by each of the parties. The costs of the reference and of the award including the fees, if any of the Arbitrator who may direct to and by whom and in what manner, such costs or any part thereof shall be paid and may fix of settle the amount of costs to be so paid.
- 12. The award of the Arbitrator shall be final and binding on both the parties.
- 13. Subject to a fore said, the provisions of the Arbitration and Conciliation Act 1996, or any statutory modification of re- enchantment there of and the rules made there under, and for the time being in force, shall apply to the Arbitration proceeding under this Clause.

## SPECIAL CONDITIONS OF CONTRACT

- 1. It shall be distinctly understood that notwithstanding the reviews and suggestion if any, by the NIA or Project Architect the sole and ultimate responsibility for the stability and performance of the form work and staging and all other temporary works shall be that of the Contractor.
- 2. The partners or Directors of the Contractor shall meet the officers of NIA or its consultants at the site of works or at their respective offices whenever requested to do so.
- 3. The Project Architect shall supply to the contractor reasonably complete engineering drawings. All the drawings required for the complete execution of the work shall be submitted by the Architect within 7 days of issue of work order. Bar bending schedules and shop drawings required for proper execution of work shall be prepared by the Contractor and submitted well in advance within 14 days of issue of work order to NIA and its Project Architect to permit scrutiny, corrections resubmissions and final approval without causing any delay in the construction/renovation work.
- 4. The Contractor shall confirm to the provisions of the Government Act relating to the work, and to the regulations and bye-laws of the local authorities. The contractor shall give all notices required by the said act, and obtain all required permission and license and pay all fees payable to such authorities in connection with constructing and maintaining temporary electric and water supply at site for the said project. All aspects of temporary works including their stability shall be the sole and ultimate responsibility of the Contractor.
- 5. NIA reserves the right to use the premises and any portion of site for execution of any work not included in this contract which NIA may desire to get executed by other agencies. The Contractor shall allow all reasonable facilities for the execution of such work but shall not be required to provide any plant or material for such work except by special arrangement with NIA in such a manner as not to impede the progress of the works included in this contract and the Contractor shall not be responsible for any damage or delay which may happen or be occasioned by such work.
  - i. In addition to previous stipulations, the Contractor shall be represented at site at all times during the tenure of the contract by responsible and qualified engineers approved by NIA Such engineer shall form the Contractor's Project Management & Site Supervisory Team. They shall be in constant attendance upon all activities of the work. Contractors staff shall comprise of at least the following to be permanently on site for the entire duration of the project.

- 1. Engineer (Diploma holder with at least 7years' civil and interior works experience) 1person.
- 2. Jr. Engineer(Min. 5years' experience having Diploma Holder civil and interior works experience) 1persons.
- ii. Cost of recovery against materials, utilities or services supplied or arranged for by NIA shall be made by deducting the respective amount from the running as well as final bills.
- 6. Although Schedule of Probable Quantities & Rates has been divided into various sub section, the rates quoted for a particular item of work in one sub section shall be made applicable to similar item of work in any other sub section if that item is not listed in the Schedule of that other sub section.
- 7. This project is subjected to inspection by various audit / vigilance agencies of Government of India / NIA if any inspection of works is carried out by such agencies contractor shall extend his full cooperation to these agencies in examining records, works etc. on inspection by such agencies, any and in their inspection report, if it is pointed out that Contractor has not carried out work according to guideline laid down in this tender documents and also if any recoveries in some items is pointed out therein, same shall be recovered from contractor's R. A. Bills / Final Bill. The items under dispute shall not be paid in full till inspection agency gives their no objection report.
- 8. This work being prestigious NIA, quality of materials & workmanship are expected from the contractor of very high standard.
- 9. The successful tenderer is bound to carry out any item of work up to any deviation in quantities, for the completion of the job.
- 10. The Electrical works is to be executed through licensee electrical contractor only.
- 11. Material testing report can be asked for by NIA. The contractor must cooperate with the employer (NIA) to make available such reports from the manufacturer of the material used in the tender with no extra cost.
- 12. NIA shall be the sole deciding authority on the brand and make of the materials to be used.

## SCHEDULE - F

1	Earnest Money Deposit	:	Rs 30000/-
2	Initial Security Deposit	:	1% of the total tendered amount (for successful bidder)
3	Defects Liability Period (DLP)	:	12 months from the date of issue of <u>virtual completion</u> certificate and handing over the completed work to owners. 24 Months for equipment and fixtures
4	Period of commencement	:	7 days from the date of letter of intent / work order
5	Duration of completion of work	:	60 days
6	Liquidated damages at the rate	:	0.5% of total contract value per week upto maximum of 5% of the contract value, there after the owner may get the work done at contractor's risk and cost i.e. beyond delay of 5 weeks
7	Retention money	:	a) 10% retention money to be kept from every running bill - to be released after completion of DLP
		:	b) Security deposit to be released on expiry of the defects liability period after rectification in executed works.
8	Terms of rate	:	The rates shall be at site of work and Should be excluding of GST
9	Period of validity of tender		120 days from opening of tender
10	Period for honouring interim bill		The interim bills if raised shall be paid within 20 working days of receipt from the architect)
11	Validity of rates after award of work	:	The rates shall be firm for period of 5 Months from the date of award of work or till final completion of work whichever is later. "NO ESCALATION IN PRICES WILL BE ALLOWED"
12	Minimum value of work of Interim bill	:	Only one bill of full contract value

- 13. Upon it becoming reasonably apparent that the work is delayed, the contractor shall forthwith give written notice of the cause of the delay to the client and the Architect. Then the client and the Architect shall as soon as they are able to estimate the length of the delay beyond the date or time aforesaid, make in writing a fair and reasonable extension of time for completion of the work, provided always that the contractor shall use constantly his best endeavor to prevent delay and shall do all that may reasonably be required to the satisfaction of the client and the Architect to proceed with work.
- 14. **Damage for non-completion:** If the contractor fails to complete the works by the date specified in the conditions or within any extended time fixed, the contractor shall pay to NIA a sum calculated at the rate stated in the special conditions as agreed liquidated damages for the period during which the said work shall so remain or have remained incomplete. The client may deduct such damages from any money that is otherwise payable to the contractor, under this contract.
- 15. **Extra Items**: All authorised extra items where rates cannot be derived from tender the contractor shall submit rates, supported by rate analysis worked on the 'actual cost basis' plus 15% towards establishment charges, contractor's overhead and profit & GST etc
- 16. **Deviation in Quantities:** There is no variation limit in tender quantity, for any variation in plus or minus, contractor is supposed to execute the same at quoted rates.
- 17. **Photographs**: The rate quoted shall include the cost of supplying colour photographs of 8" x 10" size including soft copy to employer after completion of work from various angle one set each to Employer and the architect separately in respect of each floor/dept as directed.

#### GENERAL SPECIFICATION

This specification are for the work to be executed items to be supplied and materials to be used in the works as shown and deafened on the drawings and described here in all under the supervision and to the satisfaction of the Architect /Employer.

The workmanship is to be the best available and of a high standard. Use must be made of specialist tradesmen in all aspects of the works, and allowance must be made in the rates for doing so.

The materials and items to be provided by the contractor shall be the best of their respective kinds, approved by the architect in accordance with any samples which may be submitted for approval and generally in accordance with the specifications. Where materials or products are specified in this specification and or / bill of quantities by the name of the manufacture or the brand trade name or catalogue reference the contractor will be required to obtained the approval of the architect / employer before using a material or product other than the specified. The contractor shall produce all invoices, vouchers or receipted accounts for any materials if called upon to do so by the Architect.

Sample of all material are to be submitted to the architect for his approval within 10 days of issue of work order before the contractor orders or delivers in bulk to the site. Also, the contractor will be required to submit specimen finishers of colors, fabrics etc, for the approval of the architect before proceeding with the works. Should it be necessary to prepare shop drawings, then four copies of such drawings shall be submitted for the approval of the architect who will retain ONE copes all at the contractors expenses.

#### TIMBER:

Timber generally is to be best of its kind, well and properly seasoned, of mature growth, free from worm holes large loose or dead notes or other defects and sawn die square and will not suffer warping, splitting or other defects through improper handling.

The hardwood is to be C.P. teak weighing not less then 45 lbs cubic foot with a moisture content tax. Timber is to be out to the required sizes and length as soon as practicable after the works are begun and stored under cover so that the air will circulate freely around it. Journey is to be prepared, immediately after the placing of contract, framed up (but not bonded) and stored until required for fixing in position, when it is to be bonded and waged up. Any portions that warp or develop shakes or other defects are to be replaced before wedging up, the whole of the work is to be framed and finished in a proper and workman like manner in accordance with the detailed drawings and fitted with all necessary motaties straps, belts screws etc. running bonded joints are to be cross tongued with teak on guess and where over 1 - 1/28 thick double tongued. Joiner's work generally unless otherwise specified. Templates boxes and moulds shall be accurately set out and rigidly constructed so as to remain accurate during the time they are in use.

Grounds are to be clean shown, free large knots, splayed as required, plugged and fixed to walls etc. at 1'6" centers. Wood plugs are to be cut on the twist, patent wall plugs or plastic filling may be used in lieu of wood plugs with the approval of the Architect.

All unexposed surfaces of timber e.g. false ceilings, backings fillets backs of doors frames, cupboard framing, grounds etc. are to be treated with ONE coats of approved timber preservative like solignim, kirticite, term seal or cast oral or vacuum pressure impregnated with and approved water soluble timber preservative before fixing or bedding. The quality of timber shall be checked and ensured by the Architect.

#### **JOINTS**

All joints will be standard, mortised and tenon, dovetail, dowe, cross halved, metered tongued and grooved and rebated, nailed or glued but joints, will not be permitted except in exceptional cases, ailed but joints will not be

accepted. All joins shall be smeared with white lead.

Whenever solid wood is specified it shall be as per I.S.I. and of good quality. The type of wood shall be got approved before collecting the same on site. Fabrication of wooden members shall be started only after approval. It shall be free from large, loose, dead of cluster knots, flows, shakes, warps, bends or any other defect. It shall be uniform in substance and of straight fibers as far as possible. It shall free from rats, decay, harmful fungi and other dejects of its usefulness for the purpose for which it is required. The colour of wood shall be uniform as far as possible. The scantlings planks etc. shall be seen in straight lines and planes in the direction of grain and of uniform thickness.

#### FIRST CLASS TEAK WOOD:

First class teak wood shall have no individual hard and sound knots, more than 6 sq.cm. in size and the aggregate area of such knots shall not more than 1% area of piece. The timber shall be closed grained.

#### **SECOND CLASS TEAK WOOD:**

No individual hard and knot's shall be more than 15 sq.cm. in size and aggregate area of such knot's shall not exceed 2% of the area of piece.

#### **GLASS:**

All glass shall be of the best quality, free from specks, bubbles, smokes, veins, air holes, blisters and other defects. The kind of glass to be used shall be as mentioned in the item or specification or in the special provisions or as shown in detailed drawings. Thickness of glass panel shall be uniform. All glass to be approved manufacture complying with IS:3548-196 or as per approved quality and sample.

The compound for glazing to metal is to be special non hardening compound manufacture for the purpose and of 9 brand and quality approved the interior Designer.

In cutting glass, proper allowance shall be made for expansion. Each square of glazing to be in one whole sheet and after cutting the edges to be properly filled. On completion, clean all glass inside and out, replace all cracked scratched or broken panes and leace in good condition to the satisfaction of the Architect.

