



Tender issuing Authority -Regional Manager

UNION BANK OF INDIA, Khand Bazar Branch,, Mumbai

## TENDER DOCUMENT

FOR

Renovation (Only For Electrical & Data Cabling works) for Khand Bazar Branch Premises at 105/109, Kazi Syed Street, Khand Bazar Mumbai..

DATE OF ISSUE: - 18/04/2022 TO 26/04/2022

SUBMISSION OF TENDER: - 26/04/2022 UPTO 03:00 PM

TENDER OPENING: - 26/04/2022 TIME- 03.30 PM

# BHAWANA ENTERPRISES PVT LTD

An ISO 9001 – 2015 Certified Company

The Enterprise of Architects, Engineers and Consultants

Telefax No- 91-22- 27458555

Email: [bhawanaenterprises13@gmail.com](mailto:bhawanaenterprises13@gmail.com).

## NOTICE INVITING TENDER FOR

RENOVATION WORKS for Khand Bazar Branch Premises at 105/109, Kazi Syed Street, Khand Bazar Mumbai..

For Empaneled Vendors, empaneled by the Bank under  
Suitable category But for Mumbai Zone, Only.

Sealed tender is invited in two bid system from Eligible and reputed Vendors for carrying out the renovation works for Khand Bazar Branch Premises at 105/109, Kazi Syed Street, Khand Bazar Mumbai..

The works include Civil, interior, electrical, Data, PA, HVAC and Data Cabling works to be carried out at the New premises of the Bank. Hence the Tenders are called for the captioned works as per details given below: -

Name of the work	Estimated value Rs. (in Lacs)	Earnest Money Rs.	Time of completion months	Tender Fee Rs
Renovation (Only Electrical and Data cabling works) of UNION BANK OF INDIA, Located at Khand Bazar Branch Premises at 105/109, Kazi Syed Street, Khand Bazar Mumbai..	841265.00	15000.00	45 days	500.00

**Contact Persons on behalf of UNION BANK OF INDIA.**

Chief Manager Premises & Estate Department (Union Bank of India,  
Regional office, FORT, Mumbai.

## **TENDER NOTICE**

**Sub: RENOVATION WORKS for PRESTIGIOUS Khand Bazar Branch Premises at 105/109, Kazi Syed Street, Khand Bazar Mumbai..**

### **Essentials for Applicator**

UNION BANK OF INDIA, Office at South Zone, Mumbai, desires to engage reputed and experienced 'Reputed and Eligible' contractors for **carrying out the renovation works of prestigious Khand Bazar Branch Premises at 105/109, Kazi Syed Street, Khand Bazar Mumbai..** The proposed work will be carried out as per the relevant Tender Terms and conditions, approved designs, Bill of quantities, under the supervision of Architects M/s BHAWANA ENTERPRISES Pvt. Ltd.

Essential conditions for pre-qualifying the contractors are as under, and only those contractors, who satisfy these conditions, would be considered for opening of their price bids. In addition, utmost Importance will be given for the past performance of having executed similar jobs for Govt. / Public Sector Undertakings / Reputed private sector undertakings.

**Minimum Qualifying Criterion to be fulfilled by the vendors to get themselves eligible for the works are as under stated.**

1. Copy of enlistment of the Vendor under suitable Category.

### **Other Optional Requirements are**

2. The Contractor who have Successfully carried out repair/renovation, interior furnishing, works equivalent to following percentage Amount of works but also including electrical, HVAC, Data cabling and allied works **(The Amount of Electrical and Data Cabling works, successfully done will only be accounted and considered for this Job.)**. The following Amount of works are the criterion for this Job.
  - A. Minimum of Single works upto an amount equivalent to 80% of the value of the works.
  - B. Minimum of two works upto an amount equivalent to 50% of the value of the works.
  - C. Minimum of three works upto an amount equivalent to 40% of the value of the works.
3. The Contractor should have executed Building works involving all the disciplines of works like Interior, Electrical, Data, PA, HVAC etc.
4. The essential Proof of works done required I.e. work order or appointment letter for respective works done for the Government Sector, PSU Sector, in India. Works allocated by the reputed Private organizations should carry the Notarized copy of, the works order,

works completion certificate, TDS Certificates., all of them issued in the name of the Entity/ organization who is participating in the Tender Bid. The works completion should be signed by the authorized signatory or the Project In charge who is eligible to sign the Project, in case of Private organizations.

5. Satisfactory Work Completion Certificates indicating the amount of work completed are required to be submitted along with Part - I.
6. The contractors should having adequate equipment and qualified staff.
7. Satisfactory submission of all details per 'form of particulars'.
8. Arranging for site visit for showing the completed works when asked to do so.
9. Adequate financial, strength proof (solveny certificate from Nationalized Bank and endorsed by Chartered Accountant) is required.
10. GST Registration No., Along with SAC & HSN Code is required.
11. A self-declaration by the firm endorsed by the authorized signatory, on Non Judicial Paper of Rs 100, for not being black listed, Holiday Listed by any Government or State Government organization is required.
12. All the rates indicated in the tender shall be **inclusive of all material charges, transportation, local levies as applicable, loading, unloading, lifting- shifting, erection, testing, commissioning, etc. GST will be paid extra as applicable.**
13. The rates quoted shall also be inclusive of Local Authorities Permission/ Handling of Municipal / a Local problem is in contractor's scope of work, including obtaining verbal local permissions for smooth functioning the project, Bank shall not pay any extra amount for the same.
14. Tenderer / Bidder should have registered office & Full Fledge Workshop in Mumbai / Navi Mumbai/ Thane with supporting documents such as registered office address proof issued by govt. and other related authorities etc.
15. The contractor should follow the IBA and CPWD guidelines while quoting for tender rates.
16. **The Tender opening is scheduled at Conference Hall, UNION BANK OF INDIA, REGIONAL OFFICE, 6<sup>TH</sup> FLOOR FORT, Mumbai** Bidders are advised to visit the site prior to attending Pre Bid meeting. Any changes arising due to outcome of Pre-Bid Meeting will be published on Bank's website under Tender section and will be a part of Technical Bid. Bidders are advised to visit Bank's Website periodically for updates.

**All Tender details are available for reference on Official Website of UNION BANK OF INDIA; also. These may be downloaded filled and send on the mentioned Address of the UNION BANK**

However, the tenders may be submitted in the formal tender form obtained from the office of Architects, also. **The tender must be accompanied by the EMD of Rs 15000.00 (FIFTEEN thousand only). The tenders without EMD Will be rejected without hearing any plea.**

## **TENDER TITLE**

**Renovation works (For only Electrical & Data cabling Works) For prestigious Regional office of UNION BANK OF INDIA, Located at Khand Bazar Branch Premises at 105/109, Kazi Syed Street, Khand Bazar Mumbai..**

The works include Civil, interior, electrical, Data, PA, HVAC and Data Cabling works to be carried out in the running Branch of the Bank .

Tender No. MUM/UBI/KB-BR-ELEC-1

Tender Date: \_\_\_\_\_

**Last Date of submission:** **26.04.2022** \_\_\_\_\_

### **Brief:**

The proposed work will be carried out per designs and under the supervision of architects M/s BHAWANA ENTERPRISES PVT. LTD, SHOP NO 2, KAILASH UPTOWN COMMERCIAL COMPLEX, NEAR SECTOR 6 BUS STOP, SECTOR 6 KARANJADE, PANVEL, NAVI MUMBAI – 410206.

**It is advisable to download the Tender document along with drawings from the portal of UNION BANK OF INDIA - <https://www.unionbankofindia.co.in/english/tender.aspx>**

The last date of submission of the tender documents is 26 / 04 /2022.

The tender will have to be submitted in two sealed envelopes placed in a one large envelope. The first sealed envelope shall be marked as 'Part-I' and shall contain

- 1) Application / Letter of Intent
- 2) DD for EMD
- 3) Part-I of tender duly signed in acceptance
- 4) All required documents,
- 5) Company profile and
- 6) Annexures if any or as required.

The second sealed envelope shall be marked 'Part II' as 'Price Bid or Offer' and shall contain offer per part II along with enclosures state therein.

Both the envelopes are than to be in one large Envelope superscripting the name of the works, physically submitted on the address as highlighted below.

The part I of the tender documents will be opened In the presence of participating tenderer at 3.30 p.m. on the same day. PART-II (Price Bid) of the technically qualified tenderers will be opened In the presence of the tenderers. At the below mentioned address., on given date & time.

**TO,  
THE Chief Manager, (Premises & Estate)**

**UNION BANK OF INDIA, Regional office,  
UNION BANK BUILDING,  
6 TH FLOOR, 66/80,  
MUMBAI SAMACHAR MARG,  
MUMBAI 400001.**

## **TENDER DOCUMENT**

**Renovation works (For only Electrical & Data cabling Works) For prestigious Regional office of UNION BANK OF INDIA, Located at Khand Bazar Branch Premises at 105/109, Kazi Syed Street, Khand Bazar Mumbai..**

Date of Submission -----

Date of Opening (Part-I) \_\_\_\_\_

Issued: M/s\_\_\_\_\_

NOT TRANSFERABLE

**Issued by Project Architect of  
UNION BANK OF INDIA, Regional office, FORT, Mumbai.**

**For Any Queries you may Post the mail or connect on the given Mobile Numbers.**

**BHAWANA ENTERPRISES PVT LTD**

**An ISO 9001 - 2015 Certified Company**

**The Enterprise of Architects, Engineers and Consultants.**

**Mob no - 9096198014, 7020672583**

**Email: bhawanaenterprises13@gmail.com**

## 1.0 Tender Form. Index

### **PART – I**

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- 2.0 DRAFT OF LETTER OF APPLICATION & INTENT
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### **PART –II**

- 10.0 BILL OF QUANTITIES (Price Bid).  
For Carrying out the Renovation works of Prestigious **Khand Bazar Branch  
Premises at 105/109, Kazi Syed Street, Khand Bazar Mumbai..**

## **TENDER DOCUMENT**



## Part – I

Issued: M/s\_\_\_\_\_

NOT TRANSFERABLE

**Issued by Project Architect of**  
**Appointed by UNION BANK OF INDIA, Regional office, FORT, Mumbai.**

**BHAWANA ENTERPRISES PVT LTD**  
**An ISO 9001 – 2015 Certified Company**  
**The Enterprise of Architects, Engineers and Consultants.**  
Mob no – **9096198014, 7020672583**  
Email: **bhawanaenterprises13@gmail.com**

**TENDER NOTICE**  
**UNION BANK OF INDIA, Regional office, Borivali, Mumbai.**

**Sub:**

**Appointment of Contractor**

The competent Authority of the Bank desires to engage reputed and experienced 'Civil' contractors for **Renovation works For prestigious Khand Bazar Branch**  
**Premises at 105/109, Kazi Syed Street, Khand Bazar Mumbai..**

Proposed work will be carried out per designs and under the supervision & architects M/S BHAWANA ENTERPRISES PVT LTD.

All Tender details are available for reference and download from

The last date of submission of the tender documents is / / 2022

The tender will have to be submitted in two sealed envelopes placed in a one large envelope. The first sealed envelope shall be marked as 'Part-I' and shall contain

- 1) Application / Letter of Intent
- 2) DD for EMD
- 3) Part-I of tender duly signed in acceptance.
- 4) All required documents,
- 5) Company profile and Annexure as required.

The second sealed envelope shall be marked Part'II as 'Price Bid or Offer' and shall contain offer per part II along with enclosures state therein. The part I of the tender documents will be opened presence of participating tenderer on the provided date & time. The Part II (Price Bid) of the technically qualified tenderers will be opened in the presence of the tenderers on the mentioned date & time, only.

