

**UCO BANK
ZONAL OFFICE
GENERAL ADMINISTRATION DEPARTMENT
3&4, DD BLOCK, 1ST FLOOR, SALT LAKE, SECTOR -I,
KOLKATA- 700 064**

**TENDER DOCUMENT
FOR
CIVIL/ INTERIOR FURNISHING/ ELECTRICAL/DATA CABLING WORKS
OF
NANGI BRANCH AT BANANI APARTMENT,
NANGI MORE, BUDGE BUDGE TRUNK ROAD,
BATANAGAR, KOLKATA- 700140**

NAME OF THE TENDERER :

ADDRESS OF THE TENDERER :

DATE OF SUBMISSION OF TENDER :

ARCHITECT CONSULTANT

ARCHI SPACE CONSULTANT
45B, BAGHAJATIN PLACE, "AMELIA APARTMENT", GROUND FLOOR,
KOLKATA - 700086
PH: 9830006396, 033-2425-0125

GENERAL INDEX

DESCRIPTION	PAGE NO.
1. General Index	02
2. Notice Inviting Tender	03 - 04
3. General Rules and Instructions For the Guidance of Tenderers	05 - 07
4. Special Instructions to Tenderers	08 - 10
5. Safety Code	11
6. Model Rules for the Protection of Health	12
7. General Conditions of Contract	13 - 34
8. Appendix	35
9. General Specifications	36 – 42
10. Technical Specification for Interior Works	43 - 45
11. Technical Specification for Electrical Works	46 - 57
12. List of Materials of Approved Brand / Manufacturer	58 - 59
13. Articles of Agreement	60 - 61
14. Form of Tender	62 - 63
15. Performa for Application for Extension of Time Period	64 - 65
16. Format of Interim / Final Bill	66
17. Tender Drawings (3 Nos.)	67 - 69

NOTICE INVITING TENDER

Sealed tenders on item rate basis are invited by UCO Bank from Empanelled Contractors having Sound Technical and Financial capacity for Civil/ Interior Furnishing/ Electrical/Data cabling works of Nangi Branch at Banani Apartment, Nangi more, Budge Budge Trunk Road, Batanagar, Kolkata- 700140.

A) Name of the Work:

CIVIL/ INTERIOR FURNISHING/ ELECTRICAL/DATA CABLING WORKS OF NANGI BRANCH AT BANANI APARTMENT, NANGI MORE, BUDGE BUDGE TRUNK ROAD, BATANAGAR, KOLKATA- 700140

B) Location :

AT Banani Apartment, Nangi more, Budge Budge Trunk Road, Batanagar, Kolkata- 700140

C) Estimated Cost:

Rs.14,00,000.00 (Rupees Fourteen Lakhs only)

D) Time of Completion:

8 (EIGHT) WEEKS from the fifteenth day after the date of written orders to commence the work or from the date of handing over of the site, whichever is later,(in accordance with the phasing, if any).

E) Earnest Money Deposit(EMD) :

*The tender shall be accompanied by earnest money deposit of **Rs.14,000 .00 (Rupees Fourteen Thousand only)** in the form of Crossed Demand bank draft/Pay order issued in favour of 'UCO BANK' Payable at Kolkata without which tender will be liable to rejection. Earnest money deposit in respect of the successful tenderer will be retained..*

F) Initial Security Deposit (ISD):

The successful tenderer to whom the contract is awarded will have to deposit as "initial security deposit" (ISD) a further sum to make up 2% of the value of the accepted tender including the Earnest Money. ISD may be submitted in the form of Demand Draft/Pay Order or Banker's cheque. The initial Security Deposit will have to be made within 14 days from the date of acceptance of tender, failing which the Bank at its discretion may revoke the letter of acceptance and forfeit the Earnest Money deposit furnished along with the tender.

G) Retention Money:

To be deducted from Progressive running bills @ 8 % of the gross value of the Running Bill.

H) Release of Retention Money:

100% after expiry of the Defect liability period. Retention money will not bear any interest.

I) Availability of Tender Document:

*Tender are to be on the prescribed form which can be obtained from **Bank's website till 21/11/2018***

J) Date & Place of Submission of Tender:

*21/11/2018 up to 3P.M. at General Administration Department, Zonal Office, UCO BANK,
At 3&4, DD Block, 1st floor, Salt lake, Sector -I, Kolkata- 700064.*

K) Tender addressed to: THE ZONAL MANAGER
UCO BANK
ZONAL OFFICE
GENERAL ADMINISTRATION DEPARTMENT
3&4, DD BLOCK, 1ST FLOOR, SALT LAKE,
SECTOR -I, KOLKATA- 700 064

L) PRE-BID MEETING:

07/11/2018 at 4 P.M. at General Administration Department, Zonal Office, UCO BANK,
3&4, DD Block, 1st floor, Salt lake, Sector -I, Kolkata- 700064.

M) Opening of Tender:

21/11/2018 at 4 P.M. at General Administration Department, Zonal Office, UCO BANK,
3&4, DD Block, 1st floor, Salt lake, Sector -I, Kolkata- 700064.

N) Mode of Submission of Tender:

*The tender should be submitted at the General Administration Department, Zonal Office, UCO BANK,
3&4, DD Block, 1st floor, Salt lake, Sector -I, Kolkata- 700064, in two separate sealed covers super scribed
Part-I and Part-II containing the documents as under:-*

Part-I : *Covering letter, Earnest Money, GST NO, PAN NO, Bank's A/C details including IFSC Code.*

Part-II: *the Tender Document comprising of General Conditions of Contract, Tender Notice, technical
Specifications etc. along with Bill of Quantities duly priced (along with Tender drawing if applicable).
Any condition stipulated in Part-II will not be accepted.*

O) Clarification, if any to be obtained from:

ARCHI SPACE CONSULTANT
45B, BAGHAJATIN PLACE, "AMELIA APARTMENT",
GROUND FLOOR, KOLKATA - 700086.

*The Bank reserves the right to accept or reject any or all the tenders received and to place order on one or more firms
without assigning any reason whatsoever. The notification of award of contract will be made in writing to the
successful tenderer by the Bank.*

UCO BANK
GENERAL ADMINISTRATION DEPARTMENT
ZONAL OFFICE
KOLKATA

GENERAL RULES AND INSTRUCTIONS FOR THE GUIDANCE TO TENDERERS

1. Tenders are hereby invited by UCO Bank, Zonal Office, Kolkata for **Civil/ Interior Furnishing/ Electrical/ Data cabling works of Nangi Branch at Banani Apartment, Nangi more, Budge Budge Trunk Road, Batanagar, Kolkata- 700140**. Estimated cost of project is **Rs.14,00,000.00** (approx).
2. Contract documents consisting of the plans, complete specifications, the schedule of quantities of the above work to be done, and set of conditions of contract to be complied with by the person whose tenders may be accepted, which will also be found in the form of tenders, can be seen/ purchased at the office of the General Administration Department, Zonal Office, UCO BANK, 3&4, DD Block, 1st floor, Salt lake, Sector -I, Kolkata- 700064, except on Saturday, Sunday and Holidays.
3. The site for the work will be made available to the contractor in its present conditions. No space other than the above site can be made available to the contractor for site office, labour camps, storage etc.
4. Sealed tenders on the prescribed form are to be addressed & submitted to “The Zonal Manager , UCO Bank, Zonal Office, General Administration Department, 3&4, DD Block, 1st floor, Salt lake, Sector -I, Kolkata- 700064, 21/11/2018 up to 3P.M. in two separate sealed covers superscribed with Part-I and Part-II containing the documents as under :-

Part-I : *Covering letter, Earnest Money, GST NO, PAN NO, Bank's A/C details including IFSC Code.*

Part-II : *The Tender Document comprising of General Conditions of Contract, Tender Notice, technical Specifications etc. along with Bill of Quantities, duly priced, (along with Tender drawings if applicable). Any condition stipulated in Part-II will not be accepted.*

The Part-I: will be opened at about 4 P.M. on 21/11/2018 in presence of tenderers. The tenderers shall depute their authorized representative/s to be present at the time of opening of Part-I. Tender without earnest money in proper form will be rejected.

The Part -II: containing the Bill of Quantities, duly priced will be opened after verification of submissions made in Part-I, which might necessitate withdrawal of conditions and its financial impact on the tendered sum, if any.

5. Tenders are to be on the prescribed form which can be obtained from **Bank's website till 21/11/2018**.
6. The time allowed for the carrying out of the work will be **8 weeks** from the fifteenth day after the date of written orders to commence the work.
7. All corrections shall be attested by the initials of the tenderers with the seal of the firm. In case any discrepancy/ difference is found on checking between rates quoted by the contractor in words and figures or in the amount worked out by him, the following procedure shall be followed :
 - a) When there is a difference between the rates in figures and in words, the rate which corresponds to the amounts worked out by the contractor, shall be taken as correct.

- b) When the amount of any item is not worked out by the contractor or it dose not correspond with the rate written either in word, then the rate quoted by the contractors in word shall be taken as correct.
 - c) When the rate quoted by the contractor in figures and in word tallies but the amount is not worked correctly, rate quoted by the contractor shall be taken as correct and not the amount.
 - d) Amendments as mentioned above shall be based on the tender marked “original” only.
8. When a contractor signs a tender in an Indian language the tendered amount and the total amount tendered should also be written in the same language. In the case of illiterate contractors the rates or the amount tendered should be attested by a witness.
 9. Earnest money, amounting **Rs.14,000 .00** in the crossed Demand Draft/Pay order/ Banker’s cheque drawn in favour of “UCO Bank”, payable at Kolkata must accompany each tender in Part-I.
 10. The contractor, whose tender is accepted will be required to furnish by way of security deposit for the due fulfillment of his contract, such sum as detailed in clause No.22A of General conditions of contract.
The EMD of the contractor, whose tender is accepted, shall be forfeited in full in the case he dose not remit the Initial Security Deposit within the stipulated period or start the work by the stipulated date mentioned in the award letter.
 11. The acceptance of a tender will rest with the UCO Bank, Zonal Office, Kolkata. The Bank reserves to itself the authority to accept or reject any or all of the tenders received and to place order on one or more firms without the assignment of a reason. All tenders in which any of the prescribed conditions are not fulfilled or are incomplete in any respect are liable to be rejected. The bank reserves the right to accept the tender in full or in part and the tenderer shall have no claim for revision of rates or other conditions if his tender is accepted in parts.
 12. Canvassing in connection with tender is strictly prohibited and the tenders submitted by the contractors who resort to canvassing will be liable to rejection.
 13. All rates shall be quoted on the proper form of the tender alone.
 14. An item rate tender containing percentage below/above will be summarily rejected. However, where a tender voluntarily offers a rebate for payment within a stipulated period in Part-I, this may be considered.
 15. On acceptance of the tender, the name of the accredited representative(s) of the contractor who would be responsible for taking instructions from the Owner/ Architects shall be communicated to the owner.
 16. Special care should be taken to write the rates in figures as well as in words and the amounts in figures only, in such a way that interpolation is not possible. The total amount should be written both in figures and in words. In case of figures, the word “Rs.” Should be written before the figure of rupees and word “P” after the decimal figures, e.g. Rs.2.00P.and in case of words, the word “Rupees” should be precede and the word “Paisa” should be written at the end, unless the rate is in whole rupees and followed by the words “only” it should invariably be up to two decimal places. While quoting the rate is in schedule quantities. The word “only” should be written closely following the amount and it should not be written in the next line.
 17. The Bank does not bind it-self to accept the lowest or any tender and reserves to itself the right of accepting the whole or any part of the tender and the tenderer shall be bound to perform the same at the rate quoted.

- 18.** All taxes including Service Tax ,VAT, Work Contract Tax, or any other tax on material or on finished works in respect of this contract shall be payable by the contractor and the Bank will not entertain any claim whatsoever in this respect at any time. Rates should include all taxes except GST.
- 19.** The contractor shall give a list of his relatives working with the bank along with their designations and addresses.
- 20.** No employee of the Bank is allowed to work as a contractor for a period of two years of his retirement from bank service, without the previous permission of the bank. This contract is liable to be cancelled if either the contractor or any of his employees found at any time to be such a person who had not obtained the permission of the Bank as aforesaid before submission of the tender or engagement in the contractor's service.
- 21.** The tender for works shall remain open for acceptance for a period of 120 days from the date of opening of tenders. If any tenderer withdraws his tender before the said period, then the Bank shall be at liberty to forfeit Earnest money paid along with the tender.
- 22.** The tender for the work shall not be witnessed by a contractor or contractors who himself / themselves has / have tendered for the same work. Failure to observe this condition would render tenders of the contractors tendering as well as witnessing the tender liable to summarily rejection.
- 23.** It will be obligatory on the part of the tenderer to tender and sign the tender documents for all the component parts and that, after the work is awarded, he will have to enter into an agreement for each component with the component authority in the bank.
- 24.** The tenderer, apart from being a component contractor must co-operate himself with agencies of the appropriate class who are eligible to tender for (i) Civil work (ii) Interior work (iii) Electrical work (iv) Data cabling work etc.

SPECIAL INSTRUCTIONS TO TENDERERS

GENERAL

The scope of work covers execution and completion of the **Proposed Civil/ Interior Furnishing/ Electrical/ Data cabling works of Nangi Branch at Banani Apartment, Nangi more, Budge Budge Trunk Road, Batanagar, Kolkata- 700140**, in accordance with drawings and specifications prepared by and under the direction and to the satisfaction of the Consultant/ Employer.

Contract: The form of Contract shall be according to the Conditions of Contract. The following clauses shall be considered as an extension and not in limitation of obligation of the Contractor.

Drawings: Two copies of all drawings (if applicable), shall be furnished by the Consultant/ Bank to the Contractor for his own use until the completion of the Contract, and shall be accessible at all reasonable times to the Consultant or their representatives. All important drawings are to be mounted on boards and placed in racks and indexed.

Dimensions: Figured dimensions are in all cases to be accepted in preference to scaled sizes. Large scale details take precedence over small scale drawings. In case of any discrepancy the Contractor shall ask for clarification before proceeding with the work. The Contractor shall include in his rates for all the items listed in this section.

1. Contractor to inspect site : The Contractor shall visit and examine the construction site and satisfy himself at his own cost as to the nature of the existing roads or other means of communications, the extent and magnitude of the work and facilities for obtaining materials and shall obtain generally his own information. Any misunderstanding or incorrect information on any of these points or on the grounds of insufficient description, will not be allowed.

2. Access to site: The Contractor is to include in his rates for forming access to site, with all temporary roads gangways required for the works.

3. Setting out: The Contractor shall set out the site in accordance with the plans. All grid/centre- lines shall be pegged out to the satisfaction of the Consultant. The Contractor shall be responsible for the correctness of the lining out and any inaccuracies are to be rectified at his own expense. He will be responsible for taking levels of work at the site before setting out and recording them without any extra charge.

4. Treasure grove: Should any treasure fossils, minerals or work of art of antiquarian interest be found during carrying out the works, the Contractor shall give immediate notice to the Consultant /Bank of any such discovery and shall hand over such finds to the Employer.

5. Access for inspection: The Contractor is to provide at his own cost all times during the progress of the works and the maintenance period proper means of access, with ladders, gangways etc. and the necessary attendance to move and adapt as directed for the inspection of measurement of the works by the Consultant or their representatives.

6. Attendance upon all trades : The general Contractors shall be required to attend on all the tradesmen or sub-contractors appointed by the Employer for water supply and sanitary, electrical installation, lifts, air-conditioning, security, equipment, hardware, telephone and other specialist Contractors. The rates quoted shall be inclusive of all attendance and also allow the other Contractors, appointed by the Employer, use of his scaffolding and retain until such time the relevant sub-contract works are completed.

- 7. Water supply:** Water shall be arranged in accordance with Clause 21(a) of general instructions to Contractor. The general Contractor shall allow the use of water for other works on the site done by other Contractors appointed by the Employer and the consumption charges shall be paid by each agency as appointed by the Consultant
- 8. Stores and watchmen:** The Contractor shall provide at his own cost for necessary stores of adequate dimension for storage and protection of materials. All such stores shall be cleared away and the whole area left in good order on completion of the Contract to the satisfaction of the Consultant. All materials which are stored such as ply, wood, Laminates or any other matter shall be stacked in such a manner as to facilitate rapid and easy checking of quantities of such materials. The Contractor shall nominate a person who would take instruction from the Consultant/employer.
- 9. Cost of transporting:** The Contractor shall allow at his cost for all transporting unloading, stacking and storing of supplies of goods and materials for this work on the site and in the places approved from time to time by the Consultant.
The Contractor shall allow at his price for transport of all materials controlled or otherwise to the site.
- 10. Office accessories and accommodation:** The Contractor shall also provide at his own expense office furniture with drawing accessories for the official use of the controller and at all times maintain in good working order necessary instruments at site to enable the Consultant/employer to check the lines and levels of the work.
- 11. Materials workmanship & samples:** Materials shall be of approved quality and the best of their kind available and shall generally conform to relevant I.S. specifications. The Contractor shall order all the materials required for the execution of work as early as necessary and ensure that such materials are on site well ahead of requirement for use in the work. The work involved calls for high standard of workmanship combined with speed and to the entire satisfaction of the Consultant. Before ordering materials, the Contractor shall get the samples approved from the Consultant well in advance.
- 12. Rates for non-tender items:** Rates of items not included in schedule of specification shall be settled as per current PWD schedule of rates if not available then to be settled as per variation clause of the condition of contract.
Rates to include: The rates quoted shall be for all heights and depths and for finished works, in any shape.
The Contractor shall ascertain from other Contractors as directed by the Architects all particulars relating to their work with regard to the order of its execution and the position in which chases, holes and similar items will be required, before the work is taken in hand as no claims for extra will be allowed for cutting away work already executed in consequence of any neglect by the Contractors to ascertain these particulars beforehand.
- 13. Testing of work and material:** The Contractors shall, if required by the Consultant/employer, arrange to test materials and/or portions of the work at his own cost in order to prove their soundness and efficiency. If after any such test the work or portion of work is found in the opinion of the Consultant to be defective or unsound, the Contractor shall pull down and redo the same at his own cost, defective materials and the debris shall immediately be removed from the site.
- 14. Foreman and Tradesmen:** All tradesmen shall be experienced men properly equipped with suitable tools for carrying out all the work of carpentry and joinery and other special trades in a first class manner and where the Consultant deem necessary, the Contractor shall provide any such tools, special or ordinary which are considered necessary for carrying out the work in a proper manner. All such tradesmen shall work under an experienced and properly trained Forman, who shall be capable of reading and understanding all drawings pertaining to this work.

- 15. Work programme weekly progress report:** The Contractor shall prepare and submit to Consultant/employer for approval, a bar chart showing the programme of construction of various items, fitted within the period stipulated for completion, along with submission of the tender. The Contractor shall also furnish necessary particulars to the Consultant for compiling weekly progress reports in the form furnished by the Consultant/employer.
- 16. Clearing of site:** The Contractor shall after completion of the work clear the site of all debris and left over material at his own expense to the entire satisfaction of the Consultant and municipal or other public authorities.
- 17. Photographs:** The Contractor shall at his own expense supply to the Consultant with duplicate copies of large coloured photographs not less than 25 x 20 cm. (10" x 8") of the works taken from two approved portions of each work, at beginning of the work, at completion of work and at every important stage of construction without fail.
- 18. Preparation of Premises for occupation and use on completion:** The whole of the work shall be thoroughly inspected by the Contractors and all deficiencies and defects put right. On completion of such inspection, the Contractor shall inform the Consultant in writing that he has finished the work and it is ready for the inspection of Consultant/employer.
- 19. Vouchers:** The Contractors shall furnish the Architect with vouchers on request to prove that the materials are as specified and to indicate the rates at which the materials are purchased in order to without the rate analysis of tender and non-tender items which he may be called upon to carry out thereafter.
- 20. Protection :** The Contractor shall properly cover up and protect all work throughout the duration of work and until completion, particularly masonry, floor finishes, doors and window frames, plaster, angles, lighting and sanitary fittings, glass, paint work, all furnishing work and all finishing at his cost till the same is handed over to the owner.

SAFETY CODE

SAFETY MEASURES

- i) All Personnel of the contractor working within the site shall be provided with safety helmets.
- ii) Adequate precaution shall be taken to prevent danger from electrical equipment. No materials on any of the sites of work shall be so stacked or placed as to cause danger or inconvenience to any person or the public.

DEMOLITION

- iii) Before any demolition work is commenced and also during the process of the work:
 - a) All roads open areas adjacent to the work site shall either be closed or suitably protected.
 - b) No electric cable or apparatus which is liable to be a source of danger over a cable or apparatus used by the operator shall remain electrically charged.
 - c) All practical steps shall be taken to prevent danger to persons employed from the risk of fire or explosion or flooding. No floors roof or other part of the building shall be so overloaded with debris or materials as to render it unsafe.

PERSONAL SAFETY EQUIPMENTS

- iv) All necessary personal safety equipment as considered adequate by the Engineer should be kept available for the use of the person employed on the site and maintain in a condition suitable for immediate use and the contractor should taken adequate steps to ensure proper use of equipment by those concerned:
 - a) Workers employed on mixing asphaltic materials, cement and lime mortars shall be provided with protective footwear and protective goggles.
 - b) Those engaged in white washing and mixing or stacking of cement bags or any materials which is injurious to the eyes shall be provided with protective goggles.
 - c) Those engaged in welding works shall be provided with welder's protective eyesight lids.
 - d) Stone breakers shall be provided with protective goggles and protective clothing and seated at sufficiently safe intervals.
 - e) When workers are employed in sewers and manholes, which are in use, the contractor shall ensure that the manhole covers are ventilated at least for an hour before the workers are allowed to get into manholes and the manholes so opened shall be cordoned off with suitable railing and provided with warning signals or boards to prevent accident to the public.
 - f) The contractor shall not employ with products containing lead in any lead painting the following precautions should be taken:
 - 1) No paint containing lead or lead products shall be used except in the form of paste or readymade paint.
 - 2) Suitable face mask should be supplied for use by the workers when paint is applied in the form of spray or a surface having lead paint dry rubbed and scraped.
 - 3) Overalls shall facilities shall be provided to enable the working painters to wash during the cessation of work.
- v) When the work is done near any public place where there is risk of drowning all necessary equipments should be provided and kept ready for use and all necessary steps taken for prompt rescue of any person in danger and adequate provision should be made for prompt first aid treatment of all injuries likely to be sustained during the course of the work.

MODEL RULES FOR THE PROTECTION OF HEALTH

1. Application

These rules shall apply to the Proposed **Civil/ Interior Furnishing/ Electrical/ Data cabling works of Nangi Branch at Banani Apartment, Nangi more, Budge Budge Trunk Road, Batanagar, Kolkata-700140.**

2. Definition

- a) 'Work place' means a place at which at an average 10 workers is employed in connection with Interior work.

3. First Aid

- a) At every work place, there shall be maintained in readily accessible place first aid appliance including an adequate supply of sterilized dressings and sterilized cotton wool. The appliance shall be kept in good order and in large work place they shall be placed under the charge of a responsible person who shall be readily available during working hours.

GENERAL CONDITION OF CONTRACT

Except where provided for in the description of the individual items in the schedule of quantities and in the specifications and conditions laid down hereinafter and in the Drawings, the work shall be carried out as per standard specifications and under the direction of Owner /Architects.

1. INTERPRETATION

In construing these conditions, the specifications, the schedule of quantities, tender and agreement, the following word shall have the meaning herein assigned to them except where the subject to context otherwise requires:

i) Owner/Employer: The term Owner/Employer shall denote UCO Bank, or any of its employees representative authorized on their behalf.

ii) Architect/Consultant: The term Architect/ Consultant shall mean **Archi Space Consultant 45B, Baghajatin Place, "Amelia Apartment", Ground floor, Kolkata - 700086**, or in the event of his/their ceasing to be the Architects for the purpose of this contract such other person/s the owner shall nominate for the purpose.

iii) Contractor: The term contractor shall mean the individual or company whether incorporated or not, undertaking the work relating to contraction of **the Civil/ Interior Furnishing/ Electrical/ Data cabling works of Nangi Branch at Banani Apartment, Nangi more, Budge Budge Trunk Road, Batanagar, Kolkata- 700140** and shall include legal representative of such firm or company as may be and permitted assign of such individual of firm or company and successors.

iv) Site: The site shall mean the site where the works are to be executed as shown within boundary in red border on the site plan including any building and erections thereon allotted by the owner for the contractor's use.

v) Site Engineer/PMC: The site Engineer/PMC shall be appointed by the owner. The owner may also determine the number of site Engineer and the supporting staff at site office to assist them and also whether the site Engineer shall be temporary or permanent. Wherever PMC is engaged, site Engineer, if any, will work in close condition with PMC.

vi) Drawings: The work is to be carried out in accordance with drawings, specifications, the schedule of quantities and any further Drawings which may be given by the employer during execution of the work. A set of drawings is provided with the tender to give the general idea about the total construction. All drawings relating work given to the contractor together with a copy of schedule of quantities are to be kept at site and the Owner/Architects shall be given access to such drawings or schedule of quantities whenever necessary.

In case any detailed drawings are necessary contractor shall prepare such detailed drawings and / or dimensional sketches therefore and have it confirmed by the Owner/Architects prior to taking up such work.

The contractor shall ask in writing for all clarifications on matters occurring anywhere in drawings, specification and schedule of quantities or to additional instructions at least 10 days ahead from the time it is required for implementation so that the owner may be able to give decision thereon

vii) The "work" shall mean the work or works to be executed or done under this contract.

viii) "Act of Insolvency" shall mean any act as such as defined by the presidency Towns Insolvency Act or in provincial Insolvency Act or any amending statutes.

ix) "The schedule of Quantities" shall mean the schedule of quantities as specified and forming part of this contract.

x) “Priced schedule of Quantities” shall mean the schedule of quantities duly priced with the accepted quoted rates of the contractor.

xi) “Notice in writing” or “written notice” shall mean a notice written, typed or in printed characters sent (unless delivered personally or otherwise proved to have been received) by registered office address and shall be deemed to have been received when in the ordinary course of post it would have been delivered.

2. SCOPE

The work consists of **Civil/ Interior Furnishing/ Electrical/ Data cabling works of Nangi Branch at Banani Apartment, Nangi more, Budge Budge Trunk Road, Batanagar, Kolkata- 700140** in accordance with the “drawings” and “schedule of quantities”. The civil works are within the scope of this tender. It includes furnishing all material, labour, tools and equipment and management necessary for the incidental to the construction and completion of the work. All work, during its progress and upon completion, shall conform to the lines, elevations and grades as shown on the drawings furnished by the owner/architects. Should any detail essential for efficient completion of the work be omitted from the drawings and specifications it shall be the responsibility of the contractor to inform the Owner/Architects and to furnish and install such detail with works the same will be acceptable and ready for use.

Owner/Architects may in their absolute discretion issue further drawings and/or written instructions, details, directions and explanations, which are, hereafter collectively referred to as “the owner/architects instructions in regard to:

- a) The variation or modification of the design quality or quantity of works or the addition or omission or Substitution of any work.
- b) Any discrepancy in the drawings or between the schedule of quantities and/or specification.
- c) The removal from the site of any defective material brought thereon by the contractor and the substitution of any other material thereof.
- d) The demolition removal and /or re-execution of any work executed by the contractor/s.
- e) The dismissal from the work of any person employed thereupon.
- f) The opening up for inspection of any work covered up.
- g) The rectification and making good of any defects under clauses hereinafter mentioned and those arising during the maintenance period (retention period).

The contractor shall forthwith comply with and duly execute any work comprised in such Owner’s/Architects instructions, provided always that verbal instructions, directions and explanations given to the contractor’s or his representative upon the work by the owner /Architects shall involving a variation be confirmed in writing to the contractor’s within seven days. No works for which rates are not specifically mentioned in the priced schedule of quantities shall be taken up without written permission of the Owner / Architects. Rates of items not mentioned in the priced schedule of quantities shall be fixed by the owner in construction with the Architects as provided in clause “variation”.

Regarding all factories made products for which ISI marked products available, only products bearing ISI marking shall be used in the work. Other products should be supplied as per the brand name mentioned in the Technical Specifications.

3. DETAILED DRAWINGS AND INSTRUCTIONS

The Owner through its Architects shall furnish with reasonable promptness additional instructions by means of drawings or otherwise necessary for the proper execution of the work. All such drawings and instructions shall be consistent with the Contract Documents, true developments thereof, and reasonably inferable there from.

The work shall be executed in conformity therewith and the contractor shall not work without proper drawings and instructions. Immediately after receipt of the work order of the contract the contractor shall prepare a progress schedule and submit the same to the Owner through the Architects for approval which shall indicate the dates for the starting and completion of the various stages of constructions.

4. COPIES FURNISHED

The contractor on the signing hereof shall be furnished by the Owner through its Architect free of charge with a copy of the priced schedule of quantities/rates, two copies of each of the said drawings and one copy of specifications and two copies of all further drawings issued during the progress of the work. Any further copies of such drawings required by the contractor shall be supplied on payment of the charges thereof by the contractor.