Only etching is to be used on glass panels. No frosting shall be used.

## **MELAMINE FACED PARTICAL BOARD:**

It should be three layered wood based particle board, such as Nova pan melamine faced pre-laminated on both sides. Particle board should be ISI 3087 FPTH (type II, 1965) marked on edges and should also confirm to German din standard Viz DIN 66761. It should impart good bending strength, modules of elasticity, internal bond strength and screw holding strength. Melamine faced

surface should has resistant to crack at 100 and should pass cigarette burn test.

#### POLISH:

The wooden article to be polished shall be first prepared to smooth surface with 400 fit black water proof sand paper. All dents shall be filled with epoxy putty and to be finally finished with DUCO, N.C. clear lacquer to a silk smooth finish.

#### PLYWOOD:

Plywood for general purpose shall confirm I.S.I. 303-1975.

## **FASTENINGS AND HARDWARE:**

1 THE fixtures and fastenings, that is, but hinges, teened strap hinges, sliding door stoppers, casement window fasteners, casement stays and ventilators catch shall be made of the metal as specified in the item or its specifications.

- 2 They shall be of iron, brass, aluminium, chromium plated iron, chromium plated brass copper oxidized iron copper oxidized brass or anodized aluminum as specified.
- 3 The fixtures shall be heavy type. The fixtures and fastenings shall be smooth finished and shall be such as will ensure case of operation.
- 4 The samples of fixtures and fastenings shall be approved as regards quality and shape before providing them in position.
- 5 Brass and anodized aluminium fixtures and fastenings shall be bright finished.
- 6 Screws, nails, bolts, will be of brass or other non corrosive metal. In hardware, they will match the finish of the hardware tem.
- Nails, in a finished surface shall be neatly punched and the hole filled with wood filler matching the finish. Screws, in a finished surface will be round head, raised head or sunk beneath the surfaces and the hole plugged with a wood plug with matching color and grain of the wood surface, unless especially detailed.

#### HARDWARE:

Hinges, locks, latches, door tracks etc. shall be as specified by the manufacture specified. In any variation of this quality of the substitute shall be equal to or better than the original specified, and samples should be submitted to the Architect for prior approval.

#### HARDWARE AND METALS:

The hardware throughout shall be of approved manufacture and supply well made and equal in every respect to the samples to be deposited with the Architect. The contractor any be required to produce and provided samples from many different sources before the Architect is able to make a decision and he should allow in his rates for so doing. Fittings generally shall have a satin chrome or anodized finish unless otherwise specified, and shall be suitable for their intended purposes.

Screws are to match the finish of the article to be fixed and to be rounded of flat headed or counter sunk as required. Cover up and protect at the brass and bronze surfaces with a thick grease or other suitable protective material, renew as necessary and subsequently clean off and clear away on completion.

Aluminium and stainless steel shall be of approved manufacture and suitable for its particular application. Generally the surfaces of aluminium shall have an anodized finish and both shall comply with the samples approved the Architect. All steel brass, bronze, aluminium and stainless steel articles shall be submitted to a seasonable test for strength; if so required by the Architect at the Contractor's expenses.

All brazing and welds are to be executed in a clean and smooth manner rubbed down and left in the flat test and tidiest way, particularly where exposed.

Chromium plated shall be in accordance with B.S. 1224 or as per approved specification and shall be on a base materials of copper or brass or as specified by Architect.

#### **ENAMEL PAINTS:**

Oil paints shall be of 1st quality and the specified colour and shade, and as approved. The easy mixed paints shall only be used. However, if ready mixed paint of specified shade or tint is not available while ready mixed paint with approved stainer will be allowed. In such a case, the contractor shall ensure that the shade of the paint so allowed shall be uniform.

All the paints shall meet with the following general requirements:

- 1. Paint shall not show excessive setting in a freshly opened full can and shall easily be re-disbursed with a paddle to a smooth homogeneous stage. The paint shall show no curdling, livering, caking or color separation and shall be free from lumps and skins
- 2. Paint as received shall brush easily, possess good leveling properties and show no running or slugging tendencies
- 3. The paint shall not skin within 49 hours in a three quarters filled closed container.

4. The paint shall dry to a smooth uniform finish from the manufactures and generally according to their instructions and without any admixtures what so ever.

Ready mixed paint shall be used exactly as received from the manufactures and generally according to their instructions and without any admixtures what so ever.

#### PLASTIC EMULSIONPAINT:

Pigmented priming coat (emulsion thinned with water) followed by three or more finishing coats of plastic emulsion paint. Pasted filler to be applied every coat exempting the final finishing coat and sanded.

Company name : ASIAN PAINTS

Shade No. ROYAL ATMOS White – for walls Shade No. ROYAL ATMOS White – for ceilings

Shade No. Plastic Emulsion White – for Utility area like kitchen, toilet .

#### **LAMINATES:**

All the laminate to be used shall be of 1.0 / 1.5 mm. thickness in approved the color and shade as proved and specified by the Architect. It shall be as given below.

Company name :Greenlam

Shade No. 5337 Malay Teak (1.00mm) OR

Shade No. 777 Sumatra Teak (1.00mm)

Edge binding 22/0.8mm of Rehau to match the laminate shades. Adhesive -Marine fevicol and Rehau Aquence Bondmaster. All the Grooves provided in between laminte as per drawings to be filled with Polish and exposed all edges with TW beeding Patti with melamine polish.

#### **VENEERS:**

The best quality natural wood veneers of the specified wood and of the specified thickness shall be used. It shall be in matching group and of uniform shade and as per the selection and approval. The contractor shall have to obtained the approval of the prior to pressing of veneers. The contractor shall have to use the brand of veneers as approved by the Architect.

## **RUBBER:**

Natural latex rubber (Geo foam) of specified density and the thickness shall be used for all the cushions and padding for upholstered furniture. Loose cushions of all furniture should have solid foam walling to keep up proper shape.

#### **UPHOLSTERY**:

This will be of first class standard workmanship with webbing no- sag springs, padding and filling as specified on drawing. Covering fabrics will be shown tufted and corded as shown on the drawing.

#### **CUSHION VENTS:**

Brass or aluminum "cushion vents" should be installed at the back or underside of seat cushions (especially) those covered in leather evenly plastic or very tightly woven fabric) to allow air to escape and to prevent torn seams.

## **LIST OF INDIAN STANDARDS REFERED TO**

- 1. IS.No.1200-latest measurement of building and civil engineering work.
- 2. IS. No. 297 1973. Recommendation for maximum permissible moisture content of Timber used for different purposes in different climatic zones.

- 3. S. No. 1141 1973 code of practice for seasoning of timber.
- 4. I.s.No.6534–1971guidingprinciplesforgradingand inspection of timber.
- 5. IS. No. 1200 (part XXI)1973 :Method of measurement of building and civil engineering works. Part XXI wood work and joinery
- 6. IS. 3845 1966. Code of practice for joints used in wooden furniture.
- 7. IS. 4000 1967. Wooden flush doors. Type to method of test for.
- 8. IS. 4970 1973. Key for identification of commercial timbers.
- 9. IS. No. 3364 (part II) 1975, Methods of measurement and evaluation of defects in timber, part II converted timber
- 10. IS. No. 1703 1969. Methods of testing small clear specimens of timber.
- 11. IS. No. 6342 1971. Rosewood logs for production of slicedveneers.
- 12. S. No. 5248 1969. Teak logs for production of sliced veneers.
- 13. I.S.No.2202(partl)1973.Specificationforwoodenflushdoor shutters (solid core type part plywood).
- 14. S. No. 2338 (part I) 1967. Code of practice for finishing of wood and wood based materials part I operations and workmanship.
- 15. S. No. 7630 1975. Methods of sampling of plywood.
- 16. S. No. 303 1975. Specification for plywood for general purposes.
- 17. S. No. 3129 1965. Specification for article board for insulation purposes.
- 18. S. No. 3513 1966. (part III & part IV). High and medium density wood based laminates part III general purposes. Part IV sampling test.
- 19. S. No. 1659 1979 blockboards.
- 20. S. No. 7316 1974. Decorative plywood using plurality of veneers for decorative faces.
- 21. S. No. 3478 1966. High density wood particleboards.
- 22. I. S. No. 1734 (part I to XX). Plywood method of test for Part I: General; PartII: Plywood; PartIII : Battens
- 23. S. No. 1328 1970. Veneer decorative plywood.
- 24. S. No. 710 Marineply.
- 25. S. No. 3087 1965. Wood particle boards (Mediumdensity)
- 26. S. No. 848 1974. Specification for synthetic resinadhesives for plywood. (Phenolic & Aminoplastic)
- 27. I. S. No. 2046 1969. Specification for decorative laminate.

- 28. I. S. No. 8273 1976. Fibrous gypsum plasterboards.
- 29. I. S. No. 2095 1964. Gypsum plasterboards.
- 30. I. S. No. 2542 (part I) 1978. Gypsum plaster concrete and products, methods of test for part I plaster andconcrete.
- 31. I. S. No. 8272 1976. Gypsum plaster for use in the manufacture of fibors plasterboards.
- 32. I. S. No. 2441 1963. Fixing coiling coverings code of practise for.
- 33. I.S.No.2835–1977. Specification for flat transparent sheet glass.
- 34. I. S. No. 2395 (part I) 1966 & 2395(part II) 1967: Painting to concrete, masonary, plaster surfaces code of practice for part I operation and workmanship part II –schedule.
- 35. I. S. No. 3548 1966. Glazing in building code of practice for.
- 36. I. S. No. 6278 1971. White washing and colour washing code of practice for.
- 37. I. S. No. 137 1965. Specification for ready mixed paint brushing, matt or egg shall flat finishing, interior to Indian standards colours as required.
- 38. I. S. No. 133 1975. Specification for ready mixed paint brushing. Wooden coating, interior to Indian standardcolours.
- 39. I. S. No. 129 1950. Specification for ready mixed paint brushing grey filler for enamel for use overprimer.
- 40. I. S. No. 129 1950. Specification for ready mixed paint brushing, finishing, interior, oil glos, for general purposes tolndianstandard colours.
- 41. I. S. No. 120 1950. Specification for ready mixed paint brushing grey filler for enamel for use overprimer.
- 42. I.S.No.533–1973. Specification for gums pirit of turpentine (oil of tarpentine).
- 43. I. S. No. 101 1964. Methods of test for ready mixed paints andenamel.
- 44. I. S. No. 75 1973. Specification for linseed oil, andrefined.
- 45. I. s. No. 77 1976. Specification for linseed oil, oiled forpaint.
- 46. I. S. No. 124 (part I) 1976. Specification for ready mixed paint brushing, finishing, semi gloses, for general purposes.
- 47. I. S. No. 5884 Specification for woollen carpets.
- 48. I. S. No. 104 1979. Specification for ready mixed paint brushing, finishing, zinc chromeprimer.
- 49. I. S. No. 5391 1969. Adjustable metal chairs for use of typist and operators in telephoneexchanges.
- 50. I. S. No. 8756 1978. Ball catches for use in woodenalmirahs.
- 51. I.S.No.3499–1976(partII)chairs for office purposes metal revolving and tilting.