The sealed envelopes mentioning Technical Part 1 & Price Bid marked as Envelop II Should be marked as under-

To,  
Chief Manager, (Premises & Estate Department)  
UNION BANK OF INDIA, Regional office,  
FORT, Mumbai.

**Enclosed – Tender documents for For prestigious Regional office of UNION BANK OF INDIA, Located at Khand Bazar Branch Premises at 105/109, Kazi Syed Street, Khand Bazar Mumbai..**

**From – Name, Address, Contact Details, Email id of the Tenderer.**

**DRAFT OF LETTER OF APPLICATION & INTENT**

Dear Sir,

REF.: TENDER NOTICE: **No** \_\_\_\_\_

DATED: \_\_\_\_\_

With reference to the Vender invited by you for **Electrical & allied works (For Electrical & Data Cabling works, only)**, I/we do. Hereby offer to execute the works under contract at the respective rates mentioned in the schedule of quantities. I/we have seen the site and read the articles of agreement, conditions of contract, specifications and special clauses.

I/we undertake to keep our offer valid for acceptance up to 60 days after the opening of the cover containing tender. I/We are enclosing herewith the Data and all details and documents. per Form of Particulars of the company as required.

I/we are sending herewith the **Earnest Money of Rs. 15000.00-** vide demand draft no. \_\_\_\_\_ dated \_\_\_\_ /\_\_\_\_/2022, respectively, which will not bear any interest. I/we do hereby agree that this amount of Earnest Money shall be forfeited by you in the event of my/our falling to execute the agreement when called upon to do so.

I/we hereby further agree that until a formal agreement is prepared and executed in accordance with the Articles of Agreement; this tender offer together with your letter of acceptance and other documents, if any, referred to therein shall constitute a binding contract between us.

I / We hereby certify that my/our firm has not been disqualified by any Office/Department/Undertaking of the State / Central Govt. of India, at any time for services of any description.

Yours faithfully,

For and on behalf of:

\_\_\_\_\_  
(Name of Applicant)

Name \_\_\_\_\_ Name \_\_\_\_\_

Designation \_\_\_\_\_ Designation \_\_\_\_\_

Company Seal

All Partners. Must sign in case of a partnership Co.).

Copies of Mandatory Enclosures requiring the attestation of the Public Notary.

- 1) Company Profile.
- 2) List of Projects in Hand.
- 3) List of Jobs completed.
- 4) Tender Fee & Earnest Money Deposit
- 5) Tender form duly filled in and submitted in two sealed envelopes.
- 6) Form of particulars with all supporting documents
- 7) All annexure and documents stated in the tender form as required.

**SCHEDULE – A****(Application Format)**

<b>SL. NO.</b>	<b>PARTICULARS</b>	
<b>1.</b>	<b>ORGANISATION DETAILS</b>	
i)	Name of the firm	
ii)	Address of the firm with telephone/Mobile no., fax no., email (if any)	
iii)	Year of Establishment/ Registration	
iv)	Status of the firm (Individual / Partnership / Pvt. Ltd / Public Ltd.) (Documentary evidence to be attached)	
v)	Name of Directors/Partners/Proprietor	i) ii) iii)
<b>2.</b>	<b>FINANCIAL DETAILS</b>	
i)	Name and address of Bankers	i) ii) iii)
iii)	Average Annual Turn-over during the last 3 financial years (Attested by Chartered Accountant)	i) YEAR 2017-18 Rs _____ ii) YEAR 2018-19 Rs _____ iii) YEAR 2019-20 RS _____
iv)	PAN No. and Income Tax Returns for the last Three years (Please attach as annexure)	PAN NO.
v)	Furnish copies of audited Balance Sheet and profit & loss account (audited) for the last Three years. (Please attach as annexure)	
vi)	GST No. (Attached Copy in separate Sheet)	
vii)	EPF/ESI Registration No. (Attach registration certificates as annexure)	EPF ESI
<b>3.</b>	<b>REGISTRATION DETAILS</b>	

i)	(Enclose registration Certificate as Annexure )	
<b>4.</b>	<b>WORK EXPERIENCE</b>	
	<p>The copy of Enlistment issued by the Union Bank of India under the appropriate category which justify the Tenderers Participation in the Tender.</p> <p>Please provide the following information /details pertaining to similar projects or projects of similar magnitude (Minimum 2 Works) completed during last 3 years or presently under construction in the format given below. <b>Attach separate sheets for each project.</b> Enclose copy of the completion certificate/work order from Owner/Architect for each project. Photographs of the projects completed/under construction may also be enclosed.</p>	
i)	Name of the Project with Location	
ii)	Name of the Client	
iii)	Name of the Architect	
iv)	Project Description with scope of the contract	
v)	Original cost put to tender	
vi)	Month & Year of commencement	
vii)	Stipulated period of completion	
viii)	Actual month and year of Completion	
ix)	Up-to-date percentage of completion (Cost wise) or ongoing projects	
x)	Reason for Delay, if any	
xi)	Actual cost of construction, for completed projects	
xii)	Details of disputes/failures/litigations, if any	
xiii)	Completion certificate/work order from the owner/architects (Enclose documentary evidence)	
xiv)	Provide a complete list of ongoing projects with anticipated date of completion	
xv)	Details of minimum two projects of similar nature executed in the past.	
<b>5.</b>	<b>INFRASTRUCTURAL FACILITIES OF THE FIRM</b>	
i)	<b>EQUIPMENT</b>	
	Construction/Execution equipment (Provide a list of plants and machineries available with the organization with numbers	
ii)	<b>MANPOWER (Qualified Professional)</b>	

<b>Note: Where copies are required to be furnished. These are to be certified copies preferably by the concerned issuing agencies / officer.</b>		

## **FORM OF TENDER**

To,  
**The chief Manger (Premises & Estate Department)**  
**UNION BANK OF INDIA – REGIONAL OFFICE, FORT, MUMBAI.**

Dear Sir,

Having examined the drawings, specifications, designs and bill of quantities relating to the works specified in the memorandum hereinafter set out and having examined the site of the works specified in the said memorandum and having acquired the requisite information relating thereto as affecting the tender, I/we hereby offer to execute the works specified in the said memorandum at the rates mentioned in the attached bill of quantities and in accordance in all respects with the specifications, designs, drawings and instructions in writing referred to in condition of tender, appendix to the form of tender, articles of agreement, conditions of contract, bill of quantities and with such materials as are provided for, by, and in all other respects in accordance with such conditions so far as they may be applicable.

### **Memorandum**

Description of works	<b>Electrical &amp; Allied works OF REGIONAL OFFICE OF UNION BANK OF INDIA, <u>Khand Bazar Branch</u> <u>Premises at 105/109, Kazi Syed Street, Khand Bazar Mumbai..</u></b>
Earnest money deposit	<b>Rs. 15000/- (Fifteen thousand Only)</b>
Security deposit	Total 5% of the contract value including the Amount of the earnest money deposited at the time of submission of the Tender. The retention amount @ 8 % of the cumulative value of the Project, to be deducted from the running bills.
Time allowed for completion	<b>8 Weeks or 45 days whichever is less, from the date of issuance of the LOA.</b>

Should this tender be accepted, I/we hereby agree to abide by and fulfill the terms and provisions of the said conditions of contract annexed hereto so far as they may be applicable or in default thereof to forfeit and pay to **UNION BANK OF INDIA** the amount mentioned in the said conditions.

I/we have deposited a sum of **Rs. 15000/- (Fifteen thousand Only)** as earnest money in the form of Demand Draft, FDR or in the form of Bank Guarantee from any schedule Bank other than Clientele Bank only in favor of **UNION BANK OF INDIA** Payable at **Mumbai**. Should I/we fail to execute the contract when called upon to do so, I/we do hereby agree that this sum

shall be forfeited by **UNION BANK OF INDIA.**

All information and documents as required to be submitted with the tenders.

1. Our bankers are
2. The names of partners of our firm are
3. Name of the partner(s) of the firm authorize to sign:
4. Name of the persons having power of attorney to sign the contract (certified true copy of the power of attorney should be attached.

All the relevant works are to be carried out by experienced and eligible personals. The works are mainly to be carried out by using highest level of accuracy. The working staff should wear the approved types of Dresses, helmets etc. for their safety when working on the site.

Yours faithfully

Signature of contractor

Signature and addresses of witnesses

- 1.
- 2.



### 3.0 PRELIMINARIES

The contractors will not be paid separately for the several items listed in this section.

The expenses for these items should be covered in the rates for the several items in the schedule.

The contractor is bound to carry out these items when called upon to do so by the architect and to the complete satisfaction of the architects.

- 3.1 Benches and setting out.
- 3.2 Access to site.
- 3.3 Treasure troves.
- 3.4 Access for inspection.
- 3.5 Hoarding.
- 3.6 Water and Electrical supply for construction & renovation works.
- 3.7 Temporary plumbing & Lighting works & Telephone Connection.
- 3.8 Corporation and/or other charges.
- 3.9 Gate keepers and watchman.
- 3.10 Storage sheds.
- 3.11 Temporary latrines, Washing places and Urinals.
- 3.12 Temporary offices, furniture therein etc.
- 3.13 Providing samples & getting the same tested.
- 3.14 Progress photographs.
- 3.15 Providing mechanical plants plumbing equipment Including operator and fuel etc.
- 3.16 Work progress schedule.
- 3.17 Weekly progress reports.
- 3.18 Making clean on completion.
- 3.19 Providing painted notice board with the name of owners, Architects  
Consultants, Contractors and the name of the project under  
Contract and mounting and fixing the Notice Board as display.
- 3.20 Mounting drawings for reference on site.
- 3.21 Keeping site clean.
- 3.22 Insurance.
- 3.23 Leave premises clean, ready for occupation including making good after all trades.
- 3.24 Cover up and protect efficiently works, from injury.
- 3.25 Weekly report of material used on the work.

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TENDERER

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EMPLOYER

## **4.0 SPECIAL CONDITIONS OF CONTRACT**

The following clauses be considered as in extension and not in limitation of the obligation of the contractor.

### **4.1. Tender Stipulations:**

Sealed tenders should be addressed to the owner:

**UNION BANK OF INDIA, Regional office, FORT, MUMBAI.**

**4.1.2** No tender will be received after **03.00 p.m on / /2022.**

**4.1.3** Tenders will be opened in presence of the Contractors. The part I & Part II of the tender documents will be opened In the presence of participating tenderers at mentioned time. on the same day as stated above. PART-II (Price Bid) of the technically qualified tenderers will be opened' in the presence of the tenderers on the mentioned/conveyed date and time.

**4.1.4** The tender shall remain valid for acceptance by the Owners for a period of Ninety days from the date of opening of the tender part II (Price Bid). This period may be extended by mutual agreement and the tender shall not cancel or withdraw the tender during this period.

**4.1.5** Each and every page of the tender document is required to be signed by the person or persons submitting the tender In token of his/their having acquainted himself/themselves with General conditions of Contract, General Specifications, Special Conditions etc., and all other terms and stipulations of tender as laid down. Tender with any of the documents not signed will be rejected.

**4.1.6** The tender SHALL NOT MAKE ANY ALTERATION or amendments in the scope of works, specifications and descriptions as Incorporated In these tender documents. Tenders, which propose such alteration/s addition/s and/or propose any sort of conditions, will be liable for rejection.

**4.1.7** The tender must be filled In English and all entries must be made by hand and written In Ink. If any of the documents are missing or unsigned, the tender will be considered invalid.