5. OWNERSHIP OF DRAWING

All drawings, specification and copies thereof furnished by the Owner through its Architects are the property of the owner. They are not to be used on other work, and with the exception of the signed contract set, are to be returned to the Owner on request at the completion of the work.

6. ROYALTIES & PATENTS

The contract shall pay all royalties and license fees. He shall defend all suits or claims for infringement of any patent rights and shall save the owner harmless from loss on account thereof.

7. INSPECTION OF WORK

The proposed work covered under this tender during its progress can also be inspected by the chief Technical Examiner/Technical Examiner or by an officer of the vigilance cell of the authority on behalf of the Owner/Architects.

8. SUPERINTENDENCE SUPERVISION

The contractor shall give all necessary personal superintendence during the execution of the work and this obligation and liability will continue until expiration of the 'Maintenance period' (Retention period). The contractor shall also during the whole time of work when in progress employ a competent representative who shall be constantly in attendance at the site while his means are at work. Any directions, explanations, instructions or notices given by the Owner or the Architects to such representative shall be deemed to have been given and duly served on the contractor.

9. FAILURE BY CONTRACTORS TO COMPLY WITH OWNER'S/ARCHITECT'S INSTRUCTIONS

If the contractor after receipt of written notice from the owner and/or the Architects requiring compliance within ten days fails to comply with such further drawings and/or Owner's/Architect's instructions, the owner through the Architect or other person, may employ other person to execute any such work whatsoever that may be necessary to give effect thereto and pay all cost incurred in connection therewith and same shall be recoverable from the contractor by the Owner on the certificate of the Architect as a debt or shall have right to deduct same from any money due or to become due to the contractor.

10. TENDERER SHALL VISIT THE SITE

Intending tenderer shall visit the site and make him thoroughly acquainted with the local site condition, nature and requirements of the works, facilities of transport condition, effective labour and materials, access and storage for materials and removal of rubbish. The tenderer shall provide in their tender for cost of carriage, freight and other charges as also for any special difficulties and including police restriction for transport etc for proper execution of work as indicated in the drawings. The successful tenderer will not be entitled on to any claim of compensation for difficulties faced or losses incurred on account of any site condition which existed before the commencement of the

work or which in the opinion of the Owner/Architects might be deemed to have reasonably been inferred to be so existing before commencement of work.

11. TENDERS

The entire set of tender paper issued to the tenderer should be submitted fully priced and also signed on the last page together with initials on every page. Initial/signature will indicate the acceptance of the tender papers by the tenderer.

The schedule of quantities shall be filled in as follows:

- i) The 'rate' column to be legibly filled in ink in both English figures and English words.
- ii) Amount column to be filled in for each item and the amount for each sub head as detailed in the "schedule of Quantities".
- iii) All corrections are to be initialed.
- iv) The "Rate column" for alternative items shall be filled up.
- v) The "Amount" column for alternative items of which the quantities are not mentioned shall not be filled up.
- vi) In case of any errors/omissions in the quote rates, the rates given in the tender marked "original" shall be taken as correct rates.

vii) When there is difference between the rates in figures and in words the rate which corresponds to the amounts worked out by the contractor shall be taken as correct.

No modifications, writing or corrections can be made in the tender papers by the tenderer, but may at his option offer his comments or modifications in a separate sheet of paper attached to the original tender papers.

The Owner reserves the right to reject the lowest or any tender and also to discharge any or all the tenders for each section or to split up and distribute any item of work to any specialist firm or firms, without assigning any reason.

The tenderers should note that the tender is strictly on the item rate basis and their attention is drawn to the fact that the rates for each and every item should be correct, workable and self-supporting. If called upon by the Owner /Architects detailed analysis of any or shall the rates shall be submitted. Owner/Architects shall not be bound to recognize the contractor's analysis.

The work will be paid for as "measured work" on the basis of actual work done.

All items of work described in the schedule of quantities are to be deemed and paid as complete works in all respect and details including preparatory and finishing work involved, directly, related to personably detectable from the drawings, specifications and schedule of quantities and no further extra charges will be allowed in this connection. In the case of lump-sum charges in the tender in respect of any item of works, the payment of such items of work will be made for the actual work done on the basis of lump-sum charges as will be assessed to be payable by the Owner/Architects.

The owner has power to add to omit from any work as shown in drawings or described in specifications or included in schedule of quantities and intimate the same in writing but no addition, omission or variation shall be made by the contractor without authorization from the Owner. No variation shall vitiate the contract.

The tenderer shall note that his tender shall remain open for consideration for a period of 120 days from the date of opening of the tender.

12. SHCEDULE FOR COMMENCEMENT OF WORK

The contractor shall submit a time and progress chart in a form approved by the owner through its Architects within fifteen days from the date of issue of work order or the date on which the contractor is instructed to take proccession of the site, whichever is later.

During the period of Construction, the contractors shall maintain proportionate progress on the basis of the Programme Chart submitted by the Contractor immediately before the commencement of the work and agreed by the Employer/Consultants. This Programme chart shall clearly indicate the completion of project. The contractors shall also include planning for procurement of scarce material well in advance and reflect the same in the Programme chart so that there is no delay in the completion of the project. The Programme Chart shall have to be updated at regular intervals and modified programme shall be submitted to the Architects/Owner for approval.

13. CO-OPERATION

The contractor will be required to consult and co-operation with other contractors whose work may be affected by the work under this contract.

14. TREASURE TROVE ETC.

Any treasure trove, coin or object antique which may be found on the site shall be the property of the Owner and shall be handed over to the Owner.

15. PERMITS AND LICENSES

Permits and licenses for release of materials which are under Government control will be arranged by the contractor. The owner will render necessary assistance, sign any forms or applications that may be necessary.

16. GOVERNMENT AND LOCAL RULES

The contractor shall conform to the provisions of all local Bye-laws and Acts relating to the work and to the Regulations etc of the Government and Local Authorities and of any company with whose system the structure is proposed to be connected. The contractor shall give all notices required by said Act, Rules, Regulations and Bye-laws etc and pay all fees payable to such authority/authorities for execution of the work involved. The cost, if any, shall be deemed to have been include in his quoted rates, taking into account all liabilities for licences, fees for footpath encroachment and restorations etc and shall indemnify the owner against such liabilities and shall defend all actions arising from such claims o liabilities.

17. TAXES AND DUTIES

The tenderers must include in their tender prices quoted for all duties royalties, cess and sales tax or any other taxes or local charges if applicable. The rates shall also include prevailing sales tax on work contract as per State Government norms. No extra claim on this account will in any case be entertained.

18. POSSESSION PRIOR TO COMPLETION

The owner shall have the right to take possession of or use any completed or partially completed part of the work. Such possession or use shall not be an acceptance of any work not completed in accordance with the contract Agreement.

19. EXCEPTED MATTERS

If the dispute or differences pertain to the undernoted matters the decision in writing of the officer designated in and signing the contract documents shall be final, conclusive and binding on the parties.

- i) Instructions.
- ii) Transactions with Local Authorities.
- iii) Proof of quality of materials.
- iv) Assigning or under relating of the contract.

- v) Certificate as to the causes of delay on the part of the contractor and justifying extension of time.
- vi) Rectifying of defects pointed out during the Defects Liability period.
- vii) Notice to the contractor to the effect that he is not proceeding with due diligence.
- viii) Certificate that the contractor has abandoned the contract.
- ix) Notice of determination of the contract by the Employer.

20. QUANTITY OF WORK TO BE EXECUTED

The quantities shown in the schedule of quantities are intended to cover the entire new structure indicated in the drawings but the owner reserves the right to execute only a part or the whole or any excess thereof without assigning any reason therefore. Variation in the value is however not expected to be more than +_ 25%.

21. OTHER PERSON ENGAGED BY THE OWNER

The owner reserves the right to execute any part of the work included in this contract by other Agency or person and contractor shall allow all reasonable facilities and use of his scaffolding for the execution of such work. The main contractor shall extend all co-operations in this regard.

22. A) EARNEST MONEY AND SECURITY DEPOSIT

The tenderer will have to deposit an amount of **Rs. 14,000.00** in the form of Demand Draft/Pay Order /Banker's Cheque drawn in favour of UCO Bank at the time of submission of tender as an Earnest Money. The owner is not liable to pay any interest on the Earnest Money. The Earnest Money of the unsuccessful tenderers will be refunded without any interest soon after the decision to award the work is taken or after the expiry of the validity period of the tender.

The successful tenderer to whom the contract is awarded will have to deposit as "initial security deposit" (ISD) a further sum to make up 2% of the value of the accepted tender including the Earnest Money. ISD may be submitted in the form of Demand Draft/Pay Order. The initial Security Deposit will have to be made within 14 days from the date of acceptance of tender, failing which the owner at his discretion may revoke the letter of acceptance and forfeit the Earnest Money deposit furnished along with the tender.

Apart from the initial security deposit made as above, **retention money shall be deducted from progressive running bills @ 8% of the gross value of each running bill until the security deposit, i.e. the initial security deposit plus the retention money equals:**

- a) 10% on the first Rupees one lakh of the cost of work;
- b) 7.5% on the next Rupees one lakh of the cost of work;
- c) 5% on the balance executed value of work.

Once the Contractor has completed the total work, the Contractor should remove his materials, equipments, labour force, temporary sheds, stores etc from the site, then only, virtual completion certificate shall be issued by the Architect/Owner.

100% of the retention amount shall be refunded 14 (fourteen) days after the end of defects liability period provided he has satisfactorily carried out all the work and attended to all defects in accordance with the conditions of the contract. However, the retention money will not be refunded to the contractor even after completion of defect liability period, in case observation of Chief Technical Examiner of C.V.C. is not cleared. No interest is payable on retention money. Further if some dues to the owner from the contractor(s) have still to be recovered the owner reserves the right to withhold payment of so much of the retention money as in his opinion represents the cost of the same.

22. B) PERFORMANCE SECURITY

Within 30 days of receipt of the letter of award the successful tenderer shall furnish to UCO Bank performance security for an amount of 5% (five percent) of the contract price in the shape of Demand Draft or pay order or Bank Guarantee from a Nationalised or Foreign Bank acceptable to the employer. Failure of the successful tenderer to furnish the performance security shall constitute sufficient grounds for the annulment of the award and forfeiture of Initial Security Deposit. In this event the employer may make the award to other tenderer according to the position prevailing at the appropriate time. Failure to complete work as per agreement performance security would be forfeited and no claim in this regard will be entertained by Bank.

23. CONTRACTOR TO PROVIDE EVERYTHING NECESSARY

The contractor shall provide everything necessary for the proper execution of the work according to the intent and meaning of the drawings, schedule of quantities and specifications taken together whether the same may or may not be particularly shown or described therein provided that the same can reasonably be inferred there from and if the contractor finds any discrepancies therein he shall immediately and in writing, refer the same to the Owner/Architects whose decision shall be final and binding. The contractor shall provide himself for ground and fresh water for carrying out of the work at his own cost. The owner shall on no account be responsible for the expenses incurred by the contractor for hired ground or fresh water obtained from elsewhere.

The rates quoted against individual items will be inclusive of everything necessary to complete the said items of work within the contemplation of the contract, and beyond the unit price no extra payment will be allowed for incidental or contingent work, labour and/or materials inclusive of all taxes and duties whatsoever except for specific items, if any, stipulated in the tender documents.

The contractor shall supply, fix and maintain at his own cost, for the execution of any work, all tools tackles, machineries and equipments and all the necessary centering scaffolding, staging, planking, timbering, strutting, showing, pumping, fencing, boarding, watching and lighting by night as well as by day required not only for the proper execution and protection of the said work but also for the protection of the public and safety of any adjacent roads, streets, walls, house, buildings, strutting, shoring etc as occasion shall be required or when ordered so to do and shall fully reinstate and make good all matters and things disturbed during the execution of works to the satisfaction of the Owner/Architects.

The contractor shall also provide such temporary road on the site as may be necessary for the proper performance of the contract and for his own convenience but not otherwise. Upon completion, such roads shall be broken up and leveled where so required by the drawings unless the owner shall otherwise direct.

The contractor shall at all times give access to workers employed by the owner or any men employed on the building and to provide such parties with proper sufficient and if required, special scaffolding, hoists and ladders and provide them with water and lighting and leave or make any holes, grooves etc in any work, where directed by the owner as may be required to enable such workmen to lay or fix pipes, electrical wiring, special fittings etc. the quoted rates of the tenderers shall accordingly include all these above mentioned contingent works.

24. TIME OF COMPLETION EXTENSION OF TIME & PROGRESS CHART

24.1 Time of completion: The entire work is to be completed in all respects within the stipulated period. The work shall deem to be commenced within fourteen days from the date of acceptance letter or date of handing over of site, whichever is earlier. Time is the essence of the contract and shall be strictly observed by the contractor. The work shall not be considered as complete until the Owner/Architects have certified in writing that this has been completed and the Defects Liability Period shall commence from the date of such certificate.

24.2 Extension of Time: If in the opinion of the Owner/Architects the works be delayed **(a)** by reason of any exceptionally inclement weather, or **(b)** by reason of instructions from the owner in consequence of proceedings taken or threatened by or disputes, with adjoining or neighboring owners or **(c)** by the works, or delay of other contractors or tradesmen engaged or nominated by the owner and not referred to in the specification or **(d)** by reason of authorized extra and additions or **(e)** by reason of any combination of workmen or strikes or lock-out affecting any of the building or trades or **(f)** from other causes which the owner may consider are beyond the control of the contractor, the owner at the completion of the time allowed for the contract shall make fair and reasonable extension of time for completion in the respect therefore. In the event of the owner failing to give possession of the site upon the day specified above the time of completion shall be extended suitably.

In case of such strikes or lockouts, as are referred to above, the contractor shall, immediately give the owner, written notice thereof. Nevertheless, the contractor shall use his best Endeavour's to prevent delay and shall do all that may be reasonably required, to the satisfaction of the owner to proceed with the works and on his doing so that it will be ground of consideration by the owner for an extension of time as above provided. The decision of the owner and to the period to be allowed for an extension of time for completion hereunder (which decision shall be final and binding on the contractor) shall be promulgated at the conclusion of such strike or lock-out and the owner shall then, in the event of an extension being granted, determine and declare the final completion date. The provision in clause 61 with respect to payment of liquidated damages shall, in such case, be read and construed as if the extended date fixed by the owner where substituted for and the damage shall be deducted accordingly.

24.3 Progress of work: During the period of construction the contractor shall maintain proportionate progress on the basis of a programme chart submitted by the contractor immediately before commencement of work and agreed to by the Owner/Architects. Contractor should also include planning for procurement of scarce material well in advance and reflect the same in the programme chart so that there is no delay in completion of the project.

25. TOOLS, STORAGE OF MATERIALS, PROTECTIVE WORKS AND SITE OFFICE REQUIRMENTS

The contractor shall provide, fix up and maintain in an approved position proper office accommodation for the contractor's representative and staff which offices shall be open at all reasonable hours to receive instruction notices or communications and clear away on completion of the work and make good all work disturbed.

All drawings maintained on the site are to be carefully mounted on boards of appropriate size and covered with a coat of approved varnish. They are to be protected from ravages of termites, ants, and other insects.

The contractor shall provide at his own cost all artificial light required for the work and to enable other contractor and sub-contractors to complete the work within the specified time.

The contractor shall provide a suitable temporary hut for the watchmen and clear away the same when no longer required and to provide all necessary attendance, lights etc required.

The contractor shall arrange for temporary latrines for the use of workers and filed staff and keep the same in a clean and sanitary condition to the satisfaction of the public health authorities and shall cause such latrines and soil to be cleared away whenever necessary and shall make good all the works disturbed by this convenience.

Every precaution shall be taken by the contractor to prevent the breeding of mosquitoes on the work during the construction, and all receptacles, cistern, water tanks etc used for the storage of water must be suitably protected against breeding of mosquitoes. The contractor shall indemnify the owner against any breach of rules in respect of anti-malarial measures.

The contractor shall not fix or place any placards or advertisement of any description or permit the same to be fixed or placed or upon any boarding gantry, building structures other than those approved by the owner.

Protective Measures: The contractor from time to time of being placed in possession of the site must make suitable arrangements for watching, lighting and protecting the work, the site and surrounding property by day, by night, on Sundays and other holidays.

Contractor shall indemnify the owner against any possible damage to the building, roads, or members of the public in course of execution of the work.

The contractor shall provide necessary temporary enclosures, gates, entrances etc for the protection of the work and materials and for altering and adopting the same as may be required and removing on completion of the works and making good all works disturbed.

Storage of Materials: The contractor shall provide and maintain proper sheds for the proper storage and adequate protection of materials etc and other work that may be executed on the site including the tools and materials of nominated sub-contractors and remove same on completion.

Tools: Theodolite, levels, 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 this contract as instructed by the site Engineer.

All measuring tapes shall be of steel and suitable scaffolding and ladders that may be required for safely taking measurement and shall be supplied by the contractor.

The mistries and the supervisors on the works shall carry with them always a one metre or two metre steel tape, a measuring tape of 30 metres, a spirit level, a plumb bob and a square and shall check the work to see that the work is being done according to the drawing and specifications. The site engineer will use any or all measuring instruments or tools belonging to the contractors as he chooses for checking the works executed or being executed on the contract.

The contractor should over in his rates for making provisions for all reasonable facilities for the use of his scaffolding, tools and plant etc by nominated sub-contractors for their work.

26. NOTICE AND PATENTS OF APPROPRIATE AUTHORITY AND OWNER

The contractor shall conform to the provisions of any Acts of the Legislature relating to the work, and to the Regulations and Bye-laws of any authorities, and/or any water, lighting and other companies, and/or authorities with whose system the structures were proposed to have connection and shall before making any variation from the drawings or specification that may be associated to so conform, give the Owner/Architects written notices specifying the variations proposed to be made and the reason for making them and apply for instruction thereon. The Owner/Architects on receipt of such intimation shall give a decision within a reasonable time.

The contractor/s shall arrange to give all notices required for by the said Acts, Regulations or Bye-laws to given to any authority and to pay to such authority or to any public officer all fees that may be properly chargeable in respect of the work and lodge the receipts with the owner.

The contractor shall indemnify the owner against all claims in respect of patent rights, royalties, damages to buildings, roads or members of public in course of execution of work and shall defend all actions arising from such claims and shall keep the owner saved harmless and indemnified all respects from such actions, costs and expenses.

27. CLEARING SITE AND SETTING OUT WORKS

The site shown on the plan shall be cleared of all obstructions, loose stone, and materials rubbish of all kinds. All holes or hollows whether originally existing or produced by removal or loose stone or materials shall be carefully filled up with earth well rammed and leveled off as directed at his own cost.

The contractor shall set out the works and shall be responsible for the true and perfect setting out of the work and for the correctness of the positions, levels, dimensions and alignment of all parts thereof. If at any time, any error shall appear during the progress of any part of the work irrespective of the fact that the layout had been approved by the Owner /Architects, the contractor shall at his own expenses rectify such error, if called upon to the satisfaction of the owner. The contractor shall further set out the works to the alternative positions at the site until one is finally approved and the rates quoted in his tender should include for this and no extra on this account will be entertained.

28. CONTRACTOR IMMEDIATELY TO REMOVE ALL OFFENSIVE MATTERS

All soil, filth or other matters of any offensive nature taken out of any trench, sewer, drain, cesspool or other place shall not be deposited on the surface but shall be at once carted away by the contractor to place provided by him. The contractor shall keep the foundations and work free from water and shall provide and maintain at his own expenses electrically or other power driven pumps and other plants to the satisfaction of the owner for the purpose, until the building is handed over to the owner. The contractor shall arrange for the disposal of the water so accumulated to the satisfaction of the owner and local authority and no claims will be entertained afterwards if he does not include in his rates for the purpose.

29. ACCESS

Any authorized representative of the owner shall at all reasonable times have free access to the work and/or to the workshops, factories or other places where materials are being prepared or constructed for the work and also to any place where the materials are lying or from where they are being obtained, and the contractor shall give every facility to the owner or their representative necessary for inspection and examination and the owner no person shall be allowed at any time without the written permission of the owner.

30. MATERIALS, WORKMANSHIP, SAMPLES, TESTING OF MATERIALS

All the works specified and provided for in the specifications or which may be required to be done in order to perform and complete any part thereof shall be executed in the best and most workman like manner with materials of the best and approved quality of the respective kinds in accordance with the particulars contained in and implied by the specifications and as represented by the drawings or according to such other additional particulars, and instructions as may from time to time be given by the Owner /Architects during the execution of the work, and to his entire satisfactions.

If required by the owner/Architects the contractor shall have to carry out tests on materials and workmanship in approved materials testing laboratories or as prescribed by the Owner/Architects at his own cost to prove that the materials etc, under test conform to the relevant I.S.I. standards or as specified in the specifications. The necessary charges for preparation of mould (in case of concrete cube) transporting, testing etc, shall have to be borne by the contractor. No extra payment on this account should in any case be entertained.

All the materials (except where otherwise described) stores and equipment required for the full performance of the work under the contract must be provided through normal channels and must include charge for import duties, sales tax, octroi and other charges and must be the best of their kind available and the contractor/s must be entirely responsible for the proper and efficient carrying out of the work. The work must be done in the best working manner. Samples of all material to be used must be submitted written approval from Owner/Architects must be obtained prior to placement of order.

During the inclement weather the contractor shall suspend concreting and plastering for such time as the Owner/Architects may direct and shall protect from injury all work when in course of execution. Any damage (during constructions) to any part of the work for any reason due to rain, storm, or neglect of contractor shall be rectified by the contractor in an approved manner at no extra cost.

Should the work be suspended by reason of rain, strike, lock-outs or any other cause, the contractor shall taken all precautions necessary for the protection of work and at his own expenses shall make good any damage arising from any of these causes.

The contractor shall cover up and protect from damage, from any cause, all new work and supply all temporary/doors, protection to windows, and any other requisite protection for the execution of the work whether by himself or special tradesmen or nominated sub-contractor and any damage caused must be made good by the contractor at his own expenses.

31. REMOVAL OF IMPROPER WORK

The owner shall during the progress of the work have power to order in writing from time to time the removal from the work within such reasonable time or time as may be specified in the order of any materials which in the opinion of the owner architects are not in accordance with specification or instructions, the substitution or proper re-execution of

any work executed with materials or workmanships not in accordance with the drawings and specifications or instructions. In case the contractor refuses to comply with the order the owner shall have the power to employ and pay other agencies to carry out the work and all expenses consequent thereon or incidental thereto as certified by the Owner/Architects shall be borne by the contractor or may be deducted from any money due to or that may become due to the contractor. No certificate which may be given by the Architects shall relieve the contractor from his liability in respect of unsound work or bad materials.

32. SITE ENGINEER/PMC

The term “site engineer/PMC” shall mean the person /agency appointed and paid by the owner to superintend the work. The contractor shall afford the Site Engineer/PMC every facility and assistance for examining the works and materials and for checking and measuring work and materials. The Site Engineer/PMC shall have no power to revoke, alter, enlarge or relax any requirements of the contractor or to sanction any day work, except in so far as such authority may be specially conferred by a written order of the owner.

The Site Engineer /PMC shall have power to give notice to the contractor or his foreman, of non-approval of any work or materials and such work shall be suspended or the use of such materials shall be discounted until the decision of the owner is obtained. The work will from time to time be examined by the Architects, Engineer from the premises department of the owner and the site engineer. But such examination shall not in any way exonerate the contractor from the obligation to remedy any defects which may be found to exist at any stage of the work or after the same is complete. Subject to the limitations of this clause the contractor shall take instructions only from the Architects /Owner.

33. CONTRACTOR’S EMPLOYEES

The contractor shall employ technically qualified and competent supervisors for the work who shall be available (by turn) throughout the working hours to receive and comply with instructions of the Owner /Architects. The contractor shall engage at least one experienced Engineer as Site In-charge for execution of the work. The contractor shall employ in connection with the work persons having the appropriate skill or ability to perform their job efficiently.

The contractor shall employ local laborers on the work as far as possible.

No laborer below the age of sixteen years and who is not an Indian National shall be employed on the work.

Any laborer supplied by the contractor to be engaged on the work on day-work basis either wholly or partly under the direct order or control of the owner or his representative shall be deemed to be a person employed by contractor.

The contractor shall comply with the provision of all labour legislation including the requirements of:

- a) The payment of wages act
- b) Owner’s liability act
- c) Workmen’s compensation act
- d) Contract labour (regulation & abolition) act, 1970 and Central Rules 1971.
- e) Apprentices act 1961.
- f) Any other Act or enactment relating there to and rules framed there under from time to time.

The contractor shall keep the owner saved harmless and indemnified against claims if any of the workmen and all costs and expenses as may be incurred by the owner in connection with any claims that may be made by any workmen.

The contractor shall comply at his own cost with the order of requirement of any Health Officer of the state or any local authority or of the owner regarding the maintenance of proper environmental sanitation of the area where the

contractor's labourers are housed or accommodated for the prevention of small pox, cholera, plague, typhoid, malaria and other contagious diseases. The contractor shall provide, maintain and keep in good sanitary condition adequate sanitary accommodation and provide facilities for pure drinking water at all time for the use of men engaged on the works and shall remove and clear away the same on completion of the works. Adequate precautions shall be taken by the contractor to prevent nuisance of any kind on the works or the lands adjoining the same.

The contractor shall arrange to provide first-aid treatment to the labourers engaged on the works. He shall within 24 hours of the occurrence of any accident at or about the site or in connection with execution of the authority where such report is required by law.

34. DISMISSAL OF WORKMEN

The contractor shall on the request of the owner immediately dismiss from works any person employed thereon by who may in the opinion of the owner be unsuitable or incompetent or who may misconduct himself. Such discharges shall not be the basis of any claim for compensation or damages against the owner or any of their officer or employee.

35. ASSIGNMENT

The whole of the works included in the contract shall be executed by the contractor and the contractor shall not directly or indirectly transfer, assign or underlet the contract or any part, share or interest therein nor, shall take a new partner, without written consent of the owner and no subletting shall relieve the contractor from the full and entire responsibility of the contract or from active superintendence of the work during their progress.

All specialists, Merchants, Tradesmen and others executing any work or supply and fixing any goods for which prime cost prices or provisional sums are included in the schedule of quantities /rates and/or specifications who may be nominated or selected by the owner are hereby declared to be sub-contractors employed by the contractor and are herein referred to as nominated sub-contractors.

No nominated sub-contractors shall be employed on or in connection with the works against whom the owner shall make reasonable objection or save where the owner and contractor shall otherwise agree who will not enter into a contract provided.

a) That the nominated sub-contractor shall indemnify the contractor against the same obligations in respect of the sub contract as the contractor is under in respect of this contract.

b) That the nominated sub-contractor shall indemnify the contractor against claims in respect of any negligence by the sub-contractor, his servants or agents or any misuse by him or them of any scaffolding or other plants the property of the contractor or under any workmen's compensation act in force.

c) Payment shall be made to the nominated sub-contractor by the contractor within fourteen days of his receipt of the Architect's certificate provided that before any certificate is issued the contractor shall upon request furnish to the Architects proof that all nominated sub-contractor's accounts include in previous certification have been duly discharged, in default where of the owner may pay the same upon a certificate of the Architect and deduct the amount thereof from any sums due to the contractor. The exercise of this power shall not create privity of contract between the owner and the sub-contractor.

36. DAMAGE TO PERSONS AND PROPERTY INSURANCE ETC

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

The contractor shall reinstate all damage of every sort mentioned in this clause, so as to deliver the whole of the contract works complete and perfect in every respect and so as make good or otherwise satisfy all claims for damages to the property or third parties.

The contractor shall effect the insurance necessary and indemnify the owner entirely from all responsibility in this respect. The insurance must be placed with a company approved by the owner and must be effected jointly in the name of the contractor and the owner (the name of the latter being placed first in the policy i.e UCO Bank A/c _____ Contractor's Name and the policy lodged with the latter. The scope of insurance is to include damage or loss to the contract itself till this is made over in a complete state. Insurance is compulsory and must be affected for the every initial stage. The contractor shall also be responsible for any thing which may be or defective carrying out of this contract i.e. the Contractor's All Risk Insurance shall have extension for covering cross liability arising, if any, during execution of work relating to Air Conditioning, Electrification, and Erection of Life etc.

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

37. INSURANCE

Unless otherwise instructed the contractor shall insure the work and keep them insured until the virtual completion of the contract against loss or damage by fire and/or earthquake, flood. The insurance must be placed with a company approved by the owner, in the joint names of the owner and the contractor for such amount and for any further sum if called to do so by the owner, the premium of sum being allowed to the contractor as an authorized extra.

The contractor shall deposit the policy and receipt for premiums paid with the owner within 21 (twenty one) days from the date of issue of work order unless otherwise instructed. In default of the contractor insuring as provided above, the owner on his behalf may so insure and may deduct the premiums paid from any money due, or which may become due to the contractor. The contractor shall as soon as the claim under the policy is settled or the work reinstated by the Insurance Company should they elect to do so, proceed with due diligence with the completion of the works in the same manner as through the fire has not occurred and in all respects under the conditions of the contract. The contractor in case of rebinding or reinstatement after fire shall be entitled to extension of time for completion as the owner may deem fit.