- 52. I.S.No.5416–1969.Generalpurposewoodenchairsmethodsoftestfor.
- 53. I.S.No.6185–1971. Highchairs specification and safety requirements for.
- 54. I.S.No.4116–1976. Jointsus edin wooden furniture code of practice for.
- 55. I. S. No. 3845 1966. Joints used in wooden furniture code of practice for.
- 56. I. S. No. 7070 1973. Shelving racks wooden (adjustable andnon
  - a. adjustable type).
- 57. I. S. No. 4414 1977. Table tops(wooden)
- 58. I. S. No. 5967 1969., Tables, wooden, methods of testfor.
- 59. I. S. No. 3564 1975. Door closers (hydraulicallyregulated).
- 60. I. S. No. 799 1979. Drawer locks, cupboards and boxlocks.
- 61. I. S. No. 7981 (part i I) 1975. Glossary of terms relating to builders hardware part Ilocks.
- 62. I. S. No. 204 (part I & II) 1978. Tower bolts ferrous metalsand
- 63. Non-ferrous metals.
- 64. IS 456-2000: for Plain and Reinforced Concrete
- 65. IS 5437-1994 for figured, rolled and wired glass
- 66. IS 3548-1988: for glazing in buildings
- 67. IS 10439-1983: for patent glazing
- 68. IS 2835-1987: For flat transparent glass sheets

NB. The various items to be used in the interior decoration work shall be of ISI standards. Whenever the items / products do not have ISI mark / standard, shall be got tested for its quality etc. at the laboratory and necessary testing charges shall be borne by the contractor.

#### **SCHEDULE OF APPROVED MAKES**

Note: The Contractor should obtain prior approval from Architects before placing order for any specific material / agency.

## LIST OF MAKE FOR CIVIL WORKS

S.no	Material		Brand/ Manufacturers OR EQUIVALENT
1	Cement	:	OPC 53 grade conforming to BIS-8112 and approval
2	Reinforcement Steel	:	TMT steel conforming to BIS-1786 and approval of source by Engineer
3	Ready Mix Concrete	:	ACC, BIRLA, Ahlcon or approved equivalent
3	Doors & Windows fixtures/ Fittings:	:	Kitch, Hettich