**4.1.8** Initials of the tenderer must attest all erasures and alterations made while fillings the tender, over writing of figures is not permitted, failure to comply with either of these conditions will render the tender void, No advice for any change in rate or conditions after the openings of the tender will be entertained.

**4.1.9** The Owners do not bind themselves to accept the lowest or any tender and reserve to themselves the right to accept or to reject any or all the tenders<sup>1</sup> either In whole or in part without assigning any reasons for doing so.

**4.1.10** The tenderer must obtain for himself on his own responsibility and at his own' expenses all the Information which may be necessary for the purpose of submitting the tender and for entering in the contract, and must examine the work and acquaint himself with all local condition means of access to the work, nature of the work and all matters appertaining thereto. The description of all items of work shall be deemed to contain 811 details of carrying them out in the context of this tender and no extra claim will be acceptable and paid.

**4.1.11** The rate quoted in the tender should include all charges for necessary scaffoldings, centering Materials, water meter charges, temporary plumbing cost of Cistern, hire for any tools and plants, shed for materials, making out the cleaning of the site and removing all left-over materials and stains of all kinds caused due to works to the entire satisfaction of the Architects and watering the concrete and brick work even If it Is not mentioned In the specifications. . The rates quoted by the tenderer in the schedule of quantities will be deemed to be for the finished work to be measured on site.

**4.1.12 All the quoted. Rates shall be Inclusive of all the Taxes excluding the GST which shall be paid after submission of the Paid GST Challan by the Vendor.** The Vendor will be responsible for the authenticity of the Paid GST or it will be recovered from his dues / Bank Accounts etc. including the fine, if the submission is found to be false or fake. Work Contract Tax, and any other duties levied by any Government or Public bodies, excluding GST, shall be borne by the Vendor. The rates shall be firm and shall not be subject to exchange variations, labour conditions or any other conditions whatsoever. The contractor shall not be entitled to claim escalation in rates.

**The GST shall be quoted separately at the end of the Price-Bid (Part-TI of Tender Document)**

**4.1.13** every tenderer shall furnish along with his tender all documents as stated In the Form of Particulars.

**4.1.14** the tenderer shall quote his most competitive rates against all the items of work of the schedule of probable quantities and rates. In case, the amount shown in the last column as stated by the tenderer differs from the product of the quantity and rates filled in; the amount that may work out as based on the rates will be taken as correct.

**4.1.15** The tenderer before quoting his rates shall take due cognizance of the relevant costs of simultaneously working several agencies at the sites, the extent of Interference In his work under execution, the execution, phasing, programming and providing of facilities such as scaffolding working and Include the same In his rates and no extra amount on such shall be payable to the employer.

#### **4.2.0 Contractual**

**4.2.1** Within SEVEN days of the receipt of intimation from the Architects / Owners of the acceptance of his/their tender, the successful tenderer shall be bound to Implement the contract by signing an agreement In accordance with the Tender as draft agreement and the schedule of conditions, but the written acceptance by the Owners/Architects of the tenders will constitute a binding agreement between employer and the person so tendering whether such formal contract Is/is not subsequently entered Into.

**4.2.2** The contractor cannot assign the contract to any other agency. He cannot sublet any portion of the contract without written consent of the Architects.

**4.2.3** The calculations made by the tenderer should be based upon probable quantities of the several types of work which are furnished for the tenderer's convenience In the schedule of probable quantities, but it must be dearly understood that the contract Is not a lump sum contract and that neither the probable quantities nor the value of the Individual items, nor the agreement value of the entire tender will form part of the contract and the employer/architects does not In any way assure nor guarantee' that, the said probable quantities are correct or that the work would correspond thereto.

**4.2.4** The contractors shall employ full time competent qualified and experienced person who will be approved by the Architects on site as Site-Engineer and he will be the authorized representative, In charge, to carry out work in accordance with the plans and directions of the Architects.

**4.2.5** The successful tenderer is bound to carry out any items of work necessary for the completion of the job even though such Items are not included in this tender/contract if instructed by the architects. The Architects will Issue instructions In respect of such additional Items and their quantities in writing.

**4.2.6** Following are those mentioned such as in this documents/ agreement and shall include their legal representatives, assigns or successors. They are treated throughout the contract document as If each were of the singular number and masculine gender.

(a) The Owner (Employer): UNION BANK OF INDIA, Head Office, Mumbai— 400 023.

(b) The Contractor: The successful tenderer

(c) The Architect: Bhawana Enterprises Pvt Ltd.

**4.2.7 Date of commencement /completion:**

The Date of Commencement of work shall be the seventh day

From issue of Intimation of acceptance of the tender and or issue of work order or handing over site to the contractor to begin work whichever is later? Contractor shall thereupon and forthwith begin the works and shall regularly proceed with and complete the same on or before the 'Date of Completion" which shall be 8 calendar months from the date of commencement. It should be clearly understood that time is essence of this contract.

**4.2.8** The successful tenderer is bound to carry out any Items of work necessary for the completion of the job, if instructed by the architects, even If such Items are not Included In this tender/contract. The Architects will issue Instructions In writing, in Respect of such additional Items and their quantities.

**4.2.9**

**(a)** The Contractor shall fulfill the requirements of the EMPLOYEES STATE INSURANCE ACT, 1948, applicable to all states, towards their employees and keep all the required record regarding the same for inspection by the Authorities Concerned at any time. The Contractor shall Indemnify Owners I Architects, any claim or legal action arising out of the said Act due to the failure of noncompliance of the provisions of the said Act and the penalty of any other amount levied by the authorities, shall be recoverable from the payments due to the Contractor.

**(b)** The Contractor shall comply with the provisions of the APPRENTICES ACT, 1961, and the Rules & Order issued thereon from time to time. Failure to do so will be in a breach of the Contract and the Architects/Owners may in his discretion cancel the Contract. The Contractor shall also be liable for any pecuniary or other liabilities arising on account of any violation by him of the provisions of the Act.

**4.2.10 Water proofing Guarantee**

The Contractor shall furnish GUARANTEE on required stamp paper for all the water proofing works carried out him under this contract as per the draft provided with this tender, within 30 days of the receipt of the written acceptance of the tender, for a period of 10 years without any claim or conditions.

**4.2.11** any or all measurements stated in the tender/drawings In F.P.S. Systems shall be deemed to be their equivalents In Metric system.

**4.2.12 Contractor to Conform to Local Regulations:**

The Contractor shall confirm to the previous of act any Act of the Legislature relating to the work and to the Regulation relating to the works, and to the Regulations and Bye-laws of any Authority, and of any water supply, electricity supply and other Companies and/or Authority with whose systems the structure is proposed to be connected.

The Contractor shall bring to the attention of the Architect all notice required by the said Acts, Regulation and Bye laws to be given to any authority and pay to such Authority or to any public office all fees that may be properly chargeable in respect of the works ,and lodge the receipt with the owners.

The Contractor shall pay and indemnify the owner against liability in respect to any fees or charges (including any rated and taxes).legally demandable under any act of parliament/state legislature, instrument rule or order or any regulation or bylaw or any local authority in respect of the work.

The Contractor shall indemnify the owners against all claims in respect of patent rights, and shall defend all actions arising from such claims, and shall himself pay all royalties, license fees, damages, cost and charges of all every sort that may be legally incurred in respect thereof.

**4.2.13 Contractor Responsible for Bad Works:**

The Contractor shall set out the works and shall be responsible for the true and perfect setting out of the same and for the correctness of the positions, levels, dimensions, and alignment of all parts thereof. If at any time any error/defect in this respect shall appear during the progress of the works or with in a period of one year from the completion of the works, the contractor shall at his own expense rectify such error / defect to the satisfaction of the Architect.

**4.2.14 Contractor liable for Damage done:**

The Contractor shall be responsible for all injury to persons, animals or things, and for all structural and decorative damage to property which may arise from the operation or negligence of himself or of any nominated Sub-Contractor's employees, whether such Injury or damage arise from carelessness, accident or any other cause whatever In any way connected with the carrying out of the Contract. This shall be held to include, inter alia, any damage to building, whether immediately adjacent or otherwise, and any damage to roads, streets, foot-paths, bridges or ways as well as all damage caused to the buildings and works. The Contractor shall indemnify the Owner and the architect and hold him harmless In respect of all and any expenses arising from any such injury or damage to persons and/or property as aforesaid and also in respect of any claim made in respect of Injury or damage under any Acts of Government or otherwise and also in respect of any Award of compensation or damages consequent upon such claim.

Contractor shall Indemnify the Owner and the architect against all claims which may be made against one or both by any member of the public or other Ground party in respect of anything which may arise in respect of the works or in consequence thereof and shall at his own expense arrange to effect and maintain until the virtual completion of the contract, an approved Policy of Insurance In the "joint names" of Owners, architects and Contractor. The Contractor shall also similarly Indemnify the Owner against all claims which may be made upon the Owner whether under the workmen's compensation Act or any other statute and shall at his own expense effect and maintain, until the virtual completion of the Contract,, with an approved Office a Policy of Insurance In the joint names of the Owner and the Contractor against such risks and deposit such policy or policies with the Architect from time to time during the currency of the Contract.

The Contractor shall be responsible for anything, which may be excluded from the Insurance Policies above referred to, and also for all other damages to any property arising out of and incidental to the negligent or defective carrying out of this Contract. He shall also indemnify the Owner/Architect in respect of any costs, charges, or expenses arising out of claim or proceedings and also In respect of any award of or compensation of damage arising there from.

Owner with the concurrence of the Architect shall be at liberty and Is hereby empowered to deduct the amount of any damage, compensation, costs charges and expenses arising or accruing from or in respect of any such claims or damage from any or all sums due or to become due to the Contractor.

**4.2.15 Child Labour:**

The Contractor shall not employ child labour less than 14 years of age on the work. No workman of the contractor shall reside within the site except authorized guards.

**4.2.16 Dismissal of incompetent or misbehaving employee:**

The Contractor shall on the request of the Architect Immediately dismiss from the works any person employed thereon by him who may in the opinion of the Architect be incompetent or misconducts himself and such person shall not be again employed on the work without the permission of the Architect,

**4.2.17 Bills:**

All bills shall be submitted along with detailed measurement sheets duly checked by site-Architect/clerk of works. Bills shall be prepared In Microsoft Excel workbook with computations achieved by program formats and shall be submitted in soft copy on a CD. Along with the CD three hard copies of the bills so prepared shall be submitted with double spacing and duly signed by the contractor. Architects are not bound to accept Incomplete, ad hock or irrelevant bills and those not confirming to above norms. The Architect/ Consultant on receiving a Complete interim bill will confirm the works and endorse it within 7 working days for the needful action to the Owner/ Owners Engineers/ representatives so that the bill may be released by the Authorities within 7 working days from the date of receipt of the Endorsed bill by the Architect/ consultants. However, the time for endorsement of final bill from the Architect will be within 15 working days from the date of receipt of complete Bill, and thereafter the Authority has to sanction the amount within 15 days from the date of receipt of endorsed bill of the Architect/consultant.

**4.2.18 Extra items:**

The rates for varied / deviated or extra items to be worked out on the basis of the rates quoted in the tender for the similar items. Wherever it is not possible to base the rates for varied / deviated or extra items on the tender quoted rates then the rate analysis is to be submitted by the Contractors as under and get the same approved before execution of the work.

**At Actual per unit:**

Cost of materials:	Rs .....
Add for Labor charges:	R.s .....
Add for taxes, Transportation, If any,	R.s. ....
Add for Miscellaneous expenses, If any,	Rs .....