38. ACCOUNTS RECEIPTS & VOUCHERS

The contractor shall, upon the request of the Owner furnish them with all the invoices, accounts, receipts and other vouchers that they may require in connection with the work under this contract. If the contractor shall use materials less than what he is required under the contract, the value of the difference in the quantity of the materials he was required to use and that he actually used shall be deducted from his dues. The decision of the Owner shall be final and binding on the contractor as to the amount of materials the contractor is required to use for any work under this contract.

39. MEASUREMENT OF WORKS

39.1 The measurements shall be generally recorded by the Site Engineer or by an employee or an agency of the Bank, specially authorized for the purpose, e.g. a project Management Consultant.

39.2 The Site Engineer (or his representative) or PMC wherever PMC is deployed separately for supervision shall take joint measurements (i.e. accompanied by the contractor's authorized representative) of the work as it progress and record them directly in the Measurement Books.

39.3 It shall be ensured that the method of measurement is in accordance with the contract. The precision in measurements shall be as laid down in IS-1200. Any points of disagreement with the contractor pertaining to measurements shall be promptly referred to the decision of the Competent Authority.

39.4 Extra/deviated items, as claimed by the contractor, shall not be recorded in Measurement Book until they are approved by the Competent Authority.

39.5 In case some allegedly extra/deviated item is carried out by the contractor while complying with approved drawings and specifications and the same is to be covered up, the Site Engineer or Project Management Consultant shall check the item and its specification and record its measurements but simultaneously enter up the proviso that their admittance is subject to the approval by the Competent Authority. Both the measurements and the proviso shall be got signed by the contractor.

39.6 The measurement book shall not be handed over to the contractor at any time. The contractor or his representative may be permitted by the Site Engineer or Project Management Consultant to see it in his presence and /or make a (concurrent) copy of his own. The contractor shall, however, be warned that his copy shall be regarded as an unofficial copy of the Bank's Measurement Book. This is the only authorized document in the matter.

39.7 The measurement shall be signed at the end of each session of measurement of the day's work, as the case may be, by both the parties (i.e. Measurer/Site Engineer and the contractor).

40. CONCEALED WORK

The contractor shall give due notice to the Employer wherever any work is to be buried in the earth concrete or in the bodies of walls or otherwise, becoming inaccessible later on, in order that the work may be inspected and correct dimensions taken before such burial, in default whereof the same shall, at the opinion of the Employer's either opened up for measurement at the contractor's expenses or no payment may be made for such materials, should any dispute or difference arise after the execution of any work as to measurements etc or other matters which cannot be conveniently tested or checked, the notes of the employer shall be accepted as correct and binding on the contractor.

41. PAYMENTS

All bills shall be prepared by the contractor in the form prescribed by the Owner/Architects after the measurements are endorsed as mentioned in Clause No.40 (Measurement of works). Normally one interim bill shall be prepared each month subject to minimum value for interim certificate as stated in these documents. The bills in proper form must be duly accompanied by detailed measurements in support of the quantities of work done and must show deduction for all previous payments, retention money, etc.

The Architects shall issue a certificate after due scrutiny of the contractor's bill stating the amount due to the contractor from the owner. The owner will have the discretion to amend the certificate of Architects if considered necessary and the contractor shall be entitled to payment thereof, within the period of honoring certificates named in the these documents.

The amount stated in an interim certificate shall be the total value of work properly executed and approx 75% of assessed value of not perishable material brought to site for permanent incorporation into the work upto the date of the bill less the amount to be retained by the owner as retention money vide Clause 22.A of the conditions and less installments previously paid under these conditions provided that they are of a durable/non-fragile nature and that an Indemnify Bond is drawn up with the contractor under which the Bank secures a line on the materials and safe guarded against losses due to contractor postponing the execution of the work or to the shortage or misuse of materials and against the expenses entailed, if any, for their proper watch with safe custody. Recoveries of advance so made should not be postponed until whole of the work entrusted to the contractor is completed. This should be made from his bills for works done as the materials are used. The necessary deductions being made wherever the item of work in which they are used and billed for.

The owner will deduct retention money as described in Clause 22.A of these conditions. The refund of retention money will be made as specified in the said clause.

If the owner has supplied any materials or goods to the contractor, the cost of any such materials or goods will be progressively deducted from the amount due to the contractor in accordance with the quantities consumed in the work. All the interim payments shall be regarded payments by the way of advance against the final payment only and no as payments for work actually done and completed and shall not preclude the requiring of bad, unsound, and imperfect or unskilled work to be removed and taken away and reconstructed, or re-erected or be considered as an admission of the due performance of the contract, or any part thereof in any respect or the accruing of any claim, nor shall, it conclude determine or affect in anyway the power of the owner under these conditions or any of them as to the final

settlement and adjustment of the accounts or otherwise or in any other way vary or affect the contract. The final bill shall be submitted by the contractor within one month of the date fixed for completion of the work or of the date of certificate of completion furnished by the Site Engineer/PMC and payment shall be made within four months from the date of receipt of the final bill by the Architects.

42. FINAL PAYMENT

The final bill shall be accompanied by a certificate of completion from the Owner/Architects. Payments of final bill shall be made after deduction of Retention Money as specified in Clause 22A of these conditions, which sum shall be refunded after the completion of the Defects Liability period after receiving the Owner's/Architect's certificate that the contractor has rectified all defects to the satisfaction of the Owner/Architects. The acceptance of payment of the final bill by the contractor would indicate that he will have no further claim in respect of the work executed.

43. VARIATION/DEVIATION

The contractor may when authorized and shall, when directed in writing by the employer and or omit, or vary the works shown in the drawings or described in the specifications include in the priced schedule of quantities. The contractor on his own accord shall make no addition, omission or variation without such authorization or direction. A verbal authorization or direction by the Employer shall when confirmed correctly by the contractor in writing within 8 days shall be deemed to have been given in writing.

The contractor shall send to the Architect/Employer once in every month a statement giving particulars, as full and detailed as possible, of all claims for any additional payment to which the contractor may consider himself entitled and of all extra or additional work ordered by the Employer which he has executed during the preceding month.

No final interim claim for payment for any such work or expenses will be considered which has not been include in such a statement provided always that the architect shall be entitled after taking employer's sanction to authorize payment to be made for any such work or expense, notwithstanding the contractor's failure to comply with this condition, if the contractor has, at the earliest practicable opportunity, notified the architects in writing that he intends to make a claim for such work.

The rates for additional, altered, substituted work shall be arrived at in accordance with the following rules:

- i)** The net rates of prices in the contract schedule shall determine the valuation of (the rates for) the extra work (items) where such extra work is of similar character and is executed under similar conditions as the work priced therein.
- ii)** If the rates for the extra, altered or substituted (deviated) work are not provided for (available) in the contract schedule, they shall to the extent possible be derived out of rate given in that schedule for similar or near similar items. For the purpose of such deviation, where necessary and when so directed, the contractor shall furnish detailed analysis for the said similar or near similar items in the contract schedule. For such portions of the analysis, for the extra, altered or substituted (deviated) work for which prices cannot be abstracted from the corresponding analysis of rates for the said similar or near similar items in the contract schedule, market rates substantiated by purchase bills/vouchers dependable printed price schedules of building materials of different types shall be adopted, using factors and constants for quantum of material, labour T&P and sundries from standard analysis of rates adopted by the National Building Organization, Ministry of Works & Housing, Govt of India in preparation of All India Standard Schedule of Rates 1977 and adding 15% over towards profits and overheads. When called upon to do so the contractor shall submit the required purchase bill/vouchers.
- iii)** In respect of a contract which incorporates more than one schedules the rate applicable in case
 - (i) Above if not provided for in the schedule pertaining to the work in which the addition, alternation or substitution (deviation) occurs shall be taken as the lowest applicable rate in other schedule. Similarly in case (ii) above if similar or near similar items cannot be found in the schedule pertaining to the work in which the addition, alteration or the other schedule shall be adopted.
- iv)** In the case of additional, altered or substituted (deviated) with for which rates cannot be reasonably be derived as at (ii) and (iii) above, the rates shall be worked out adopting market prices, substantiated by purchase bill/vouchers, T&P and sundries from standard analysis of rates adopted by the National Building Organization, Ministry of Works & Housing, Govt. of India in preparation of All India Standard Schedule Rates, 1977 and addition 15% towards profit

and overheads. When called upon to do so the contractor shall submit his purchase bills/vouchers to the architects and employer.

v) The tender rates will hold good for any increase and decrease in the tender quantities up to a variation of 25% except in the case of item below plinth level where the variation will be up to 100%. For variation beyond and above limit the rates for the respective items for quantity beyond the limits mentioned above may be worked out on market rates.

vi) The question as to what particular items, being similar or near similar to the additional, altered or substituted (deviated) work in the contract schedule are to be adopted for deviation of rates for the additional, altered for substituted (deviation) work and whether the said rates cannot be derived from similar or near similar items in the contract schedule will be decided by the Employer.

vii) In case (ii) to (iv) the contractor is required to submit his analysis of rates adopting the principles enunciated and the architect, after scrutinizing the analysis and other person furnished will allow such rates as he considers reasonable after obtaining Employer's sanction.

viii) Where extra work is of such a nature that it cannot be properly measured or valued the contractor shall be allowed day work priced at the net rates stated then in accordance with the minimum local day work rates and wage for the district notified by the concerned authority provided that in either case if required by the architects, vouchers, muster rolls and other documents, required for proper verification of the labour employed and the materials deployed on the said work and the costs thereof be delivered to the architect or his representative on or before the end of the week following that in which the work has been executed.

The question as to whether extra work is of such nature that it cannot be properly measured or valued will be decided by the architects. The margin to be allowed on actual costs to the contractor towards profit and overhead shall be 15%.

44. SUBSTITUTION

Should the contractor desire to substitute any materials and workmanship, he/they must obtain the approval of the Owner/Architects in writing for any such substitution well in advance. Materials designated in this specifications indefinitely by such term as "Equal" or "other approved" etc. specific approval of the Owner/Architects has been obtained in writing.

45. PREPARATION OF BUILDING WORKS FOR OCCUPATION AND USE ON COMPLETION

The whole of the work will be thoroughly inspected by the contractor and deficiencies and defects put right. On completion of such inspection the contractor shall inform the Employer that he has completed the work and it is ready for inspection. On completion the contractor shall clean all windows and doors including the cleaning and oiling if necessary, of all hardware, inside and outside, all floors, staircases, and every part of the building. He will leave the entire building neat and clean and ready for immediate occupation and to the satisfaction of the owner.

46. CLEARING SITE ON COMPLETION

On completion of the works the contractor shall clear away and remove from the site all constructional plant, surplus materials, rubbish and temporary works of every kind and leave the whole of the site and the works clean and in a workmanlike condition to the satisfaction of the Owner/Architects.

47. DEFECTS AFTER COMPLETION

The contractor shall make good at his own cost and to the satisfaction of the Employer all defects, shrinkage, settlements or other faults which may appear within 12 months after completion of the work. In default the owner may employ and pay other persons to amend and make good such damages, losses and expenses consequent thereon or incidental thereto shall be made good and borne by the contractor and such damages, loss and expenses shall be recoverable from him by the owner or may be deducted by the owner, in lieu of such amending and making good by the contractor, deduct from any money due to the contractor a sum equivalent to the cost of amending such work and in event of the amount retained being insufficient, recover that balance from the contractor from the amount retained under Clause No. 22 together with any expenses the owner may have incurred in connection therewith.

48. ESCALATION

The rate quoted shall be firm throughout the tenure of the contract (including extension of time, if any, granted) and will not be subject to any fluctuation due to increase in cost of materials, labour, sale tax, etc. unless specifically provided in these documents.

49. IDLE LABOUR

Whatever the reason may be, no claim for India labour, additional establishment cost of hire and labour charges of tools and plants would be entertained under any circumstances.

50. SUSPENSION

If the contractor except on account of any legal restraint upon the Owner preventing the continuance of the work or in the opinion of the Owner shall neglect or fail to proceed with due diligence in the performance of his part of the contract or if he shall more than once make default, the Owner shall have the power to give notice in writing to the contractor requiring the work be proceeded within a reasonable manner and with reasonable dispatch, such notice purport to be a notice under this clause.

After such notice shall have been given the contractor shall not be at liberty to remove from the site of the works or from any ground contiguous thereto any plant or materials to subsist from date of such notice being given until the notice shall have been complied with. If the contractor fail to start the work within 7 (seven) days after such notice has been given to proceed with the work as therein prescribed, the owner may proceed as provided in Clause 52(Termination of Contract by owner).

51. TERMINATION OF CONTRACT BY EMPLOYER/BANK

If the contractor being a company go into liquidation whether voluntary or compulsory or being an individual shall be adjusted insolvent or shall make an assignment or a composition for the benefit of the greater part, in number of amount of his creditors or shall enter into a Deed or agreement with his creditors, or if the official Assignee in insolvency, or the Receiver of the contractor in insolvency, shall repudiate the contract, or if a Receiver of the contractor's firm appointed by the court shall be unable within fourteen days after notice to him requiring him to do so, to show to the reasonable satisfaction of the Employer that he is able to carry out and fulfil the contract, and if so required by the employer to give reasonable security therefore, or if the contractor shall suffer execution to be issued, or shall suffer any payment under this contract to be attached by or on behalf of and of the creditors of the contractor, or shall assign, charge or encumber this contract or any payments due or which may become due to the contractor, there under, or shall neglect or fail to observe and perform all or any of the acts matters of things by this contract, to be observed and performed by the contractor within three clear days after the notice shall have been given to the contractor in manner hereinafter mentioned equiring the contractor to observe or perform the same or shall use improper materials or workmanship in carrying on the works, or shall in the opinion of the Owner not exercise such diligence and make such due progress as would enable the work to be completed within due time agreed upon and shall fail to proceed to the satisfaction of the Owner after three clear days notice requiring the contractor so to do shall have been given to the contractor as hereinafter mentioned, shall abandon the contract, then and in any of the side cases, the owner may notwithstanding previous waiver determine the contract by a notice in writing to the effect as hereinafter mentioned, but without thereby affecting the powers of the owner of the obligations and liabilities of the contractor the whole of which shall continue in force as fully as if the contract, had not been so determined and as if the works subsequently executed had been executed by or on behalf of the contractor (without thereby creating any trust in favor of the contractor) further the owner or his agent, or servants, may enter upon and take dissensions of the work and all plants, tools, scaffoldings, sheds, machinery, steam and other power, utensils and materials lying upon premises or adjoining lands or roads and sell the same as his own property or may employ the same by means of his own servants and workmen in carrying on and completing the works, and the contractor shall not in any way interrupt or do any act, matter or things to prevent or hinder such other contractors or other persons or person employed from completing and finishing or using the materials and plants for the works when the works shall be completed, or as soon thereafter as conveniently may be, the owner shall give notice in writing to the contractor to remove his surplus materials and plants and should the contractor fail to do so within a period of 14 days after receipt

by him the owner may sell the same by public Auction and shall give credit to the contractor for the amount so realized. Any expenses or losses incurred by the owner in getting the works carried out by other contractors shall be adjusted against the amount payable to the contractor by way of selling his tools and plants or due on account of work carried out by the contractor prior to engaging other contractors or against the security deposit.

52. WATER SUPPLY

The rates quoted by the contractor shall include all expenditure for providing water for the full contract period required for the works, including that for the work people and all staff on the site. He shall make his own arrangement for the supply of good quality water suitable for us in the work and the work people. He shall obtain municipal connection, and all charges for connection and consumption shall be borne by him. If municipal water is not available, or making, he shall make other arrangements like sinking tube wells, or making bore-wells, or transport from outside by tanker or any other suitable means entirely at his cost, and no separate payment for the same will be made.

53. POWER

The contractor shall at his own cost arrange for necessary power for construction and lighting for the entire period of contract. The owner, as well as the Architects shall give all the recommendations necessary to obtain power and water connections from the concerned authorities, but the responsibility for obtaining the same shall rest with the contractor. If any other contractor, appointed by the owner, is required to use water and power, he shall be allowed to use the same and make temporary connections from the supply arranged by the main contractor at rates and terms that may be mutually agreed upon by both, failing which, at rates, term and conditions that may be decided by the Architect.

54. LAND FOR CONTRACTOR'S ESTABLISHMENT

For the purpose of contraction of contractor's store yard, godowns, site office, etc. the contractor may utilize with the permission of the Architect, portion of the land belonging to the owner if available at such location as would not interfere with the execution of the works. The contractor shall for this purpose submit to the Architect for his approval a plan or plans of the proposed layouts for the site facilities. The Architects reserves the right to alter and modify the contractor's proposal as he may deem fit.

55. METHOD OF MEASUREMENT

Unless otherwise mentioned elsewhere in the tender measurement will be on the net quantities or work produced in accordance with up to date rules laid down by the Indian Standard Institution. In the event of any dispute with regard to the measurement of the work executed, the decision of the Architects /Owner shall be final and binding on the contractor.

56. ACTION WHERE NO SPECIFICATION

In the case of any class of work for which there is no such specification in Technical Specification, such work shall be carried out in accordance with the I.S. Specification and in the event of there being no I.S. Specification, then in such case the work shall be carried out in all respects in accordance with the Instruction and requirements of the Architects/Owner.

57. CONTRACTOR NOT TO DEPOSIT MATERIALS IN A MANNER THAT MAY BE INCONVENIENT TO THE PUBLIC

The contractor(s) shall not deposit materials on any site which will seriously inconvenience the public. The Architects may require the contractor to remove any materials, which are considered by him to be a danger or inconvenience to the public or cause them to be removed at the contractor's cost.

58. LIQUIDATED DAMAGES

Should the work be not completed to the satisfaction of the Owner /Architects within the stipulated period, the contractor shall be bound to pay to the owner a sum calculated as given below by way of liquidated damages and not as penalty during which the work remains uncommenced or unfinished after the expiry of the completion date.

- | | | |
|----|---|--|
| a) | For contracts having stipulated time for completion 6 months and less | : 1. 0% of the estimated amount shown in the tender per week of delay subject to ceiling of 10% of the accepted contracted sum, accrual of which entitles the Employer/Bank to rescind the Contract. |
|----|---|--|

59. ACTION WHEN WHOLE OF SECURITY DEPOSIT IS FORFEITD

In any case in which under any clause or clauses of this contract, the contractor shall have rendered himself liable to pay liquidated damages amounting to the whole of his security deposit (whether paid in one sum or deducted by installments) the Owner / Architects shall have power to adopt any of the following courses as they may deem best suited to the interest of the Owner:

- a) To rescind the contract (of which rescission notice in writing to the contractor under hand of the Owner /Architects shall be conclusive evidence, and in which case the security deposit of the contractor shall stand forfeited and be absolutely at the disposal of the Owner.
- b) To employ labour paid by the Owner and to supply materials to carry out the work, or any part of the work, debiting the contractor with the cost of the labour and price of material (of the amount of which cost and price of a certificate of the Architects /Owner shall be final and conclusive against the contractor) and crediting him with the value of work done , in all respects in the same manner and at the same rates as if it had been carried out by the contractor under the terms of this contract the certificate of Architects / Owner as to the value of the work done, shall be final and conclusive against the contractor.
- c) To measure up the work of the contractor, and to take such part thereof as shall be unexecuted, out of his hands, and to give it to another contractor to complete in which case any expenses which may be incurred in excess of the sum which would have been paid to the original contractor and may be deducted from any money due to him by the Owner under the contract or otherwise or from his security deposit or the proceeds of sale thereof, or a sufficient par thereof.
- d) In the event of any of above courses being adopted by the Owner /Architects the contractor shall have no claim to compensation for any loss sustained by him by reason of his having purchased or procured any materials or entered into any engagements, or make any advances on account of, or with a view to the execution of the work or the performance of the contract, shall be rescind under the provision aforesaid, the contractor shall not be entitled to recover or be paid any sum or any work thereto for actually performed under this contract, unless, and until the owner/Architects will have certified in writing the performance of such work and the value payable in respect thereof, and he shall only be entitled to be paid the value so certified.

60. GUARANTEE FOR THE SPECIALISED WORKS

Wherever provision for submission of a guarantee has bee advised, the same shall be submitted from the specialized agency along with a counter guarantee by the main contractor engaged for the work. The guarantee shall be furnished on a non-judicial stamp paper of appropriate value. If the contractor is required to submit guarantee/guarantees for any item/items for a period of more than 12 months, the guarantee/guarantees in case of those items shall remain valid even after expiry of the defect liability period for 12 months as stipulated in the contract.

61. INCOME TAX/SALES TAX ON WORK CONTACT

Statutory deduction of Income Tax/Sales Tax on works contract shall be made from all interim and final payments as per extend statute.

62. AGREEMENT

The successful contractor will be required to enter into an agreement in accordance with the Draft Agreement from enclosed & the schedule of conditions within 15 days from the date of the contractor is advised by the Owner /Architect that his tender has been accepted and he shall pay for all stamps & legal expenses incidental thereto. However, the written acceptance by the Owner of a tender will constitute a binding contract between the Owner bands the person so tendering whether such formal agreement is or is not subsequently executed.

63. TECHNICAL EXAMINATION

The proposed work covered under this tender during its progress is subject to inspection by the chief Technical Examiner/Technical Examiner Central Vigilance Commission, Govt. of India or by the an Officer of the Vigilance Cell of the Authority, on behalf of the Engineer-in-charge/Bank's Architects. The contractor will be required to extend all assistance and facilities for such inspections.

64. NO COMPENSATION FOR ALTERATION IN, OR RESTRICTION OF WORK TO BE CARRIED OUT

If at any time after the commencement of the work, the Owner / Architects Shall for any reason whatsoever not require the whole work thereof as specified in the tender to be carried out the Architects/Owner shall give notice in writing of the fact to the contractor who shall have no claim to payment or compensation whatsoever on account of any profit or advantage with which he might have derived from the execution of the work in full, but which he did not derived in consequence of the full amount of the work not having been carried out; neither shall he have any claim for compensation by reason of any alterations having been made in the original specification, drawing, designs and instructions which shall involve any curtailment of the work as originally contemplated.

65. ARBITRATION

All disputes or difference of any kind whatsoever (except for excepted matters vide clause no. 19) which shall at any time arise between the parties hereto touching or concerning the works or the executions or maintenance thereof of this contract or the rights touching or concerning the works or the execution of maintenance thereof of this contract or the construction remaining operation or effect thereof or the rights or liabilities of the parties or arising out of or in relation thereto whether during or after determination foreclosure or branch of the 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 to the other of them and to the Employer hereinafter mentioned be referred for adjudication to a sole Arbitrator to be appointed as hereinafter provided.

For the purpose of appointing the sole Arbitrator referred to above, the Employer will send within thirty days of receipt of the notice to the contractor a panel of three names of persons who shall be presently unconnected with the organization for which the work is executed.

The contractor shall on receipt of the names as aforesaid, select any one of the persons name to be appointed as a sole Arbitrator and communicate is name to the Employer within thirty days of receipt of the names. The Employer shall thereupon without any delay appoint the said person as the sole Arbitration. If the contractor fail to communicate such selection as provided above within the period specified, the Competent Authority shall make the selection and appoint the selected person as the sole Arbitrator.

If the Employer fail to send to the contractor the panel of three names as aforesaid within the period specified, the contractor shall send to the Employer a panel of three names of persons who shall all be unconnected with

either party. The Employer shall on receipt to the named as aforesaid with select any one of the persons names and appoint him as the sole Arbitrator. If the Employer fails to select the person and appoint him as the sole Arbitrator within 30 days of receipt of the panel and inform the contractor shall be entitled to appoint one of the person from the panel as the sole Arbitrator and communicate his name to the Employer.

If the Arbitrator so appointed is unable or unwilling to act or resigns his appointment or vacates his office due to any reason whatsoever another sole Arbitrator shall be appointed as aforesaid.

The work under the contract shall however, continue during the arbitration proceeding and no payment due to payable to the contractor shall be withheld on account of such proceeding .The Arbitrator shall be deemed to have entered on the reference on the date he issued notice to both the parties fix in the date of the first hearing. The Arbitrator may from time to time, with the consent of the parties, enlarge the time for making and publishing the award. The Arbitrator shall give a separate award in respect of each dispute or deference referred to him. The Arbitrator shall decide each dispute in accordance with the terms of the contract and give a reasoned award. The venue of arbitration shall be such place as may be fixed by the Arbitrator in his sole discretion.

The fees, if any, of the Arbitrator shall, if required to be paid before the award is made and published, be paid half and half by each of the parties. The cost of the reference and of the award including the fees, if any , of the Arbitrator who may direct to and by whom and in what manner, such costs or any part thereof shall be paid and may fix or settle and amount of costs to be so paid. The award of the Arbitrator shall be final and binding on the both parties.

Subject to aforesaid the provisions of the Arbitrator Act. 1992 or any statutory modification or re-enactment thereof and the rules made there under and for the time being in force, shall apply to the arbitration proceeding under this clause.

The Employer and the contractor hereby also agree that arbitration under clause shall be a condition precedent to any right to action under the contract with regard to the matters hereby expressly agreed to be so referred to arbitration.

66. WORKING HOURS

- a) Site Office working hours shall normally be fixed as may be prevailing in the locality.
- b) Normally no construction work of important structural nature shall be carried out on Sundays, Holidays And during nights. In exceptional circumstances, however, the work may be carried out with prior approval of the Site Engineer who shall depute supervising staff to be present on the occasion.

67. SECURITY ARRANGEMENTS

- a) Proper arrangements shall be made to keep all records under lock and key.
- b) The contractors should provide for adequate fences, watch and ward and security of basic materials such as cement and steel etc.
- c) Movement of material, stores and plant, especially of those in which the Bank has got a financial Interest or those which influence progress of work, shall be strictly controlled. Checks shall be exercised at gate (entrance and exit shall be preferably through one gate only.
- d) When the work is completed and handed over to the user. The responsibility of proper security arrangements shall rest with the users.

68. DECLARATION

I/we have inspected the site of work and have made me/us fully acquainted with the local conditions in and around the sites of works. I/we hereby declare that I/we have gone through the conditions laid down in the Notice Inviting Tender, General Conditions of Contract, Technical Specifications and understood the same and on the basis of the same I /we quoted our rates in the schedule of quantities attached with the tender documents.

I /we shall also uniformly maintain such progress with the work, as may be directed by the Owner/Architects to ensure completion of same within the target date as mentioned in the tender document.

Signature of Tenderer

Address: _____

Date:

APPENDIX

Name of work	: Civil/ Interior Furnishing/ Electrical/ Data cabling works
Location	: AT Banani Apartment, Nangi More, Budge Budge Trunk Road, Batanagar, Kolkata- 700140
Scope of work	: As above and as further detailed in the General Conditions of Contract.
Defect Liability Period (Clause No.48)	: 12 (Twelve Months)
Date of Commencement (clause no.12)	: 15 days from the date of issue of work order or the date on which the contractor is instructed to take Possession of the site, whichever is later.
Date/Time of Completion	: 8 (EIGHT) weeks
Liquidated Damages (clause no. 59)	: 1.0% of the estimated amount shown in the tender per week of delay subject to a ceiling 10% of the accepted contracted sum.
Value of works for interim certificate (clause no. 42)	: Rs. 8 LACS.
Earnest Money (clause no. 22.A)	: Rs. 14,000.00p by Demand/Pay Order/Banker's Cheque.
Security Deposit (clause no. 22.A)	: 8% of the executed value of the work (as per clause 22.A)
Initial Security Deposit (clause no.22.A)	: 2%(Two percent) of the value of the tender
Performance Security (clause no. 22.B)	: 5% of the contract Value in the form of Demand Draft/pay Order/Bank Guarantee.
Release of Security Deposit	: 100% after 14 (fourteen) days on expiry of defects liability period as per details given in Clause No.22A
Period of Honoring Certificate	: 1) One month for R.A bills. (Clause No.42) 2) The final payment will be made to the contractor As per clause 43 of General Conditions of Contract.

GENERAL SPECIFICATIONS

These specifications are for work to be done, items to be supplied and materials to be used in the works as shown and defined on the drawings and described herein all under supervision and to the entire satisfaction of the Architect / Consultant & Owner.

The workmanship is to be the best available and of a very high standard, use must be made of specialist tradesmen in all types of work and necessary allowance must be made for the same in the rates quoted.

The materials and items to be provided by the contractor shall be the best of their respective kinds as specified in the tender and in accordance with the samples approved, where materials or products are specified in these specifications and/or Bill of Quantities by the name of the manufacturer of the brand name, trade name or catalogue reference, the contractor will require to obtain prior approval of the Architect / Consultant and owner for using substitute material or product. The contractor shall produce all invoices, vouchers or receipted accounts for any materials if called upon to do so by the Architect / Consultant and owner.

Samples of all materials are to be submitted to the Architect / Consultant/owner for his approval before the contractor orders or delivers in bulk in the site. Samples together with their packing are to be provided by the Contractor free of charge and approved samples will be retained by the owner and designer for comparison with the materials which will be delivered to the site.

Should any materials be rejected by the Architect / Consultant/owner, they will be removed from the site at the Contractor's expense. Also the contractor will be required to submit specimen finishes of colors, fabrics, etc. for approval of Architect / Consultants/ owner before proceeding with the works. Should it be necessary to prepare shop drawings, and then four copies of such drawings shall be submitted for approval of the Architect / Consultant who will retain two copies, all at the Contractor's expenses.