5 Aluminium Sections. 6 Clear Glass / Clear Glass / Toughened Glass 7 Laminates 8 Synthetic Enamel Paints 9 Oil Bound Distemper 10 Cement Paint 11 Plastic Emulsion Paint 12 Back-up Rod. 13 Superme Industries or equivalent 14 Plastic Emulsion Paint 15 Metal Fire Check Doors 16 Gyspum Board System 17 Glore, Pius Poor Pius Perger (Durocem Extra), Nerolac (Nerocem with titanium), 18 Admixtures for concrete. 19 Cico, Kryton, Penetron 19 Alstine Green Pius Perger (Durocem Extra), Nerolac (Nerocem with titanium), 10 Cement Paint 11 Plastic Emulsion Paint 12 Back-up Rod. 13 Superme Industries or equivalent 14 Gyspum, 15 Metal Fire Check Doors 15 Metal Fire Check Doors 16 Gyspum Board System 17 India Gypsum, 18 Admixtures for concrete. 19 Cico, Kryton, Penetron 19 Plus Perger (Durocem Extra), Nerolac (Nerocem with titanium), 19 Plus Perger (Durocem Extra), Nerolac (Nerocem with titanium), 19 Plus Perger (Durocem Extra), Nerolac (Nerocem with titanium), 19 Cico, Kryton, Penetron 10 Gyspum, 10 Green Ply Century, Archidply, Green Ply 10 Green Ply Century, Archidply, Green Ply 11 Flush Door Shutters. 12 Plywood / Block Board 13 Green Ply Century, Archidply, 14 Teak ply 15 Green Ply Century, Archidply, 16 High Pressure Laminate 16 Glazed Tiles 17 Adhesive for Wood work 17 Evicol J, Vamicol 18 Glazed Tiles 19 PVC Water Stops 10 White Cement. 10 Bird White, J.K. 11 Powder Coating Material Pure Polyester. 11 Powder Coating Material Pure Polyester. 12 Datun, Berger, GoodlassNerolac 13 Pre-coated G.S Windows & Door frames 19 PVC conting Material Pure Polyester. 20 Pre-coated G.S Windows & Door frames 21 Powder Coating Material Pure Polyester. 22 Pre-coated G.S Windows & Door frames 23 Masking Tapes 24 Canding Material Pure Polyester. 25 Dash Eateners, Anchor bolts 26 E.P.D.M. Gaskets. 27 AnandReddiplex, Enviro Seals 28 E.P.D.M. Gaskets. 29 Water proofing Compound 20 Water proofing (Injection Grouting) 21 Glazings / Structural glazings: 22 Glazing Structural glazings: 23 Glaver Poor Compound 24 Water proofing (Injection Grouting)	4	Door Hardware & Fixture	:	Kitch, Hettich
Synthetic Enamel Paints   Serger (Luxol gold), Asian(Apcolite), ICI Dulux (Gloss),	5	Aluminium Sections.	:	Hindalco, Jindal, Indal, Bhoruka,
8 Synthetic Enamel Paints : Berger (Luxol gold), Asian(Apcolite), ICI Dulux (Gloss), 9 Oil Bound Distemper : Asian (Tractor), Berger (Bison), Nerolac 10 Cement Paint : Sonowcem Plus, Berger (Durocem Extra), Nerolac (Nerocem with titanium), 11 Plastic Emulsion Paint : Asian paints Royal Atmos 12 Back-up Rod. : Supreme Industries or equivalent 15 Metal Fire Check Doors : I Navair, Ozone, Godrej 16 Gypum Board System : India Gypsum, 18 Admixtures for concrete. : Cico, Kryton, Penetron 19 Flush Door Shutters. : Century, Archidply, Green Ply 20 WPC Board Alsone or equivalent 21 Flush Door Shutters. : Century, Archidply, Green Ply 22 WPC Board Alsone or equivalent 23 Plywood / Block Board GreenPly , Century, Archidply, 24 Teak ply GreenPly, Century, Archidply 26 High Pressure Laminate Prodima, Fundermax, Trespa 27 Adhesive for Wood work Felvicol, Vamicol 28 Glazed Tiles : RAK, 29 PVC Water Stops : Supreme, Astral, Prince 30 White Cement. : Birla White, J.K. 31 Powder Coating Material Pure Polyester. : Birla White, J.K. 32 Pre-coated G.S Windows & Door frames NCL or equivalent 33 Masking Tapes : Sun control , Wonder Polymer. 34 Masking Tapes : Sun control , Wonder Polymer. 35 Dash Fasteners/Anchor bolts : Hillt, Fischer, Bosch. 36 E.P.D.M. Gaskets. : AnandReddiplex, Enviro Seals 37 Weather & Structural Silicon. : Dow Corning, Wacker, GE 48 Water proofing Compound Pedilite Kryton, Penetron 49 Water proofing forngound Pedilite Kryton, Penetron 40 Water proofing forngound Pedilite Kryton, Penetron 41 Water proofing forngound Pedilite, Kryton, Penetron 42 Water proofing Sheet Alviva Steles Ltd, Everest 43 Multicolor Steel Roding Sheet Alviva Steles Ltd, Everest 44 Alviva Steels Ltd, Everest 45 Alstrong, Alstrong, Alstone, Alucobond 46 Multicolor Steel Roding Sheets : Alstrong, Alstone, Alucobond 47 Vitrified Tiles : RAK 48 Aluminium Cladding sheets : Alstrong, Alstrong, Amstrong, Hunter Douglas 49 Stainless Steel Chandles : Kitch, Ozone, Hettich 40 Calcium Board & Tile(Celling /Partion/Panelling) : Hillux or equivalent	6	Clear Glass/ Clear Float Glass / Toughened Glass	:	Saint Gobain(SG), Modi, AIG
9 Oil Bound Distemper : Asian (Tractor), Berger (Bison), Nerolac 10 Cement Paint : Snowcem Plus, Berger (Durocem Extra), Nerolac (Nerocem with titanium), 11 Plastic Emulsion Paint : Snowcem Plus, Berger (Durocem Extra), Nerolac (Nerocem with titanium), 12 Back-up Rod. : Supreme Industries or equivalent 15 Metal Fire Check Doors : Navair, Ozone, Godrej 16 Gyspum Board System : India Gypsum, 18 Admixtures for concrete. : Cico, Kryton, Penetron 21 Flush Door Shutters : Century, Archidply, Green Ply 22 WPC Board : Alstone or equivalent 23 Plywood / Block Board : GreenPly, Archidply, Green Ply 24 Teak ply : GreenPly, Archidply 25 High Pressure Laminate : Prodima, Fundermax, Trespa 26 High Pressure Laminate : RAK, 27 Adhesive for Wood work : Fevicol, Vamicol 28 Glazed Tiles : RAK, 29 PVC Water Stops : Supreme, Astral, Prince 30 White Cement : Birla White, J.K. 31 Powder Coating Material Pure Polyester : Jotun, Berger, GoodlassNerolac 32 Pre-coated G. S Windows & Door frames : NCL or equivalent 33 Masking Tapes : Sun control, Wonder Polymer: 34 Dash Fasteners, Anchor bolts : Hilti, Fischer, Bosch. 36 E.P.D.M. Gaskets : AnandReddiplex, Enviro Seals 39 Weather & Structural Silicon : Dow Corning, Wacker, GE 40 PVC Continous fillet for periphery packing of Glazings / Structural glazings : Rop, Anand, Forex Plastic. 41 Water proofing / Injection Grouting : Specilized agency as approved by engineer 44 Gem thick Reflective Glass : Glaverbel, Glavermas, Saint Gobain. 45 Multicolor Steel Roofing Sheet : Alavira Steels Ltd, Everest 46 Vitrified Tiles : RAK 48 Aluminium Cladding sheets : Alstrong, Alstone, Alucobond 49 Stainless Steel D-handles : Kitch, Ozone, Hettich 50 Stainless Steel Bailing 304 & 316(Welding less) : Q-Rail, Kitch, Arch 51 Hillu or equivalent	7	Laminates	:	Greenlam, Aica, Sunmica, Archid
Cement Paint  Cementy Actidaply, Cement Paint  Cementy Actidaply Cement  Cementy Actidaply Cement  Cementy Actidaply Cement  Cementy Actidaply	8	Synthetic Enamel Paints	:	Berger (Luxol gold), Asian(Apcolite), ICI Dulux (Gloss),
Vernert Paint   Section   With titanium   Vernert Paint   Section   With titanium   Vernert Paint   Section   With titanium   Vernert Paint   Water Proofing / Structural glazings   Section   Water Proofing Steel   Water Steel   Water Proofing Steel   Water Steel   Water Proofing Steel   Water Proofing Steel   Water Proofing Steel   Water Proofing Steel   Water Structural Silicon.	9	Oil Bound Distemper	:	Asian (Tractor), Berger (Bison), Nerolac
Back-up Rod.   Supreme Industries or equivalent	10	Cement Paint	:	
15   Metal Fire Check Doors   1   1. Navair, Ozone, Godrej	11	Plastic Emulsion Paint	:	Asian paints Royal Atmos
16   Gyspum Board System	12	Back-up Rod.	:	Supreme Industries or equivalent
18       Admixtures for concrete.       : Cico, Kryton , Penetron         21       Flush Door Shutters.       : Century, Archidply, Green Ply         22       WPC Board       Alstone or equivalent         23       Plywood / Block Board       GreenPly , Century, Archidply,         24       Teak ply       GreenPly , Century , Archidply,         25       High Pressure Laminate       Prodima, Fundermax , Trespa         27       Adhesive for Wood work       Fevicol , Vamicol         28       Glazed Tiles       : RAK,         29       PVC Water Stops       : Supreme, Astral, Prince         30       White Cement.       : Birla White, J.K.         31       Powder Coating Material Pure Polyester.       : Jotun, Berger, GoodlassNerolac         32       Pre-coated G.S Windows & Door frames       NCL or equivalent         33       Masking Tapes       : Sun control , Wonder Polymer.         34       Dash Fasteners./Anchor bolts       : Hillt, Fischer, Bosch.         38       E.P.D.M. Gaskets.       : AnandReddiplex, Enviro Seals         39       Weather & Structural Silicon.       : Dow Corning, Wacker, GE         40       PVC continous fillet for periphery packing of Glazings / Structural glazings.:       : Roop, Anand, Forex Plastic.         41 <t< td=""><td>15</td><td>Metal Fire Check Doors</td><td>:</td><td>: Navair, Ozone, Godrej</td></t<>	15	Metal Fire Check Doors	:	: Navair, Ozone, Godrej
Flush Door Shutters.    Century, Archidply, Green Ply	16	Gyspum Board System	:	India Gypsum,
Alstone or equivalent   GreenPly, Century, Archidply,	18	Admixtures for concrete.	:	Cico, Kryton ,Penetron
23Plywood / Block BoardGreenPly , Century , Archidply24Teak plyGreenPly , Archidply26High Pressure LaminateProdima, Fundermax , Trespa27Adhesive for Wood workFevicol , Vamicol28Glazed Tiles: RAK,29PVC Water Stops: Supreme, Astral, Prince30White Cement.: Birla White, J.K.31Powder Coating Material Pure Polyester.: Jotun , Berger, GoodlassNerolac32Pre-coated G.S Windows & Door frames: NCL or equivalent33Masking Tapes: Sun control , Wonder Polymer.35Dash Fasteners/Anchor bolts: Hilti, Fischer, Bosch.38E.P.D.M. Gaskets.: AnandReddiplex, Enviro Seals39Weather & Structural Silicon.: Dow Corning, Wacker, GE40PVC continous fillet for periphery packing of Glazings / Structural glazings.:: Roop, Anand, Forex Plastic.41Water proofing CompoundPedilite, Kryton, Penetron43Water proofing / Injection Grouting: Specilized agency as approved by engineer446mm thick Reflective Glass: Glaverbel, Glavermas, Saint Gobain.44Multicolor Steel Roofing Sheet: Alviva Steels Ltd, Everest46Vitrified Tiles: RAK48Aluminium Cladding sheets: Alstrong, Alstone, Alucobond49Stainless Steel D-handles: Kitch, Ozone, Hettich50Stainless Steel Railing 304 &316(Welding less): Q-Rail, Kitch, Arch63Metal False ceiling: Grid Square , Armstrong , Hu	21	Flush Door Shutters.	:	Century, Archidply, Green Ply
24Teak plyGreenPly , Archidply26High Pressure LaminateProdima, Fundermax , Trespa27Adhesive for Wood workFevicol , Vamicol28Glazed Tiles: RAK,29PVC Water Stops: Supreme, Astral, Prince30White Cement.: Birla White, J.K.31Powder Coating Material Pure Polyester.: Jotun, Berger, GoodlassNerolac32Pre-coated G.S Windows & Door framesNCL or equivalent33Masking Tapes: Sun control , Wonder Polymer.35Dash Fasteners, Anchor bolts: Hilti, Fischer, Bosch.38E.P.D.M. Gaskets.: AnandReddiplex, Enviro Seals39Weather & Structural Silicon.: Dow Corning, Wacker, GE40PVC continous fillet for periphery packing of Glazings / Structural glazings.:: Roop, Anand, Forex Plastic.41Water proofing compoundPedilite, Kryton, Penetron43Water proofing fompoundPedilite, Kryton, Penetron446mm thick Reflective Glass: Glaverbel, Glavermas, Saint Gobain.45Multicolor Steel Roofing SheetAlviva Steels Ltd, Everest46Vitrified Tiles: RAK48Aluminium Cladding sheets: Alstrong, Alstone, Alucobond49Stainless Steel Railing 304 &316(Welding less): Grid Square, Armstrong, Hunter Douglas64Calcium Board & Tile(Ceiling / Partion/Panelling): Hillux or equivalent	22	WPC Board		Alstone or equivalent
High Pressure Laminate Prodima, Fundermax, Trespa  Adhesive for Wood work Fevicol , Vamicol  Balance Start Tiles RAK,  PVC Water Stops SSupreme, Astral, Prince  White Cement. Silia White, J.K.  Powder Coating Material Pure Polyester. John, Berger, GoodlassNerolac  Pre-coated G.S Windows & Door frames NCL or equivalent  Masking Tapes SSun control , Wonder Polymer.  BalandReddiplex, Enviro Seals  PVC continous fillet for periphery packing of Glazings / Structural glazings.:  Water proofing compound Pedilite, Kryton, Penetron  Water proofing / Injection Grouting Seet Glaverbel, Glavermas, Saint Gobain.  Multicolor Steel Roofing Sheet Aluminium Cladding sheets Glass Glaverbel, Glavermas, Saint Gobain.  Metal False ceiling Structural Silic Or. Q-Rail, Kitch, Arch  Metal False ceiling Grid Square , Armstrong , Hunter Douglas  Hillux or equivalent  Prodima, Fundermax, Trespa  Fevicol , Vamicol  RAK,  RAK,  Supreme, Astral, Prince  RAK,  RAK,  Supreme, Astral, Prince  Supreme Astral, Prince  Supreme Astral, Prince  Supreme Astral, Prince	23	Plywood / Block Board		GreenPly , Century , Archidply,