**Sub Total:** Rs.....

Add for towards Contractor’s overheads and profit @ 20% of subtotal above.  
Rs.....

**Total :** Rs.....

**Final rates arrived**

by round 1 of the total : **Rs-----/units**

Contractors are requested to note that no extra items or deviated Item of work to be executed without taking prior permission from owners (HEAD OFFICE) I Architect. If the extra Items or deviated Items of work is executed without taking prior permission, owners (UBI) / Architects shall not be held. Responsible for the payment of such works executed. Contractors will have to submit all the particulars including purchase bills I price list for the materials along with the rate analysis for verification of item rates.

**4.2.19**

Along with the final bill, the contractor shall submit to the architect drawings, sketches and all necessary Information for preparing as built" drawings to be given to the owner for record.

**4.2.20**

In the event of rain/storm or other weather conditions arising, the Contractor shall always have In readiness on the site required quantity of protective materiel/s such as tarpaulins for the protection of the works If required. Due to above-mentioned circumstances If any work is damaged, the contractor shall make good the same at his cost as directed by the Architects and for which no any extra claim will be entertained.

**4.2.21 Use of premises for other work**

The Owner with the concurrence of the Architect reserves the right to use the premises and any portions of the' site for the execution of any work not included in this Contract which he may desire have carried out- by other persons, and the Contractor Is to allow all reasonable facilities for the execution of such work but is not required to provide any plant or materials for the execution of such work except by special arrangement with the. Owner such work shall be carried of in such manner as not to impede the progress of the works included in the Contract end the Contractor Is not to be responsible for any damage or delay which may happen to or occasioned by such work.

**4.2.22 Protection and cleaning:**

The Contractor shall protect and preserve the work from all damage or accident providing any temporary roof, window arid door boxing or other construction as required by the Architect. Is protection shall be provided for all property adjacent to the site well as on the site.

**4.2.23** The Contractor shall properly clean the work as it progresses and shall remove all rubbish and debris from the site from time to time as is necessary and as directed. On completion of the work the Contractor shall ensure that the premises and/or site are cleaned Surplus material debris, sheds etc. removed, areas under floors cleared of rubbish, gutters and drains cleared, doors and sashes eased, locks and fastenings oiled, keys clearly labeled and handed to the owners so that the whole is left fit for immediate occupation or use and to the satisfaction of the Architect.

**4.2.24 Work Program:**

The Contractor on starting the work shall furnish to the Architect a Program for carrying out the work stage by stage in stipulated time.

) A graph or chart on each Individual work shall be maintained / showing the progress of work week by week.



#### **4.2.25 Temporary Barriers/Screens:**

The contractors shall at his cost erect temporary barriers and provide approved type of screens between the area of work and that in use by the owners/occupants as and when directed by the architects. These barriers shall be such as to prevent dust and rabbit to cross over to the area in use as well as to provide protection to people. No separate payment shall be made for these barriers/ screens.

#### **4.2.26 Approvals from authorities:**

The contractor shall obtain all approvals wherever necessary, In the name of the owners and shall bear all expenses towards the. same Including all fees, deposits, premises charges, penalties, etc. The owner shall have 1<sup>st</sup> lien on the Approvals so obtained until/ satisfactory completion of all works by the contractor. In case the “) contractor fails to complete the works under contract or the agreement is terminated the owners shall have right to use all the benefits of the approvals to complete the project through other agency or themselves.

### **4.3.0 Work:**

#### **4.3.1 Plumbing and Sanitary Works**

All plumbing and sanitary work shall be carried out under supervision of an approved and licensed plumber. The contractor has to arrange if necessary, approvals from authorities. The' contractor has to Include In his rates all costs for getting the various approvals as necessary from the authorities concerned for work, materials etc. No separate payments shall be made for such work except for payment of refundable deposits. All materials and workmanship shall comply with the municipal regulations and the relevant I. S. Specifications. The materials used shall be of best available quality and make for the purpose specified. For Sanitary Plumbing Work and Storm Water Drain, unless otherwise stated C.P.W.D., details for these items to be followed as per the description /specification given in the Book published by Central Public Works Department.

#### **4.3.2. Protections of trees and shrubs:**

Tree and Shrubs designated by the Architect shall be protected from damage during the course of the work and the earth level shall not be changed within three feet of such tree. Where necessary such trees and shrubs shall be protected by means of temporary fencing.

#### **4.3.3 Safety Code:**

The Contractor shall strictly comply with the provision of Safety Code as follow: -

- a) The first aid appliances shall be maintained at readily accessible place including adequate supply of sterilized dressings and cotton wool.
- b) An injured person. shall be taken to public hospital without loss of time, In case where, Injury necessitates hospitalization.
- c) Suitable and strong scaffolds should be provided for workmen for all works that cannot safety be done from ground
- d) No portable single ladder shall be over .5 meters in length. The width between the side rails shall not be less than 30 cm. (clear) and the distance between two adjacent 'rungs' shall not be more than 30 cm. When an unsecured ladder is used, an attendant shall be engaged for holding the ladder.
- e) The excavated material shall not be placed within 1.5 meters of the edge of the trench or half of the depth of trenches whichever is more. All trenches and excavations shall be provided with necessary fencing and lighting.



- f) Every opening in the floor of a building or in a working platform shall be provided with suitable means to prevent the fall of person or materials by providing suitable fencing or railing whose minimum height shall be one meter.
- g) No floor, roof or other part of the structure shall be so overloaded with debris or materials as to render it unsafe.
- h) Workers employed on mixing and handling materials such as asphalt, cement mortar or concrete and lime mortar shall be provided with protective footwear and rubber hand-gloves.
- i) Workers engaged in welding works shall be provided with welder's protective eye-shields and gloves.
- j) (1) No paint containing lead or lead products shall be used except in the form of paste or ready-made paint. (2) Workers should be supplied suitable facemasks for use when the paint is applied in form of spray or surface having lead paint dry rubbed and scrapped.
- k) All equipment's, tools, hoisting machines and tackle including their attachments, Anchorage, ropes and supports shall be maintained in perfect condition and Inspected by the contractors engineer every week,

#### **4.3.4 Shop Drawings:**

The contractor shall depute adequate number of experienced staff with the necessary equipment required for preparing 'SHOP DRAWING' if and when required, giving working details to suitable scales such as working details shall be prepared by the contractors from time during execution of the work as may be required by the Clerk of work /Architects without any extra cost to the employer and shall be. Approved by the Architects/Clerk-of-work before undertaking any particular item of work.

#### **4.3.5 Protection Screen**

The, contractors shall at his cost erect all necessary protection scaffolds, nets, screen as approved by the architects particularly on the exterior face of the building to adequately protect the lower floor and people/property on the ground during the progress of work.

**4.3.6** Prior to commencing work or any part of work, the contractor shall confirm having at site the. Specified materials required for each Item of work having made firm arrangements for timely supplied of such materials. If any specified item Is not available, the Architects must be advised immediately.

**4.3.7** The contractor carrying out the above work shall jointly plan and work out a program for the execution of the work with all other contractors if any, In consultation with Architects. No extra claim for such co-ordination shall be entertained. If any part of the contractor's work depends upon the proper execution of the work of another contractor, the contractor shall Inspect and promptly report to the Architects / Employer and/or Clerk-of-work any defects In such work that render It unsuitable for such proper execution. The contractor's failure to Inspect and report shall constitute an acceptance of the other contractors work as fit and proper for the reception of his work.

#### **4.4.0 Financial Conditions: (Explanation of Appendix)**

**4.4.1 Earnest Money :** Intending tenderer shall pay as earnest money a sum of Rs.35000.00- which amount should be drawn by a Pay order/Demand Draft In favor of UNION BANK OF INDIA." payable at Mumbai. A tender, which is not accompanied by earnest money, will not be considered. After the finalization of contract, the earnest money will be returned to the tenderers if his tender is not accepted and without any Interest. The earnest money deposit of the successful

tenderer. Will be adjusted towards the security deposit payable per clause 4.2.2 below. The Earnest money will be forfeited if the contractor fails to start the work and /or fails to enter into agreement and /or fails to pay security deposit.

#### **4.4.2 Security Deposit:**

**The Successful tenderer shall within a week of receipt of the Acceptance of the tender by the owner /Architects, deposit with UBI, South regional office, the owners, a sum equal to 5% of the accepted tender value as security deposit or as mentioned in the relevant Tender, in form of Draft or Fixed deposits.** in addition to the earnest money deposit EMD of Rs ----- for the proper execution and the due fulfillment the initial security deposit. The Security deposit may be given in the form of bank guarantee of any nationalized bank .No interest shall be paid to the contractors for this deposit Retention from the running bills will also form part of the total security deposit as detailed below.

#### **4.4.3 Retention:**

In addition to the money paid as initial security deposit, an additional security for the **fulfillment of the contractor 8% of the value of the work done** will be deducted from each payment made against running account bills to the contractor until limit of retention per memorandum (appendix).

#### **4.4.4 Refund of Security Deposit and Retention:**

On issue by the Architects of the certificate of the virtual completion of the work, the .The contractor would be paid with in thirty days period 50% of the total security deposit including retention and balance will be retained till the expiry of the defect liability, period. This balance amount will be released by the owners on issue of final completion certificate by the Appointed Architects who concluded the Project, as a certification towards compliance of all conditions of contract by. the contractor including attending all defects noted during the defect's liability period. The earnest money deposit, the security deposit and the retention money of the successful tenderer will be forfeited If he fails to comply with any of the conditions of the contract

#### **4.4.5 WATER FOR PROJECT USAGE:**

The Owners i.e. (UBI) shall provide from the available civic supply on site all WATER FOR CONSTRUCTION and labor use FREE OF COST subject to availability and pay for the municipal charges for water and sewerage if any. If water is required to be brought from outside the contractor shall make all arrangement at his cost either by obtaining separate municipal connection, or by buying water through tankers. In any case the contractor shall make at his cost all arrangements for conveying, storing and pumping water wherever required. Owners reserve the right to restrict or cancel the supply depending on availability of spare water and the contractor is bound to carry out the work by making his own arrangement for supply of good quality water for construction as well as for labour use and shall pay all charges in connection with it. It must be clearly understood that employer's willingness to supply water does not dissolve the liability of the contractor In any way for providing all required water and the employer shall not be liable any charges in connection therewith.

#### **4.4.6 ELECTRIC SUPPLY:**

The Owners i.e. the Competent Authority shall provide from the available civic supply on site all ELECTRIC SUPPLY for work and Labour use FREE OF COST. The contractor shall make all arrangement at his cost including cable works, protection, light fittings etc. from the supply source to the various locations as required. Owners reserve the right to restrict or cancel the supply depending on availability and the contractor Is bound to carry out the work by making his own

arrangement for supply of electricity for construction as well as for labour use and shall pay all charges In connection with it. It must be clearly understood that employer's willingness to supply electricity does not dissolve the liability of the contractor. in any way for providing all required electricity and the employer shall not be liable to pay any charges In connection therewith.

#### **4.4.7 Penalty For Delayed In Work (Liquidated Damages):**

In case the Contractor fails to complete the work under contract in the specified period he shall pay or allow to the Owner the sum as Liquidated Damages @ the rate of Rs 1000/- per day for the period during which the said works shall so remain incomplete, until limit of amount per Memorandum (appendix.). The Owner may, on the delay report submitted by the Project Consultant/ Architect, may deduct such damages from 'any moneys due to the Contractor. However the maximum amount of penalty for delay will not be more than 10% of the project value. The Architect/Consultant will have the prerogative to decide the Penalty by levying the delay clause as he deems so, pertaining to the factual status of delay.