Timber generally is to be the best of its kind, well and property seasoned, of natural growth, free from work holes, large loose or dead knots or other defects and sawn die square and not to suffer from warping, splitting or other defects through handling.

The hardwood is to be Hollock or red maranti with moisture contents not more than 20%.

Teak is to be the best quality from Dandeli free from soft heart, worm and bee holes, and weighing not less than 50 lbs. per cubic foot with maximum moisture contents of 12%. Teak veneers and flitches shall match each other throughout and, where possible, shall match existing flitches in the building.

The particleboard shall be of high density, equal or superior quality to that laid in the I.S. 3478 and as approved by the Architect / Consultant.

The blackboard shall be of Mysore, Anchor or P.G Brand, one of the following I.S. Specification or such approved adhesives shall be used: -

I.S. 851 - 1957: Synthetic Resin adhesive for construction work in wood.

I.S. 849 - 1957: Cold setting case in glue for wood. where glued joinery and carpentry work is likely to come into contact with moisture, the glue shall be waterproof. The use of animal glues will not be permitted.

Flush doors of hollow framed core insulated construction shall be constructed with 4" wide stiles, top and bottom rail, one 4" wide horizontal intermediate rail and two 4" wide diagonal braces, filled in solid with approved rigid type polyurethane doors shall be constructed with one 3" wide and one 5" wide stile, 4" wide top and bottom rail, one 4" wide horizontal intermediate rail and 2" wide diagonal braces; filled in as described before.

Flush doors of hollow framed core construction shall be constructed with 3" wide stiles and top rails, 5" wide bottom rail, two 6" wide horizontal intermediate rails with beehive core of 1" wide filling pieces at 4" centers both ways and blocked out as necessary for lock and hinges. All horizontal members shall have 1/4 dia. borings.

All doors shall consist of selected hardwood properly jointed together and they shall be covered on both sides with 3/16" teak veneered plywood or as specified. Each door is to be lipped all around with 1/2" teak twice-rebated edging tongued to the stiles and rails and mitered. The doors are to be the full thickness as specified. The lipping on the meeting stiles of folding doors shall be increased to take the rebate as specified.

Frames to doors, windows, etc. shall be of hardwood or teak as specified and to the required sizes with all necessary moldings with mortised and tenoned joint, lead and teak pins and secured in position as specified.

Shelves generally shall be constructed of plywood with edgings of 1" teak tongued on. Timber is to be cut 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. Joinery is to be prepared immediately after the finalization of the contract framed up (but not boned) and stored until required for fixing in position, when it is to be bonded and wedged up. Any portion that warps or develop shakes or other defects are to be replaced before wedging up. The whole work is to be framed and finished in a proper workman like manner, in accordance with the detailed drawings, and fitted with all necessary metal ties, straps, bolts, screws, etc.

Turning bonded joints are to be cross-tongued with teak tongues and where over 1/2" thick, to be double cross tongued. Joiner's work generally is to be finished with fine sand papered surfaces 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 sawn, free from large knots, splayed as required and plugged and fixed to walls, etc. at 1'-6" centers unless otherwise specified.

Wood plugs are to be cut on the twist. Patent wall plugs or plastic fillings may be used in lieu of wood plugs with the prior approval of the Architect / Consultant.

All unexpected surfaces of timber, e.g. false ceilings, backing fillets, backs of door frames, cupboard framing, grounds, etc. are to be treated with two coats of Atlas 'A' or other equal and approved timber preservative before fixing or bedding

The service stations, bar counters, shelving, etc. shall be generally constructed of plywood as described and specified properly housed, grooved tongued, glued, blocked and screwed together and entirely to the satisfaction of the Architect / Consultant.

The banquettes, chairs, tables, etc. shall be generally constructed of teak, foam rubber and fabric as described and specified, properly housed, grooved, tenoned, tongued, glued, blocked and screwed together in the manner of good quality furniture and entirely to the satisfaction of the Architect / Consultant & owner. A prototype sample of all custom made pieces must be prepared and submitted to the Architect / Consultant for his owner's approval before proceeding with the work in quantity.

HARDWARE & METAL:

The hardware throughout shall be of approved manufacture and supply, well made and equal in every respect to the approved samples to be deposited with the owner and Architect / Consultant. For the purpose of approval of samples, the contractor may be required to produce and provide to the Architect / Consultant, samples from many different sources and should allow in his rates for the same.

Fittings generally shall have satin chrome or anodized finish unless otherwise stated and shall be suitable for their intended purpose of use.

Screws are to match the finish of the article to be fixed and to be round or flat headed or counter sunk as required.

The bronze and brass surfaces shall be covered with 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 all aluminium shall have an anodized finish and the quality and finish both shall comply with the samples approved by the Architect / Consultant

& owner.

All steel, brass, bronze, aluminium and stainless steel articles shall be submitted for test for strength, if so, required by the Architect / Consultant & owner, 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 flattest and tidiest way, particularly where exposed Chromium plating shall be in accordance with B.S. 1224 or as per approved specifications for "normal outdoor conditions", and shall be on a base material of copper or brass.

FIBRE GLASS

The fiberglass decorative panels shall be constructed or 30% glass fibre chopped strand mat reinforced with 70% polyester resin; the fiberglass and resin to be either pigmented or sprayed with and fired with tarred paint. The panels shall be made in moulds to the approved design as per drawings and to the thickness required by the Architect / Consultant. The fiberglass panels are also obtainable from the approved suppliers.

GLAZIER

All glass to be approved manufacture complying with is: 3548-1966, or as per approved quality and sample, to be of the quality specified and free from bubbles, smoke wanes, air holes and other defects.

The compound for glazing to metal is to be a special non-hardening compound manufactured for the purpose and of a brand and quality approved by the Architect / Consultant & owner.

In cutting glass, proper allowance shall be made for expansion each square of glazing to be in whole sheet. On completion, clean all glass inside and out, replace all cracked, scratched or broken panes and leave in good condition to the satisfaction of the Architect / Consultant & owner.

PLASTER

Cement/lime plaster for internal surfaces shall be applied in two coats, as follows:

Undercoat 3/8" thick composed of 1 part cement, 4 parts lime putty, 12 parts clean washed sand, measured by volume, the whole laid evenly, straightened with a rule and scratched to form key.

Finishing coat 3/8" thick composed of 1 part cement, 3 parts lime putty, 6 parts clean washed sand, measured by volume, trowelled with a steel trowel to a smooth or textured finish in accordance with samples approved by the Architect / Consultant.

A minimum period of 7 days must elapse between the application of undercoat and finishing coat. The total thickness of the plaster must not exceed 3/4".

Rough rendering shall be composed of cement and sand (1:4) floated to the thickness required to fill in voids behind facings, dubbing out to uneven surfaces, etc. Dubbing out must not under any circumstance exceed 1" in thickness at any point.

Screeds and backings shall be composed of cement and granite fine or sane (1:3) and shall be properly laid to rules and floated to a surface suitable to receive the finishing's specified.

Mixing of lime/cement plaster, cement rendering and screeds shall be carried out with machine driven roller-pan mixers of a type and size approved by the Architect / Consultant. For smaller quantities, or in exceptional circumstances, the Architect / Consultant may require or approve mixing by hand on a clean dry floor or platform. Measurement of all constituents is to be made by means of gauge boxes. Gypsum plaster shall be of approved manufacture, delivered to the site in the manufacturer's sealed bags or drums, bearing the name of the manufacturer and the brand of plaster are to be in accordance with B.S.1191 for the following types -

Undercoat plasters are to be borrowing or "slow setting browning" of class "B", type a - retarded semi-hydrates.

Finishing plaster used on undercoats is to be of Class `B' type b - retarded semi-hydrates or class "B" type c - dual-purpose plaster.

Finishing plaster used or plasterboard is to be of "Board finish" type, Class "B", type b - retarded semi-hydrates.

Keepe's Cement is to be dual-purpose type in accordance with class "B", type C. Plaster of Paris to be in accordance with class "B".

Joints of brickwork, etc. are to be thoroughly raked out and loose particles of mortar, etc. brushed out to form key for plaster. Concrete work generally is to have a coat of "spatter dash" applied to form key for plaster, etc. The concrete shall be dampened immediately after removal of formwork and "spatter dash" consisting of 1 part of cement and 2 1/2 parts coarse sand (by volume) mixed to the consistency of a thick slurry, thrown on with a hand trowel to thickness not exceeding 1/4". The "spatter dash" shall be waited one hour after application and left to harden.

All paving, wall linings, etc. are to be adequately covered up and protected until the completion of the works. The whole of the finished work to be cleaned off and left in a sound and perfect condition to the satisfaction of the Architect / Consultant & owner. Where particularly, required, paving will not be laid until completion of all other work.

Gypsum plaster to surface of concrete or brickwork is to be two-coat as follows:

Undercoat composed of one part "browning" or slow setting browning plaster as described above with two parts of sand, the whole laid on evenly, straightened with a rule and scratched to form a key.

Finishing coat to be as described above, applied neat of with an admixture of not more than 25% volume by lime putty, trowel led with a steel trowel to smooth even surfaces. The total thickness of two-coat work must not exceed 1/2". Gypsum plasterboard shall be of approved manufacture and in accordance with B.S. 1230. Consisting of a core of set gypsum plaster in accordance with B.S. 1191 sandwiched between two sheets of heavy paper to a nominal thickness of 3/8". Plasterboard is to be nailed to timber bearers with 1 1/4" * 12 S.W.G. galvanized screws with 3/8" dis. heads, spaced about 6 inches apart and not less than 3/4" from the edges and ends. Nailing is to commence at the centre of the board. Boards are to be spaced 1/8" to 1/4" apart at the joints and end joints are to be staggered to break bond. The boards are to be fixed and cleaned at least 24 hrs before the application of plaster and in no circumstances should it be wetted before plastering.

Gypsum plasterboard is to be prepared for plastering by filling the joints with 'board finish' gypsum plaster as described above and pressing into the plaster, dry reinforcing jute scrim cloth 3 1/2" wide trowelled as flat as possible. When the plaster to the scrimed joints has set, thin coat of neat gypsum plaster is to be applied over the whole surface to level up followed immediately by a finish coat to a total thickness of 3/16". The finish coat when almost set is to be trowelled to a smooth surface using as little water as possible applied with a brush. The admixture of lime with gypsum plaster will not be permitted.

Internal wall tiling is to be of a quality and equal to samples approved by the Designer as suitable for the standard of work required. Tiles are to be of 'A' Grade. Indian manufacture size 4 1/4" * 4 1/4" * 6mm thick cushion edge colored egg shell glazed tiles fixed complete with rounded nosing tiles to external angles or as specified. The tiles are to be soaked in clean water and brushed on the underside with cement slurry before bedding on a cement and sand (1:3) and painted in neat white or colored cement.

Paving composed of cement and sand (1:3) are to be trowelled smooth with steel trowel or floated with a wooden hand float as required.

Dividing strips of brass, stainless steel or plastic as specified and on approval, shall be provided and bedded to, finished flush with finished floor levels between different types of paving or where abutting wood floors.

Stone flooring and cladding should be of dimensions, quality and colour as specified and shall conform to the relevant I.S. specification samples of stone materials should be got approved by the Designer/Client prior to installation allowed without extra charge, unless such variations are made after conduits, cables, etc. are fixed.

All cables shall be of 1st quality manufacturer and the Main Contractor will be required to submit a sample of wiring materials to the Designer & owner, for their approval before commencing the installation.

GENERAL SPECIFICATIONS FOR "UPHOLSTERED" FURNITURE:

TIMBER: All timbers used are to be of top quality, free from knots, shakes, and worm holes, and with a moisture content of not more than 12% depending on the climatic conditions prevailing at the site.

Timbers which are completely hidden, that are when covered by upholstery material, can be of local hardwood, except where this interfaces with the strength of the product, as in the case of a leg or arm which is part covered and part finished.

JOINTS: All joints shall be standard, mortise and tennon, dowel, dovetail, and cross halved. Nailed or glued butt joints will not be permitted. Screws, nails, etc. will be of standard iron or wire unless stated otherwise on drawing. Where mortise and tenon joints are used, tenons should fit the mortise exactly. Where screws show on a finished surface, these will be sunk, and the hole plugged with a wood plug of the same wood and grain of the finished surfaces, unless otherwise. Nails on finished surface will be neatly punched and the hole filled with wood filler to match the colour.

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

CUSHION VENTS : Brass or Aluminium "cushion vents" should be installed at the back or under side of seat cushions (especially those covered in leather, vinyl plastic or very tightly woven fabric) to allow air to escape easily and to prevent torn seams.

MATERIALS : Finished timber shall be of the type specified, furnishing fabrics, colour, pattern, substance to be as specified, no variation of this will be permitted unless with prior approval of the Designer & owner.

FINISH: This will be as specified on the drawing and colour scheme chart where timber is finished in natural colour; care must be taken to "match" each separate piece of colour, before assembly. Where timber is stained, the stain or colour on each member must match.

Only first class workmanship will be accepted. All legs to furniture will be fitted with nylon glides or castors as specified on the drawing. Full size drawings or prototype samples are to be submitted to the Designer for prior approval if requested.

ABRIC AND WALL COVERINGS:

The fabrics or wall coverings shall be supplied by the owner in conformity with the details shown on colour scheme charts. The wall paper or fabric shall be applied with an approved method or adhesive after necessary preparation of surfaces and in accordance with the manufacturer's recommendations and to the approval of the Architect / Consultant. The lengths of wall covering are to be hung with an overlap of at least 1" and cut flush as recommended by the manufacturer. A sample of the colour and style shall be produced for the Architect / Consultant's / owner approval.

ELECTRICAL INSTALLATION:

The whole of the electrical installation shall be carried out by a major registered licensed Electrical Contractor's firm. The electrical installation shall include for the supply of the whole of the materials and the work of fixing, necessary for the complete installation. The work shall be carried out in strict accordance with the latest edition of the Regulations for the Electrical Equipment of Buildings issued by the Institute of Electrical Engineers I.E. rules and to the satisfaction of and in accordance with rules, regulations, and requirements of the supply company and the Fire department all to the entire satisfaction of the Architect / Consultant & owner.

The positions of all points and equipment shown on the drawings shall be assumed to be correct for the purposes of tendering, but it is the main contractor's responsibility to check the exact positions on the site before commencing the works.

NOTE: This specification is of the general type only and must be used in conjunction with the drawing of the particular item being made. Anything shown on the drawing and not in the specification must be compiled with, and vice versa.

GENERAL SPECIFICATION FOR CASE OF "CABINET" FURNITURE.

TIMBER: All timbers used are to be of top quality free from knots, shakes, wormholes, and with a moisture content of not more than 12% depending on the climatic conditions prevailing at the site.

JOINTS: All joints will be standard, mortise and tennon, dovetail, duel, cross halved, mitred, tongued and grooved and rebated. Nailed and glued butt joints will not be accepted.

FASTENINGS: Screws, nails, bolts, will generally be iron or wire, except in the following examples. "Outdoor Furniture" fastenings will be of brass or other non-corrosive metal. In hardware, they will match the finish of the hardware item.

Nails, in a finished surface shall be neatly punched and the hold filled with wood filler matching the finish. Screws in a finished surface will be round head, raised or sunk beneath the surface, and the hole plugged with a wood plug with matching colour and grain of the wood surface, unless specially detailed.

PLYWOOD: Used mainly for the body-work of this furniture, shall be Sylvan ply, Green ply, century ply suitable for veneering, painting or bonding plastic laminate. It shall be a resin bonded, specification, "marine", brand or equivalent. Exposed edges will be finished with a piece of solid wood, tongued, grooved and glued, or as detailed.

HARDWARE: Hinges, locks, latches, door tracks, etc. shall be as specified, and as far as is possible of specified manufacture. In any variation of this the quality of the substitute shall be equal to or better than the originally specified, and the sample should be submitted to the designer \ owner for prior approval.

METAL: Where metal lags, frames, sheets, etc. are used, these shall be welded, brazed, bolted or reverted as required and on finished surfaces welding, brazing and riveting shall be neatly smoothened so that no evidence of this is apparent on the final finish of the metal which will be as specified on drawing.

On all legs wood or metal, nylon glides or heavy duty castors as indicated, are to be installed.

FINISH: This will be as indicated on the drawing and colour scheme charts, and materials (timber, plastic, laminates, lacquer, paints, etc.) must be as specified. No variation will be accepted unless with the prior approval of the Designer & owner. "Backs" of cabinets, etc., where wall hung shall be treated with an approved brand or wood preservative. Full size drawings or prototypes are to be submitted for approval if requested.

NOTE-1: This specification is of a general type only and must be used in conjunction with the drawings of the particular item being made. Anything showing on the drawing, but not in the specification must be complied with and vice versa.

NOTE-2:-Where ever applicable only I.S.I. Approved first class materials are to be used. In other cases where I.S.I. specifications/certifications are not available the superior range quality materials are to be used and all the products got approved by the Architect / Consultant/Bank. The Architect / Consultant / Bank reserve the right to specify a particular brand name of a product, in his sole discretion, for use in the contract. No excuse from the contractor as regard variation in rates, in this context will be valid. All dimensions mentioned for all wooden sections (covered or exposed) are "OUT OF" dimensions. All site items procured by the contractor from the manufactures, such as ply, veneer, laminates, wood, Italian marble, ceramic tiles etc., shall be within the allowable tolerances as specified by the manufacturer.

TECHNICAL SPECIFICATION FOR INTERIOR WORKS

CARPENTARY & JOINERY

1.0 GENERAL:

Arrangement for procurement of timber sections shall be made with the receipt of order to facilitate natural air seasoning at site.

The contractor shall invariably submit test certificate in case where seasoned and treated timbers have been specified. Arrangements for test check at site for random sample shall be made by the contractor.

No timber material shall be painted till such time it has been approved by the Architects/Consultant. A coat of primer shall immediately be applied on receipt of approval from the Architect / Consultant. The final painting shall be done as indicated in the schedule or as directed by the Architect / Consultant has given approval to proceed with final painting.

If after finishing and erection of wood work any undue shrinkage or cracks due to hard workmanship or materials is found, the contractor shall remove the same and supply better and approved materials at his own cost.

All wood shavings, cuttings and other rubbish shall be removed and the site left clear at the work progress. All precautions against fire shall also be taken by the contractor.

2.0 WORKMANSHIP

2.1 FRAMES:

The workmanship shall be the first class and to the approval of the Architect / Consultant. Scantlings and boarding shall accurately be sawn and shall be of the required width and thickness with allowable tolerance. All carpentry work shall be brought (planed) except where otherwise described. The workmanship and joinery shall be accurately set out in strict accordance with the drawings and shall be framed together and securely fixed in approved manner with properly made joints. All work is to be properly tenoned, shouldered, wedged, pinned, bedded, etc. and properly glued with approved quality adhesive to the satisfaction of the Architect / Consultant.

All edges of timber frames shall be protected from being damaged during construction by providing rough timber casing securely fixed and other adequate protective measures. Door/Windows frames shall have cut rebates. Planted rebates unless shown in drawing shall not be permitted.

All fully fabricated timber shall be air seasoned at site for about 2 months to allow for any shrinkage that may take place. As such it is desirable that the fabrication of frames is started with the commencement of the project work.

The faces of frames or any timber coming in contact with masonry or concrete or embedded in ground shall be treated with hot tar primer or creosoted before they are placed in position.

No frame shall be painted until it is inspected by the Architect / Consultant and passed. Immediately after it is passed, it shall be given a coat of primer, the final painting or polishing shall be done only when advised by Architect / Consultant.

The hold fasts shall be fixed to frame with M.S. Screws in case of wooden frames. The other end (split ends) shall be embedded in cement concrete (1:2:4) of appropriate size as shown on drawing or as directed by the Architect / Consultant. Wherever asked for, rawl plug, fastener or bolts of appropriate size, as directed, shall be used for fixing of framings, hangers etc. which will be paid for separately.

2.2 PANELED AND GLAZED SHUTTER:

Solid wood panels for shutter shall be of pattern and size as specified. Generally each panel shall be in a single width piece. If unavoidable, the panels can be made from more than one piece with the prior approval of the Architect / Consultant. In such cases, the pieces shall be jointed with continuous tongue and groove joints and glued, together and reinforced with metal dowels. Jointed pieces of timber groove in paneled portion, for the panel to fit in tenons in rails shall pass through the styles. While assembling leaf, styles shall be left projecting as a horn. After the joinery work is

assembled and approved by the Architect / Consultant the joints will be pressed and secured by about 6 mm. dia bamboo/wooden pins and the horns of styles sawn off.

The grains of the solid panel shall run along with the longer dimensions of the panel. Panels shall be framed into grooves to the full depth of groove leaving an air-space of 1.6 mm. and the faces shall be closely fitted to the sides of the grooves.

The styles and rails of glazed shutter shall be rebated of sizes as shown in drawing to receive glass.

2.3 SHUTTERS:

Shutters shall be planed at site to match the finished dimension between rebates of frames leaving an uniform gap of not more than 3 mm. between the frame and the shutter and. Shutters shall be held by screws, as per drawing and specification and properly threaded in. The finished work shall be true to plumb and true to shape. The shutters shall be so fixed, that while closing the left hand leaf of the shutters is closed first and the right hand leaf of the shutter overlaps on the left hand leaf by minimum 20 mm.

2.4 Specification Text for Sliding Door Operator:

Supply & Installation of Automatic sliding door operator of Dorma make or approved equivalent complete with toughened glasses, installation using necessary screws, fixtures, sealants etc., with modular design & including internal cover for the following application.

Single Panel/ 2-panel sliding door Operator Dimensions (H x T): 100 x 180 mm.

Clear Passage Width of Upto 2000 mm

Clear Passage Height of Upto 3000 mm

The operator should comply with guidelines for power-operated windows, doors and gates BGR 232, the UVV and the VDE regulations. The operator should be TÜV design tested, tested according to the low voltage guidelines and produced according to ISO 9001:2000 standards. It should comply with future European standards and specifications per **EN 12650**.

The Automatic Door Supplied should have the following features:

- Automatic sensing using motion detectors
- Microprocessor-controlled control unit, self-learning, reversing when obstruction is encountered.
- Adjustable parameters for opening and closing speed, hold-open time and opening and closing force.
- Class of protection IP 20.
- Sturdy design with Self balancing Panel suspension system and with Anti-Jump fitting.
- Auto Error Display, with Error Code Display for error correction.
- Read-out error store with error codes
- Fail Safe / Fail Secure: Choice between emergency opening (Fail Safe) and emergency closing (Fail Secure) in the event of a power cut (with battery pack).
- Safety Photocells: 1/ 2 Pair of Photocells are provided for safety of passenger standing in line of motion of Moving Panel and for through-passage monitoring.

3.0. PAINTING AND POLISHING:

The specification covers various types of painting and finishing of all surfaces throughout the part of the building. The number of coats required in various situations and also the type of finish required for plastic emulsion paint as specified in the schedule of probable qualities and specifications. Before the commencement of the work, the contractor will provide sample panels of painting at his own cost for the approval of the Designers to enable him to keep an accurate check on the materials supplied and final shade to be painted. It is however the responsibility of the Contractor to provide any deviations and shall have to be rectified by the Contractor at his own cost. Contractor shall protect not only his own work at all times but also all the adjacent work and materials by suitable covering, protection or other methods acceptable to the Designers during progress of painting. It is the responsibility of the Contractor upon completion of the painting work to remove all paint and varnish spots from floors, walls, glass panels, and other surfaces and restore them to original conditions. The work generally to be touched up shall attend to after all other workmen have left. All accumulated material, rubbish etc. have to be cleared and the premises left in clean, orderly and acceptable conditions. Contractors shall provide scaffolding wherever necessary erected on double supports tied together by horizontals, no ballies, bamboos or planks shall rest on or touch the surface that is being painted. Contractor is deemed to have considered the following while tendering no extra claim on account of these will be entertained.

- a. Supplying the paint and other materials required of approved colour and brand.
- b. Preparing the surfaces to be painted.
- c. Providing and erecting scaffolding and removing the same after completion of work
- d. Lifting of material to any height and painting at all levels
- e. Application of paint as per the specification and to manufacture instructions
- f. Curing, protecting the painted surface, adjacent work and thoroughly cleaning of the premises.

The paint shall generally conform to the chemical composition and other characteristics laid down in the relevant Indian Standards specifications. The entire materials required for the painting work shall be obtained direct from the approved manufacturers or their authorized agents and bought to the site in original manufacture containers with seals unbroken. Paint shall be ready mixed and 1st quality of approved brand and manufacture. Mixing of paint by the Contractor at the site will not be allowed, except with the preparation of ingredients and their quality shall be strictly maintained as per the Designers. All materials shall be kept properly protected when not actually in use.

4.0 RATES TO INCLUDE:

Apart from other factors mentioned elsewhere in this contract the rate for item of wood work and joinery shall include for the following:

- A. Items of scantlings :
 - i) All labour, materials and equipments for fixing frame work as per drawing excluding the cost of holdfasts, Raw plugs, or
 - ii) Other fasteners etc.
- B. Items of shutters :
 - i) All labour, materials and equipments for carrying out the work as per drawing.
 - ii) Labour for fitting the shutters in position (excluding the cost of fittings) as per drawing.

5.0 MODE OF MEASUREMENT:

All measurements shall be as per relevant section of I. S. 1200 of latest edition.

- i) Scantling shall be measured in cum. The sectional area shall be the area of the least square, or rectangles from which the scantling may be cut. The length shall be actual length of timber required for the purposes including the extra portion required for jointing.
- ii) Shuttering shall be measured in square metre for closed door shutters area i.e. rebate to rebate to without extra measurement for rebates and/or splayed meeting styles of door.

TECHNICAL SPECIFICATIONS FOR ELECTRICAL WORKS

GENERAL:

Withstanding the definition of wiring in IEE regulation, or elsewhere, wiring shall so far this contract is concerned, include all work items/accessories in the complete wiring circuit from tapping the point in the sub main or distribution board to the following:

The switch /ceiling rose or connector / socket outlet / bell push / bookplate / call bells, buzzers.

(i) The following shall be deemed to be included in the point wiring:

1. Circuit wiring from the relevant distribution board.
2. Switch and ceiling rose/connector
3. Wire as required up to lam holder in the case of wall brackets, bulk circles and all other fittings, fan regulators and looping inside switch boards.
4. Bushed PVC conduit of suitable size where cables pass through walls and ceiling below ceiling level to 1.5M above upper floor level.
5. Earth wire from 3 pin socket to the respective distribution board.
6. Continuous run of earth wire on complete lighting fan wiring to respective distribution board.
7. All wood or metal boards and boxes, sunk or surface type including those required for mounting fan regulators and switches (excluding those under distribution boards and main control switches)
8. Round blocks for housing connectors/ceiling rose.
9. All fixing accessories such as clips, nails, screws, or raw plugs, wooden plugs etc., as required.

(ii) SIZES OF WIRES:

All wires shall be PVC insulated single core copper or aluminum stranded conductor as specified and shall be 250/1100 V grade. The smallest conductors for lighting and circuits shall be 1.5 Sq.mm and 2.5 Sq.mm. aluminum or equivalent copper respectively.

Phase	Ph.	Ph.	Neutral	Earth
R	Y	B	N	
Colour-Red	Yellow	Blue	Black	Green.

(iii) FITTINGS WIRES:

The use of fittings wires shall be restricted to the internal wiring of light fittings. The sub circuit leads shall terminate in ceiling roses or connectors from which they will be carried into the fittings.

(iv). Connections to the switches, sockets etc., wherever possible shall be through crimped pin type plugs.

(iv) FLEXIBLE CHORDS:

For sort connections to appliances fans and pendants shall be 250/440 V grade (3 or 4 core) with tinned copper wires, insulated, twisted and sheathed with strengthening chord. The colour of sheath shall be to Architect's approval.

1. WIRING IN CONDUITS:

1.1. CONDUITS:

a) Rigid steel conduits shall be of heavy gauge welded black enameled of 16 SWG sheet up to 40mm dia. and 14SWG sheet above 40mm dia. with threaded type accessories and when laid shall free from edges and burrs.

b) All rigid non-metallic conduits shall confirm to IS 2509/1973 & IS 9537 (part3)/1983 either threaded or plain type and shall be used with corresponding accessories.

1.2. SIZES:

Shall be selected in accordance with IS codes depending upon the size and number sizes to be drawn, the minimum dia. being 19mm/20mm.

1.3. CONDUITS JOINTS:

Conduit pipe shall be joined by means of screwed couplers and screwed accessories only. In long straight runs of conduit inspection type of couplers (for surface conduits) or running threads with couplers and jam nuts with bared threaded portion suitably protected by anticorrosive paint shall be provided. Threading shall in all cases be from 11mm to 27mm long sufficient long to accommodate pipes to full threaded portions of coupler or accessories. Cut ends of conduits pipes shall have no sharp edges nor any buffers left, to avoid damage to the insulations of conductors while pulling them through such pipes and all such ends shall be neatly protected by approved bushes of proper size, of P.V.C. or of well seasoned TW, painted or of porcelain, Bakelite or rubber.