Adhesive for Wood work Fevicol , Vamicol  RAK,  RAK,  PVC Water Stops SSupreme, Astral, Prince  White Cement. Silia White, J.K.  Powder Coating Material Pure Polyester. Jotun , Berger, GoodlassNerolac  Pre-coated G.S Windows & Door frames NCL or equivalent  Sun control , Wonder Polymer.  Hilti, Fischer, Bosch. Siliand, Raskets. Dow Corning, Wacker, GE  Vectortinous fillet for periphery packing of Glazings / Structural glazings.:  Water proofing compound Pedilite, Kryton, Penetron  Water proofing / Injection Grouting Silicode Glaver bel, Glavermas, Saint Gobain.  Multicolor Steel Roofing Sheet Aluminium Cladding sheets Glaver bel Aluminium Cladding sheets Glaver bel Aluminium Cladding sheets Aluminium Cladding sheets Glaver Bel Railing 304 &316(Welding less) Character of Carlos Aluminium Cladding Metal False ceiling Grid Square , Armstrong , Hunter Douglas  Hillux or equivalent  Calcium Board & Tile(Ceiling / Partion/Panelling) Hillux or equivalent	24	Teak ply		GreenPly , Archidply
28Glazed Tiles:RAK,29PVC Water Stops:Supreme, Astral, Prince30White Cement.:Birla White, J.K.31Powder Coating Material Pure Polyester.:Jotun, Berger, GoodlassNerolac32Pre-coated G.S Windows & Door framesNCL or equivalent33Masking Tapes:Sun control, Wonder Polymer.35Dash Fasteners./Anchor bolts:Hilti, Fischer, Bosch.38E.P.D.M. Gaskets.:AnandReddiplex, Enviro Seals39Weather & Structural Silicon.:Dow Corning, Wacker, GE40PVC continous fillet for periphery packing of Glazings /Structural glazings.::Roop, Anand, Forex Plastic.41Water proofing compoundPedilite,Kryton, Penetron43Water proofing / Injection Grouting:Specilized agency as approved by engineer446mm thick Reflective Glass:Glaverbel, Glavermas, Saint Gobain.45Multicolor Steel Roofing SheetAlviva Steels Ltd, Everest46Vitrified Tiles:RAK48Aluminium Cladding sheets:Alstrong, Alstone, Alucobond49Stainless Steel Railing 304 & 316 (Welding less):Q-Rail, Kitch, Arch63Metal False ceiling:Grid Square , Armstrong , Hunter Douglas64Calcium Board & Tile (Ceiling / Partion/Panelling):Hillux or equivalent	26	High Pressure Laminate		Prodima, Fundermax , Trespa
29PVC Water Stops:Supreme, Astral, Prince30White Cement.:Birla White, J.K.31Powder Coating Material Pure Polyester.:Jotun, Berger, GoodlassNerolac32Pre-coated G.S Windows & Door framesNCL or equivalent33Masking Tapes:Sun control, Wonder Polymer.35Dash Fasteners./Anchor bolts:Hilti, Fischer, Bosch.38E.P.D.M. Gaskets.:AnandReddiplex, Enviro Seals39Weather & Structural Silicon.:Dow Corning, Wacker, GE40PVC continous fillet for periphery packing of Glazings / Structural glazings.::Roop, Anand, Forex Plastic.41Water proofing compoundPedilite,Kryton, Penetron43Water proofing / Injection Grouting:Specilized agency as approved by engineer446mm thick Reflective Glass:Glaverbel, Glavermas, Saint Gobain.45Multicolor Steel Roofing SheetAlviva Steels Ltd, Everest46Vitrified Tiles:RAK48Aluminium Cladding sheets:Alstrong, Alstone, Alucobond49Stainless Steel Railing 304 &316(Welding less):Q-Rail, Kitch, Ozone, Hettich50Stainless Steel Railing 304 &316(Welding less):Q-Rail, Kitch, Arch63Metal False ceiling:Grid Square , Armstrong , Hunter Douglas64Calcium Board & Tile(Ceiling /Partion/Panelling):Hilux or equivalent	27	Adhesive for Wood work		Fevicol , Vamicol
White Cement.   Birla White, J.K.	28	Glazed Tiles	:	RAK,
Pre-coated G.S Windows & Door frames  NCL or equivalent  NCL or equivalent  NCL or equivalent  Sun control , Wonder Polymer.  Hilti, Fischer, Bosch.  E.P.D.M. Gaskets.  Meather & Structural Silicon.  PVC continous fillet for periphery packing of Glazings / Structural glazings.:  Water proofing compound  Water proofing / Injection Grouting  Multicolor Steel Roofing Sheet  Vitrified Tiles  Aluminium Cladding sheets  Sun control , Wonder Polymer.  Hilti, Fischer, Bosch.  AnandReddiplex, Enviro Seals  Dow Corning, Wacker, GE  Roop, Anand, Forex Plastic.  Pedilite,Kryton, Penetron  Specilized agency as approved by engineer  Glaverbel, Glavermas, Saint Gobain.  Alviva Steels Ltd, Everest  Alviva Steels Ltd, Everest  Alviva Steels Ltd, Everest  Aluminium Cladding sheets  Stainless steel D-handles  Kitch, Ozone, Hettich  Stainless Steel Railing 304 &316(Welding less)  Calcium Board & Tile(Ceiling /Partion/Panelling)  Hillux or equivalent	29	PVC Water Stops	:	Supreme, Astral, Prince
32Pre-coated G.S Windows & Door framesNCL or equivalent33Masking Tapes: Sun control , Wonder Polymer.35Dash Fasteners./Anchor bolts: Hilti, Fischer, Bosch.38E.P.D.M. Gaskets.: AnandReddiplex, Enviro Seals39Weather & Structural Silicon.: Dow Corning, Wacker, GE40PVC continous fillet for periphery packing of Glazings /Structural glazings.:: Roop, Anand, Forex Plastic.41Water proofing compoundPedilite,Kryton, Penetron43Water proofing / Injection Grouting: Specilized agency as approved by engineer446mm thick Reflective Glass: Glaverbel, Glavermas, Saint Gobain.45Multicolor Steel Roofing SheetAlviva Steels Ltd, Everest46Vitrified Tiles: RAK48Aluminium Cladding sheets: Alstrong, Alstone, Alucobond49Stainless Steel D-handles: Kitch, Ozone, Hettich50Stainless Steel Railing 304 &316(Welding less): Q-Rail, Kitch ,Arch63Metal False ceiling: Grid Square , Armstrong , Hunter Douglas64Calcium Board & Tile(Ceiling /Partion/Panelling): Hilux or equivalent	30	White Cement.	:	Birla White, J.K.
Sun control , Wonder Polymer.	31	Powder Coating Material Pure Polyester.	:	Jotun , Berger, GoodlassNerolac
35Dash Fasteners./Anchor bolts:Hilti, Fischer, Bosch.38E.P.D.M. Gaskets.:AnandReddiplex, Enviro Seals39Weather & Structural Silicon.:Dow Corning, Wacker, GE40PVC continous fillet for periphery packing of Glazings /Structural glazings.::Roop, Anand, Forex Plastic.41Water proofing compoundPedilite, Kryton, Penetron43Water proofing / Injection Grouting:Specilized agency as approved by engineer446mm thick Reflective Glass:Glaverbel, Glavermas, Saint Gobain.45Multicolor Steel Roofing SheetAlviva Steels Ltd, Everest46Vitrified Tiles:RAK48Aluminium Cladding sheets:Alstrong, Alstone, Alucobond49Stainless steel D-handles:Kitch, Ozone, Hettich50Stainless Steel Railing 304 &316(Welding less):Q-Rail, Kitch, Arch63Metal False ceiling:Grid Square, Armstrong, Hunter Douglas64Calcium Board & Tile(Ceiling /Partion/Panelling):Hilux or equivalent	32	Pre-coated G.S Windows & Door frames		NCL or equivalent
38E.P.D.M. Gaskets.: AnandReddiplex, Enviro Seals39Weather & Structural Silicon.: Dow Corning, Wacker, GE40PVC continous fillet for periphery packing of Glazings / Structural glazings.:: Roop, Anand, Forex Plastic.41Water proofing compoundPedilite,Kryton, Penetron43Water proofing / Injection Grouting: Specilized agency as approved by engineer446mm thick Reflective Glass: Glaverbel, Glavermas, Saint Gobain.45Multicolor Steel Roofing SheetAlviva Steels Ltd, Everest46Vitrified Tiles: RAK48Aluminium Cladding sheets: Alstrong ,Alstone,Alucobond49Stainless steel D-handles: Kitch, Ozone, Hettich50Stainless Steel Railing 304 &316(Welding less): Q-Rail, Kitch ,Arch63Metal False ceiling: Grid Square , Armstrong , Hunter Douglas64Calcium Board & Tile(Ceiling /Partion/Panelling): Hilux or equivalent	33	Masking Tapes	:	Sun control , Wonder Polymer.
Weather & Structural Silicon.   Dow Corning, Wacker, GE	35	Dash Fasteners./Anchor bolts	:	Hilti, Fischer, Bosch.
PVC continous fillet for periphery packing of Glazings / Structural glazings.:  41 Water proofing compound  43 Water proofing / Injection Grouting  44 Gmm thick Reflective Glass  45 Multicolor Steel Roofing Sheet  46 Vitrified Tiles  48 Aluminium Cladding sheets  48 Aluminium Cladding sheets  49 Stainless Steel D-handles  50 Stainless Steel Railing 304 & 316 (Welding less)  60 Calcium Board & Tile (Ceiling / Partion / Panelling)  20 Pedilite, Kryton, Penetron  21 Roop, Anand, Forex Plastic.  22 Roop, Anand, Forex Plastic.  32 Pedilite, Kryton, Penetron  44 Pedilite, Kryton, Penetron  45 Pedilite, Kryton, Penetron  46 Pedilite, Kryton, Penetron  48 Glaverbel, Glavermas, Saint Gobain.  49 Alviva Steels Ltd, Everest  40 Vitrified Tiles  41	38	E.P.D.M. Gaskets.	:	AnandReddiplex, Enviro Seals
Glazings / Structural glazings.:  Hoop, Anand, Forex Plastic.  Roop, Anand, Forex Plastic.  Roop, Anand, Forex Plastic.  Pedilite, Kryton, Penetron  Specilized agency as approved by engineer  Gmm thick Reflective Glass  Glaverbel, Glavermas, Saint Gobain.  Multicolor Steel Roofing Sheet  Alviva Steels Ltd, Everest  Vitrified Tiles  RAK  Aluminium Cladding sheets  Alstrong, Alstone, Alucobond  Stainless steel D-handles  Kitch, Ozone, Hettich  Stainless Steel Railing 304 &316(Welding less)  Metal False ceiling  Calcium Board & Tile(Ceiling / Partion / Panelling)  Hilux or equivalent	39	Weather & Structural Silicon.	:	Dow Corning, Wacker, GE
Water proofing / Injection Grouting : Specilized agency as approved by engineer  Gmm thick Reflective Glass : Glaverbel, Glavermas, Saint Gobain.  Multicolor Steel Roofing Sheet : Alviva Steels Ltd, Everest  KAK : RAK : RAK : Aluminium Cladding sheets : RAK : Alstrong ,Alstone,Alucobond : Kitch, Ozone, Hettich : Kitch, Ozone, Hettich : Grid Square , Armstrong , Hunter Douglas : Grid Square , Armstrong , Hunter Douglas : Hilux or equivalent : Hilux or equival	40		:	Roop, Anand, Forex Plastic.
44 6mm thick Reflective Glass : Glaverbel, Glavermas, Saint Gobain. 45 Multicolor Steel Roofing Sheet Alviva Steels Ltd, Everest 46 Vitrified Tiles : RAK 48 Aluminium Cladding sheets : Alstrong ,Alstone,Alucobond 49 Stainless steel D-handles : Kitch, Ozone, Hettich 50 Stainless Steel Railing 304 &316(Welding less) : Q-Rail, Kitch ,Arch 63 Metal False ceiling : Grid Square , Armstrong , Hunter Douglas 64 Calcium Board & Tile(Ceiling /Partion/Panelling) : Hilux or equivalent	41	Water proofing compound		Pedilite,Kryton, Penetron
45 Multicolor Steel Roofing Sheet 46 Vitrified Tiles 48 Aluminium Cladding sheets 49 Stainless steel D-handles 50 Stainless Steel Railing 304 &316(Welding less) 63 Metal False ceiling 64 Calcium Board & Tile(Ceiling /Partion/Panelling) 65 Alviva Steels Ltd, Everest 66 RAK 67 RAK 68 Aluminium Cladding sheets 68 I Alstrong ,Alstone,Alucobond 69 Calcium Board & Tile(Ceiling /Partion/Panelling) 60 Rail, Kitch ,Arch 61 Grid Square , Armstrong , Hunter Douglas 62 Calcium Board & Tile(Ceiling /Partion/Panelling) 63 Hillux or equivalent	43	Water proofing / Injection Grouting	:	Specilized agency as approved by engineer
46 Vitrified Tiles : RAK  48 Aluminium Cladding sheets : Alstrong ,Alstone,Alucobond  49 Stainless steel D-handles : Kitch, Ozone, Hettich  50 Stainless Steel Railing 304 &316(Welding less) : Q-Rail, Kitch ,Arch  63 Metal False ceiling : Grid Square , Armstrong , Hunter Douglas  64 Calcium Board & Tile(Ceiling /Partion/Panelling) : Hilux or equivalent	44	6mm thick Reflective Glass	:	Glaverbel, Glavermas, Saint Gobain.
Aluminium Cladding sheets : Alstrong ,Alstone,Alucobond  49 Stainless steel D-handles : Kitch, Ozone, Hettich  50 Stainless Steel Railing 304 &316(Welding less) : Q-Rail, Kitch ,Arch  63 Metal False ceiling : Grid Square , Armstrong , Hunter Douglas  64 Calcium Board & Tile(Ceiling /Partion/Panelling) : Hilux or equivalent	45	Multicolor Steel Roofing Sheet		Alviva Steels Ltd, Everest
49 Stainless steel D-handles : Kitch, Ozone, Hettich 50 Stainless Steel Railing 304 &316(Welding less) : Q-Rail, Kitch ,Arch 63 Metal False ceiling : Grid Square , Armstrong , Hunter Douglas 64 Calcium Board & Tile(Ceiling /Partion/Panelling) : Hilux or equivalent	46	Vitrified Tiles	:	RAK
50 Stainless Steel Railing 304 &316(Welding less) : Q-Rail, Kitch ,Arch 63 Metal False ceiling : Grid Square , Armstrong , Hunter Douglas 64 Calcium Board & Tile(Ceiling /Partion/Panelling) : Hilux or equivalent	48	Aluminium Cladding sheets	:	Alstrong ,Alstone,Alucobond
63 Metal False ceiling : Grid Square , Armstrong , Hunter Douglas 64 Calcium Board & Tile(Ceiling / Partion / Panelling) : Hilux or equivalent	49	Stainless steel D-handles	:	Kitch, Ozone, Hettich
64 Calcium Board & Tile(Ceiling /Partion/Panelling) : Hilux or equivalent	50	Stainless Steel Railing 304 &316(Welding less)	:	Q-Rail, Kitch ,Arch
	63	Metal False ceiling	:	Grid Square , Armstrong , Hunter Douglas
67 Compact Laminate sheet : Merino , Green Lam	64	Calcium Board & Tile(Ceiling /Partion/Panelling)	:	Hilux or equivalent
	67	Compact Laminate sheet	:	Merino , Green Lam