#### **4.4.8 Defects Liability Period:**

Any defect, shrinkage, settlement, or other faults which may appear within the "Defects Liability Period" stated In the Appendix/Memorandum of this tender or, if none stated, then within 12 months after the virtual completion of the works, arising in the opinion of the Architect from materials or workmanship not In accordance with the contract shall upon the directions in writing of the Architect, and within such reasonable time as shall be specified therein, be amended and made good by the Contractor, at his own cost and in case of default the Owner may employ and pay other persons to amend and make good such defects, shrinkage, settlements or other faults, and all damages, loss and expenses consequent thereon or incidental thereto shall be made good and borne by the Contractor and such damage, loss and expenses, shall be recoverable from him by the Owner or may be deducted by the Owner upon the Architect's Certificate In writing from any money due or that may become due to the contractor or the Employer may In lieu of such amending and making good by the Contractor deduct from any moneys due to the contractor a sum, to be determined by the relevant project Consultant/ Architect, equivalent to the cost of amending such work. The final Defect Liability Amount will be released by the Owner on certification letter issued by the relevant Architect / Firm/ Company under whose regime the works were completed.

#### **4.4.9 Virtual Completion Certificate**

The works shall not be considered as completed until the Architect has certified In writing that they have been virtually completed and the Defects Liability Period shall commence from the date of such Certificate.

#### **4.4.10 Insurance Policies:**

The Contractor after receiving the intimation, of acceptance of his tender by the Owners, shall take out following INSURANCE POLICIES from an office approved by the architect in the joint names of the Owner and Contractor (the name of former being placed first In the Policy). The policies shall be kept valid until the Virtual Completion of the Contract. The contractor shall deposit the policy and receipts for the premiums with the Architect before commencing the work.

- 1) All Risks Insurance Policy to cover Completed work, material and equipment brought at site from Fire, Storm/ Tempest /Hurricane/Typhoon / Cyclone Collapse, Theft /Burglary.
- 2) Ground Party Insurance Policy:
  - For Accidental loss or damage caused to the property of other persons.

- For fatal or non-fatal Injury to any person other than Insurer's own employees or workmen of employees of the employer of the Works or Premises or other Firms connected with any other construction work thereon, or member of the Insurer's family or of any of the aforesaid; directly consequent upon or the solely due to the construction of any property described In the Schedule.

Limit of Indemnity In respect of any one of the accidents or series of accidents arising out of one event, the amount is Rs.5,00,000/-

### 3) Workmen's Compensation Insurance per Local regulations.

## 4.5.0 Material:

### 4.5.1

The successful tenderer should make his own arrangements to obtain all the material required for the work. **The contractor shall have to pay all related Taxes, GST, etc. or any other duty levied by the Govt. or Public bodies.** The contractor to take a prior approval of the deviated items, if being used than that mentioned in the list provided, the material to be used comply with the ISO or equivalent standardization, only.

### 4.5.2

Prior to commencing work or any part of work, the contractor shall confirm having at site the specified materials required for each item of work having made firm arrangements for timely supply of such materials. If any specified Item is not available, the Architects must be advised immediately. The Architect in such a case is empowered to change the make of items and replace it with another equivalent make. Any major change or deviation in Amount of the Bill on the usage of the prescribed material will be worked out by the Architect/ consultant who on his advice after taking the consent of the Authorities may permit the changes of the item. However its his prerogative to allow the minor changes.

### 4.5.3 Materials usage at Site/Their approvals

Contractors shall procure samples of all items listed in schedule of quantities. The samples shall be submitted to Architects for approval. The work for the bulk quantities shall be commenced only after approval of the samples by the Architects / Consultants / Bank. However, in case if the material mentioned in the approved list is unavailable or is available at very increased rates than in that case the Contractor can request the Architect for issuing or changing the make as per the readily available material near the Site/region/proximity area. But usage of the material without having the written consent of the Architect will lead to flaw in using the material for which the items will have to be dismantled and replaced by the Material list provided or the Penalty will be levied by the Architect for deviating from the tender.

### 4.5.4 Basic Rates:

While quoting the tender, the tenderer should base his rates on the basic rates of materials given in the relevant Bill of quantities. The basic rates given below are Inclusive of all central, state. And local taxes and levies like GST, etc., as applicable, and including loading, unloading, and transportation and as received on site. The price variation adjustment will be calculated on the basis of the difference between these basic rates and the actual cost, but excluding contractor's overheads, profit etc. The Contractor Is required to purchase the mentioned materials at the most competitive prevailing market price after obtaining minimum three quotations and getting approval for the rates from the Owners/ Architect/ consultant firm/company, in case of scarcity or unavailability of the mentioned make of material, but only after taking the written consent from the Architect/ Consultant firm/ Company.

Any, substantial Increase or decrease over and above 5% In the cost of the above-mentioned materials and those specified In bill of quantities as finally selected and approved shall be adjusted to the contractors bill, it may be noted that claim for extra will not be entertained in case of small or marginal increase or decrease in rates, Architects decision In this matter shall be final and binding without appeal.

#### **4.5.5 Storage of Materials:**

Contactor shall at his cost make all necessary arrangement for proper storage of all materials at site and store the same so that materials remain in best condition for use In the work. The contractor shall obtain all. Necessary stacking equipment, protective covers etc. The contractor shall maintain a log of all materials brought to site and removed from site. The contractor shall not remove any material brought to site without permission or instruction from the Architects/ owners.

### **5.0                    GUARANTEE TO BE EXECUTED BY CONTRACTORS FOR REMOVAL OF DEFECTS AFTER COMPLETION IN RESPECT OF WATERPROOFING WORKS.**

This agreement made this\_\_\_\_\_day of\_\_\_\_\_on Two thousand Twenty two, between\_\_\_\_\_ of one part & of another part.

**(Hereinafter called the Guarantor of the one part) and UNION BANK OF INDIA (UBI) (Hereinafter called UBI of the other part).**

WHEREAS THE AGREEMENT is supplementary to a contract (hereinafter called for contract) dated and made between the GUARANTOR of the one part and UBI of the other part, where by the Contractor interiliac, Undertook to render the structures (pavements) on the said contract recited completely water and leak proof.

AND WHEREAS THE GUARANTOR agreed to give a guarantee to effect that the said structures (pavements) will remain water and leak proof for Ten years from the date of giving of water proof treatment.

NOW THE GUARANTOR hereby guarantees that water proofing treatment given by him will render the structure completely leak proof and the minimum life of such water proofing treatment shall be 10 years to be reckoned from the date after the maintenance period prescribed in the contract.

Provided that the guarantor will not be responsible for leakage caused earthquake or structural defects or misuse or alteration and for such purpose:

A] Misuse of structure (pavement) shall mean any operation which will damage water proofing treatment, live chopping of fire wood and thing of the same nature which might cause damage to the same.

B] Alteration shall mean construction of any additional structure or part thereof or whereby water proofing treatment is removed in parts.

C] The decision of the Engineer-in-charge / Authorized Official of UBI with regard to cause of leakage shall be final.

During this period of guarantee the guarantor shall make good all defects and in case of any defect being found render the structure(pavement) water proof to the satisfaction of the Engineer-in-charge / **Authorized Official of UBI** at his cost and shall commence the work for such rectification within seven days from the date of issue of the notice from the Engineer-in-charge/ **Authorized Official of UBI** calling upon him to rectify the defects falling which the work shall be got done by the Department by some other contractor at the Guarantor's cost and risk. The decision of the Engineer-in-Charge / **Authorized Official of UBI** as to the cost, payable by the guarantor shall be final and binding.

That if the guarantor fails to execute the water proofing or commits breach there under then the guarantor will indemnify the principal and his successors against all loss, damage cost expenses or otherwise which may be incurred by him by reason of any default on the part of GUARANTOR in performance and observance of this supplementary agreement as to the amount of loss and/or damage and/or cost incurred by UBI the decision of the Engineer-in-charge / **Authorized Official of UBI** will be final and binding on the parties.

IN WITNESS WHEREOF these presents have been executed by the obligator \_\_\_\_\_ And by and for and on **behalf of UBI** on the same day, month and year first above written.

SIGNED, sealed and Delivered by (OBLIGATOR) in the presence of

1.

2.

Authorized Signatory of UBI.

SIGNED FOR AND ON BEHALF OF UBI BY

\_\_\_\_\_ .

In the presence of:-

1.

2.

## 6.0

### MEMORANDUM (Appendix)

- 6.1** Date of commencement of Work, : Within 7 days after issue of work order/  
Tender acceptance or handing  
over site whichever is earlier.
- 6.2** Date of completion of Work: Two months from date of Commencement.
- 6.3** Defect Liability period : 12 months after completion of  
Work per Virtual Completion Certificate.
- 6.4** Agreed liquidated damages for. : Rs.1000/- per day subject to max. 10% of the  
Delay In completion of work. Contract Value Amount.
- 6.5** Earnest Money Deposit: Rs. 15000 .00
- 6.6** Security Deposit Amount, 5 % of Accepted tender (Including deposited EMD Amount
- 6.7** Retention Percentage and Limit : 8 % of the gross certified value of each interim bill.
- 6.8** Refund of Retention Amount & : 50% after virtual completion certificate & balance  
Security Deposit defects liability period. After completion of defect liability period
- 6.9** Minimum Value of work for : Rs. 2, 50.000/- (Rupees Two lac fifty thousand only)  
Interim Bills.
- 6.10** Period for honoring Interim : within 7 days of Issue of Certificate by Architect  
Certificate. .
- 6.11.** Period for honoring Virtual Completion within 30 days of Issue of Certificate by Architect  
Certificate and refund of Security Deposit.
- 6.12.** Validity period for Tenders ... : 90 days from the date of opening of the priced  
Bid of the tender.

**Note – If the vendor quotes an amount which is (+/-) above or below than 15% of the approved estimate of works than he will have to submit a Performance Bank guarantee for an Amount equivalent to 10 % of the Project estimate along with the reasonable reason for the quoted rates within 7 days from the date of receiving the letter from the Regional office. The justification of the rates quoted will be authenticated by the appointed Architect/consultant of the Project. The unjustified quoting of rates may result in the selection of the L2 Vendor. The Amount will be released after the release of Virtual Completion certificate by the**



Architect/ Consultant only. However, if the Vendor fails to adhere with the Terms & conditions of the Tender or compromises with the quality of the raw material or the finished goods than the Project Architect/ Firm/ Consultant Company may submit the report based on which the Bank may on its discretion forfeit or absolve the amount on the basis of noncompliance of the tender conditions to which the Vendor firm will have no disagreement.

**Measurements** – The measurements will be done as per the prevailing Indian Code of measurements of the related works. The measurements sheets will be submitted by the Vendor with the supportive documents for the purpose of realization of the Bills. The copies will be submitted in the Hard copy form along with a soft copy in pen drive. The standard practice for the measurements of works as followed under BIS Code will be followed with the subjected works. The vendor will have to submit the Bill as desired in the tabulated tendered Format. Of the Bill of Quantities.