1.4. PVC CONDUIT CONNECTIONS:

PVC conduits shall be joined by means of screwed or plain couplers depending on whether the conduits are screwed or plain. Where there are long runs of straight conduit, inspection boxes shall be provided at inters approved by the Architect. The threads of pipe and sockets shall be free from grease and oil and shall be thoroughly cleaned before making the screwed/plain joints. Proper jointing materials as recommended by manufacturers shall be used for jointing of PVC pipes. Use PVC couplers and connectors for PVC pipe connections and terminations in boxes. All the joints shall be watertight. Junction boxes and running joints shall be provided at suitable places to allow for subsequent extensions if any, without undue dismantling of conduit system. As far as possible diagonal run of conduits shall be avoided. Junction between conduit and adaptable boxes, back outlet boxes, switch boxes and the like must be provided with entry spouts and smooth PVC bushes. Joints between conduits and iron clad distribution boards and control gear shall be effected by means of conduit couplers into each of which will be coupled smooth PVC bush from the inside of box or case. Conduit system shall be erect and straight as far as possible. Traps where water may accumulate from condensation are to be avoided and if unavoidable suitable provision for draining the water shall be made. All jointing methods shall be subject to the approval of Architects. Separate conduits shall be provided for the following system.

1. 15 Amps Power outlets
2. 5Amps outlets and lighting system
3. Fire alarm system/Telephone system
4. Equipment wiring

1.5. BENDS IN CONDUIT:

Wherever necessary, bends or diversions may be achieved by means of bands/or circular inspection boxes with adequate and suitable inlet and outlet screwed joints. In case of recessed system each junction box shall be provided with a properly occurred and flush with the finished wall surface, so that the conductors inside the conduits are easily accessible. No bends shall have reading less than 2 1/2 times the outside diameter of the conduit. Heat may be used to soften the PVC the conduit for bending. Caution should be exercised in using the PVC conduits in location where ambient temperature is 50 Celsius or above. Use of PVC conduit in places where ambient temperature is 60 Celsius or above is prohibited. PVC conduits shall not be used in outdoor exposed system. G.I. pipes conduits shall be used for outdoor system.

1.6. FIXING OF CONDUITS:

Conduits and junction boxes shall be kept in position while the walls, slabs and floors are under renovation and proper holdfasts shall be provided. Conduits shall be so arranged as to facilitate easy drawing of wires through them. Adequate junction boxes of approved shape and size shall be provided. Where conduits cross expansion joints in the building, adequate devices shall be used to take care of any relative movement. All conduits shall be installed so as to avoid a steam and to water pipes. A conduit shall not come in contact with any wooden members unless otherwise specified. Conduits stubs in floors/slabs shall be kept as short as possible above the finished floor level in order to avoid any damage on them. After conduits junction boxes, outlet boxes, and switch boxes are installed in position, their outlets shall be properly plugged or covered so that water, mortar, insects or any other foreign matter does not enter into the conduit system. Exposed conduits shall be fixed by means of space bar saddle at intervals not more than 1000mm in normal and 500mm from both sides of fitting or accessories. The saddles shall be of 3mm X 19mm galvanized mild steel flat, properly treated primer and painted, securely fixed to support by means of nuts and bolts and brass machined screws as required. Conduits shall be laid in a neat and organized manner as directed and approved by the Architect. Conduit runs shall be planned so as not to conflict with any other service pipes lines/ducts.

Where exposed conduits are suspended from the structure they shall be clamped firmly and rigidly to the hangers of design to be approved by the Architect. Where hangers are to be anchored to reinforced concrete appropriate inserts and necessary devices for their fixing shall be left in position at the time of concreting. Making holes or openings in the concrete will generally not be allowed. In case of unavoidable prior permission of the Architect shall be obtained. Conduits in chases shall be avoided. Where unavoidable conduits shall be fixed in chases by means of staples not more than 600mm apart and the chase filled with cement mortar 1:4 cutting of horizontal chases in walls is prohibited.

1.7. PROTECTION:

To minimize condensation or sweating inside the conduit pipes, all outlets of conduits system shall be adequately ventilated as directed and approved by Architect. All screwed and socketed connections shall be adequately made fully water tight by the use of proper jointing materials i.e. 'Tropolin' for PVC conduit and white lead for metal conduit.

1.8. OUTLETS:

All outlets for fittings, switches etc., shall be boxes of suitable metal of surface or flush mounting type. Wall thickness shall not be less than of 16g covered with a sheet 1/8" (3mm) thick perspex or 3mm thick decorative laminated hylam as may be specified, in front giving minimum clear depth of 75mm. All MS boxes, irrespective of sizes, shall have a fully threaded stud welded inside, for earth termination.

1.9. CONDUCTORS:

All Conductors used in conduit wiring shall unless otherwise specified be stranded. No single core cable of nominal cross-sectional area greater than 16 sq.mm. shall be enclosed alone in a conduit and used for alternating current.

1.10. INSPECTION BOXES:

Suitable inspection boxes, with ventilating holes in the covers shall be provided in a conduit wiring, at spacing not more than 12 meters apart or two solid 90 degree bends or equal to permit periodical inspection and facilitating removal of wires if necessary.

1.11. ERECTION AND EARTHING OF CONDUIT:

The conduit of each circuit or section shall be completed before conductors are drawn in. The entire system of conduit after erection shall be tested for mechanical and electrical continuity throughout and permanently connected to earth confirming to the requirements specified under section 12 (below), Earthing by means of special approved type earthing clamps efficiently fastened to conduit pipe in a workman like manner for perfect continuity between each wire and conduit gas or water pipes are liable to mechanical damage they shall be adequately protected.

1.12. GUIDE WIRE

Suitable fish or pull wire shall be drawn in all conduits before they are embedded. Steel conduits, even if galvanized, run in under-floor screed shall be painted with a heavy coated of emulsified bitumen.

2. WIRING IN CONCEALED CONDUIT

2.1. Conduits buried in concrete in structure shall be put in position and securely fastened to the reinforcement and the system got approved by the Architect / Consultant before the concrete is poured. Proper care shall be taken to ensure that the conduits are neither dislocated nor choked at the time of pouring concrete. Suitable fish or pull wire shall be drawn in all conduits before they were embedded.

2.2. MAKING OF CHASE:

The Chase in the wall is neatly made and be of ample dimensions to permit the conduit to be fixed in the manner desired. In the case of building under renovation, chase shall be provided in the wall, ceiling, etc., at the time of renovation and shall be filled up neatly after erection of conduit and brought to the original finish of the wall, ceiling etc.

2.3. The conduit pipe shall be fixed by means of staples or saddles not more than 50cm apart. Fixing of standard bends or below shall be avoided as far practicable and all curves maintained by bending the conduit pipe itself with radius along enough to permit easy drawing in of conductors. All threaded joints of conduit shall be treated with approved preservative compound to secure protection against rust.

2.4. INSPECTION BOXES:

Suitable inspection boxes shall be provided as at 9.2 (Flush mounted).

2.5. TYPES OF ACCESSORIES TO BE USED:

All outlets such as switches, wall sockets, etc. may be either flush or of surface mounting type.

2.6. The outlets box shall be same as in Clause 9.2 ante and shall be mounted with the wall. The metal box shall be efficiently earthed with conduit by the stud vide 9.2.

3. WIRING IN SURFACE CONDUITS:

Conduit pipes shall be fixed on the approved heavy gauge metal saddles, Properly secured to walls or ceilings through suitable teakwood plugs (or other approved varieties) with round or cheese circle screws for rust proof material, at intervals of not more than 50cm on straight runs, with saddles not more than 30cm on either side of couplers or bends or similar fittings, from such fittings. The conduits shall be run neatly parallel or at right angles to walls and painted in different colours to distinguish light, power and telephone lines. Inspection boxes shall be provided as at.

4. PVC SHEATHED WIRING:

(Batten wiring)

4.1. PVC sheathed cables may be installed in exposed locations and for medium voltage installation.

4.2. FIXING IN WALLS AND CEILINGS:

All PVC cables on brick walls, stone or plastered walls and ceiling shall be run on well seasoned perfectly straight and well varnished (on all sides) teakwood or any approved hardwood battens of not less than 12mm (1/2") finished thickness, width to suit the totality of the cables laid on the batten. Prior to the erection, these shall be fully painted with one coat of varnish or approved paint of colour to match with the surroundings. The battens shall be properly secured to the walls and ceilings by flat circle wood screws to raw plugs or Phil plugs. The flat circle screw shall be counter-sunk within the wooden battens and smoothed down with file. Where wiring is to be carried out along the face of rolled steel joints, a batten of well seasoned teak wood of approved quality of adequate width duly varnished or painted shall first be laid on the same clipped to them as inconspicuously as possible. The wiring shall be then fixed to the batten in the ordinary way. Where wiring then passes be fixed to the batten in the ordinary way. Where wiring passes through structural steel work the holes shall be smoothened and be also suitably bushed to prevent abrasion of the cable. The battens shall be fully varnished or painted, as required.

4.3. LINK CLIPS:

Only tinned brass link clips shall be so arranged that a single clip shall not be hold more than two-twin core PVC sheathed cables up to 0.003 Sq. inch (3/0.036 or 1.5 sq.mm.) above which a single clip shall hold a single twin core cable. The clips shall be fixed on fully varnished wood battens with brass nail/pins and spaced at intervals of 10cm both in the case of horizontal and vertical runs. For wiring and runs of mains exposed to heat and rain, clip specially made for outdoor use from durable metal resistant to weather and atmospheric corrosion shall be used.

4.4. PASSING THROUGH WALLS/CEILINGS:

The method to be adopted shall be that laid down under sections 16(a) or(b) below and under definition of point wiring, 9.1(iv), ante. In the latter case, there shall be one conduit for twin cable or two runs of single-core cable and the conduit shall be neatly arranged so that the cables enter them without bending.

4.5. BURIED CABLES:

PVC sheathed cables shall not be buried directly in plastering where so specified they may be taken in teak wood channeling of ample capacity or in cement chases or inside conduit pipes buried in the wall.

4.6. STRIPPING OF OUTER COVERING:

While Stripping and cutting of outer covering of cables, care shall be taken to ensure that the sharp edge of the cutting instrument does not touch PVC-sheathed insulation of conductors. The protective outer covering of the cables shall be stripped off near connecting terminals as far as practicable. Car shall be taken to avoid hammering or link clips with any metal instruments, after the cables are laid. Where the junction boxes are provided, they shall be made moisture proof with approved plastic compound.

PVC-sheathed wiring shall be painted with a synthetic enamel pain of quick drying type.

5. ARMoured AND UNARMoured PVC CABLE ON SURFACE:

(a) This system of wiring is suitable for providing sub-mains for low/medium voltage installation. All such cables used shall conform to the relevant I.S.S.

(b) FIXING ON WALL/CEILING:

PVC insulated, steel tape or wire armored and PVC-sheathed cable on walls, ceiling etc., shall be run on proper wooden/MS cleats with GI saddles placed at such distance apart as to neatly and adequately support the cable all along the run. The wooden cleats shall be secured on the Wall/ceiling by flat circle screws to raw/Phil plugs.

(c) PASSING THROUGH WALL:

A teakwood box or extending through the whole thickness of the wall shall be buried in the wall and the cable shall be buried in the wall and the cable shall be carried so as to allow wall and the cable shall be carried so as to allow 1/2" clear space on the three sides of the cable or the cable shall carried in an approved bush of well seasoned teakwood duly painted, or other approved material. The cable shall in no case be buried directly in masonry or plaster.

(d) LAYING:

The cables shall be uncoiled from the drum and laid in straight length so as to avoid sharps on the conductor. The cables should be laid along wall/ceiling in the best workmanlike manner, so as to give a neat appearance. Excessively sharp bends to the cable shall be avoided.

(e) STRIPPING OF OUTER COVERING:

While cutting and stripping the outer covering of the cables, care shall be taken to see that the sharp edge of cutting instrument does not damage the PVC insulation of the conductors. The insulation shall be stripped off near the connection terminals as far as possible taking care again to see that the conductor is not damaged.

(f) END TERMINATION:

The connecting terminals of the armored and unarmored cable shall be terminated on the iron clad main switch/distribution board etc., by using proper size brass/alloy supporting glands. In case of armored cables, the armored cables shall be supported into the gland and connected to the earth as per conventional practice. Terminations at both ends shall be made with cable lugs.

6. EARTHING

a) Except for equipment provided with double insulation all non-current carrying metal parts of electrical installations are to be earthed properly. All metal conduits, cable sheaths, switchgear, distribution fuse boards, etc., shall be bonded together and connected to an efficient earth electrode.

Medium Voltage energy consuming plant and equipment shall have two separate and distinct connections to the earth.

In the case of MV/LT panels, 2 nos. of earth bus bars of copper or GI of suitable section shall be run the back side of the panel and earth bus bars and the individual switches shall be interconnected by means of copper or GI wire of suitable gauge as specified.

b) EARTHING CONDUCTOR:

Earthing conductor shall be of higher conductivity copper or GI or any other suitable approved material to give equivalent conductivity and shall not less than half the largest current carrying conductor or 14SWG (7/00.029) but subject to an upper limit of 65 sq.mm. For equipment exceeding 750 KVA the size shall be as per IS.1886-1961.

c) INSTALLATION:

The buried earthing leads will be protected from mechanical injury by 1/2" (12mm) GI pipe recessed in wall and floor where considered necessary and carried up to the earth electrode. It shall be fixed over its entire length clamps,

saddles, staples, etc. The earthing lead shall be securely bolted and soldered to the electrode with bolts and washer of the base metal. The earthing lead shall be securely connected at the other end to the main board and all its mountings and looped to all other iron clad switches and distribution boards.

d) ELECTRODE:

The construction of earth electrode shall be in accordance with relevant IS code. The electrode shall be surrounded by alternate layers of charcoal or coke and salt. Watering arrangement with 1/2" GI pipe and funnel shall be provided, the latter being housed in chamber of inner size 30cm X 30cm. The resistance of earth electrode shall not exceed 1 Ohms; that of each continuity path from any point with electrode shall not exceed 1ohm and that of earthing connection 0.1 Ohm.

7. UNDERGROUND CABLES

a) HIGH MEDIUM/LOW TENSION:

Cables should be double tape/wire armored over lead covering and paper insulated as specified in the schedule of work. All joints of cables should be in joint boxes and filling in of the compound shall be done as per IS specifications using best quality of materials. In case of the PVC insulated armored cables joining will be done with approved quick setting epoxy compound with suitable jointing kit. The jointing work should be carried out by a competent authorized cable joiner.

b) TRENCH:

All underground cables shall be laid in suitable trenches which shall not be less than 45cm wide and 75cm below ground level in the case M.V. and L.T and 1.2M below ground level in the case of H.T. Wherever necessary suitable propping and shoring shall be done to avoid caving in of the adjoining walls. Where the cables cross other services such as water/sewer lines or drains through walls into buildings, adequate protection should be made to prevent accidental exposure and/or damage to the cables.

c) SPACING BETWEEN CABLES:

Where more than one cable is laid in the same trench the actual space between the cables should be normally be 25cm apart leaving a clear distance of 15cm from the cable and the trench walls.

d) LAYING OF CABLES:

Before the cables are laid, a 75mm layer of sand base is to be provided for cushioning. The cables after being uncoiled and laid into a trench from the rollers should be drawn in straight length. After the cable is laid a 9" wide duct is to be formed with two well burnt brick laid on the edge one on either side and bridged by a well burnt brick laid flat on the top supporting bricks on edge with sand filled in around the cable. The trench is then filled with excavated earth, laid in layers, water and consolidated the surplus being disposed off. Cable markers with 3mm thick plates of suitable size, with 40mm X 40mm X 6mm supporting vertical MS angle iron welded to plate duly painted two coats against corrosion, or with 2" thick RCC slab of suitable size, making done with details cables and depths at which laid, duly painted on them, shall be provided at ground level after being suitably embedded in cement concrete (1:3:6) blocks of 20cm X 20cm X 20cm and spaced at distances of about 30 mts. from concrete to center and at every change in direction.

When more than one cable is to be laid, the width of the trench will be suitably increased and cables laid side by side confirming to specifications as above. In such case there shall be a separate brick duct for every cable. In case the cables cannot be laid side by side at one level they may be laid in tier formation in same trench. In this case after the first 7.5cm of sand cushioning, the first tier of cable is laid and sand filled in the trench for full width to form a bed of 23cm above this tier. After this second cable is laid and the process repeated the top most tier being at least 45mm below the ground level. The top cable shall be suitably covered with bricks as detailed for the single tier above. When laying with cables, care should be taken to see that the paper insulated cables are bent straightened slowly, sharp radius being avoided. The minimum safe bending radius for single core cable is 20 dia.mts and for

multi core cables 10 dia.mts and for armoured cable 12 dia.mts. the dia.mt being the overall diameter of the cable. Where the cables are required to cross the roads water/sewer lines etc., they should normally be taken through sleeve pipes at least 10cm in diameter which may either of stoneware, steel or spun reinforced concrete. For more than one cable the diameter should not be less than 15cm. Steel pipe shall be used where it is not possible to obtain sufficient depth to withstand impact from traffic.

e) Rate for cables shall include costs for all operations described above unless otherwise separately provided for elsewhere.

f) CABLE INSIDE BUILDING:

Cable laid inside the building should be properly protected and be carried either in ducts with suitable covers of slabs or chequered plates or fixed to walls by clamps, brackets or cable trays.

g) TESTING OF CABLES:

High voltage tests should be undertaken to ensure that no damage has occurred during the laying of operation and that the joints are in order. Cable of 1.1 KV suitable for low and medium voltage should be withstanding for 15 minutes, 3,000 volts Direct Current applied between the conductor and sheath. In the absence of high pressure testing equipment it is sufficient to test for 1 minute with 1000 volts. If the test results are to be found not satisfactory the Contractors shall arrange for having this set right at their cost, including removal of rejected materials, relaying etc.

8. RECEPTIONS AND DISTRIBUTION OF MAIN SUPPLY

8.1. CONTROL AT POINT OF COMMENCEMENT OF SUPPLY:

8.1.1. There shall be a circuit breaker or a linked switch on each live conductor of the supply of mains at the point of entry. The wiring through the installation shall be such that there is no breakage in the neutral wire in the form of a switch or fuse unit. The neutral shall also be distinctly marked as provided in the Indian Electricity Rules 1956.

8.1.2. The main switches gear shall be easily accessible and shall be situated as near as practicable to the termination of service line.

8.1.3. On the main switch gear, where the conductors include an earthed conductor of two wire system or an earthed conductor of two wire system or an earthed neutral conductor of a multi-wire system or a conductor which is to be connected there to an indication of a permanent nature shall be provided to identify the earthed neutral conductor in accordance with the Indian Electricity Rules 1956.

8.2. Main Switches and Switch Boards: All main switches shall be either be iron/metal clad of enclosed pattern or of any insulated enclosed pattern as specified in the schedule of quantities and shall be fixed at close proximity to the point entry of supply.

8.2.1. LOCATION:

a) Open type switch boards shall place only in dry situations and in well ventilated rooms and they shall not be placed in the vicinity of storage batteries and exposed to chemical fumes.

b) In a damp situation, or where inflammable or explosive dust vapour or gas is to likely to be present the switch boards shall be totally enclosed or made flame proof as may be necessary in the particular circumstances.

c) A switch board shall be installed so that its bottom is 1.25M (4ft) above a floor, unless the front of the switch board is located in a position to which only located only by authorized persons have access.

d) Switch boards shall not be erected above gas stoves or sinks or within 2.5M (8ft) of any washing unit in the washing rooms of laundries, or in bathrooms, lavatories, or kitchen or toilets.

e) Switch boards if unavoidably fixed in places likely to be exposed to weather, water or abnormally moist atmosphere, outer casing shall be provided with glands or bushings or adapters to receive screwed conduits according to the manner in which cables are run.

8.2.2. MOUNTING:

Iron/metal clad switch gear shall be preferably be mounted on any of the following boards:

a) HINGED TYPE METAL BOARDS:

For small switchboards for mounting iron/metal clad switch/gear metal board shall be used. Metal board shall consist of a box made of metal sheet of less than of 16g. Thickness and shall be provided with a hinged cover to enable the board to be swung open for the examination of the wiring at the back. The joints shall be welded. The boards shall be securely fixed to the wall by means of rag bolts and shall be provided with locking arrangements and earthing stud. All wires passing through the metal board shall be properly bused. Alternatively, metals boards may be made of suitable size or channel iron frame work suitably mounted on front with 3mm (1/8") thick MS plates and on back with 1.588mm (1/6") MS sheet. In the case of PVC sheathed system of wiring, the top and bottom members may be replaced by 2.54mm (1") teakwood batten. Except for the above change all other details shall be applicable for the alternative also. Besides, the front sheet shall be provided with suitable hinges.

There shall be a clear distance of 3.175cm (1' 1/4") between the front sheet shall be provided with suitable hinges.

A teakwood boards of thickness not less than 6mm (1/4") will be provided at the back, if so specified.

b) FIXED-TYPE METAL BOARDS:

These shall consist of angle or channel iron frame fixed on the wall or on the floor. There shall be clear distance of 1M in front of the switchboard. A working distance of 1M behind the switchboard is preferable. If there is any attachment of bare connections at the back of the switchboard, Rule 51 (1) c of Indian Electricity Rules, 1956 shall apply. The detailed dimensions and design of metal boards and angle iron frame work for switch gears, including the position of the various mountings, which shall be symmetrically and neatly arranged for arriving at the overall dimensions shall be prepared and submitted before hand and shall have been prior approval of the Architects.

8.2.3. Where so specified in the schedule of quantities or elsewhere switch boards shall be recessed into the wall with front fitted with hinged panel of 16G M.S. Sheet or 3mm thick decorative laminated Hylam Sheet in M.S. angle iron frame with locking arrangement, the outer surface of the doors being flush with the walls. Ample room shall be provided at the back for connection and at the front between the switchgear mountings and the door. Steel work shall be painted one coat with synthetic enamel paint of approved make and colour over an anticorrosive primer.

8.2.4. ARRANGEMENT OF APPARATUS/MOUNTINGS:

a) Equipment which is on the front of a switch Baird shall be arranged that an inadvertent personal contact with live parts is unlikely during tier manipulation of switches, changing of fuses or like operations.

b) No apparatus shall be project beyond any edge of the panel. No fuse body shall be mounted within 2.5 cm (1") of any edge of the panel and no holes other than the holes by means of which the panel is fixed shall be drilled closer than 1.3cm (1/2") from any edge of the panel. c) Various live parts unless they are effectively screened by substantial barrier of non- hydrosopic no-inflammable insulating materials shall so spaced that an arc cannot be develop and maintained between such parts and earth.

d) The arrangement of the apparatus shall be such that they shall be readily accessible and their connections to all instruments and apparatus shall be easily traceable.

e) In every case in which switches and fuses are fitted on the same pole, the fuses shall be so arranged that they cannot be live when their respective switches are in `off' position.

f) No fuses other than fuses in the instrument circuits shall be fixed on the back of or behind a switch board panel or frame.

8.2.5. MARKING OF APPARATUS

a) When a board is connected to voltage higher than 250v all the terminals or leads of the apparatus mounted on it shall be marked in the following colours to indicate the different poles or phases to which the apparatus or its different terminals may have been connected.

Three Phases	-	Red, Blue and Yellow
1 Neutral	-	Black

- b) Where four wire three phase wiring is done, the neutral shall preferably be in one colour and each of the other three wires in another colour.
- c) Where a board has more than one switch, each switch shall be marked to indicate which section of the installation it controls. The main switch shall be marked as such and when there is more than one main switch in the building, each switch shall be marked to indicate which section of the installation it controls.
- d) All marking required under this clause shall be clear and permanent

8.3. MAIN AND BRANCH DISTRIBUTION BOARDS:

8.3.1. Unless otherwise specified main and distribution fuse boards shall be iron clad/metal card type or any type so described in these specifications, subject to approval of the Architects.

8.3.2. Main distribution boards shall be provided with a switch or any circuit breaker on each pole of each circuit a fuse or a phase or a live conductor and a link on neutral or earth conductor of each circuit. The switches shall always be linked.

8.3.3. Branch distribution boards shall be provided with a fuse or a circuit breaker on the live conductor of each circuit an earthed neutral conductor shall be connected to a common link and capable of being disconnected individually for testing purposes. A spare circuit of the same capacity shall be provided on each branch distribution board. Lights and fans may be wired on a common circuit. As regards power sub-circuits the outlets shall be provided according to the load design of these circuits, but in no case there shall be more than two outlets on each circuit. Where there are special requirements like air-conditioning such outlets should be wired on separate circuits with a control such IC switch/miniature circuit breaker.

8.4. CIRCUIT LIMITATIONS:

Sub-circuits shall not have more than a total of ten points of lights, fan and socket outlets or a load of 800 watts, whichever is less. If a separate fan circuit is adopted the number of fans in a circuit shall not be more than ten.

8.5. INSTALLATION OF DISTRIBUTION BOARDS:

- a) The distribution boards shall be located as near as possible to the center of the load they are intended to control.
- b) These switches (as per clause 8.2) shall be fixed on a suitable stanchion or wall and shall be accessible for replacement of fuses.
- c) These shall be of either iron/metal clad type or all insulated type. But if exposed to weather or damp situations they shall be of the waterproof type and if installed where they are exposed to explosives, dust, vapour or gas, they shall be of the flame proof type.
- d) Where two or more distribution fuse, boards feeding low pressure circuits are fed from supply at medium voltage these distribution boards shall be:
 - 1) Fixed not less than 2M (6ft) apart or
 - 2) Arranged so that two cannot be opened at the same time viz. they are interlocked and the metal case is marked "Danger - 440 Volts" or
 - 3) Installed in a room or enclosure accessible to only authorized persons.
- e) All distribution boards shall be marked "Lighting" or "power" as the case maybe and also marked with pressure and number of phases of supply. Each shall be provided with circuit list giving details of circuit which it controls and the current rating of the circuit and size of the fuse element.

8.6. WIRING OF DISTRIBUTION BOARDS:

- a) In wiring a branch distribution board, the total load or the consuming devices shall be divided as far as possible evenly between the numbers of ways the board leaving the spare circuit for future extension.
- b) All connections between pieces of apparatus or between apparatus and terminals on board shall be neatly arranged in a definite sequence following the arrangement on the apparatus mounted thereon, avoiding unnecessary crossing.

- c) Cables shall be connected to terminals only by soldered lugs/crimped lugs unless the terminals are of such form that they can be securely clamped without cutting cable strands.
- d) All bare conductors shall be rigidly fixed in a such manner that a clearance of at least 2.5cm (1") is maintained between the conductors and any terminal other than the insulating material.
- e) In a hinged board, the incoming and outgoing cables shall be neatly bunched and shall be fixed in such a way that the door shall be capable of swinging through an angle of not less than 90 degrees.
- f) If required in the schedule of quantities, pilot lamp shall be fixed and connected through an independent single pole switch and fuse to the bus bars of the board.
- g) All main and branch distribution boards shall be provided with earth bus bars as described in 12 (1) ante.

9. PASSING THOUGH WALLS/CEILINGS:

When the conductors pass through walls/ceilings, any one of the following methods shall be employed. Care shall be taken to see that wires pass freely through protective pipe or box and that wire pass through in a straight line without any twist or cross in wires, on either end of such holes.

- a) A teakwood box extending through the whole thickness of the wall shall be buried in the wall and casings or conductors shall be carried so as to allow 1.3cm (1/2") air space on three sides of the casing or conductor.
- b) The conductor shall be carried in an approved heavy gauge solid drawn or lap welded conduit or in 2m thick PVC pipe of such size that it permits easy drawing in. The ends of conduits shall be neatly bushed with PVC, wood, or other approved materials. Where a wall tube passes outside a building exposed to weather the outer end shall be bell mouthed and turned downwards and properly bushed on open end.
- c) Where conductors pass from floor to another through ceiling, they shall be protected in the manner specified in (b) above, from 2.5cm below the ceiling level and up to a height of 1.5M above floor level. (Without any extra charges).

10. FIXING TO WALLS AND CEILINGS:

- a) Plugging of walls or ceiling shall be done efficiently and neatly, using approved types of asbestos or fiber fixing plugs with the right sizes and types of tool in workman like manner. Where this cannot be done, wooden plugs as described below can be used with special permission of the Architects.
- b) Plug for ordinary walls or ceilings shall be well seasoned teak or other approved hardwood not less than 5cm (2") long by 2.5cm (1") square on the inner end and 2cm (3/4") square on outer end. They shall be cemented into walls within 6mm (1/4") of the surface with plaster or lime punning. Where wiring to irregular coursing or other reasons the plugging of walls or ceiling with wood plugs present difficulties, the wood encasing, wooden batten, metal conductor or cleat (as case may be) shall be attached to the wall or ceiling in a suitable manner to be approved by the Architects.

In the case of new buildings, teakwood plugs shall be fixed in the walls, before first coat of white washing is given.

11. BRANCH SWITCHES:

Where the supply is derived from a three wire or four wire source and the distribution is done on the two wire system all branch switches shall be placed in the outer or live conductor of the circuit and no single pole switch or fuse shall be inserted in the middle wire, earthed or earthed neutral conductor of the circuit. Single pole switches carrying not more than 15 amperes may be of the tumbler type or as specified.