68	AAC Block	•	J.K.Laxmi Cement Ltd , Kannav Builders Pvt ,Ecolite		
69	Wall Putty	:	Laticrate , Birla white, J.K White		
70	Chairs (ISI marked)	Spacewood , Godrej , Wipro, Zitten			
71	Tilebase	Tileceil/Armstrong			

#### NOTE

1. Wherever make have not been specified for certain terms as equivalent makes referred, the same shall be as per BIS and as per approved by Engineer-in-charge/Consultant.

### LIST OF MAKE FOR PLUMBING WORKS

S.no	Material		Brand/ Manufacturers OR EQUIVALENT	
1	Vitreous China Sanitary ware	:	Jaquar	
2	Stainless Steel Sink	:	Jaquar , Commander, Nirali	
3	Plastic seat cover of W.C	:	Jaquar	
4	Geyser	:	Racold, Voltas, Bajaj	
5	C.P. Fittings Mixer/Pillar taps Washers, C.P. brass accessories	:	Jaquar,	
6	Centrifugally /Sand cast iron pipes & fittings	:	Neco, Hepco	
7	G.I. Pipes	:	Jindal-Hissar, Tata, Prakash-Surya B.S.T., SAIL,	
8	G.I. Fittings	:	Jindal-Hissar, Tata, Prakash-Surya B.S.T., SAIL,	
9	Gunmetal Valves	:	Zoloto, Leader,	
10	Brass stop & Bib Cock	:	Zoloto, Sant, L&K, Jaquar	
11	Ball valve with floats	:	Zoloto, Leader, Sant, Jayco	
12	Stoneware pipes & Gully Traps	:	IS Marked pipes	
13	R.C.C. pipes	:	IS Marked pipes	
14	D.I. Manhole Covers	:	RIF, NECO,	
15	Water Tank	:	Sintex, Polycon, Uniplast	
16	Mirror	:	Golden, Atul, Modi guard ,Gujrat Guardian	
17	Hand drier	:	Kopal, Automat, Euronics	
18	PVC flushing cistern	:	Parryware, Hindware, Jaqvar	
19	Insulation of Hot water pipes	:	Vidoflex insulation, Superlon insulation or equivalent	
20	PVC Rain Water Pipes.	:	Supreme, Prince, Finolex. Astral	
21	Sluice valve / NRV	:	Kirloskar, Kilburn, Zoloto ,Castle,	
22	Water supply pumps	:	KIRLOSKAR, WILO, GRUNDFOS	
23	UPVC pipes & fittings	:	FInolex , Prince, Supreme, Astral	
24	Chlrorinator	:	ALFA, USA, Ion exchange, Sigma DH Combine Inc.	
25	HDPE Solution tank	:	WATCON, ION EXCHANGE, Water Supply Specilist P (Ltd)	
26	C.P Flush Valves	:	Jaquar, Seiko, Nelson	
27	C.P Angle Valves, bib cock	:	, Jaquar, Seiko ,Nelson	
28	Level controller	:	Femac or equivalent	

29	Drainage Pumps	:	Grundfos, KSB, Kirloskar	
31	R.O System	:	Thermax, Aqua Process, Ion-Exchange, Akar- Impex, Polycon Technologies, Fontoos	
32	PE-AL-PE	:	Kitec, Jindal, NEXGEN	
33	HDPE pipes and fittings	:	Oriplast, So-Soon, Finolex	
34	Infrared Sensor operated Urinals	:	Jaquar, Euronics,U-tec	
35	Grab Bars	:	Marino or equivalent	
36	CPVC pipe	:	Prince, Supreme, Finolex, Astral	
37	Solar Panel	:	Tata BP, BHEL, EMMVEE	
38	Copper Pipe	:	Raj Co., Maxflo	
39	Copper Fittings	:	Viega, IBP	
40	Lab drainage	:	Viega or Equivalent as approved.	
41	Lab Fittings	:	Vijay, Viega, or equivalent	
42	CP Grating for Floor Trap		Chilly,Cardin, Cammry	
43	UPVC Over Head Water Tank		EURO, SYNTEX, DIPLAST	

### LIST OF MAKES FOR ELECTRICAL WORKS

S.no	Material		Brand/ Manufacturers OR EQUIVALENT	
1	KV VCB Panel Board	:	Siemens// Voltas/Crompton Greaves/L&T/	
2	KV XLPE Cable	:	Incab/ Universal/ NICCO/ CCI	
3	Transformer	:	Crompton Greaves/ GECAlsthom/Voltamp Areva/ ABB	
4	Bus Duct/rising mains (Sandwich)-	:	L&T/ Siemens/ ABB/Legrand	
5	Diesel Engine	:	Cummins/Kirloskar/Cotton	
6	Alternator	:	Stamford/ Kirloskar/ Leroy Somer &Control/Crompton Greaves/ Cater pillar	
7	Battery	:	Exide/Standard Furrukawa /Amar ,Raja	
8	L.T. Cables	:		
		:	Skytone / KEI/ Poly Cab/ RR cable	
9	PVC insulated Wires/Telephone wires & cables India Co-axial cables	:	Finolex / Havells / RRCable	
10	Telephone Tag Blocks	:	Krone Type	
11	Modular Range of Switches, sockets etc	:	Anchor- Roma /RR Switch / Havells –Crab tree.	
12	Industrial Sockets & Plugs	:	Siemens//Legrand/Gewiss/ Havell"s	
13	M.S. Conduit	:	BEC/ AKG/ M Kay/ NIC/ Siddarth/ Harsh	
14	Light fixtures.	:	Philips/ Halomax / Trilux	
15	Ceiling Fan/ Exhaust fan	:	Crompton Greaves/ Usha/ Bajaj.	
16	Main LT Panel	:	Manufactured at the works of L&T, Siemens,Legrand , Schneider only.	

17	MV Panels	:	Venus Controls, Neptune, Advance, ASG control & Switchboard Pvt. Ltd. Anand Power Ltd., System & Power Control. Amptech., Nitya Electrical Controls, Ambit Switchge Pvt. Ltd, Adlec.		
18	Air Circuit Breakers	:	L&T,Legrand,Siemens,ABB,Schneider		
19	MCCB	:	L&T/ Legrand/ Siemens/ ABB/Schneider		
20	MCB-DB"s, MCB, ELCB	:	L&T/ GE Power Controls/ Siemens/Legrand		
	RCCB/ MCB-Isolator etc.	:	Schneider, Legrand		
21	SDFU	: L&T/ GE Power Controls/ Siemens/ Schneider			
22	Power Contactors	: L&T/ Legrand/ Siemens/ Schneider/ABB			
23	LIFTS	:	OTIS/ Kone/ Scheindler/ Mitubshi/Johnson		
24	EPABX	:	Siemens, Ericsson, Alcatel, Avaya		
26	FDA Panel	:	Honeywell/Edwards/Minimax		
28	BMS	:	: ABB, L&T, Trane, Honeywell		
29	UPS	:	Schneider Numeric, Emerson, Eton, Power ware		
31	PA System	:	BOSCH,Harman,Bose		
32	Access Control System	:	BOSCH, Honeywell, L&T		

Note:. Any item not mentioned above shall be subject to approval by owners/consultant/Architect

## Annexure-1-(Technical Bid)

### THE NEW INDIA ASSURANCE CO. LTD

S.No.	ESSENTIAL/MANDATORY DOCUMENTS/CRITERIA						
1	Name and Address of	the contractor		Address proof to be attached(mandatory)			
2	PAN No & GST			Copy of each to be attached (mandatory)			
3	Tender Fee			Tender Fee  Scanned copy to be attached online and h copy to be submitted to office  (MSE are exempted) (MSE must submit scanned MSE certificate for claiming exemption) (mandatory)			
4	EMD			Scanned copy to be attached online and hard copy to be submitted to office  (MSE are exempted) ) (MSE must submit scanned MSE certificate for claiming exemption) (mandatory)			
5	Similar Works (Interior	furnishing works)		Certificates/work completion certficates to be			
	1 similar work amounting to 80% of estimated value	2 similar works amounting to 50% of estimated value	3 similar works amounting to 40% of estimated value	attached for similar work (merely work orders will not be considered)  (mandatory)  [ Please note that the qualifying value should correspond to one single work /two single works/three single works (i.e. the bidder should not combine value of different small works to show as value of single work ]			
6	Self declaration regard any organization /bank		/not blacklisted by	To be attached (mandatory)			
7	Balance sheet / Profit & Loss Statement for the last 3 years. ( to be attached herewith)			To be attached (mandatory)			

				exemption) (mandatory)
5	Similar Works (Interio  1 similar work amounting to 80% of estimated value	2 similar works amounting to 50% of estimated value	3 similar works amounting to 40% of estimated value	Certificates/work completion certficates to be attached for similar work (merely work orders will not be considered)  (mandatory)  [ Please note that the qualifying value should correspond to one single work /two single works/three single works (i.e. the bidder should not combine value of different small works to show as value of single work ]
6	Self declaration regard any organization /ban	= :	/not blacklisted by	To be attached (mandatory)
7	Balance sheet / Profit to be attached herewi		r the last 3 years. (	To be attached (mandatory)
Sign:				

Sign:-
(Along with Company Seal)
Date:-

Place:-

# Annexure – II Bill of Quantities

SR.N o	DESCRIPTION	QTY.	UNI T	RAT E	AMOUN T
A	Civil:				
1	DISMANTLING & DEMOLITION				
	Please note that all debris, malba etc shall be removed from site and carting away as per MCGM limits, complete.				
1.1	Dismantling 6" thk, brick wall carefully by using chisel to cut including removal of debris from site.as per instruction	125	sft		
1.2	Specification same as Item No 1.1, but for 9" thk and above Brick walls.	0	sft		
1.3	Dismantling and removing doors windows wherever required in a manner which facilitates easy fixing of new doors and windows without undue expense.the rate shall include removal of debris from site.	4	No		
1.4	Dismantling marble, granite, kota, marble mosaic, ceramic tile flooring & dado including skirting and excavation up to 6" in plinth wherever required, etc. In a manner which facilitates laying of new flooring without undue extra expense. The rate shall include removal of debris from site	1800	sft		

1.5	Dismantling platforms & counters & Cladding of Granite, Partition of marble, granite, kota, etc. Wherever required in a manner which facilitates laying of new flooring without undue extra expense. The rate shall include removal of debris from site.	50	sft	
1.6	Dismantling 6" high coba in a manner which facilitates easy laying of new flooring with undue extra expense. The rate shall include removal of debris from site.	80	sft	
1.7	Dismantling existing Alumn, Gyp board false ceiling with frame work. The rate shall incl removal of debris from site.	0	sft	
2	Providing & constructing 115 thick <b>Siporex Masonr</b> y in Cement Mortar (1:4) including (1:2:4) R.C.C. patli of size 11cm X 15cm at mid height of walls including reinforcement of 2 Nos. of M.S. bars 6mm thick dia at bottom properly bend & bound at ends including chipping of existing floor, curing, watering etc, complete as per instruction.	150.0	Sft	
3	Internal Plastering			
a.	P/ laying single coat cement plaster in 1:4 for RCC/ wall masonry as directed in all height and position adding waterproofing compound of approved make, complete.(new Wall and kitchen wall)	1450. 0	Sft	
4	Flooring and wall finishes:			
a	P/f 12" X 12" <b>non - skid Ceramic flooring</b> with cement mortar bedding of approved shade & make of J/J, kajaria or eqv., cement floated & jointed with matching pigment cement incl. cleaning, curing, washing, complete. (range: Rs. 80/-)	0.0	Sft	
С	Removing existing flooring, Providing & laying polished <b>kota stone flooring</b> 25mm to 30mm thk 2'-0" X 2'-0" wide with Matching pattern over 25mm thick Cement Mortar (1:5) including cement float, filling joints with neat cement slurry, curing, polishing, carting away debris out of site, cleaning etc. complete as per instructions of Architect. (Kitchen, out side srevice area)	800.0	sft	
е	Providing & fixing approved color ceramic tiles 12" x 18" FIRST quality with design for dado & skirting in required position with back coat of plaster, float of cement including cracks to be filled with Polymer / M-Seal, filling joints with colored cement	1100.	Sft	
	slurry, curing, carting away debris out of site, cleaning etc. complete as per instruction of Architect. (Basic Cost of Tiles Rs.60/- Per SFT) ( Kitchen, outside service area )	0	0.10	