**ARTICLES OF AGREEMENT**

Articles of AGREEMENT made at Mumbai this ..... day of 2022, **BETWEEN UNION BANK OF INDIA, Mumbai —400023**, hereinafter referred to as the EMPLOYER Expression shall include his executors, administrators and assigns) Are part and -----  
 -----hereinafter referred to as the 'CONTRACTOR expression shall include his heirs, executors, administrators and the other part.  
 The EMPLOYER is desirous of civil repairs and renovations to the -----**Premises of** -----, Mumbai, hereinafter referred to as ----- -work  
 And has caused Specifications and , describing ----- works to be carried out, to be prepared by Architects M/S Bhawana Enterprises Pvt Ltd.-----The contractor has agreed, subject to the conditions set forth -----to execute and complete the said work as per the Drawings,----- Instructions and as per the respective rates incorporated In ----- of probable quantities and rates as herein under written.

**HEREBY AGREED AS FOLLOWS:**

-----Consideration hereinafter mentioned, subject to the Conditions of ----- Bill & Quantities, Preliminaries, Special Conditions and ----- And the Memorandum the Contractor shall undertake, carry ----- and Complete the work shown upon the drawings and described by or----- to In the Bill of Quantities, Preliminaries and Instructed by the -----  
 -- (Whether mentioned anywhere herein or otherwise) for due ----- of the work so a to conform to the provisions of the said ----- Specifications, Special and General Conditions of contract -----.

The said Drawings, Instructions, Specifications, Preliminaries, Tender ----- Memorandum, General and Special Conditions of Contract and -----f (probable) Quantities (hereinafter collectively referred to as the --  
 ----- OF CONTRACTS) shall be read and construed as forming part of agreement end parties hereto shall respectively abide by and submit selves to them and perform the agreements on their parts -----  
 --.

The contract Is not a fixed lumps contract, but essentially an Item rate -----to carry out all the, work In respect of all the Items required for -----of the work and other buildings and their, services, to be actual measured quantities and rates ,or as provided In the,-----

The employer /Architect reserve the right to alter the drawings and the quantum of any or various items of work, without prejudice` to the said terms of contract.

----shall be considered as the essence of this agreement and the contractor hereby agree to commence and complete the work as provided the said terms of contact.

All the disputes arising out of or in any way connected with this agreement shall be deemed to have arisen in the city of Bombay.

THESE ARTICLES OF AGREEMENT AND THE TERMS OF CONTRACT HAVE -----READ TO US AND FULLY UNDERSTOOD BY US,

WITNESS the hands of the parties.

By the said Employer.

Presence of

-----WITNESS

-----)

By the said Contractor

Presence of

-----WITNESS

-----)

## **8. SETTLEMENT OF DISPUTES:-**

### **Excepted Matters**

If any dispute or difference pertaining to the undernoted matters arises, the decision in writing of the supervising Architect/their representative / Bank's General Manager shall be, conclusive and binding on the Contractor/ s.

- a) Written Instructions.
- b) Permissions from Local Authorities.
- c) Proof for quality of materials and the works.
- d) Assigning or subletting of the contracted works.
- e) The causes of delays and extension of time.
- f) Rectification of defects during the progress and Defects Liability Period.
- g) Contractors' due diligence care and supervision at the works.
- h) Measurements of works.
- i) Reports on quality and progress of works.
- j) Contractor's abandoning of the contract, partially / fully.
- k) Notice of termination / determination of the contract by the Employer.

## **9.0 ARBITRATION:-**

All disputes or difference of any kind whatsoever (except for excepted matters vide Clause No. 8 earlier) which shall at any time arise between the parties hereto touching or concerning the works or the execution 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 to the right 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 of 60 days 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 per the provisions of law.

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 per the Law.

The work under the Contract shall, however, has to continue during the Arbitration proceeding and no payment otherwise due to the Contractor shall be withheld on account of such proceedings.

The Arbitrator shall be deemed to have entered on the reference on the date he issued to both the parties fixing 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 difference referred to his. 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 a reasoned Award.

Subject to aforesaid, the provisions of the Arbitration and Conciliation Act, 1996 or any statutory modification or re-enactment thereof and the rules made there under and for the time being in force, shall apply to the Arbitration proceeding under this clause.

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.

## **TECHNICAL SPECIFICATION**

### **POWER PANELS:**

The Power panels shall be fabricated from MS sheet steel 16 gauge and shall be of compartmental design. The main supporting framework shall be of angle iron or of heavier gauge sheet metal. The panel shall be self-supporting design, dust and vermin proof, dead front and fully inter locked with isolating switches. The panel-mounted switches shall have Interlock defeat for testing and inspection.

The panel shall be designed so as to facilitate inspection, cleaning and repairs. The clearance between phase to phase and phase to earth or metal parts shall be as per relevant IS standards. The metering instruments like volt meter, ammeter etc. shall be flush mounted and shall be of 1.0 class accuracy and of standard design size shall be 96 mm x 96. All indication lamps shall be of neon type.

The panel shall have separate cable ally and a bus bar chamber. The bus bars shall be rigid hard drawn tinned electrolytic copper & sleeved with heat shrinkable sleeves. The current density shall not exceed 1.25 amp per sq. mm. and the neutral bus shall be rated for capacity of phase bus unless otherwise stated in schedule of quantities/drawings. However, the minimum size of bars shall be 25mm x 3mm.

The panel shall be powder coated comprising of degreasing and de-scaling in sulphuric acid etc. with synthetic enamel paint for smooth finish. The color of paint shall be battle-ship Grey or as directed. The Panel shall be tested at site before commissioning. The Panel drawings shall be got first approved from Architects before taking up for fabrication.

All wiring inside the panel shall be done with switchboard copper conductors/cables solid copper links. The insulators for supporting the Bus-Bars shall be epoxy based cast resin. All hinged doors shall be earthed with flexible braided copper earth. An earth bus of copper shall be fixed along the length of the panel at the lower section. Adequate ventilation for the panel shall be provided. Logic diagram of operation of switches shall be painted on the panel. The name plates for each feeders shall be of engraved design and pasted to the respective switch gear. The letters shall not be less than 10mm size for individual feeders and not less than 18mm for the main feeders. All switchgear to be mounted in the panel shall be as per schedule of quantities.

### **SWITCH FUSE UNITS:**

Switch Fuse Units shall be of sheet metal or iron clad with HRC fuses as described in schedule of quantities. The unit shall be of robust construction of standard specified make. design to withstand adverse working conditions. It shall have quick break type mechanism with ON and OFF position indicators of the operating handle. The switch shall be interlocked so that the unit cannot be opened in ON condition. The interior shall be so arranged that clearance from live parts are adequate and shrouded. Manufacturer's instructions shall be followed for installation of switch fuse units. The switch shall be solidly earthed. The switch shall be mounted on walls on angle iron support grouted to wall. The supports shall be treated for rust treatment & painted with 2 coats of synthetic enamel paint. The height of the switch board shall be such that it is accessible for operation & maintenance.

### **CABLES:**

Cables shall conform to IS 1554-1976. Cable shall be heavy duty, armored, PVC insulated & PVC sheathed 1.1 MV grade aluminum or copper. Cable shall be fixed with G.I. spacers & saddles at an interval of 45 cms and on every side of bends. The bending radii of cables shall be as per manufacturer's instructions and in no case it shall be less than 12 times the overall diameter of the cable. Cable shall be so installed that they are not subject to mechanical damage. If there is a bend in the cable enclosed in a conduit, care has to be taken to prevent undue compression of insulation. This applies also to the top of vertical runs of longer than 5 meters where there could be compression caused by the weight of unsupported vertical cables. Cables may rest without fixing in horizontal runs or ducts or trunkings. The cables run in cable trays shall be permitted unless the cables exceed the standard drum length. Joints if so necessary shall be located in accessible position. Termination of the cables shall be done with heavy duty copper/Aluminum lugs and brass cable glands.

Cables laid under ground shall be to a minimum depth of 600 mm. It shall be ensured that cables laid underground are free of water lines, sewage lines etc. The trenches shall be at least 30 cm wide & filled with 10 cms thick of layer of dry sand on which the cable shall be laid. Further, 10 cms thick sand layershall be put on the cable over which a brick layer shall be kept. The trench shall than be back filled with soft earth, rammed and consolidated to original level. Cable route indicators shall be laid at intervals of 20 metres and at all change in directions. For

cables laid on walls aluminum tags shall be fixed showing the size of the cable and the feeder number of the cable. These tags shall be at each ends and at least one or two places at intermediate positions. The mode of measurement of the cables shall be as follows :

- i. For top entry of the cable, the measurement shall be taken up to the bottom of the switch-gear.
- ii. For bottom entry of the cable, the measurement shall be taken up to the top of that switch board. No wastage shall be allowed for measurements.

#### **DISTRIBUTION BOARDS:**

1. These shall be of sheet metal and of standard design with copper bus bars. The board shall be fixed at accessible heights. The boards shall be solidly fixed to walls/partitions, concealed or open as directed. All connections inside the distribution board shall be neatly arranged and tied with PVC strings. The MCB's shall be of 9 KA for fault level. The distribution board shall be suitably earthed. Legend shall be written on D.B. & Circuits.
2. The Distribution Board circuitry shall be as per the schematic/given in Drawing.
3. The Sheet steel used for fabrication shall be of CRCA of 14/16 SWG. The Board shall be suitable for wall mounting. It shall be totally enclosed, Dust Proof & vermin proof. The fabrication shall be as per relevant is Specifications for degree of protection by enclosure for low voltage switch-gear IP 52. The Equipment such as MCB, ELCB, Insulators, Bus-Bars shall be as per relevant is specification with latest amendments.
4. The Sheet steel shall be smoothly finished, leveled and free from flaws. All doors, removable covers shall be Gasketed all round the perimeter.
5. The Service Voltage is 440 volts & Busbar will be Electrolytic copper. The copper busbar shall be tinned through out the length.
6. The door interlock shall be provided so that it shall not be possible to open the door with breaker in close position.
7. Enough space shall be provided for termination. The minimum two earth terminals shall be provided for each D. B. The Board shall be factory wired with proper ferruling.
8. Adequate shrouds shall be provided for avoiding accidental contact with Live Terminals, Busbar etc.
9. The Conduit knockout shall be provided for Conduit Entry.
10. The guaranteed technical particulars shall be provided for the MCB & ELCB etc.
11. The engraved black anodised labels shall be provided on all feeders.
12. All Steel works shall undergo a process of degreasing, pickling in acid bath, phosphating.
13. This shall be followed by two coats of primer and two coats of final finish paint, both applied with spray. The colour shall be light battleship gray.
14. The distribution board shall have hinged door.
15. The busbar supports shall be non hygroscopic, anti tracking material.

#### **POINT WIRING**

##### **(a) METAL CONDUITS:**

1. All conduit pipes shall confirm to IS 9537 PART-II 1981. Metal conduits shall be ERW black enameled 20mm/25mm as the case may be depending upon the number of wires permitted. The conduits shall be fixed to walls/ceiling with M.S. saddles and spacers at an interval of 1 meter and on either side of bends.
2. All conduit accessories shall be 15 gauge & bends shall be of inspection type. All bends, couplers, threaded portions etc. shall be painted with anti-corrosive paint. Bends in the pipes shall be done with bending hickies.
3. All pipes shall be cleaned for sharp burrs. Switch boxes shall be of G.I. 16 G/14G. The switch boxes shall be concealed as per site requirement & as per Architect's/Architect's Instructions. Point shall be controlled with 5A switch or directly from DB as specified in schedule of quantities. Where plate type switches are not specified the switch-board shall have 3mm thick hylum sheet on which switches shall be mounted.
4. While laying the conduits in the slab before casting the slab, all drops shall be laid accurately to fall in position of the switchboard. Junction boxes shall be sand filled. All joints shall be airtight. Conduits shall be fastened to the re-enforcement properly so that the conduits do not get dislocated while casting the slab. All conduits shall have 18 swg fish wire.
5. The conduit shall be of 16 guage unto 32mm dia and 14 guage above 32mm dia. reputed and approved make conforming is specification. Conduit shall be Heavy guage rigid PVC with All accessories/fittings including ordinary & inspection tees; bushings, reducers, junction boxes, terminal boxes, saddles and steel supporting materials shall be of the same as of the conduit. The contractor shall have dies for threading of conduit.
6. The conduit shall run along walls, ceiling, flooring in accordance with layout drawings.
7. The conduit shall be field bend as far as possible with reasonable long radius. The conduit bends shall be free from cracks, other damage to the pipe or its coating and shall not have pipe section unduly flatten..