12. FITTINGS AND ACCESSORIES:

All materials used in the construction of fittings shall be of such quality, design and construction that will provide adequate protection in normal use, against mechanical and electrical failure and exposure, to the risk of injury or electric shock and shall withstand the effects of exposure to atmosphere.

13. ATTACHMENT OF FITTINGS AND ACCESSORIES

13.1. In other than conduit wiring, all ceiling roses, sockets, outlets, switches, regulators, brackets, pendants, and accessories attached to the wall or ceiling shall be mounted on substantial blocks of well seasoned teakwood, or hard wood of approved quality twice varnished both inside and outside including backside after all fixing holes are made in them. Blocks shall be used for attaching fittings and accessories to their blocks.

13.2. Groups of accessories and regulators shall be mounted on well seasoned and properly secured teakwood boards of suitable sizes to accommodate that required number of fittings. The board shall be well varnished with pure shellac on all sides, both inside and outside and the cover shall be 3mm thick decorative laminated Hylam of approved make as may be specified. The board shall be divided into sections, one for the switches which shall be flush mounted and other for the regulators, fixed with suitable washers and round circle iron screws. In the case of surface type wiring, switches may be surface mounted or flush mounted as specified on double teakwood boxes with hinge cover, or covered with 3mm thick laminates hylam sheet, as specified.

13.3. PROTECTION OF CONDUIT AGAINST RUST:

The outer surfaces of the conduit surfaces of the conduit pipes including all bends, unions, tees, junction boxes, etc., forming part of the conduit system shall be adequately protected against rust, particularly when such system is exposed to weather. In all cases no bare threaded portion of conduit pipe shall be allowed unless such bare threaded is treated with anticorrosive preservative or covered with approved plastic compound.

13.4. PROTECTION AGAINST DAMPNESS:

In order to minimize the condensation or sweating inside the tube, all outlets of the conduit system shall be properly drained and ventilated, but in such manner as to prevent the entry of insects as far as possible.

13.5. BENDS IN CONDUITS:

All necessary bends in the system including diversion shall be done by bending pipes or by inserting suitable solid or inspection type normal bends or similar fittings, or fixing M.S. inspection boxes which ever more suitable. Inspection conduit fittings shall be avoided as far as possible on conduit system exposed to weather. Wherever necessary, solid type fittings shall be used. Radius of such bends in conduit pipes shall not be less than 7.5 cm. No length of conduit shall have more than two equivalent 90 degrees bends from outlets to outlets the bends at the outlets not being counted

UCO BANK -NANGI BRANCH, BATANAGAR		
ARCHI SPACE CONSULTANT		
LIST OF APPROVED MATERIALS FOR INTERIOR FURNISHING WORK		
Sl.No.	Items	Approved make
1	False Ceiling	India Gypsum
2	Wood Frame Work / Wood Section	Malaysian Sal
3	Wood Skirting / Moulding / Lipping/ Bidding	White Beach / White Cedar
4	Door frame	Teak wood /Sal Wood
5	BWR Ply / Block board with ISI mark	Sylvan/ Century/ Green
6	Flush Door	Sylvan/ Century/ Green
7	Laminate (1.0 mm thk.)	Sunnica/ Merino/ Formica/ Greenlam/ Century
8	Door Closure (Heavy Duty)	Godrej / Archi / Sterling (DC 2000)
9	Floor Spring (Heavy Duty)	Godrej / Archi / Sterling (FS 3000)
10	Door Lock (Dead)	Godrej / Hafele /Hettich / Kich /Doorset / 4C Acme (ML – REG – SS)
11	Door Handles (‘H’ Shape)	Godrej / Hafele /Hettich / Kich /Doorset / 4C Acme (PHG – HSS)
12	Drawer / Storage Handle (4”/ 6”)	Kich /Neki / Hassley/EGL (HMS –B – 9122 / 9123)
13	Drawer / Storage Lock (Multipurpose)	Ebco / Hafele /Hettich / Doorset / Godrej / Kombo (502)
14	Screws	GKW / Nettle fold
15	Hinges	CIEF
16	Sliding Telescopic Drawer Channel	Ebco / Kombo
17	Key Board Tray (Metal)	Ebco / Innofitt Systems (KD 510. M)
18	Cable Organiser	Ebco / Innofitt Systems (CM 63.C)
19	Adhesive	Fevicol SH / Fevimate TL
20	Aluminium Door Frame	Jindal
21	Soft Board	Jolly Board
22	Vertical Blinds	Mac / Annums / Window Fashion
23	Glass	Modi /Ashai / Saint Gobain
24	A.C.P	Alu Decor / Alu Bond / Alstone/ Wonder Alu board Accura/ Pratap Bond/ Euro
25	Ceramic Tiles	Orientbell/Kajaria/ Somany/ Jhonson
26	Vitrified Tiles	Orientbell/Kajaria/ Somany/ Jhonson
27	All other items not covered above	As per sample approved by Employer/Consultant

UCO BANK - NANGI BRANCH, BATANAGAR		
ARCHI SPACE CONSULTANT		
LIST OF APPROVED MATERIALS FOR ELECTRICAL WORK		
Sl.No.	Items	Approved make
1	MS pipe ISI mark. 16 Swg	BEC / NIC
2	MS fittings.	BEC / NIC
3	Wire PVC insulated copper flexiable wire.	Finolex/Havells/Gerard/ MESCAB
4	A.C. stator.	North west / Havells
5	Split A.C. Machine	Blue star/ Hitachi/ Samsung
6	Switch, socket modular plate.	Crabtree(Sapphire)/MDS/Anchore AVE/Indoasian
7	Armoured cable.	Nicco/Glostar/KDK/Havells.
8	Telephone Socket RJ -11.	Crabtree/MDS
9	MCB, DB.	MDS/Havells/L&T Hagger/ Indoasian
10	Telephone cable (0.51mmsq).	Netco/Delton.
11	Light fittings.	Crompton/Wipro/Philips/ MESCAB
12	Lugs.	Dowells.
13	Terminals Connector.	ESSEN
14	Exhust fan.	Crompton / GEC/ EPC.
15	Ceiling Fan/wall mounted fan.	Crompton/ Orient / Havells
16	SFU/SPN/TPN S.M. housing /Open execution fronthandle.	Havells/ L&T/ Semeins.
17	Telephone connector.	KORN type.
18	Volt Meter / Amps Meter. 96x96 mm.	AE / L&T.
19	Current transformer.	Kuppa / L&T.
20	Selector switch.	Kaycee.
21	Sliding fuse / DZ fuse.	Bharat Lender/ BCH.
22	PVC tape.	Steel grip/ Anchore.
23	Join Box. 6"x4" MS box Heavey type.	Joiti make.
24	Bearer Call Bell.	Max / Homa.
25	Cable Gland Brass make.	Arun (heavey type).
26	Speaker.	Philips / Bosh.
27	LED incator. 20 dia. (Bright type).	Mikadov / L&T/ MDS.
28	CD palayer.	Philips / Sony.
29	Amplifier	Philips / Sony.
30	Speaker wire.	Finolex.
31	PL /TL lamp.	Crompton/Philips.
32	PVC flexiable Pipe.	Hunuman.
33	Smoke / heat Detector.	Appolo / Dats.
34	Manual call point.	Minimax/Dats.
35	Security Alam Hooter.	Philips/Dats.
36	Cat -6 cable	Digi Link / Lucent/ HCL.
37	RJ - 45 socket.	Digi Link / Lucent/ HCL.
38	Patch panal	Digi Link / Lucent/ HCL.
39	HUB.	Digi Link / Lucent/ HCL.
40	PVC Regid pipe. MMS.	Precession / AKG / Pesto
41	All other items not covered above	As per sample approved by Employer/Consultant

ARTICLES OF AGREEMENT

(ON NON-JUDICIAL STAMP PAPER OF Rs.100.00)

ARTICLES OF AGREEMENT made this day of2018 between the UCO Bank , a body corporate constituted and having its Zonal Office under the Banking companies (Acquisition and Transfer of Undertaking) Act 1970 and having its Zonal Office 3&4, DD Block, 1st floor, Salt lake, Sector -I, Kolkata- 700 064 (hereinafter called “the EMPLOYER”) which expression should include its successor/s and assignee/of the one part and M/s_____ having its office at _____(hereinafter called the “CONTRACTOR”) of the other part, which expression should include its successor/s and assignee/s.

WHEREAS the Employer is desirous of executing Civil/ Interior Furnishing/ Electrical/ Data cabling works of Bank’s building at Nangi Branch, Banani Apartment, Nangi more, Budge Budge Trunk Road, Batanagar, Kolkata- 700140 and has caused drawings and specifications describing the work to be prepared by Archi Space Consultant, at 45B, Baghajatin Place, "Amelia Apartment", Ground floor, Kolkata - 700086, (hereinafter called the “CONSULTANT”).

AND WHEREAS the said DRAWINGS numbered as mentioned in the tender document hereinafter mentioned and to be issued from time to time, the specifications and the schedule of Items and quantities have been signed by and on behalf of the parties hereto.

AND WHEREAS the contractor has agreed to execute upon and subject to the conditions set forth herein and schedule of items and quantities, General conditions of contract, special conditions of contract including all other conditions as mentioned in the tender document, specifications and all correspondence exchanged by or between the parties from the submission of tender till the award of work, both letters inclusive, (all of which are collectively hereinafter referred to as “the said conditions”) The work shown upon the said drawing and/or, described in the said specification and included in the schedule of items and quantities at the respective rates therein set forth amounting to the sum of Rs.....(Rupees _____ only) as therein arrived at or such other sum as shall become payable there under (hereinafter referred to as “THE SAID CONTRACT AMOUNT”).

NOW IT IS HEREBY AGREED AS FOLLOW:

1. In condition of the said contract amount to be paid at he times and in the manner set forth in the said conditions, the contractor shall upon and subject to the said conditions execute and complete the work shown upon the said drawings and described in the said specification and the schedule of items and quantities.
2. The Employer shall pay the Contractor the said Contract amount, or such other sum as shall become payable, at the times and in the manner specified in the said conditions.
3. The consultant in the said conditions shall mean the said Archi Space Consultant, at 45B, Baghajatin Place, "Amelia Apartment", Ground floor, Kolkata - 700086, or in the event of their ceasing to be the consultant for the person or purpose of this contract for whatever reason, such other person or persons as shall be nominated for that purpose by the Employer, provided always that no person subsequently appointed to be consultant under this contract shall be entitled to disregard or overrule any previous decision or approval or direction given or expressed in writing by the consultant for the time being.
4. The said condition and Appendices thereto shall be read and considered as forming part of this Agreement, and the parties hereto shall respectively abide by, submit themselves to the said conditions and perform the agreement on their part respectively in the said conditions contained.

5. The plans, agreement documents mentioned herein shall form the basis of this contract.
6. This contract is neither a fixed lump sum contract, nor a piece work contract but is a contract to carry out the work in respect for Civil/ Interior Furnishing/ Electrical/ Data cabling works of Bank's building at Nangi Branch, Banani Apartment, Nangi more, Budge Budge Trunk Road, Batanagar, Kolkata- 700140 as per the scope described and to be paid for according to actual measured quantities at the rates contained in the schedule of rates and probable quantities or as provide in the said conditions.
7. The Employer reserves to itself the right of altering the drawings and nature of the work by adding to or omitting any items of work or having portions of the same carried out without prejudice to this contract.
8. Time shall be considered as the essence of this contract and the contractor hereby agrees to commence the work on the day of handing over of the site or within fourteen days from the date of issue of formal work order whichever is later as provided for in the said conditions and to complete the entire work within 8 (EIGHT) weeks subject nevertheless to the provisions for extension of time.
9. All payments by the Employer under this contract will be made at Kolkata.
10. Any dispute arising under this Agreement shall be referred to arbitration in accordance with the stipulations laid down in the general conditions of contract.
11. That the several parts of this contract have been read by the contractor and fully understood by the contractor.

In witness whereof the Employer and the contractor have set their respective hands to these present through their duly authorized official and the said two duplicate hereof to be executed on its behalf of the day and year first herein above written.

Signed on behalf of the UCO Bank
By duly authorized representative

In the presence of:

1. Signature _____

Name _____

Address _____

2. Signature _____

Name _____

Address _____

Signed of official stamp of contractor
or its authorized representative

In the presence of:

1. Signature _____

Name _____

Address _____

2. Signature _____

Name _____

Address _____

FORM OF TENDER

The Zonal Manager
UCO Bank
Zonal Office
General Administration Department
3&4, DD Block, 1st Floor, Salt lake, Sector -I,
Kolkata- 700064.

Dear Sir,

Re: Civil/ Interior Furnishing/ Electrical/ Data cabling works of Bank's building at Nangi Branch, Banani Apartment, Nangi more, Budge Budge Trunk Road, Batanagar, Kolkata- 700140.

1. I/We refer to the tender notice issued by UCO Bank, Zonal Office, General Administration Department, 3&4, DD Block, 1st Floor, Salt lake, Sector -I, Kolkata- 700064 in connection with the above work.
2. I/We do hereby offer to perform, provide, execute, complete and maintain the works in conformity with the drawings condition of contract, specifications, bill of quantities for the sum of Rs. at the respective rates quoted in the bill of quantities.
3. I/we have satisfied myself / ourselves as to the site conditions, examined the drawings and all aspects of the tender conditions, subject to above, I/we do hereby agree, should this tender be accepted in whole or in part, to:
 - a) Abide by and fulfill all the terms and provisions of the said conditions annexed hereto;
 - b) Complete the works within 8(Eight) Weeks, as per the work programme enclosed with the tender in two or three shifts if considered necessary by the Owner /Architects at no extra cost to the owner.
4. I / we have deposited the earnest money of **Rs. 14,000.00, (Rupees Fourteen Thousand only)** in the form of Demand Draft / Pay Order payable at Kolkata in Favour of "UCO Bank" which, I/we note , will not bear any interest and is liable for forfeiture solely at Bank's Discretion if:
 - i) our offer is withdrawn within the validity period of acceptance.
Or
 - ii) The Contract is not executed within 15 days from the date of receipt of the letter of acceptance.
Or
 - iii) The work is not commenced within 14 days after issue of work order.
 - iv) If the initial Security Deposit (ISD) is not deposited within 14 days from the date of receipt of work order.
5. I/we understand that you are not bound to accept the lowest or any tender you receive.
6. Name of the partners /Directors of our firm:
 - i)
 - ii)
 - iii)
 - iv)

7) Our bankers and their addresses are:

(i)

(ii)

Yours faith fully

Signature

Name of partner/ Director of the firm authorized to sign

Name:

Or

Name of person having power of Attorney to sign the

Designation:

Contract (Certified true copy of power of attorney attached)

Signature and address of
Witnesses

a) Signature _____

Name _____

Address _____

b) Signature _____

Name _____

Address _____

PROFORMA FOR APPLICATION FOR EXTENSION OF TIME PERIOD

- 1.** Name of contractor :
- 2.** Name of the work as given in the Agreement:
- 3.** Agreement No :
- 4.** Estimated Tender Amount :
- 5.** Date of Commencement of work as per Agreement:
- 6.** Period allowed for completion of work as per Agreement:
- 7.** Date of completion stipulated in Agreement:
- 8.** Period for which extension of time has been given previously:
 - a)** 1st extension vide Architect's / Banker's letter:
No. Dated Month Days
 - b)** 2nd extension vide Architect's / Banker's letter:
No. Dated Month Days
- Total extension previously given
- 9.** Reasons for which extensions have been :
Previously given (copies of the previous applications
Should be attached)
- 10.** Period for which extension is applied for :
- 11.** Hindrances on account of which extension is :
Applied for with dates on which hindrances
Occurred and the period for which these are
Likely to last.
 - a)** Serial No.
 - b)** Nature of hindrance
 - c)** Date of occurrence
 - d)** Period for which it is likely to last

- e) Period for which extension required for this Particular hindrance
- f) Overlapping period if any, with reference to Item(e) above
- g) Net extension applied for
- h) Remarks, if any

12) Extension of time required for extra work:

13) Details of extra work and the amount involved

14) Total extension of time required for 11 & 12.

Submitted to the Architect/Bank.....

Date:.....

.....
Signature of the Contractor

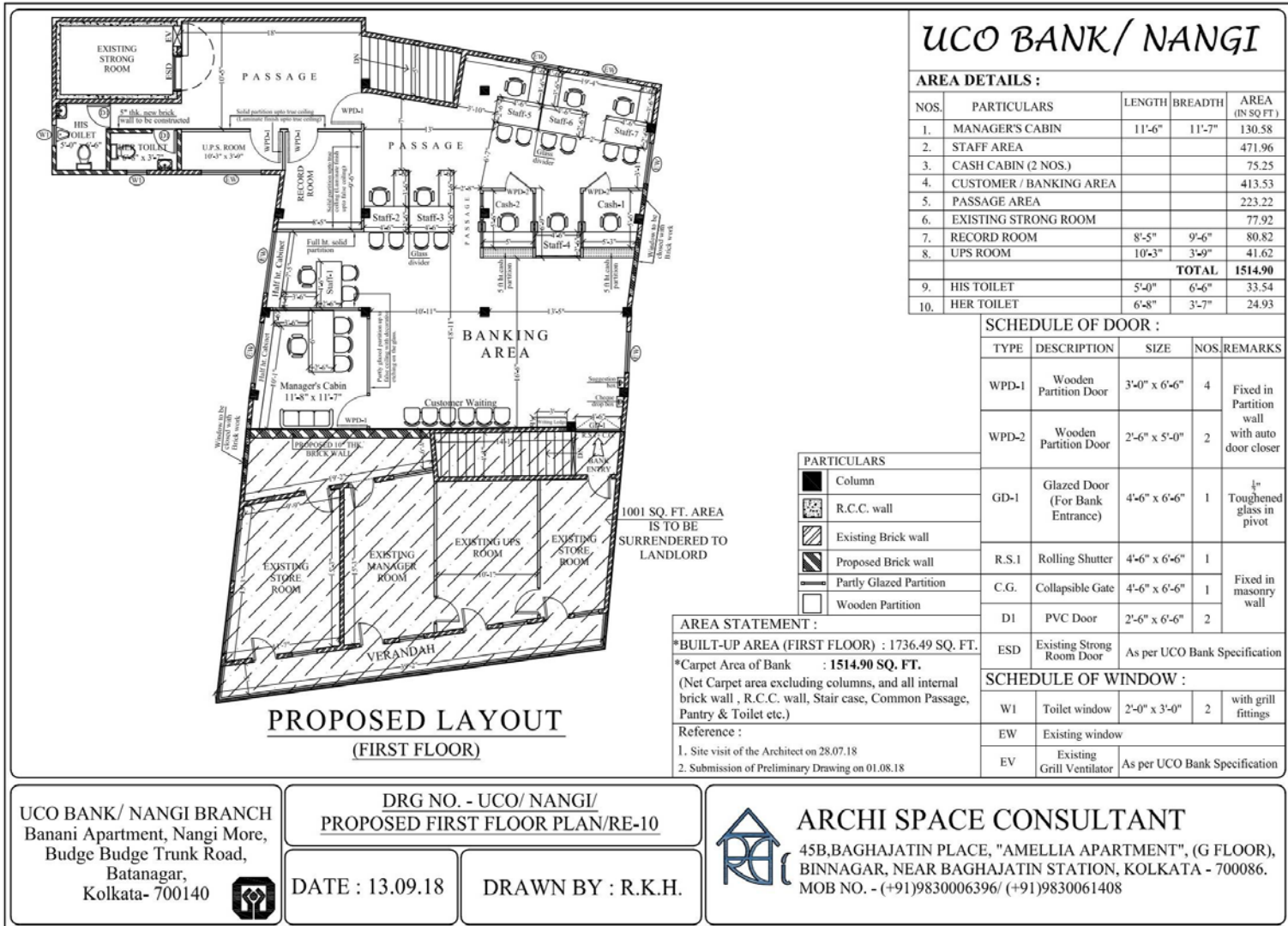
FINAL/RUNNING A/C BILL

1. NAME OF WORK :
 2. NAME OF THE EMPLOYER:
 3. NAME OF CONTRACTOR :
 4. ACCEPTED CONTRACT AMOUNT :
 5. DATE OF COMMENCEMENT :
 6. STIPULATED DATE OF COMPLETION :
 7. ACTUAL DATE OF COMPLETION :
 8. EXTENSIONS IF ANY :
 9. INSURANCE VALID UPTO :
- A) WORKMEN COMPENSATION ACT :
- B) CONTRACTOR'S ALL RISK COMPHRENSIVE INSURANCE POLICY ETC.

10. LABOUR LICENCE NO. AND DATE AND VALID UPTO :
11. SERIAL NO. OF THE BILL :
12. NO. & DATE OF PREVIOUS BILL :
13. REF. TO AGREEMENT NO. :
14. EARNEST MONEY DEPOSIT :
15. TOTAL RETENTION MONEY EXCLUDING E.M. UPTO THIS BILL :
16. PERIOD OF EXECUTION OF WORK FOR
WHICH THIS BILL HAS NOT BEEN PREPARED : FROM TO
(DATE TO BE MENTIONED)

NOTE: 1) IF PART RATE IS ALLOWED FOR ANY TIME,
IT SHOULD BE INDICATED WITH REASONS
FOR ALLOWING SUCH A RATE.

2) IF ADHOC PAYMENT IS MADE NET VALUE SINCE
IT SHOULD BE MENTIONED SPECIFICALLY. PREVIOUS BILL
(A)



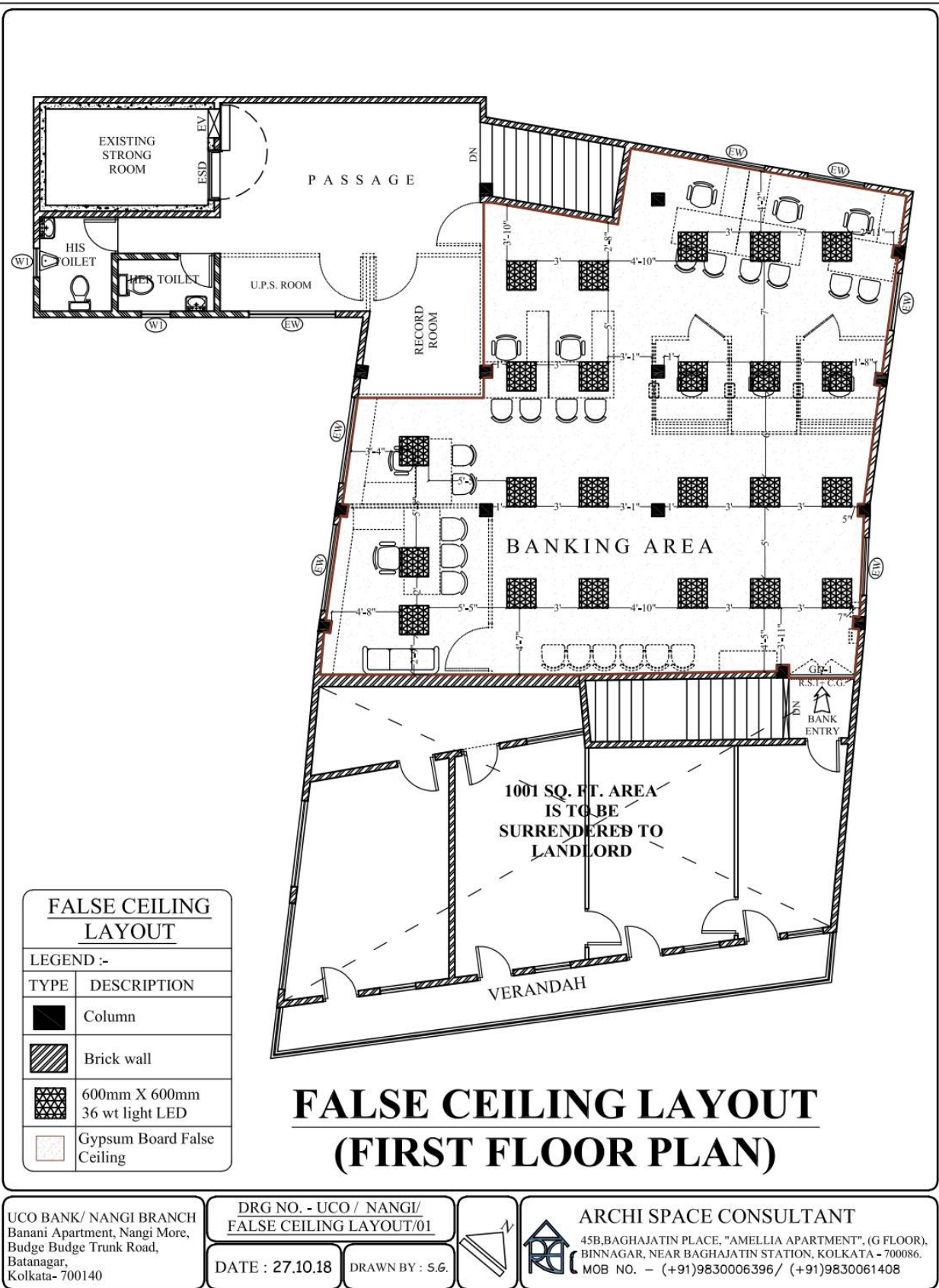
UCO BANK/ NANGI BRANCH
Banani Apartment, Nangi More,
Budge Budge Trunk Road,
Batanagar,
Kolkata- 700140

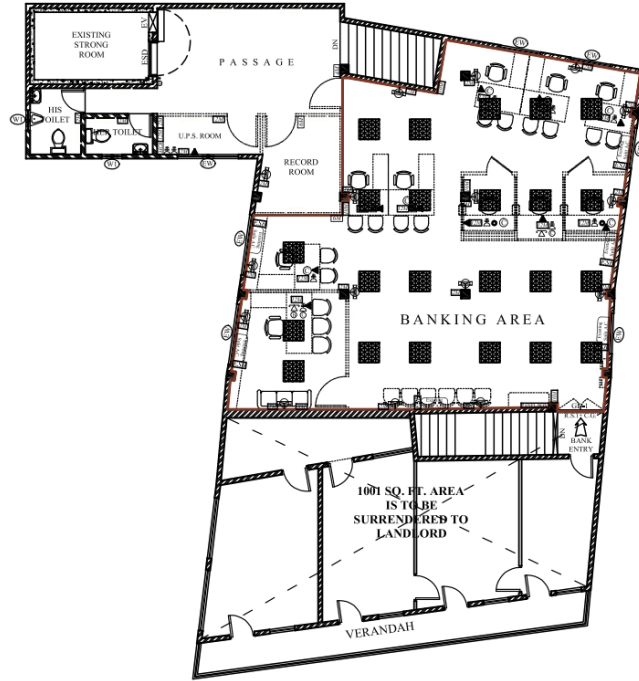
DRG NO. - UCO/ NANGI/
PROPOSED FIRST FLOOR PLAN/RE-10

ARCHI SPACE CONSULTANT
45B, BAGHAJATIN PLACE, "AMELLIA APARTMENT", (G FLOOR),
BINNAGAR, NEAR BAGHAJATIN STATION, KOLKATA - 700086.
MOB NO. - (+91)9830006396/ (+91)9830061408

DATE : 13.09.18

DRAWN BY : R.K.H.





**ELECTRICAL LAYOUT
(FIRST FLOOR PLAN)**

ELECTRICAL LAYOUT

UPS AREA		DETAILS OF SWITCH BOARD	
@ 2'4" height, 4 nos 16 amp socket and switch for UPS (12 Module)		MANAGER'S ROOM	
@ 4'6" height, 1 no. 6 amp switch for 1 no. light, 1 no. 6 amp switch for 1 no. exhaust fan (2 Module)		@ 1'6" height, 4 nos 16 amp switch & 4 nos 16 amp socket for socket (12 Module)	
@ 6'6" height, 1 no 6 amp plug for 1 no exhaust fan (2Module)		@ 4'6" height, 2 nos. 6 amp switch for 2 nos. fan, 2 nos. 16 amp switch for 2 nos. box light, 1 no 6 amp switch & 1 no. socket for Plug point & 1 no. false covering (8 Module)	
TOILET		BANKING & STAFF AREA	
LADIES TOILET : @ 4'6" height, 1 no. 6 amp switch for 1 no. light, 1 no. 6 amp switch for 1 no. Exhaust Fan (2 Module)		@ 1'6" height, 4 nos 16 amp switch & 4 nos 16 amp socket for socket (12 Module)	
GENTS TOILET : @ 4'6" height, 1 no. 6 amp switch for 1 no. light, 1 no. 6 amp switch for 1 no. Exhaust Fan (2 Module)		@ 4'6" height, 2 nos 6 amp switch for 2 nos fan, 8 nos 16 amp switch for 8 nos box light (10 Module)	
@ 6'6" height, 1 no. 6 amp plug for 1 no. exhaust fan (2Module)		LEGENDS	
PARTICULARS	NOS.		
2' x 2' LED 36 wt LED light	23 Nos.		
12 WT Panel Light For Cash	02 Nos.		
Wall Mounted fan	16 Nos.		
Exhaust fan	03 Nos.		
Existing Split AC	06 Nos.		
18W 2 Ft LED Tube Light with lamp	8 Nos.		
Telephone connection	02 Nos.		
Calling bell/Buzzer	02 Nos.		
Computer point	10 Nos.		
DATA connection	11 Nos.		
UPS Connection	12 Nos.		
Metal cld socket (for strong Room)	02 Nos.		
		RECORD ROOM	
		@ 4'6" height, 2 nos. 6 amp switch for 2 nos. light, 1 no. 6 amp switch for 1 no. fan & 1 no 6 amp switch & 1 no. socket for Plug point (6 Module)	
		@ 6'6" height, 1 no. 6 amp plug for 1 no. wall mounted fan (2Module)	
		PASSAGE AREA	
		@ 4'6" height, 3 nos. 6 amp switch for 3 nos. light, & 1 no. false covering (4 Module)	

UCO BANK/ NANGI
BRANCH
Banani Apartment, Nangi More,
Budge Budge Trunk Road,
Batanagar,
Kolkata- 700140

DRG NO. - UCO / NANGI/
ELECTRICAL LAYOUT/01

DATE : 27.10.18

DRAWN BY : P.D



ARCHI SPACE CONSULTANT

45B, BAGHAJATIN PLACE, "AMELLIA APARTMENT", (G FLOOR),
BINNAGAR, NEAR BAGHAJATIN STATION, KOLKATA - 700086.