i ii	P/f 20mm thk <b>Granite Frame</b> of different coloured & shade of approved quality, machine cut machine polished as per approved pattern in cement mortar bedding cement floated & jointed with matching pigment cement cleaning, washing, polishing etc complete at Level and ht. and moulding, polished (Range upto Rs.175/-)  Three piece (photo frame) - 12" wide for Kitchen Door Single piece 9-12" for entrance door	40.0 8.0	Rft Rft	
6	Granite Platform :			
	Providing and laying platform of 2'-3" width (clear, as per site) and at 2'-9" height (top) above FFL. of approved machine cut machine polished edge 18mm thk granite in single slab for Platform. It shall be supported on 3/4' thk hard marble frame of vertical, horizontal, shelf, double polished,duly fixed with 1:4 cement sand using Araldite or Equv. make for jointing the slabs etc. Base kadappah must inserted atleast 2" into wall. A 3" facia shall be provided below the round polished edge. Rate shall be inclusive of making cutouts and polishing the edges for sink, facia moulding etc. complete as per instruction/ site condition. (basic rate upto Rs. 165/- sft) Work includes Vertical fascia both end (2'3" x 3'0")	15.0	Rft	
8	Waterproofing:			
	Providing & laying water proofing treatment consisting of one layer of polymer based water proofing paper laid over cold bitumen 80/90 grade with over lapping joints & finished with another layer of bitumen edges properly bent, allow for specials like cutting around floor trap & sealing of edges, etc. Rate shall incl. Brick bat coba with required slope and preparation of surface treatment and sealing of all joints, corners, junctions of pipes and masonry with polymer mixed slurry etc. complete as per site condition, Complete. ( wash area)	90.0	sft	
В	Plumbing work:			
1	Making Soil/ Waste connection of existing Plumbing work in all respect by Providing & fixing PVC pipes of supreme/ prince make or ISI equivalent in position of required size with special fittings, traps, bends, Ys, floor & nahani traps etc. Including chemical sealed joints as required at site making necessary connections with existing lines for w.c. & waste water lines, chambers to be constructed wherever necessary, unused lines for w.c. & waste water to be removed, the rate shall include all incidental work, cutting & making good walls & floors etc.Complete. Please visit the site for inspection.			
а	3" dia	45.0	RFT	
a b	3" dia 4" dia	45.0 35.00	RFT RFT	

	Providing & fixing CPVC 3/4" sch 40 grade pipes for distribution in toilets including chase cutting, chase filling, coat of primer / anti rust paint at all joints, proper pvc insulation cover for all pipes. The rate shall include all accessories like tees, unions, elbows, bends etc. Required to make the system operational and complete.( Astral or Equivalent make	125.0 0	RFT.	
	4.4/2014			
3	1-1/2" Internal DIA CPVC PIPE (Chlorinated Polyvinyl Chloride Pipe)			
	Providing & fixing 1 ½"internal dia CPVC sch 40 grade pipes for distribution in toilets including chase cutting, chase filling, coat of primer / anti rust paint at all joints, proper pvc insulation cover for all pipes. The rate shall include all accessories like tees, unions, elbows, bends etc.required to make the system operational & complete.	45.00	RFT.	
4	P/laying water pipe and waste connection for Sink ( Hot & Cold),	1.0	No	
_	CHDOME DI ATED (CD) EIVTIDE ICI MADVED			
5	CHROME PLATED (CP) FIXTURE ISI MARKED  Providing & fixing following fixtures, the rate for the following shall be			
a	inclusive of all necessary fixtures, accessories & attachments to make then operational			
3	Bib Cock with wall flange ( FLR-CHR-5047 N ) or Equivalent.	3.00	No	
6	Concealed Stop Cock with Wall Flange ( No. FLR-CHR-5083NK	3.00	No	
7	Angular Stop Cock with wall flange (No. FLR-CHR-5053 N)	2.00	No	
9	Piller Cock ( WB ) Jaquar FLR 5011 N	3.00	No	
10	Bottle Trap - Essco	3.00	No	
11	Waste Coupling: Jaquar ALD 727	3.00	No	
12	Connector Pipe	6.00	No	
17	2 in one Mixer - Jaquar -CON 273 KN UPR	1.00	No	
18	PVC Nahani Trap with Cover chilli make cockroach trap	3.00	No	
24	Towel Rail (kitchen)	2.00	No	
b	ACCESSORIES		No	
5	P/f 25 litre water gyser ( Horizontal) of reputed Co. Recold, Havell, Venus , Jaquar or equ.	1.00	No	
С	P/f of new 750 ltr water storage tank (sintex) on Loft in toilet with new water connection, complete	0.00	job	
	CADDENTERVIAZORZ			
<b>C</b>	CARPENTRY WORK: Providing and fixing 35mm MR grade solid doors of sizes as shown in			
1	the drawing. The door shutter shall consist of 3 nos. 3" x 1" C. P. Teak wood styles and 3 nos. 4" x 1" C.P. Teak wood bottom, middle and top rails. The wooden frame will be covered by ¼" ply on both sides. The door shall be finished on both sides with 1.0 mm. Thk.laminate and exposed wooden surface shall be melamine polish., Heavy Duty Floor Spring, 18" long SS buff finish handle, 12"x12" vision panel etc, complete as per instruction.			
а	size: 3' 3" x 7'0"	1.0	Nos	

b	size: 4' 3" x 7'0" ( Double Leaf)	1.0	Nos	
С	Size: 3'3" x 7'0" with Door tw frame ( Staff & Store )	2.0	Nos	
4	Repairing of existing Alumn Window by replacing damaged/ broken part with suitable items, Provision for heavy duty exhaust fan etc as per site condition and instruction	45.0	No	
5	Providing and fixing ¾" thk. <b>BWR ply shutters</b> with teak wood frame work (kitchen platform), skirting gap as shown in the drawing, shall be maintained. Division of shutters shall be made equally according to the length of the counter. Shutters shall be hinged to the framework and finished with 1.0mm thk.Laminate (suede finish) of approved shade from outside, applied with approved oil paint from the inside and covered with proper pvc lippings matching with approved laminate on all the edges. Rate shall be inclusive of all necessary approved fittings like hinges(Hafele make),ball catch and any miscellaneous hardware items.	30.0	Sft	
6	Modular Cabinet/ Trolley:			
	P & F SS Trolleys (304 gade) below Kitchen Platform. Trolleys shall be fabricated with 15x15 sqmm pipes frame box type with three nos sliding trays of assorted sizes made out of 8/10mm main frame having SS bars bended at corners with single joint properly welded without any spot, reeling on bars including providing front facia with 19 mm thk BWR ply with Teak Wood lipping on edges finished with synthetic waterproof paint in 2 coats over a coat of wood based primer & 1mm thk approved shade/make of laminate on both sides properly bonded with marine fevicol with SS designer handles150 mm long fitted with four 3/4" nickel screw. complete as per drg and instruction	28.0	Sft	
7	Storage Unit			
а	Providing and fixing storage units of over head as per drg. They shall consist of ¾" thk.comm. ply top, sides, bottom, shelves and shutters. Division of the shutters shall be made equally according to the length of the storages. All the external surfaces shall be finished with 1.0mm thk. Laminate (suede finish) of approved make.( above platform )	40.0	sft	
b	P/f MS slotted angled racks in store room	200.0	sft	
7	Cashier table:			
	P/f ply/ wood/ laminate finish table for accountant using 20mm thk commercial ply frame, lockable drawers, key board, space for CPU stand etc completeas per design/ instrcuction.Size: 3' 3" x 2' 0" ) work including low ht Partition ( 4' x 4' ht) 2.5 " thk, 1mm thk approved shade/ amke of laminate finish both sides, complete.	1.0	No	
8	SS Box for Grossary:			
	P/ making SS boxes ( grade 304 ) of size 18" x 18" x 27" ht) 18 guage with openable cover with locking arragement., complete as per instruction	10.0	No	

D	FALSE CEILING			
1	Gypsum board false ceiling	350	Sft	
	Providing and fixing in position Gypsum Board False Ceiling with 12.5 mm thick `Gypboard' Screw-fixed to the underside Of suspended G.I. grid. G.I. grid should be Constructed and suspended from the main ceiling as per manufacturer's instructions and as per specifications using Original Co. Specified Framework Sections G.I.24 gauge The Gypboard should be fixed to G.I. grid with 25 mm long Drawali Screws. The `Gypboard' to be used should be 12.5mm thick tapered edge boards. The boards should Be taped and filled from underside to give smooth, seamless ceiling. The rate should include necessary additional ceiling sections and intermediate channels openings for light fixtures, A.C. ducts, vertical drops, offsets. etc.			
2	Metal False ceiling	375	Sft	
	Providing and fixing tiled false ceiling of specified materials of size 595x595 mm in true horizontal level, suspended on inter locking metal grid of hot dipped galvanized steel sections (galvanized @ 120 grams/sqm, both side inclusive) consisting of main "T" runner with suitably spaced joints to get required length and of size 24x38 mm made from 0.30 mm thick (minimum) sheet, spaced at 1200 mm center to center and cross "T" of size 24x25 mm made of 0.30 mm thick (minimum) sheet, 1200 mm long spaced between main "T" at 600 mm center to center to form a grid of 1200x600 mm and secondary cross "T" of length 600 mm and size 24x25 mm made of 0.30 mm thick (minimum) sheet to be interlocked at middle of the 1200x600 mm panel to form grids of 600x600 mm and wall angle of size 24x24x0.3 mm and laying false ceiling tiles of approved texture in the grid including, required cutting/making, opening for services like diffusers, grills, light fittings, fixtures, smoke detectors etc. Main "T" runners to be suspended from ceiling using GI slotted cleats of size 27 x 37 x 25 x1.6 mm fixed to ceiling with 12.5 mm dia and 50 mm long dash fasteners, 4 mm GI adjustable rods with galvanised butterfly level clips of size 85 x 30 x 0.8 mm spaced at 1200 mm center to center along main T, bottom exposed width of 24 mm of all T-sections shall be pre-painted with polyester paint, all complete for all heights as per specifications, drawings and as directed by Engineer-in-charge. (Make - Arm Strong/ Super Sid.)			