8. The conduit joint shall provide the structural rigidity and low electrical resistance.
9. All open conduit ends shall have bushings and all threads shall be cleaned and well painted with coating or red lead & oil. All burrs shall be smoothened and cleaned.
10. The conduit shall be supported with saddles at regular interval of 1000mm. The saddles shall be fixed with Rawal plugs and M. S. screws of 3mm size.
11. The No. of wires through a given diameter of conduit shall be as per is specification.
12. When two length of conduit are joined together through a coupling, running threads equal to the full length of the coupling shall be provided on any one length. Conduit length exceeding 8 meter length shall be provided with junction boxes.
13. Conduit & accessories shall be securely fixed before any operation like concrete pouring plastering etc. The conduit shall be fixed by clips which shall not cause deformation of conduits. The conduit fixing shall be at regular intervals not exceeding 1.5 meter. At the bends the fixing shall be secured by fixing clips at 150mm. All the supporting holes are to be drilled by electric drill machine.

#### **(b) PVC CONDUITS:**

The PVC Conduits shall confirm to latest IS standards and shall be of medium gauge. The conduits shall be joined with PVC adhesive at joints. The Conduits shall be fixed to walls/ceilings with GI, Spaces and Saddles at an interval of 60 cms & on either side of bends. The number of wires drawn in the conduits shall be as per table 1. The point wiring shall be controlled as in (a) above. The wiring shall be done with 2nos. of 1.5 sq.mm (Phase & Neutral )& 2.5 sq. mm. (earth) PVC insulated, copper conductors, multi stranded and color coded with green as earth and black neutral. The circuit wiring shall be with 3 nos. of 2.5 sq. mm. PVC insulated, copper conductors, multi stranded from distribution board to switch board and the rate shall be included in the point wiring unless otherwise stated in schedule of quantities. All other details shall be as for metal conduits.

#### **(c) CASING CAPPING/TRUNK AND TRUNKLING :**

PVC casing shall be fixed, wooden partitions by means of screws spaced not more than 60 cms apart. Holes for fixing the PVC capping shall be done by drilling machine only and these holes shall be plugged with PVC plugs or grips to which the screws shall be fastened. No less than I inch PVC casing shall be used. All bends, tees, joints etc. shall be done in workman like manner with standard accessories. The number of wires in PVC casing capping shall be limited to a fill factor of not more than 60%. The point shall be controlled by 5 amp switch. The switch boards shall either be flush mounted with partitions or surface mounted or concealed mounted as per site requirements and as directed. The wiring shall be carried out as described in (a) and (b) above.

The wiring on the False ceiling will be done with the help of Cable tray. This cable tray will be earthed. No conduits will lay directly on the surface of the false ceiling.

#### **CIRCUIT WIRING**

1. The Circuit wiring shall comprise of laying PVC conduit from lighting distribution board to the first switch board & pulling of wires within the conduits with 2.5 Sq.mm copper wire, PVC insulated, 100v grade wire.
2. The scope includes all materials & labor with Installation. It also includes making proper connection in the Distribution board & switch board.
3. In case of group control directly from Distribution Board, the primary point shall be from D.B. to the first point and secondary point and from first point to the next point looped. The point shall terminate into the 3 plate-ceiling rose or as per the standard works module..

#### **SWITCH BOARD**

The lighting switch board boxes shall be MS/ zinc passivated with 16 gauge made suitably for controlling group of light/fixture or light control as indicated in the drawing. The switch board boxes shall be suitably in the office area as concealed type. All the switch boxes shall be provided with removable cover with proper provision of Plate/Piano type switches.

#### **WIRING METHODS**

1. The wire pulling in conduits shall be in accordance with standard practices. All the wires in a particular section by conduit shall be bunched together and pulled at a time.
2. The wires used shall be color coded with Red wires for R phase, Yellow wire for Y phase, Blue wire for B phase Black wire for neutral and Green wire for each continuity conductor.
3. All the wires shall be purchased directly from the manufacturers/Authorized Dealers and approved by the Architect.

4. All the wire shall be insulated with adequate thickness of extruded PVC.
5. All wires shall be of 1100v grade conforming to is 694 with latest amendment.
6. All the wire ends shall be ferruled with colour codes & numbers.
7. All the circuits shall be identified at both ends of the circuit.
8. A maximum of 3 lights to be switched on one switch of 5A.
9. The wiring shall be carried out with multi stranded PVC insulated copper wires of 1.5 sq. mm. 2Nos (Phase & Neutral) & 2.5 sq.mm. (Earth). In all cases the earth shall be of green color and neutral shall be black color. All wires used shall be of 660 V grade. The point wiring shall be inclusive of circuit wiring from Distribution Board to the switch-board unless otherwise stated in schedule of quantities. The circuit wiring shall be with 3 nos. of 2.5 sq.mm PVC insulated multi stranded copper conductors color coded as detailed above. The rate shall also be inclusive of any chasing as directed by the Architects/Architect/Client's Engineer to conceal the drops and finishing the same.

#### **5A/15 AMPS. SWITCH SOCKET OUTLET WIRING**

1. The Point wiring for 15 A Switch socket outlet includes running of 3 x 4.0 sq.mm PVC insulated stranded copper wire through conduit from the distribution panel board to the individual S/S/O
2. Two nos of 15 A S/S/O are to be looped in and controlled by MCB of 20 Amps in the distribution board at each floor. The circuit length shall not exceed a length of 70 meters.
3. All the wires for the S/S/O shall be pulled through separate conduit system (not to be mixed with light 5 Amps S/S/O etc.)

#### **5 AMPS SWITCH SOCKET OUTLET**

1. The point wiring for 5 Amps switch socket outlet includes running of 3 x 2.5 sq.mm copper conductor, PVC insulated, 1100v grade wires in PVC conduit from the light distribution board to the Individual socket.
2. A maximum of 6/8 Nos. socket are to be looped in & controlled by MCB in the lighting distribution board. The circuit length shall not exceed 60 meters.

#### **15/5 A SWITCH SOCKET OUTLET**

1. It shall be of approved make conforming to latest IS standards. The three-pin socket shall be provided with safety shutter to prevent accidental contact with live parts.
2. The box for socket outlet shall be suitable for concealed/surface mounting and should be supplied by the Manufacturer with the switch & socket unit.

#### **20 AMPS POINT WIRING**

1. The 20 A SP MCB with Reyrolle socket is to be provided including running of 3 x 4.0 sq.mm PVC insulated stranded copper wire through PVC conduit from distribution board to the individual switch.
2. One switch is to be provided in one circuit and controlled by one MCB of 20 Amp in the distribution board at each floor.
3. All the wires for the switches shall be pulled through separate conduit system ( not to be mixed light, 5 A S/S/O etc.)

#### **TELEPHONE POINTS**

1. Telephone Points shall include supply & installation of 25mm diameter PVC conduit & Accessories along with 2 pair/4 Core wire from Tag Block to Individual Point along with the Conduit. The Telephone wire shall be of oelton make or of approved sample.
2. The Conduit shall be laid concealed in slab/wall/beam column etc., from the Telephone Box to the Individual Telephone socket outlet Point as market in the Drawing.
3. In case of provision for further point for Telephone G.I. Pull wires shall be laid inside the entire length of conduit.
4. The Telephone Tag Block of M.S. shall also be provided by the Contractor including latest Type of Terminal strip cover extra as per MTNL approved list.

#### **EARH PITS / STATION**

The earthing station shall be done as per IS 3043 (1981) and as per drawing no. E1. The earth pit shall be atleast 2.5 mtrs

deep with GI plate electrode shall be hot dipped of 600mm x 600mm x 6mm thick. The size for copper electrode shall be 600 x 600 x 3mm thk. An alternate layer of salt and charcoal shall be filled up to 200 mm above the top of the electrode. The electrode shall be connected with 25mm x 6 mm thick GI Flat which shall



be terminated with nuts and bolts into brick masonry chamber on top. The brick masonry chamber shall be of size 300mm x 300mm x 300mm deep which will carry the funneling arrangement for watering. A GI Flat of 25mm x 3 mm from brick masonry chamber to the switch gear inside the switch room shall be laid under ground and / or fixed to walls and the rate for this shall be paid as a separate item.

### **INSTALLATION OF ELECTRIC FITTINGS**

All electrical fittings shall be fixed with down rods or on round blocks as stated in schedule of quantities. The down rods shall be 20 mm dia and 1.6 mm wall thickness of ERW black enameled MS. The down rods shall be fixed with ball and

socket joints check nuts etc. Special fixtures like spot lights etc. shall be fixed to the false ceilings as per manufacturer's recommendations. The fittings shall be connected with 3 core 0.5 sq. mm. flexible copper cord / cable from ceiling rose and suitable earthed.

### **TESTING OF ELECTRICAL INSULATION**

The following tests shall be carried out after completion of the electrical insulation work.

- 1) Insulation Resistance Test.
- 2) Polarity Test of Switches.
- 3) Earth Continuity Test.

**1) Insulation Resistance Test :** The insulation resistance shall be measured by applying between earth and whole system of conductors or any section thereof with all fuses in place and all switches closed ( except in earthed concentric wiring ) all lamps in position and both poles electrically connected together., or direct current pressure of not less than twice the working pressure, provided that it need not exceed 500 volts for medium voltage circuits, be applied. Where the supply is derived from 3 wire DC or Poly phase A.C. System, the neutral pole of which is connected to the earth either direct or through added resistance, the working pressure shall be deemed to be that which is maintained between the phase conductor and the neutral. The insulation resistance measured in mega ohms between all conductors connected to one pole of phase conductor of the supply and all the other conductor and switches in off position it's value shall be not less than as specified below :

The insulation resistance measured in mega ohms shall not be less than 50 mega ohms divided by the number of outlets or when PVC insulated cables are used for wiring , 12.5 mega ohms divided by the outlet subject to a minimum value of 1 mega ohm.

A preliminary and similar test may be made before lamps etc. are installed and in this event the insulation resistance to earth shall not be less than 100 mega ohms divided by the number of outlets or when PVC insulated cables are used 25 mega ohms divided by the number of outlets subject to a minimum of 1 mega ohm.

**2) Polarity Test of Switches :** In a 2 wire system a test shall be made to verify that all switches in every circuit are fitted in the same conductor throughout and such conductors shall be labelled or marked for connection to the phase conductor or to the non earthed conductor of supply.

In a 3 wire or 4 wire insulation a test shall be made to verify that every non linked single pole switch is fitted in a condutor which is labelled or marked to one of the phase conductor of supply.

**3) Earth Continuity Test :** The Earth Continuity Conductor including metal conduits and metallic envelopes of cables in all cases shall be tested for electric continuity and electrical resistance of the same along with the earthing lead but excluding any added resistance or earth leakage circuit breaker measured from connection with earth electrode to any point in the earth continuity conductor in the completed insulated shall not exceed 1 ohm.