MOB NO. - (+91)9830006396/ (+91)9830061408

**B.O.Q. FOR CIVIL/ INTERIOR FURNISHING/ ELECTRICAL/
DATA CABLING WORKS OF EXISTING BANK
AT NANGI BRANCH, BATANAGAR**

BRANCH ADDRESS :

**BANANI APARTMENT, NANGI MORE,
BUDGE BUDGE TRUNK ROAD,
BATANAGAR,
KOLKATA- 700140**

OWNER : UCO BANK

**ZONAL OFFICE - 3&4, DD BLOCK, 1ST FLOOR, SALT LAKE, SECTOR -I,
KOLKATA- 700064**

CONSULTING ARCHITECT - ARCHI SPACE CONSULTANT

**ADDRESS : 45B, BAGHAJATIN PLACE, "AMELIA APARTMENT",
GROUND FLOOR, BINNAGAR, NEAR BAGHAJATIN STATION,
KOLKATA - 700086**

CONTACT - 9830006396, 033-2425-0125

DATE : 27.10.18

CIVIL WORK B.O.Q. - NANGI BRANCH, BATANAGAR

SR.NO	DESCRIPTION	QTY.	UNIT	RATE (Rs.)	AMOUNT (Rs.)
I	DISMANTLING & DEMOLITION				
1	Dismantling existing (marble, granite, kota, marble mosaic, ceramic tile etc.) flooring & dado including skirting, In a manner which facilitates laying of new flooring without undue extra expense. The rate shall include removal of debris from site.	1,170	S.FT		
2	Dismantling existing partitions including door etc. with frame work . The rate shall include removal of debris from site.	1,010	S.FT		
3	Dismantling existing running counter, etc. with frame work . The rate shall include removal of debris from site.	40	RFT		
4	Dismantling existing false ceiling with frame work . The rate shall include removal of debris from site.	285	S.FT		
5	Dismantling existing Electrical fittings, wires, Data cables, CCTV Camera etc. including removal of debris from site	1	Job		
II	FLOORING/ SKIRTING WORKS [EXCLUDING G.S.T]				
1	VITRIFIED TILES FLOORING (600mm x 600mm x 10mm thick) MAKE- ORIENTBELL (As per UCO Bank Approved)/ EQUIVALENT	1,170	S.FT.		
2	VITRIFIED TILES SKIRTING (4" THICK) MAKE- ORIENTBELL (As per UCO Bank Approved)/ EQUIVALENT	135	R.FT.		
	Supplying and laying true to line and level vitrified tiles [Basic cost (excluding G.S.T.) Rs.52/Sft.) of approved brand (size- 600 mm X 600 mm X 10mm thick) in floor, skirting, etc, conforming to IS: 15622:2006. Set in 20 mm sand cement mortar (1:4) and 2 mm thick cement slurry back side of tiles using cement @ 2.91Kg./sqM laid after application slurry using 1.75 Kg of cement per sqM below mortar only, joints grouted with admixture of white cement and polishing the tiles using soft and dry cloth upto mirror finish complete including the cost of materials, labour and all other incidental charges complete true to the manufacturer's specification and direction of Bank/ Architect. All complete.				
III	PAINTING AND PUTTY WORKS [As per UCO Bank Specification]				
1	Providing and applying white cement based putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete.	2,230	S.FT		
2	Providing & applying plastic emulsion paint on walls, column, etc. 2 coats to get evenly spread quality finish (roller finish) of approved make , quality & finish shall be provided. The rate shall include scrapping, levelling & preparing the surface.	2,230	S.FT		
	TOTAL FOR CIVIL WORKS				
IN WORDS: (RS.....)					
NOTE: GST WILL BE PAID EXTRA					

INTERIOR FURNISHING WORK B.O.Q. - NANGI BRANCH, BATANAGAR

SR.NO	DESCRIPTION	QTY.	UNIT	RATE (Rs.)	AMOUNT (Rs.)
A.	FALSE CEILING - GYPSUM BOARD:	1170	Sq.ft.		
	Providing & Fixing suspended gypsum false ceiling, which includes providing and fixing G.I. Perimeter channels of size 0.55mm thick having one flange of 20mm and another flange of 30mm & a web of 27mm along with perimeter of ceiling screws fixed to brick wall / partition with the help of nylon sleeves and screws at 600mm centers then suspending G.I. Intermediate channels of size 45mm X 0.9mm thick with 2 flanges of 15mm each from the soffit at 1220mm centers with ceiling angle of width 25 X 10mm X 0.55mm thick fixed to soffit with G.I. & steel expansion fastners only, "Fastners" shall be used for ceiling supports. Ceiling section of 0.55mm thickness having knurled verb of 51.5mm & two flanges of 26mm each with lips of 10.5mm are then fixed to the intermediate channel with the help of connecting clips & in direction perpendicular to the intermediate channel at 457mm centers. 12.5mm tapered edge gyp board (Conforming to IS-2095-1982) is then screws fixed to ceiling to ceiling section with 25mm dry wait at 230mm centers, additional supports for AC grill shall be fixed as per instructions and AC Plan / Section / Layout. Screw fixing is done mechanically either with screw driver of drilling machine with suitable attachment. The boards are to be jointed and finish so as having a flush look, which includes filling and finishing the tapered and square edges of the boards with jointing compound, paper tape & two coats of primer suitable for Gyp board. Note :- For light fittings, grills diffusers and cutouts, speakers, fire detectors etc. have to be made with the frame of perimeter channels of size 20 X 27 X 30mm X 0.545mm thick, supported suitably as per direction of Architect, Electric or A.C. Consultants & shown as per detail drawing without additional payments. Cost included 2coats of Plastic emulsion paint with necessary scraping, putty, leveling & smooth finish with scaffolding, cleaning etc.				
B.	WHITE P.O.P. CORNICE:	200	RFT		
	Providing & Fixing WHITE P.O.P Cornice (3"x3") around periphery of the false ceiling. The P.O.P Cornice will be 15-20 mm thick, Water Proof, Tamper Proof, Durable Coating. The work should be completed as per specification, design and approval of Architect.				
C.	WOODEN PARTITIONS NOTE :- THE RATE SHALL BE INCLUDE OF FRAME WORK UP TO TRUE CEILING LEVEL. MEASUREMENT SHOULD BE TAKEN UP TO FALSE CEILING LEVEL AND VISIBLE PORTION ONLY.				
C.1	Wooden Double Skin Solid partition (Laminate finish upto true ceiling)	185	Sq.ft.		
	Supply & Erecting Solid Partition, as per drawing & conforming to the following specification: Basic Framework: Well seasoned Malaysian Sall wood sections, treated with two coats of wood preservatives, 50 x 50 mm (minimum) at maximum 2 ft horizontal and vertical spacing as per site condition. The vertical frames (post) to be extended up to true ceiling with necessary fixtures. Skin Membrane: 6 mm BWR grade Ply wood on each face with 2 mm groves up to true ceiling. Laminate Finishing: 1.0 mm thk. laminate sheet of combination shades as per instruction (as approved make) on Both face upto true ceiling. Skirting: The Partition will be finished with 4" wide Skirting finished with 1.0 mm thick Bank's approved colour laminate of approved make on Both Side. Note: Quoted Rates shall include all necessary material, accessories and also allow provisions for electrical / Telephone / Computer wiring conduits and switch boxes etc. (Materials of wiring conduits and switch boxes shall be separately paid for) The work to be completed as per instruction.				
C.2	Wooden Double Skin Solid partition (Laminate finish upto false ceiling)	160	Sq.ft.		
	Supply & Erecting Solid Partition, as per drawing & conforming to the following specification: Basic Framework: Well seasoned Malaysian Sall wood sections, treated with two coats of wood preservatives, 50 x 50 mm (minimum) at maximum 2 ft horizontal and vertical spacing as per site condition. The vertical frames (post) to be extended up to true ceiling with necessary fixtures. Skin Membrane: 6 mm BWR grade Ply wood on one face with 2 mm groves upto false ceiling & another face upto true ceiling. Laminate Finishing: 1.0 mm thk. laminate sheet of combination shades as per instruction (as approved make) on one face upto false ceiling & another face upto true ceiling. Skirting: The Partition will be finished with 4" wide Skirting finished with 1.0 mm thick Bank's approved colour laminate of approved make on Both Side. Note: Quoted Rates shall include all necessary material, accessories and also allow provisions for electrical / Telephone / Computer wiring conduits and switch boxes etc. (Materials of wiring conduits and switch boxes shall be separately paid for) The work to be completed as per instruction.				

SR.NO	DESCRIPTION	QTY.	UNIT	RATE (Rs.)	AMOUNT (Rs.)
C.3	Wooden Partly Glazed Partition	155	Sq.ft.		
	<p>Supply & Erecting Partly Glazed Partition as per drawing & conforming to the following specification: Basic Framework: Well seasoned Malaysian Sall wood sections, treated with two coats of wood preservatives, 50 x 50 mm (minimum) at maximum 2 ft horizontal and vertical spacing as per site condition. The vertical frames (post) to be extended up to true ceiling with necessary fixtures. However, measurement will be taken upto false ceiling. Skin Membrane : 6 mm BWR grade Ply wood on each face with 2 mm groves up to false ceiling. Laminate Finishing: : 1.0 mm thk. laminate sheet of combination shades as per instruction (as approved make) on Both face of the partition, up to false ceiling. Skirting : The Partition will be finished with 4" wide Skirting Finished with 1 mm thick approved colour laminate of approved make Glazing : 8 mm. thk. clear float glass with pencil polish edges from 3'-0" to 6'-6" fixed with continuos wall nut / wenge. It should be fixed with teak wood beading (size - 30mm x 20mm) all around, finished with melamine polished . Polishing will be the same colour as that lamination i. e. cedar finished. Above 7 ft ht. the partition will be finished with 1.0 mm thick Laminate finish on both sides. all complete. Note : Quoted Rates shall include all necessary material, accessories and also allow provisions for electrical/ Telephone/ Computer wiring conduits and switch boxes etc. (Materials of of wiring conduits and switch boxes shall be separately paid for). The erection of partition shall include for expansion bolts cleats, clamps bolts, nuts, screws, rivets and other accessories, all complete. The work to be completed as per instruction.</p>				
C.4	CASH PARTITION	145	Sq.ft.		
	<p>Same as - Wooden Double Skin Solid Partition. Glazing : 8 mm. thk. clear float glass with pencil polish edges from 3'-6" to 5'-0" fixed with continuos wall nut / wenge. It should be fixed with teak wood beading (size - 30mm x 20mm) all around, finished with natural polished. Polishing will be the same colour as that lamination i. e. cedar finished. Intermediate trays: There will be provision for small trays/ windows for transferring of small copy either from the banking area to the cash cabin or between the cash cabins. it should be finished with 1.0 mm thick Bank's approved colour laminate of approved make. its edges to be same finish. it should have a small door finished with laminate and fitted with all necessary fittings as per drawing/ instruction. Note : Quoted Rates shall include all necessary material, accessories and also allow provisions for electrical/ Telephone/ Computer wiring conduits and switch boxes etc. (Materials of of wiring conduits and switch boxes shall be separately paid for). The erection of partition shall include for expansion bolts cleats, clamps bolts, nuts, screws, rivets and other accessories, all complete. The work to be completed as per instruction.</p>				
D.	GLASS DIVIDER	25	Sq.ft.		
	<p>8mm. thk. 18" ht. clear float glass divider on table for separation of workstation with pencil polish edges. The glass will be fixed with Stainless steel 'D' Bracket. The erection of divider shall include for expansion bolts cleats, clamps bolts, nuts, screws, rivets and other accessories. all complete. The work to be completed as per instruction.</p>				
E.	WRITING LEDGE size: 3'-0" (L) X 1'-0" (w) X 1'-0" (h)	1	Nos.		
	<p>Providing & fixing WRITING LEDGE made out of 19 mm BWR ply frame for sides, which shall be finished Laminate of approved make / colour 1.0 mm thk laminate. 12mm thick CLEAR Glass shall be fixed at top & side level with polish at exposed sides. 8mm thick CLEAR Glass shall be fixed vertically at every 6" c/c with smooth polishing at 4 sides and instructions of the Architect.</p>				
F.	DOOR				
	<p>Providing and fixing solid core flush door [IS: 2202 (Part 1) : 1999] of 38 mm thk. Finished with 1 mm thk. approved colour laminate . A wooden cover moulding of 3"x3/4" thk. white beech /teak wood with polish shall be provided. 8 mm thk. clear float glass with etching (approved design) shall be provided with 1 1/2"x3/4" thk. White beech/ teak wood moulding with polish for partly glazed door. In case of vision panel door 18"x9" made out of 8 mm thk. Clear glass with moulding with polish to be provided. The rate shall be inclusive of 4" s/s hinges, door stopper, screws, 10" 'H' shape s/s handle (Kitch), dead lock, key hole cover, tower bolt, door closer of approved make. All edges of the door to be covered with necessary lipping with polish. The work should be completed as per specification, design and approval of Architect. Note: Wooden door frame fixed to the wall shall have 4" x2 1/2" Teak wood/ sal wood (seasoned) section with natural polish. The doors fitted with door closers shall be provided 3" x 1 1/2" white beech/ Teak wood section with natural polish for door frame work.</p>				
F.1	Wooden partition door with vision panel- (WPD-1)- 3'-0" x 6'-6"	4	Nos.		
F.2	Wooden partition door -(WPD-2) - 2'-6" x 5'-0"	2	Nos.		
F.3	MAIN ENTRANCE DOOR	30	Sq.ft.		
	<p>Providing & fixing fully glazed pivoted door at the main entrance consists of 6"x2" c.p.t. wood frame for top rail and 4"x2" c.p.t. wood frame for bottom rail finished with 1.0 mm thk laminate, sides with 1" X 1" c.p.t.wood mouldings of approved design. 12mm thk. toughened glass finish with handle (1'-0" long- both inside & outside) to be fixed on both sides & proper locking arrangement in bottom rail to be done. The rate should include lipping, moulding, beading, sticker design bank's name, logo, Pull & Push Plate, & heavy duty floor spring of approved make. All complete.</p>				

SR.NO	DESCRIPTION	QTY.	UNIT	RATE (Rs.)	AMOUNT (Rs.)
G.	TABLE				
	<p>Providing, fixing and fittings in position tables (6" projecting customer side) & 2'-6" ht. made out of 19 mm thk BWR block board for top, sides and front of approved make finished with 1.0 mm laminate as per design in all visible areas. The table will be supported on right side by a 1'-4" wide drawer unit consisting of one drawer and one filing drawer and foot rest on the other side. The front of the drawer unit will be made out of 19 mm thk. BWR block board, other sides made out of 12 mm thk BWR ply and 4" skirting throughout (Foot rest).</p> <p>All exposed surfaces are finished with 1.0 mm thk. Laminate of approved make & colour shade and inner surface will be 1 coat primer and 2 coat synthetic enamel paint. All exposed edge finished with white beach/teak wood moulding, lipping with melamine polished. Polishing will be of the same color as that of lamination i.e., of Cedar finish. The drawers and shutters to be provided with drawer sliding channels, S/S 4" long handles, s/s hinges, locks etc all necessary accessories. Wire manager for each (approved colour) will be provided, all complete.</p> <p>The work should be complete as per drawing & instruction of the Architect/ Bank</p> <p>NOTE : First drawer at each work station must have shelves for segregating currency notes pens/staplers / stamps etc. Drawer at each workstation to divided in 2 equal parts by a horizontal partition and the front partition among these to be divided into 3 equal partitions by vertical partitions.</p>				
G.1	Manager Table with 8 mm thk. Glass Top (2'-6" DEPTH X 2'-6" HT.) & with drawer unit	6	R.ft.		
G.2	Staff Table- 1,2,3,5,6,7 (2'-6" DEPTH X 2'-6" HT.) without drawer unit	27	R.ft.		
G.3	Staff Table- 4 (2'-6" DEPTH X 2'-6" HT.) with drawer unit	4.5	R.ft.		
G.4	Black powder coated key board tray with slide channel	8	Nos.		
H.	CASH COUNTER				
	<p>Providing and fixing the cash counters along with front partition all complete.</p> <p>Providing & fixing 2'-6" (w) x 2'-6" (h) working table top made of 19 mm thick. BWR block board of approved make. It should have a customer transaction top, 6" projecting on the customer side at a height of 1'-0" from working table. Above the customer transaction top does making a total height 3'-6". Both the working table and transaction top will be rested & supported together by a front apron (Double skin Partition) finished with 1.0 mm thick. Laminate as per instruction.</p> <p>Below the Working table will be 1'-4" wide & 2'-0" deep drawer unit consisting of Three drawers and foot rest on the other side. The front of the drawer unit will be made out of 19 mm thk. BWR block board, other sides made out of 12 mm thk BWR ply and 4" skirting throughout (Foot rest). All exposed surfaces are finished with 1.0 mm thk. Laminate of approved make & colour shade and inner surface will be 1 coat primer and 2 coat synthetic enamel paint. All exposed edge finished with white beach/teak wood moulding, lipping with melamine polished. Polishing will be of the same color as that of lamination i.e., of Cedar finish. The drawers to be provided with drawer sliding channels, S/S 4" long handles, s/s hinges, locks etc all necessary accessories. Wire manager for each (approved colour) will be provided, all complete.</p> <p>Providing and Fixing glass barrier made out of 12 mm thick polished edged float glass, in front 1'-6" ht. of cash counter (above the the transaction top), leaving a cutout 3" throughout at the bottom so as to allow conversation between the customer & the cashier. It shall have 25mm x 20mm teakwood beading (as approved) to hold the glass from sides. The rates shall include for cutting (in geometrical shape, center bottom part of the transaction top) and polishing the edges. The work should be complete as per drawing & instruction of the Architect/ Bank.</p> <p>NOTE: First drawer at each work station must have shelves for segregating currency notes pens/staplers / stamps etc. Drawer at each workstation to divided in 2 equal parts by a horizontal partition and the front partition among these to be divided into 3 equal partitions by vertical partitions.</p>				
H.1	2 nos. Table	10.5	R.ft.		
H.2	Glass Barrier with front apron	15	Sq.ft.		
H.3	Black powder coated ready made key board tray with slide channel	2	Nos.		
I.	Side Unit of Size 3'-6" x 1'-6" x 2'-6"	65	Sq.ft.		
	<p>Providing and fixing Side Unit made out of 19 mm BWR ply, 6 mm thk. Ply for back finished and 4" skirting throughout. There will be vertical dividers of same block boards at maximum 4 ft apart on which the shutters will be fitted with stainless steel hinge and intermediate shelves (file divider) at maximum 1'-6" c/c. All exposed surfaces are finished with 1.0 mm thk. Laminate of approved make & colour shade and inner surface will be 1 coat primer and 2 coat synthetic enamel paint. All exposed edge finished with white beach/teak wood moulding, lipping with melamine polished. Polishing will be of the same color as that of lamination i.e., of Cedar finish. Cost of all fitting like s/s Hinges, locks, magnetic catches, tower bolt, "D" type Matt finish S.S. Handles and all necessary hardware shall be inclusive, all complete. As per drawing and instruction.</p>				

SR.NO	DESCRIPTION	QTY.	UNIT	RATE (Rs.)	AMOUNT (Rs.)
J.	LOW HT. STORAGES (1'-4" DEPTH X 2'-6" HT.)	55	Sq.ft.		
	Providing and fixing Low height Cabinet made out of made out of 19 mm BWR ply, 6 mm thk. Ply for back finished and 4" skirting throughout. Division of shutters shall be made equally according to the length of the storage. A 19 mm thk. Fixed BWR Ply shelf on battens shall be provided at 16" intervals from the base. All exposed surfaces are finished with 1.0 mm thk. Laminate of approved make & colour shade and inner surface finished with 1 coat primer and 2 coat synthetic enamel paint. All exposed edge finished with white beach/teak wood moulding, lipping with melamine polished. Polishing will be of the same color as that of lamination i.e., of Cedar finish. Cost of all fitting like s/s Hinges, locks, magnetic catches, tower bolt, "D" type Matt finish S.S. Handles and all necessary hardware shall be inclusive, all complete. As per drawing and instruction.				
K.	SOFT BOARD	20	Sq.ft.		
	Soft board with necessary framework with 12 mm BWR plywood on top 12 jolly board to be fixed finished with fabric with necessary moulding duly polished along the periphery.				
L.	Notice Board 3' x 2' Acrylic 6 mm sheet with SS Bolt	1	Nos.		
M.	SUGGESTION BOX & CHEQUE DEPOSIT BOX				
	Providing and fixing suggestion box & cheque deposit box 1'-6" x 1'-6" x 6" with 1" wide slit for inserting cheques & letters (individual) made out of 18 mm BWR block board and finished with 1.0 mm thk laminate & inside to be synthetic enamel painted. A 1" high slit & small door with key and locking arrangement to be done for dropping & taking out the slips, all complete as per instruction.				
M.1	Suggestion box	1	No.		
M.2	Cheque deposit box	1	No.		
N.	TRAP DOOR & BOXING FOR ROLLING SHUTTERS	20	Sq.ft.		
	Providing and fixing trap doors consisting of 1/4" thk. Marine ply shutters with a clear opening of 4.5" opening for smooth operation of shutters and rest is closed with mirror screws (for opening for servicing). The shutters shall be finished with approved 2.0 mm White Aluminium composite sheet (Exterior Grade), frame of 2" x 1 1/2" teak wood sections shall be provided for proper supprot and strength. Rate shall be inclusive of necessary fittings like hinges, ball catches, tower bolts, etc. Complete as per the instructions of Architect.				
O.	MAIN PANEL ENCASEMENT	25	Sq.ft.		
	Providing & Fixing 3" X 1 1/2" c.p.t.wood frame work to the wall along with 18 mm thick Commercial ply with 1.0 mm thick of approved make/color laminate with teak wood battens strips of 1" X 1" in tapered fashion of approved shade fixed with box hinges & bedding patti finish with 3 coats of polish & providing Handles, Locks etc., of approved make/design colour etc. Complete as per instructions of Architect.				
P.	VERTICAL BLINDS WITH SCOTCH GUARD	145	S.FT		
	Providing & fixing in place 100 mm. Vertical blinds of approved make, quality and colour shade & pattern. Rate shall include necessary scotch guard treatment on both sides. The overlaps should be uniform & adequate.				
Q.	ROLLING SHUTTER				
	NEW SHUTTERS (Middle 1/3 Grill) (WITH RED OXIDE & PAINT FINISH)				
	USING 18 GAUGE SHEETS	30	S.FT		
	Providing & fixing M. S. Rolling shutters (18 guage sheets) for the facade openings (middle 1/3rd grill). Rate shall include all necessary locking arrangements including godrej navtal locks (heavy duty) 8 levers, 2 nos. per shutter. Cost include 2 coats of anti rust paint to be provided for the shutters.				
R.	M.S.COLLAPSIBLE GATE (WITH RED OXIDE & PAINT FINISH)	30	S.FT		
	<p>Providing and Fixing MS Collapsible Gate Single shutter made out of vertical double channels 12mmx8mm x 3mm at maximum 125 mm apart when fully stretched as specified, braced with flat iron diagonals 12 mm x 5 mm as specified in the item. The top and bottom rails shall be of M.S. section 25mm x 25mm x 6mm with 25 mm dia rollers in every fourth double channels.</p> <p>Where collapsible gate is to be fixed within the opening but is fixed along the outer surface of opening; the M.S. section at top shall be replaced by M.S. flat 40mm x 10mm. The necessary fittings such as bolts, nuts, locking arrangements, stoppers, handles, etc. shall be provided. The gates shall open and close smoothly and easily. T-iron rails shall be fixed to the lintel and floor with masonry nails embedded in cement concrete of lintel and floors at suitable spacing. The bottom runner shall be embedded with floor and proper groove formed and the floor shall be made good to match the rest of the flooring. At the sides, the end double channels shall be fixed with T-iron rails and also by holdfasts 200mm x 40mm x 4 mm bolted at one end to the end double channels and in the masonry in cement concrete 1:2:4 (nominal mix) blocks of size 115 mm x 75 mm x 230 mm, 3 nos. each side. The side masonry shall be made good to match the rest of the masonry finish. Cost include Two coats of antirusting paint to be provided to the gate.</p>				
S.	ETCHING FILM OVER GLASS	170	S.FT		
	Providing and fixing etching film as directed by Bank/ Architect for glazed partition, glass divider, entrance gate, etc, to proper level, with out air bubbles / cuts / folds etc. complete.				

SR.NO	DESCRIPTION	QTY.	UNIT	RATE (Rs.)	AMOUNT (Rs.)
T.	BROUGHT OUT FURNITURE				
T.1	Chairs				
i.	MANAGER CHAIR - GODREJ/ EQUIVALENT (Motion High Back)	1	No.		
ii.	OFFICER CHAIR - GODREJ/ EQUIVALENT (Motion Mid Back)	4	Nos.		
iii.	STAFF CHAIR - GODREJ/ EQUIVALENT (Diva Mid Back)	5	Nos.		
iv.	CUSTOMER CHAIR - GODREJ/ EQUIVALENT (Diva Mid Back) ARMLESS	15	Nos.		
T.2	THREE SEATER SOFA FOR MANAGER CABIN- Godrej Interio PETAL FABRIC UPHOLSTRY 3 Seater Sofa (BROWN)/ EQUIVALENT	1	No.		
U.	BUY BACK ITEMS (LESS)				
U.1	Buy Back existing partitions including partition door with frame work	1010	SFT		(-)
U.2	Buy Back existing Running counter with frame work	40	RFT		(-)
U.3	Buy Back existing table, etc..	16	Nos.		(-)
U.4	Buy Back existing Chairs etc..	20	Nos.		(-)
U.5	Buy Back existing Sofa Sets etc..	2	Nos.		(-)
U.6	Buy Back existing Sofa Sets (Stainless Steel) etc..	1	Nos.		(-)
	TOTAL INTERIOR FURNISHING WORKS				
IN WORDS: (RS.....)					
NOTE: GST WILL BE PAID EXTRA					

ELECTRICAL WORK B.O.Q. - NANGI BRANCH, BATANAGAR

SR.NO	DESCRIPTION	QTY.	UNIT	RATE (Rs.)	AMOUNT (Rs.)
<p>All installations shall comply with the requirements of the Indian Electricity Rules, 1956, as amended from time to time and as per relevant clauses of National Electrical Code, 1985. Installations shall conform in all respects to Indian Standard Code of Practice for electrical wiring installation IS. 732-1963 and IS 2274-1963. It shall also be in conformity with the regulations and requirements of the Local Electric Supply Authority. Wherever these specifications call for a higher standard of materials and/or workmanship than those required by any of the above regulations, this specification shall take precedence over the said regulations and workmanship not covered by the above shall confirm to the Indian standards, unless otherwise called for. Equipment shall be given tropical and fungicidal treatment as per IS – 3202.</p>					
a.	MAIN PANEL :				
a.1	Main incoming switch fuse unit supplying , fixing 100A TPN HRC type for main incoming on M/s angel iron frame with 2-Nos cable entry box including connection with both end copper socketing by crimping method	2	set		
a.2	4x25 mm sq pvc insulated copper flexible wire from cut out to main incoming switch fuse unit including connection with both end copper socketing by crimping method with 2-Nos 10 swg copper earth lid from earth bar to main switch	100	RFT		
a.3	1 No 100 A. TPN. MCCB (main incoming)	1	Nos.		
a.4	1 No 63A 4-P MCB. For A.C. controlling MAKE LEGRAND	1	Nos.		
a.5	1 No 40 A. TPN. MCB for Branch controlling	2	Nos.		
a.6	1 No 25 A. TPN. MCB for Generator controlling	1	Nos.		
a.7	1 No 63A 4-P change over switch	1	Nos.		
a.8	1 No 100A 4-bar copper busbar Lighting	1	Nos.		
a.9	1 No 100A 4-bar copper busbar A.C Power	1	Nos.		
a.10	1 No 25A D.P. MCB. For volt controlling	1	Nos.		
a.11	1 No 40A D.P. MCB. For sign board	1	Nos.		
a.12	1 No 63A 4-P MCB for UPS	1	set		
a.13	Phase indicating lamp & controls with wiring (15W lamp Red, yellow & Blue)	3	Nos.		
b.	A.C DISTRIBUTION BOARD (A.C.DB)				
	4 way TPN MCB DB complete with busbar and the following MCBs/RCBO <u>Incoming:-</u> 1 no. : 415V 63 -A 4P MCB 10 KA <u>Outgoing :-</u> 6 Nos 240V10-A SP MCB 6 Nos. 240V 20-A SP MCB 1 No. : Cable entry box	1	SET		
c.	LIGHTING DISTRIBUTION BOARD (L. DB)				
	4 way TPN MCB DB complete with busbar and the following MCBs/RCBO <u>Incoming:-</u> 1 no. : 415V 100 -A 4P MCB 10 KA <u>Outgoing :-</u> 6 Nos 240V10-A SP MCB 6 Nos. 240V 20-A SP MCB 1 No. : Cable entry box	1	SET		
d.	UPS DISTRIBUTION BOARD (UPS. DB)				
	Supplying & fixing UPS D.B. counsumar unit 2+8 way SPN 1no 32 A DP MCB 4nos 6 A-S.P.MCB 4nos 10A-S.P.MCB	1	SET		
e.	POINT WIRING :				
	Supply, laying, connection & testing of light, fan point, wiring by 2x1.5mmsq(2x3/.029) + 1x1mmsq PVC insulated copper flexible wire maintaining the colour code as per direction in PVC conduit of 20mm with ISI mark 1.5 pvc wall thk. to conceal in wall partition mending good the damage, complete with pvc circular box, bend to be done as per drawing including 3 point ceiling rose where ever required. GI saddle to be used for fixing, pvc conduit/ flexible pipe may use if required in partition wall. All pvc pipes should be with ISI mark. No joints will be allowed inside pipe.Light, fan & plug point complete with modular type switch plate & MS box. Including the main circuit line 2x2.5mmsq+1x1.5mmsq earth PVC insulated Cu. Wire, maintaining the colour code. Circuit line for lighting switch board ,6 Amps plug board are to be drawn from lighting DB to Lighting board & 6A plug point board, 6/16 Amps plug point line are to be drawn from power DB. 3 Nos lighting board/ 03 Nos.6 Amps plug are to be connected from one circuit & 02 Nos. 6/16 plug to be connected from one circuit (Lighting S.Board height-32" from floor).				