	GI Metal Ceiling Lay in plain Tegular edge Global white color tiles of size 595x595 mm, and 0.5 mm thick made of G I sheet having galva nizing of 100 gms/sqm (both sides inclusive) and electro statically polyester powder coated of thickness 60 microns (minimum), including factory painted after bending (Make - Arm Strong/ Super Sid.)			
D	All edges, furniture, floors, windows, doors, partitions, glass, hardware, locks, fittings, light fixtures and fittings, speakers, ledges, granite marble frames, doors, back and side units i.e all furniture, electrical, plumbing, civil, aluminium, AC grills etc. shall be properly covered with newspapers, non sticky abro tape, plastic covering, tarapaulin, card boards etc. as found suitable for respective surfaces upto the satisfaction of the Architect and the same shall be totally covered and secured and taken care of so as to avoid any scratches, dents or stains etc.  The rate of painting and polishing shall include the above and no separate charges shall be paid towards the same. Incase the above mentioned covering is not done properly upto the satisfaction of the Architect, it will be at the Contractors risk to make good the surface at no extra cost and extension of time period.  The rate shall include the required protection by covering the existing furniture by plastic sheet so as to avoid any damage			
1	and keeping the surface intact including complete cleaning after completing the painting, removing painting marks and making good the same. All complete as directed by the Architect.  Carefully removing the existing decorative finish of the wall			
	and providing & applying base coat of Oil Cement primer of Approved make. Providing & applying one coat of putty to make the surface smooth and even and then providing and applying second coat of oil based cement primer & two or More coats of Acrylic Emulsion Paint ( premium 1st Quality Emulsion of ASIAN paint or approved equivalent of approved manufacturer) of the shades as approved by the Company/ Architects to the interior surfaces of the walls, Ceiling, Beams, Coloumns, etc., complete the job as per the direction of Deptt of the company/ Architects. ( walls & Ceiling) Store, Staff Room, Outside cooking area)	3500. 0	Sft	
2	P/applying base coat of zinc chromate primer and two or more coats of 1st Quality <b>Synthetic Enamel paint</b> of approved manufacturer and Shade to MS work & wooden door & frame.( Flat Oil paint for ceiling of Cooking area ) All as per secification includinh Scafolding etc. complete all as directed. work including scraping existing paints etc.	950.0	Sft	

E	Kitchen Equipment			
	Providing & Supply of following Items inclusive of all necessary fitting, fixtures, accessories & attachments to make then operational. The Stainless steel shall be 304 graded with heavy duty in 18 guage and matt finished as per manufacturer's standard and approved specifiation and design { M/s Naru Equipment or M/s Nipa Enterprises or eqv) work also includes shifting and rearrangement of equipment, gadget etc as per layout.			
1	Bain Marie Counter with Hot case ( 72" x 24' x 36" ht)	1.0	No	
2	S S Service table ( 72" x 24" x36" ht)	1.0	No	
3	S S Service table (48" x 24" x36" ht)	1.0	No	
4	SS Plate Rack ( 48" x 18"x 72" )	1.0	No	
5	SS Utensil Rack ( 60" x 18" x 72")	1.0	No	
6	SS Three bowl Sink ( 72" x 24 "x 34" )	1.0	No	
7	S S Counter for Soil Dish Landing (60" x 24" x 36")	1.0	No	
8	S S Food Trolly ( 24" x 24" x36" )	1.0	No	
9	SS Two Dorr Verical Fridge ( 30" x 26" x 76" )		RO	
10	S S Service Counter ( 60" x 24" x36" ht)	1.0	No	
11	S S Two Burner Gas Range (48" x 24" x32"	3.0	No	
12	S S Single Burner Gas Range ( 48" x 24" x32"	1.0	No	
13	S S Masala Table ( 12" x 24" 32" )	4.0	No	
14	S S Dossa Bhatti ( 28" x 15" 30" )	1.0	No	
15	Wet Grinder with Coconut Scrapper (10 Kg)	0.0	Kg	
16	SS Rack ( 72" x 12" )	2.0	No	
17	SS Horizontal Frizer ( 66" x 27" x32" )	0.0	RO	
18	S S Masala Rack with Onion/ Potato Basket (48x24x72)	1.0	No	
19	SS Pot Rack ( 60" x 18" )	1.0	No	

20	SS Counter (48" x 24" x32")	2.0	No	
	(10 11 11 11 11 11 11 11 11 11 11 11 11 1			
8	Sandwich Grille Heavy Duty ( 4 Slicer)	1.0	No	
	, , ,			
12	Chapatti plate with Puffer	0.0	No	
	•			
13	Commercial Mixer ( 180 HP, single Phase)	0.0	No	
14	Commercial pressure cooker ( 25 Ltrs)	0.0	No	
17	Dough Kneader ( 2HP, single phase)	0.0	No	
18	SS Pulveriser (2HP, Single phase)	0.0	No	
19	Potato peeler ( single Phase)	0.0	No	
0.0		0.0	3.7	
20	Grainder single (single phase)big size	0.0	No	
0.4		0.0	N.I.	
21	Salamendar ( single Phase)	0.0	No	
	Electrification			
	Electi incution			
Α	CONTROL & LOWSIDE SWITCHGEARS			
1	MAIN LT PANEL			
	Supply and installation of main LT panel, wall mounted front			
	operated totally enclosed vermin proof, indoor non-drawout-			
	cubicle type power panel fabricated out of 2mm thk CRCA sheet having gasketed hinged cover on each cubicle fully			
	powder coated after 7 Tank treatment, incorporating			
	horizontal and vertical sleeved copper busbars, complete with			
	all internal wiring, danger board, 2 earthing legs, cable			
	chamber etc as required, housing below mentioned switch			
	gears / meter ( GA drawing of the panel got to be approved by			
3	Bank / Architect)			
a	1 no. ,200A,TP, MCCB with ELR(0-3A) and CBCT as Incomer			
b	2 nos. 40A & 9nos. 63A, TPN, MCB outgoing			
С	1 no., 0-200A, Ammeter with CTand selector switch			
d	1no., 0-500V, Voltmeter with selector switch and fuse			
	1Set, TPN, Copper busbars of size 20mm x 5mm thk PVC			
<u>e</u> f	insulated suitable for 250 Amp load  1 Set, RYB, indicating lamps with resistors and fuses			
'	Full Set as above	1	Set	
	1 un oct as above	1	JEL	
ll l	DISTRIBUTION BOARDS			
- "	Suply and installation of 8 way, TP&N 'MCB type Distribution			
	Board(double door) flush mounted on wall, sheet metal			
	fabricated, powder coated, having dust-proof and vermin			
	'proof, gasketed and hinged door with all internals such as DIN			
1	rails, neutral-link, interconnected wiring, complete with			

_	,			
	earthing legs, housing following switch gears ( Double door HORIZONTAL DB)			
а	1 no., 63A, TPN ,MCB incomer			
b	24 nos, 16A/20A, SP, MCB outgoing			
	Full Set as above	2	Set	
III	CIRCUIT BREAKERS			
	S & I of 200A, MCCB in sheet metal enclosure for main switch	1	N	
3	near meter and stabiliser input etc.	1	Nos	
В	CABELS			
11	4 Cx 16 Sq.mm copper Cable	30	Mtrs	
12	4C x 10 Sq.mm Copper cable	30	Mtrs	
13	4C x 6 Sq.mm Copper cable	100	Mtrs	
14	3C x 4.0 Sq.mm Copper cable	320	Mtrs	
	S & I of end termination of above mentioned cables including			
	compressed type brass glands, crimping type coper lugs,			
	insulation tape etc. as 'required complete with earthing of			
Ш	glands in following sizes			
4	3 1/2C X 70/95 Sq.mm	2	Nos	
5	4 x 16/10/6/4 Sq.mm	20	Nos	
6	2C x 10/4 Sq.mm	20	Nos	
С	WIRING			
	Supply & Installation of concealed point wiring using 600v			
	grade 2.5 sqmm copper conductor PVC insulated wires (with			
	proper R,Y,B color code ) pulled through haevy gauge PVC			
	conduits laid concealed over false ceiling or in wall chases			
	including circuit wires from the relevant DB and also including			
	2.5 Sq.mm Green Colour Copper earth wire and provision of			
	grid plate type (ROMA) switches and sockets as approved by Bank / Architect. Each circuit feeding not more than 8 points /			
	800 W as per the following configuration.			
1	Primary light points including the cost of 5A switch	40	Pts	
2	Secondary light points looped from the above point	25	Pts	
3	5A plug point as primary point	10	Pts	
4	Secondary 5A Plug point on switch board	10	Pts	
5	15A Plug Point directly taken from DB for hot plate	10	Pts	
7	Exhaust fan point wiring	4	Pts	
D	FIXTURES	4	rts	
2				
	LED Type Light fixture suitable for Modular Ceiling Supply & Installation of (29/30/36W) (2' X 2') LED Mirror			
	optic Light fixture. The fitting shall be surface mounted / to be			
	hanged from the ceiling at the height approved by architect.			
	(PHILIPS Cat No. :- RC380B 29W or equivalent category &	20	Nos	
	model in Bajaj / CGL / GE make as approved by client /			
2.1	architect / consultant.)			
	LED Type Light fixture suitable for Modular Ceiling / Plain			
3	Ceiling			
	Supply & Installation of (15/18 W) LED Spotlight flush			
	mounted Light fixture. (PHILIPS Cat No. :- DN193 LED 12S or	10	Nos	
	equivalent category & model in Bajaj / CGL / GE make as	10	1103	
3.1	approved by client / architect / consultant.)			
2.2	Supply & installation of (10/12W) LED Spotlight flush mounted	10	Nos	
3.2	light fixture. (PHILIPS Cat No: Ultima DN 092 or equivalent			

		1		Г
	category & model in Bajaj/CGL/CE make as approved by client/architect/consultant).			
4	Cove / Indirect Lighting & Other Area Lighting			
	S & I (20/22W) (4) LED tubelight. (philipsCat No: BN021 LED	10	Nos	
4.2	20S or equivalent model in CG/GE/Bajaj make)	10	NOS	
	S & I of (10/12W) (2') LED Tubelight. (Philips/CG GE/Bajaj	5	Nos	
4.3	make).		1105	
4.4	S & I of Wall mounted exhaust fan (9" dia.) of decorative plastic body and blade with louvers on the outside of approved make	2	Nos	
4.4	S & I of approved make 400mm dia. Wall fan alogwith required			
	hardware & accessories, etc. as approved by Architech /	2	Nos	
4.5	Consult/Client.	-	1105	
	S & I approved make ceiling Fan (4'dia/1200 mm dia)(BEE 5			
	star rated) Colour :- White/Brown/ Ivory as approved by	4	Nos	
	Client/ architect/consultant) alongwith all required hardware	4	NOS	
4.6	& accessories, etc.			
4.7	Supply & fixing 18" Heavy duty exhaust fan.	2	Nos	
	Supply & fixing 63A 4 pole MCB with box.	4	Nos	
	Supply & fixing motor starter 3 phase.	3	Nos	
	Supply & fixing 20A Industrial Socket, complete set.	20	Nos	
E	MUSIC - CUM - PA - SYSTEM			
	S & I of point wiring for music - cum PA system comprising of			
	2x 1.0 sqmm stranded , copper conductor , flexible PVC			
	insulated and PVC Sheathed wire pulled through 20 mm dia	0	Pts	
	.PVC heavy gauge conduits and looped from one speaker to other and to the volume control and control switch wherever			
1	applicable and finally terminated at Tag Block.			
'	S & I of Philips / Bosch/Ahuja make music speaker flush			
	mounted on the false ceiling with proper clamping	0	Nos	
2	arrangement			
	Exhaust System			
	Supply, installation testing and commissioninf of Kitchen Hood			
	madeup of SS-304 complete alongwith grease trap and all			
1	accessories. (Size:60" x 30")			
а	Size: 60" x 30" ( above 2 burner.)	3	No	
b	Size: 48" x 30" ( above Dossa Bhatti)	1	No	
С	Size: 36" x 30" (above singjle Burne)	1	No	
_	Supply & fabricating of 22/24 guage GI Ducting as per site	300	Sft	
2	requirement for Exhaust, complete.		510	
	Complete O. Finite and Company of the Company of th	2	), T	
3	Supply & Fixing of Cancas connection	2	No	
	D/E CN (C   Dil )		ът	
4	P/F of Net for Cowl Pile as per site condition.	1	No	
	P/F of Blower Motor 2Hp, 3 Phase with MS Stand of required			
5	size, red oxide and black painted, complete.	1	No	
	5126, Fou onice and black painted, complete.			
6	P/F of Cover for Blower.	1	No	
			110	

Grand Total		