SR.NO	DESCRIPTION	QTY.	UNIT	RATE (Rs.)	AMOUNT (Rs.)
e.1	light Point - 1 Light point control by 01 switch.	33	Nos.		
e.2	wall bracket fan point control by 01 switch with two pin socket in fan end	16	Nos.		
e.3	Exust fan point with controlling switch	3	Nos.		
e.4	Coll bell point wiring with 2x 1.5 Cupper flexible wire in PVC regid pipe wiring with coll bell & push	2	Nos.		
e.5	Socket point wiring with 6Ams 5pin socket with controlling switch on board	10	Nos.		
f.	POWER WIRING				
f.1	Supply, Laying of Circuit line 2x2.5mmsq + 1x 1mmsq VC insulated copper wire form LDB to 6/16A or 6 Amps Plug point. Also note that 03 Nos 06 amps Plug to be connected from one circuit line	500	R.ft.		
f.2	Providing & fixing Computer Plug Points with 4 Nos. 16 Amp sockets. & 4 Nos. 16 AMP Switch complete with all necessary accessories.	10	Nos.		
g.	UPS WIRING				
g.1	Supply laying of circuit line 2 x 2.5 Sq.mm + 1 x 1.5 Sq.mm MSCC PVC insulated wires drawn in 20 mm dia PVC conduit pipe with ISI mark from UPS DB to computer.	500	R.ft.		
g.2	Supply laying of circuit line 2 x 6 Sq.mm + 1 x 1.5 Sq.mm MSCC PVC insulated wire through suitable size PVC conduit pipe with ISI mark from main DB to UPS incoming power DP controlling MCB	150	R.ft.		
g.3	Supply laying of circuit line 2 x 6 Sq.mm + 1 x 1.5 Sq.mm MSCC PVC insulated wire trough suitable size PVC conduit pipe with ISI mark from UPS power controlling DP MCB to UPS outgoing DB	150	R.ft.		
h.	UPS CLUSTER POINT	12	Nos.		
	Supply fixing of 2x6 Amps 5 pin socket + 1x16 amps 6 pin socket in with controlling switch MS box front plate with inter connection complete each work station				
i.	TELEPHONE WIRING :				
i.1	Telephone Wiring : Supply & laying of 2 pair PVC insulated wire , 0.5 mm down through PVC conduit pipe	100	R.ft.		
i.2	Supply & fixing of telephone outlet RJ-111 socket with suitable mounting box with front plate	2	Nos.		
i.3	Supply & fixing of telephone Junction box 10 pair krone type housed in MS box with Lock & key.	1	No.		
j.	GLOW SIGN BOARD WIRING :-				
j.1	Out door type Glow Sign board wiring :-Supply, laying of main line with 2x2.5 +1x1.5 mmsq through pvc conduit from main panel to glow sign board.	50	R.ft.		
j.2	Supply installation of 16 amps DP mcb at main entrance Glow sign board complete with timer & contractor (2NO + 2NC). 24 Hrs in original housing.	1	Set		
k.	A/C. ELECTRIFICATION :-				
k.1	Supply laying & connection of A/C. line for 2TR split A/C with 2x6 + 1x4 mmsq through 16 SWG pvc conduit with ISI Mark.	600	R.ft.		
k.2	Supply, fixing of A/C. 18-25 Amps stator complete with 20 amps socket in modular type box for split unit at 4.5 Ft from floor.	6	unit		
l.	ELECTRICAL FIXTURES :				
	Item includes Providing , assembling , fixing , testing & commissioning following fixtures including all accessories , lamps & extension chords as maybe necessary complete. All LED / Fluorescent fixtures (except down lighters) to be hung from the RCC ceiling by 20 KG grade adjustable GI chain& in NON False ceiling area they are to be hung by appropriate down				
l.1	Buzzer or calling of Bajaj / Anchor / National / Homa	2	Nos.		
l.2	600mm X 600mm 36 wt LED light of Crompton (LCTLRN-36-FO-CDL)/ Equivalent	23	unit		
l.3	12 W Panel Light FOR CASH	2	Nos.		
l.4	Supply & Fixing of 18W 2 Ft LED Light of Crompton (LPLLA-18-CDL) / Equivalent	8	Nos.		
l.5	Supply & Fixing 400 mm sweep Wall Mounting Fan of Crompton (Fizzair) (Hi Speed) / Equivalent	16	Nos.		
l.6	Supply & Fixing of 225 mm sweep Exhaust Fan of Crompton (Flux Air 9") / Equivalent	3	Nos.		

SR.NO	DESCRIPTION	QTY.	UNIT	RATE (Rs.)	AMOUNT (Rs.)
m.	EARTHING STATION :				
	Earthing : Supply, Erection, Testing & Commissioning of 'Ashlok' Pipe earth station and Chemical compound bag, complete with civil works, etc. as per specs in accordance with latest IS-3043. Earthing conductors : Supply & laying of equipment earthing using following sizes of conductors/ tapes including all accessories to erect/lay the conductor & as per specifications.				
m.1	50 mm dia 3 mtr long pipe electrode earth station	1	No.		
m.2	25 x 3 mm Copper flat	80	R.ft.		
m.3	8 SWG Copper bare wire	80	R.ft.		
n.	AC MACHINE REPAIRING & FIXING WORK :-				
n.1	Removing, repairing And Fixing of existing AC MACHINE as per drawing, complete with all necessary accessories.	6	Nos.		
o.	BUY BACK ITEMS (LESS)				
o.1	Buy Back existing window A.C. machine etc..	1	Nos.		(-)
o.2	Buy Back existing ceiling fan etc..	12	Nos.		(-)
o.3	Buy Back existing wall fan etc..	1	Nos.		(-)
o.4	Buy Back existing Tube light set etc..	14	Nos.		(-)
o.5	Buy Back existing Split AC etc..	4	Nos.		(-)
	TOTAL ELECTRICAL WORKS				
IN WORDS: (RS.....)					
NOTE: GST WILL BE PAID EXTRA					

DATA CABLING WORK B.O.Q. - NANGI BRANCH, BATANAGAR

SR.NO	DESCRIPTION	QTY.	UNIT	RATE (Rs.)	AMOUNT (Rs.)
1	9 u rack Digi Link / Lucent/ HCL co. make supply & installation type Cat 6 PDU - box 1 no., Fan set complete unit.	1	Unit		
2	Digi Link / Lucent/ HCL make Patch panel Unit Supply and Installation of Cat 6, 24 ports Gigabit 10/100/1000 Rack mountable Unmanged Switch	1	Unit		
3	Digi Link / Lucent/ HCL make Patch Cord Cat 6 face plate - 2 port including mounting box for each workstation.	11	Nos.		
4	Supply & Laying of Cat 6 cables 4 Core through pr-laid rigid PVC conduit from server to computer data socket including interconnection mending good, etc. as required (Digi Link / Lucent/ HCL make)	700	R.ft.		
5	Digi Link / Lucent/ HCL make Single Ported RJ 45 IO BOX	11	Nos.		
6	Supply & fixing of 1 mtr patch cord	11	Nos.		
7	Installation, Transpotation & Misc. Charges	1	Job		
	TOTAL DATA CABLING WORKS				

IN WORDS: (RS.....)

NOTE: GST WILL BE PAID EXTRA

B.O.Q. FOR UCO BANK NANGI BRANCH, BATANAGAR**ARCHI SPACE CONSULTANT****SUMMARY**

SL. NO.	DESCRIPTION	AMOUNT (Rs.)
1	CIVIL WORKS	
2	INTERIOR WORKS	
3	ELECTRICAL WORKS	
4	DATA CABLING WORK	
	TOTAL (1+2+3+4)	
IN WORDS: (Rs.....)		

Note:

**Cost including all material, labour and Transport charges etc. all complete. The work to be completed as per design, specification and approval of the Architect.

UCO BANK -NANGI BRANCH, BATANAGAR**ARCHI SPACE CONSULTANT****LIST OF APPROVED MATERIALS FOR INTERIOR FURNISHING WORK**

Sl.No.	Items	Approved make
1	False Ceiling	India Gypsum
2	Wood Frame Work / Wood Section	Malaysian Sal
3	Wood Skirting / Moulding / Lipping / Bidding	White Beach / White Cedar
4	Door frame	Teak wood /Sal Wood
5	BWR Ply / Block board with ISI mark	Sylvan/ Century/ Green
6	Flush Door	Sylvan/ Century/ Green
7	Laminate (1.0 mm thk.)	Sunmica/ Merino/ Formica/ Greenlam/ Century
8	Door Closure (Heavy Duty)	Godrej / Archi / Sterling (DC 2000)
9	Floor Spring (Heavy Duty)	Godrej / Archi / Sterling (FS 3000)
10	Door Lock (Dead)	Godrej / Hafele /Hettich / Kich /Doorset / 4C Acme (ML – REG – SS)
11	Door Handles ('H' Shape)	Godrej / Hafele /Hettich / Kich /Doorset / 4C Acme (PHG – HSS)
12	Drawer / Storage Handle (4" / 6")	Kich /Neki / Hassley/EGL (HMS –B – 9122 / 9123)
13	Drawer / Storage Lock (Multipurpose)	Ebco / Hafele /Hettich / Doorset / Godrej / Kombo (502)
14	Screws	GKW / Nettle fold
15	Hinges	CIEF
16	Sliding Telescopic Drawer Channel	Ebco / Kombo
17	Key Board Tray (Metal)	Ebco / Innofitt Systems (KD 510. M)
18	Cable Organiser	Ebco / Innofitt Systems (CM 63.C)
19	Adhesive	Fevicol SH / Fevimate TL
20	Aluminium Door Frame	Jindal
21	Soft Board	Jolly Board
22	Vertical Blinds	Mac / Annums / Window Fashion
23	Glass	Modi /Ashai / Saint Gobain
24	A.C.P	Alu Decor / Alu Bond / Alstone/ Wonder Alu board Accura/ Pratap Bond/ Euro
25	Ceramic Tiles	Orientbell/Kajaria/ Somany/ Jhonson
26	Vitrified Tiles	Orientbell/Kajaria/ Somany/ Jhonson
27	All other items not covered above	As per sample approved by Employer/Consultant

UCO BANK - NANGI BRANCH, BATANAGAR
ARCHI SPACE CONSULTANT

LIST OF APPROVED MATERIALS FOR ELECTRICAL WORK

Sl.No	Items	Approved make
1	MS pipe ISI mark. 16 Swg	BEC / NIC
2	MS fittings.	BEC / NIC
3	Wire PVC insulated copper flexiable wire.	Finolex/Havells/Gerard/ MESCAB
4	A.C. stator.	North west / Havells
5	Split A.C. Machine	Blue star/ Hitachi/ Samsung
6	Switch, socket modular plate.	Crabtree(Sapphire)/MDS/Anchore AVE/Indoasian
7	Armoured cable.	Nicco/Glostar/KDK/Havells.
8	Telephone Socket RJ -11.	Crabtree/MDS
9	MCB, DB.	MDS/Havells/L&T Hagger/ Indoasian
10	Telephone cable (0.51mmsq).	Netco/Delton.
11	Light fittings.	Crompton/Wipro/Philips/ MESCAB
12	Lugs.	Dowells.
13	Terminals Connector.	ESSEN
14	Exhust fan.	Crompton / GEC/ EPC.
15	Ceiling Fan/wall mounted fan.	Crompton/ Orient / Havells
16	SFU/SPN/TPN S.M. housing /Open execution fronthandle.	Havells/ L&T/ Semeins.
17	Telephone connector.	KORN type.
18	Volt Meter / Amps Meter. 96x96 mm.	AE / L&T.
19	Current transformer.	Kuppa / L&T.
20	Selector switch.	Kaycee.
21	Sliding fuse / DZ fuse.	Bharat Lender/ BCH.
22	PVC tape.	Steel grip/ Anchore.
23	Join Box. 6"x4" MS box Heavey type.	Joiti make.
24	Bearer Call Bell.	Max / Homa.
25	Cable Gland Brass make.	Arun (heavey type).
26	Speaker.	Philips / Bosh.
27	LED incator. 20 dia. (Bright type).	Mikadov / L&T/ MDS.
28	CD palayer.	Philips / Sony.
29	Amplifier	Philips / Sony.
30	Speaker wire.	Finolex.
31	PL /TL lamp.	Crompton/Philips.
32	PVC flexiable Pipe.	Hunuman.
33	Smoke / heat Detector.	Appolo / Dats.
34	Manual call point.	Minimax/Dats.
35	Security Alam Hooter.	Philips/Dats.
36	Cat -6 cable	Digi Link / Lucent/ HCL.
37	RJ - 45 socket.	Digi Link / Lucent/ HCL.
38	Patch panal	Digi Link / Lucent/ HCL.
39	HUB.	Digi Link / Lucent/ HCL.
40	PVC Regid pipe. MMS.	Precession / AKG / Pesto
41	All other items not covered above	As per sample approved by Employer/Consultant

UCO BANK/ NANGI

AREA DETAILS :

NOS.	PARTICULARS	LENGTH	BREADTH	AREA (IN SQ FT)
1.	MANAGER'S CABIN	11'-6"	11'-7"	130.58
2.	STAFF AREA			471.96
3.	CASH CABIN (2 NOS.)			75.25
4.	CUSTOMER / BANKING AREA			413.53
5.	PASSAGE AREA			223.22
6.	EXISTING STRONG ROOM			77.92
7.	RECORD ROOM	8'-5"	9'-6"	80.82
8.	UPS ROOM	10'-3"	3'-9"	41.62
	TOTAL			1514.90
9.	HIS TOILET	5'-0"	6'-6"	33.54
10.	HER TOILET	6'-8"	3'-7"	24.93

SCHEDULE OF DOOR :

TYPE	DESCRIPTION	SIZE	NOS.	REMARKS
WPD-1	Wooden Partition Door	3'-0" x 6'-6"	4	Fixed in Partition wall
WPD-2	Wooden Partition Door	2'-6" x 5'-0"	2	with auto door closer
GD-1	Glazed Door (For Bank Entrance)	4'-6" x 6'-6"	1	$\frac{1}{4}$ " Toughened glass in pivot
R.S.1	Rolling Shutter	4'-6" x 6'-6"	1	Fixed in masonry wall
C.G.	Collapsible Gate	4'-6" x 6'-6"	1	Fixed in masonry wall
DI	PVC Door	2'-6" x 6'-6"	2	
ESD	Existing Strong Room Door	As per UCO Bank Specification		

SCHEDULE OF WINDOW :

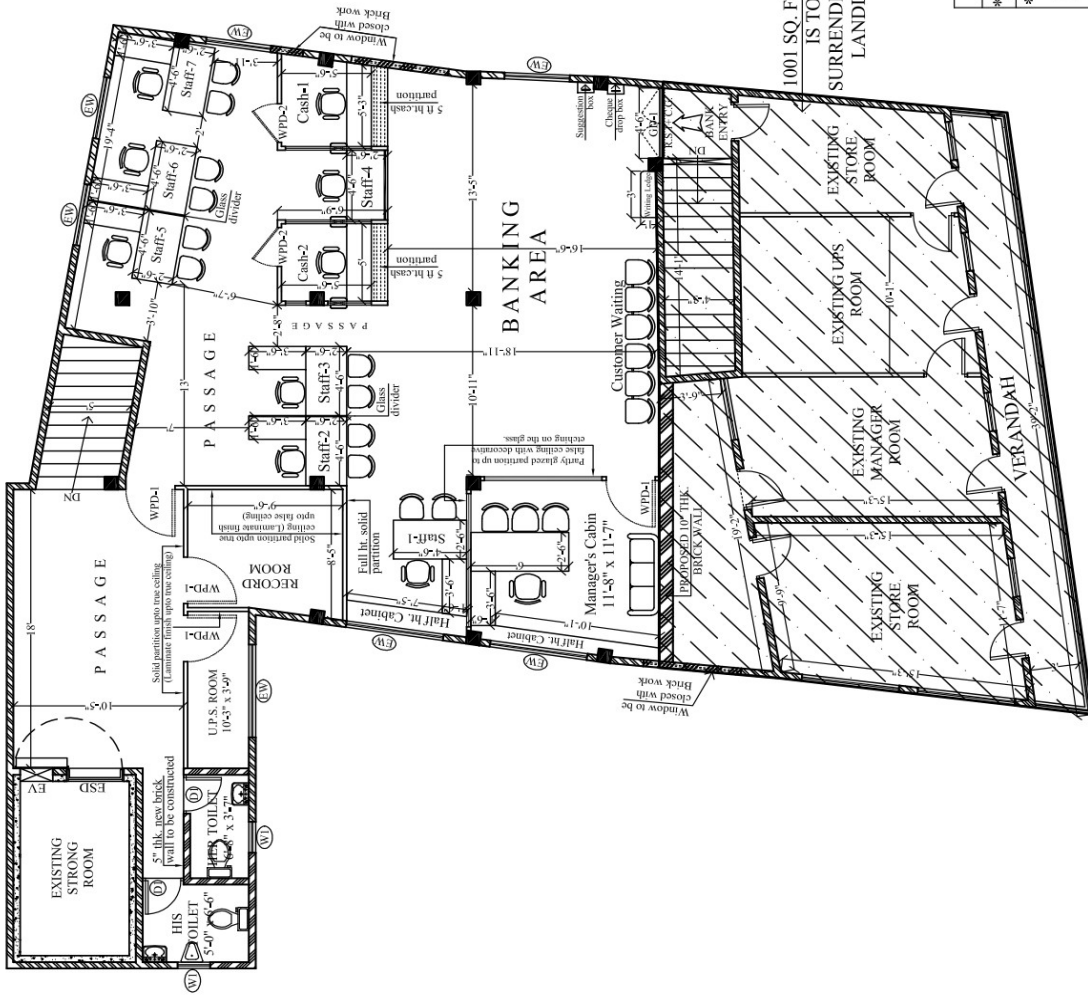
W1	Toilet window	2'-0" x 3'-0"	2	with grill fittings
EW	Existing window			
EV	Existing Grill Ventilator	As per UCO Bank Specification		

AREA STATEMENT :

*BUILT-UP AREA (FIRST FLOOR) : 1736.49 SQ. FT.
*Carpet Area of Bank : **1514.90 SQ. FT.**
(Net Carpet area excluding columns, and all internal brick wall, R.C.C. wall, Stair case, Common Passage, Pantry & Toilet etc.)

Reference :

1. Site visit of the Architect on 28.07.18
2. Submission of Preliminary Drawing on 01.08.18



PROPOSED LAYOUT

(FIRST FLOOR)

DRG NO. - UCO/ NANGI/
PROPOSED FIRST FLOOR PLAN/RE-10

DATE : 13.09.18

DRAWN BY : R.K.H.

UCO BANK/ NANGI BRANCH
Banani Apartment, Nangi More,
Budge Budge Trunk Road,
Batanagar,
Kolkata- 700140



ARCHI SPACE CONSULTANT

45B, BAGHAJATIN PLACE, "AMELLIA APARTMENT", (G FLOOR),
BINNAGAR, NEAR BAGHAJATIN STATION, KOLKATA - 700086.
MOB NO. - (+91)9830006396/ (+91)9830061408

UCO Bank hereinafter referred to as “The Principal”.

And

..... Hereinafter referred to as “The Bidder/Contractor”.

Preamble

The Principal intends to award, under laid down organizational procedures, contract/s for.....The Principal values full compliance with all relevant laws of the land, rules, regulations, economic use of resources and of fairness/transparency in its relation with its Bidder (s) and / or contractor (s).

In order to achieve these goals, the Principal will appoint an independent External Monitor (IEM), who will monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

Section 1 – Commitments of the Principal.

1.The Principal commits itself to take all measures necessary to prevent corruption and to observe the following principles:-

a. No employee of the Principal, personally or through family members, will in connection with the tender for, or the execution of a contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.

b. The Principal will during the tender process treat all Bidder(s) with equity and reason. The principal will in particular, before and during the tender process, provide to all Bidders (s) the same information and will not provide to any Bidders (s) confidential/additional information through which the Bidder(s) could obtain an advantage in relation to the process or the contract execution.

c. The Principal will exclude from the process all known prejudiced persons.

2. If the Principal obtains information on the conduct of any of its employees which is criminal offence under the IPC/PC Act, or if there be a substantive suspicion in this regard, the Principal will inform the Chief Vigilance Office and in addition can initiate disciplinary actions.

Sections 2 – Commitments of the Bidder (s)/Contractor(s)

1.The bidder(s) /contractor(s) commit himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the tender process and during the contract execution.

a. The Bidder(s) contractor(s) will not directly or through any other persons of firm, offer promise or give to any of the Principal’s employees involved in the tender process of the execution of the

contract or to any third person any material or other benefit which he/she is not legally entitled to in order to obtain in exchange any advantage or during the execution of the contract.

b. The Bidder(s) /Contractor(s) will not enter with other Bidders into any undisclosed agreement of understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process in the bidding process.

c. The Bidder(s)/Contractor(s) will not commit any offence under the relevant IPC/PC Act, further the Bidder(s) / contractors will not use improperly for purposes of competition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.

d. The Bidder(s) / Contractor (s) of foreign origin shall disclose the name and address of the Agent/representatives in India, if any. Similarly the bidder(s)/contractor(s) of Indian Nationality shall furnish the name and address of the foreign principals, if any. Further details as mentioned in the “Guidelines on Indian Agents of Foreign Suppliers” shall be disclosed by the Bidder(s)/Contractor(s). Further, as mentioned in the Guidelines all the payments made to the Indian agent/representative have to be in Indian Rupees only. Copy of the “Guidelines on Indian Agents of Foreign Suppliers” as annexed and marked as Annexure.

e. The Bidder(s)/Contractor(s) will when presenting his bid, disclose any and all payments he has made is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.

2. The Bidder (s) /Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.

Section 3: Disqualification from tender process and exclusion from future contracts

If the Bidder(s)/Contractor(s), before award or during execution has committed transgression through a violation of Section 2, above or in any other form such as to put his reliability or credibility in question, the Principal is entitled to disqualify the Bidder (s)/Contractor(s) from the tender process or take action as per the procedure mentioned in the “Guidelines on Banning of business dealings”. Copy of the “Guidelines on Banning of business dealings” is annexed and marked as Annex-B”.

Section 4 : Compensation for Damages

1. If the Principal has disqualified the Bidder(s) from the tender process prior to the award according to Section 3, the Principal is entitled to demand and recover the damages equivalent to Earnest Money Deposit/Bid Security.

2. If the Principal has terminated the contract according to Section 3, or if the Principal is entitled to terminate the contract according to Section 3, the Principal shall be entitled to demand and recover from the Contractor liquidated damages of the Contract value or the amount equivalent to Performance Bank Guarantee.

Section 5 : Previous Transgression

1. The Bidder declares that no previous transgressions occurred in the last three years with any other company in any country conforming to the anti corruption approach or with any other public sector enterprise in India that could justify his exclusion from the tender process.
2. If the bidder makes incorrect statement on this subject he can be disqualified from the tender process for action can be taken as per the procedure mentioned in "Guidelines on Banning of business dealings".

Section 6 : Equal treatment of all Bidders/Contractors/subcontractors.

1. The Bidder (s)/Contractor(s) undertake(s) to demand from all subcontractors a commitment in conformity with this Integrity Pact, and to submit it to the Principal before contract signing.
2. The Principal will enter into agreements with identical conditions as this one with all bidders, contractors and subcontractors.
3. The Principal will disqualify from the tender process all bidders who do not sign this Pact or violate its provisions.

Section 7 : Criminal charges against violation Bidder(s)/Contractor(s)/Sub contractor(s).

If the Principal obtains knowledge of conduct of a Bidder, Contractor or subcontractor, or of an employee or a representative or an associate of a Bidder, Contractor or Subcontractor which constitutes corruption, or if the Principal has substantive suspicion in this regard, the Principal will inform the same to the Chief Vigilance Officer.

Section 8 : Independent External Monitor/Monitors

1. The principal appoints competent and credible Independent External Monitor for this Pact. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.
2. The Monitor is not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the Chairman & Managing Director, UCO Bank.
3. The Bidder(s)/Contractor (S) accepts that the Monitor has the right to access without restriction to all project documentation of the Principal including that provided by the

Contractor. The Contractor will also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation. The same is applicable to subcontractors. The Monitor is under contractual obligation to treat the information and documents of the Bidder (s)/Contractor(s)/Subcontractor(s) with confidentiality.

4. The Principal will provide to the Monitor sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the contractual relations between the Principal and the Contractor. The parties offer to the Monitor the option to participate in such meetings.
5. As soon as the Monitor notices, or believes to notice, a violation of this agreement he will so inform the Management of the Principal and request the Management to discontinue or take corrective action, or to take other relevant action. The monitor can in this regard submit non-binding recommendations. Beyond this, the Monitor has no right to demand from the parties that they act, in a specific manner refrain from action or tolerate action.
6. The Monitor will submit a written report to the Chairman & Managing Director, UCO Bank within 8 to 10 weeks from the date of reference or intimation to him by the Principal and should be occasion arise, submit proposals for correction problematic situations.
7. Monitor shall be entitle to compensation on the same terms as being extended to / provided to Independent Directors on the UCO Bank.
8. If the Monitor has reported to the Chairman & Managing Director, UCO Bank a substantiated suspicion of an offence under relevant IPC/PC Act, and the Chairman & Managing Director, UCO Bank has not, within the reasonable time taken visible action to proceed against such offence or reported it to the Chief Vigilance Officer, the Monitor may also transmit this information directly to the Central Vigilance Commissioner.
9. The word "Monitor" would include both singular and plural.

Section 9 – Pact Duration.

This pact begins when both parties have legally signed it, if expires for the contractor 10 months after the last payment under the contract, and for all other Bidders & Months ---- the contract has been awarded.

If any claim is made lodged during this time, the same shall be binding and continue to be valid despite the lapse of this pact as specified above, unless it is discharged / determined by Chairman and Managing Director, UCO Bank.

Section 10 – Other provisions

- This agreement is subject to Indian Law, Place of performance and jurisdiction is the Registered Office of the Principal i.e. New Delhi.
- Changes and supplements as well as termination notices need to be made in writing. Side agreements have not been made.
- If the Contractor is partnership or a consortium, this agreement must be signed by all partners or consortium members.
- Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties will strive to come to an agreement to their original intentions.

(For & on behalf of the Principal)

(For & On behalf of Bidder/Contractor)

(Office Seal)

(Office Seal)

Place_____

Date_____

Witness 1 :

(Name & Address)

Witness 2 :

(Name & Address)