### **POWER FACTOR CORRECTION PANEL**

The power factor correction panel shall be fabricated from sheet steel & powder coated. The panel shall be compartmentalized with tinned copper bus bars TPN as described for power panels.

The power capacitors shall be APP type, low loss, 3 phase , delta connected and self-discharged type. The power factor control shall be done by automatic power factor control relay for controlling the power factor within



the set limits by auto switching of required capacitor Banks. The required Capacity / P.F Banks shall be as per schedule of quantities. The P.F shall be automatically corrected to near Unity.

The C.T. ratio given in the schedule / diagram is indicative. The same shall be matched for correct operation depending upon the operating load. The relay shall be totally microprocessor based for setting the desired target power factor band. The APFC relay shall have indications like power ON, low current etc & shall be of required stages as per schedule of quantities. The P.F Panel shall have Auto Manual switching facility.

**The general specification shall be as follows :**

- i. System supply voltage 415 volts.
- ii. C.T. secondary rating 5 A, 5 VA Burden.
- iii. Output switching capacity 5A at 230 V AC & 2A at 440 V AC, Operating temperature, 10 degree Centigrade to 50 degree Centigrade. Accuracy better than 1%. Low current release 10% of full rated C.T.
- iv. Switching time between stages 4 to 6 seconds.
- v. Range of indications of PF 0.5 lag to 0.5 lead digital.
- vi. Display LED indications.
- vii. Range of target P.F. setting 0.7 to 0.99.
- viii. Switch for auto / manual operation.
- ix. Indications for selection of stages.
- x. Selection of dead band.

## **PREFERRED MAKES OF MATERIALS**

1. All materials to be supplied by the contractor shall confirm to the relevant Indian Standard and bear "ISI" marking distinctly. However, for the guidance of the Contractor some of the preferred makes of materials are as follows.
2. All materials shall be of the first quality.
3. Wherever Contractor proposes to use 'equivalent 'makes ( i.e. other than specified) the same shall be done only after prior written approval from the Architect/Consultant. The delay if any on the account of unavailability of the prescribed material will not be considered. Hence no claims of time extension or the hike in price of the commodity will be entertained.
4. Read "or equivalent approved "at the end of the list of approved manufacture / sub-contractor / brand for every material. It can also be the other Brands which the Architect/consultant can approve on the merits of the commodity/element of material but the altered Brand cannot have the impact on the net price outcome of the mentioned commodity in the Tender.

<b><u>SR NO. MATERIAL</u></b>	<b><u>APPROVED MANUFACTURES/SUPPLIERS</u></b>
1. SFU/ Isolator switch	EE/L&T/Siemens
2. L.T. Panels	EE/L&T/ Siemens / As approved
3. Meters	AE/MECO/ Rishab/ Silkon/ UE
4. DB (HRC Fuse )	EE/Standard/ CPL/ Havel
5. DB (MCB)	EE/L&T/ Siemens
6. Wires	Finolex / RR Cables/Havells
7. Conduits (MS/GI)	Supreme BEC/ Precision / Circle Ark
8. Switches /Sockets LK pace	Anchor/ Precision/ CPL/ ROMA/Southwest/ Avanti/
9. Lugs	Dowell/Jainson
10. Telephone cables	Finolex/ Delton/ MTNL approved
11. Decorative lights (spot lights/ picture lights wall)	Phillip / Wipro
12. Fire detectors	Appolo Honry well
13. Security system	Shellain / Radioncis sentrol
14. ELCB/RCCB	EE/MDS/ Datar
15. Telephone Tag-block	Krone
16. NCCBS	L&T/EE/Crompton
17. Air Circuit Breaker	L&T Siemens /EE
18. Changeover Switches	Siemens / Blcon/ Kayee
19. Contractors	Siemens /L&T
20. Music speakers	Phillips/ Ahuja
21. Amplifiers	Phillips /Ahuja
22. Elec. Fittings & fixtures	Phillips /Crompton/Wipro
23. PL/ Spot Lights fittings	Phillips /K-lite/Wipro
24. Copper Cable (Conductor)	Finolex / CCI ISI Mark
25. Flourscent Lights, PL Lights and Lamps etc.	Phillips/Crompton/Bajaj
26. MCB/ ELCB	Legrand /DATAR
27. Main switcher (sheet metal boxing)	L&T
28. Ceiling Fan	Crompton/ Usha, Bajaj, Orient
29. Wall fan	Usha /Almonard/Bajaj
30. Exhaust fan	Unique/Crompton/GEC
31. Gland Flange Type	BRACO
32. Casing Caping Patti	PRESTO PLAST

## **PREAMBLE TO BOQ**

### **ABBREVIATIONS:**

R.MT.	:	Running Meter
Sq. MT.	:	Square Meter
Sq. Ft.	:	Square Foot
T.W.	:	Teak Wood
Q.R.O	:	Quote Rate Only
C / C	:	Centre to Centre
C.P.	:	Chrome Plated
NO.	:	Numbers.
MM.	:	Millimeter

1. All dimensions are in M.K.S. unless otherwise stated.
2. The quoted rate shall be all inclusive and cover the cost of material including wastage, Freight, all types of taxes, duties, royalties, erection, construction, testing of materials, if required samples brought for approval, tools and tackles, plant and equipment's, supervision, overheads, profit and any other expenditure incurred for completion of work as per drawings, specifications and to the full satisfaction of Bank / Architect.
3. The rates quoted shall be valid for working at all heights, depths, and on all floor levels, No extra payment shall be made for scaffolding, staging, ladders, handling, transportation of men and materials at higher or lower levels and stacking of materials, removing debris etc. from the site. etc. The cables to be laid on the Cable Tray while the Panel Board should be CPRI approved or as suggested by the Consultant.
4. The item rate specifications are indicative. The Contractor will have to carry out the work In accordance with the drawings, technical specifications and / or other conditions laid down in tender document and to the full satisfaction of Bank / Architect.
5. Quantities mentioned against respective items are approximate and can vary to any extent. Payment shall be made on actually executed quantities.
6. No claims shall be entertained in case of increase or decrease in quantities, Bank / Architect reserves the right to increase / decrease quantities of any item and also to add / Delete any item in totality. Bank / Architect reserve right of operating any item for any work.
7. Rates for ELECTRICAL WORK shall include cleaning glass panels, floor etc.
8. After completion of work the site shall be handed over absolutely clean, after ensuring that all floor, walls, etc. are spotless clean.
9. Unless otherwise noted, the method of measurement will be as per I.S. 1200.
10. Bank / Architect reserve the right of operating all 'Quote Rate only' items.
11. Wherever contractor proposes to use 'equivalent' makes (i.e. other than specified) he shall obtain Architects prior approval. Any additional cost and time lost due to this will be on Contractor's account and no claims will be entertained.

**WITNESS**

**(Signature of the Tenderer)**

Bill of Quantities for the Refurbishment works to be Done for Khand bazar Branch ,Union Bank of India , Mumbai.

SUMMARY		
S. No.	DESCRIPTION	AMOUNT
1	Electrical Wiring	
2	Data wiring	
	<b>Net Total Rs</b>	
	<b>Total Projected Cost of the Project ( Exclusive of GST ).</b>	

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**Signature with seal of the tenderer**

**Bill of Quantities for the Electrical works to be Done for Khand bazar Branch ,Union Bank of India , Mumbai.**

S.NO	CPWD - 2014	PARTICULARS	Qty	Unit	Rate	Total
					Unit	{In Rs}
		<b>Instructions</b> - The Participating vendors are requested for filling authentic rates. If the Bank/ Architect/Consultant finds the rates to be not workable than the costing analysis will be asked by the Vendor. The cost analysis submitted by the Vendor will be analysed by the Consultant/ Architect and than only the Vendor will be authenticated the works. If the quoted rates are summarily below the rates and not as Per CVC Guidelines than the Tender may be summarily rejected. And the Bank may on its discretion provide the works to other justified vendor along with the consent of the Architect/Consultant Firm/company.				
		<b>Material</b> - The usage of the specified material will only be permitted. The Vendor will have to write a letter and submit the material samples, which will be used at site. The vendor will be required to prepare a mock up and get it approved by the Architect/Consultant. The material used without prior approval of the Architect/Consultant will have to be replaced while the vendor the Amount of the vendors Bill will also be deducted in lieu of not following the Tender guidelines. All the Material testing reports which are used in the works will have to be submitted to the Architect/consultant. The Bills of purchahse of the materials used at site will also be required to be submitted to the Engineering Consultant/Firm/Company/representative.				

## Bill of Quantities for the Electrical works to be Done for Khand bazar Branch ,Union Bank of India , Mumbai.

S.NO	CPWD - 2014	PARTICULARS	Qty	Unit	Rate	Total
					Unit	{In Rs}
		<p><b>Electrical Wiring:</b> It is to be laid as shown in the design. No joints in the wires will be accepted from the switch to the source. Conduit used in wiring will be of heavy duty i.e. pure white, ISI marked. The conduit are to be laid on the Cable Trench made up of slotted angle . While quoting the rates Please take the aforesaid points in your consideration. The works are to be carried out strictly as per the drawings and designs provided. These are strictly to be done as referenced in the corresponding I.E Rules. The contractor will be required to submit the Pert Chart for completing the jobs.. All the SLD Drawings, Panel Drawings, Distribution Boards design are got to be submitted and approved by the Engineering Consultant. The total load chart and their distribution system comprising of every detail along with Circuit Number, MCB Number as provided in practicality with the help of the ferule on site are to be submitted in As-Built form. 5 Copies of the same are required to be submitted on A1 Sheet . This is mandatory before the clearance of the Final Bill of works. This is the prestigious project and has to be carried out on fast Track basis. The time of Completion will be the essence of this project.</p> <p><b>Note : The vendors before quoting the rates should visit the site because the dismantelling of the entire Electrical works and its disposal is to be done at their end. The Buy back charges are to be quoted for the said works. The Bank will not pay any extra charges for demolition and disposal of the items, in the Branch/ Premises. The disposal is to be done as Per the Governing BMC Act.</b></p>				
		The costing of the commodities is based on the CPWD/DSR 2018 AND Market Rate Analysis . The contractors will be required to get the samples checked and approved by the Architect/Consultant, only.				
A		<b>Wiring</b>				

## Bill of Quantities for the Electrical works to be Done for Khand bazar Branch ,Union Bank of India , Mumbai.

S.NO	CPWD - 2014	PARTICULARS	Qty	Unit	Rate	Total
					Unit	{In Rs}
1	1.10.2	Wiring of electrical points using FRLS wires (2 x 1.5)sq mm + (1x1.5)sq mm Copper conductor wire in surface or recessed in medium class conduit, to give a requisite insulation. The single length wires to be laid from the switch to the source. The quoted rates shall be inclusive of 5 ampere universal modular switch fixed on modular plate with all the materials & labor required for completion of work in every aspect. Maximum of 2 Lights can be looped.	45.00	nos.		
2	1.11	Wiring of Secondary electrical points (looping of maximum of 4 nos of Down lighter or 6 No of Spot light can be looped in this case, as per the instructions of the Architect) using FRLS wires (2 x 1.5)sq mm + (1x1.5)sq mm Copper conductor wire in surface or recessed in medium class conduit, to give a required insulation. The single length wires to be laid from the switch to the source. The quoted rates shall be inclusive of 5 ampere universal modular switch fixed on modular plate with all the materials & labor required for completion of work in every aspect.	95.00	nos		

## Bill of Quantities for the Electrical works to be Done for Khand bazar Branch ,Union Bank of India , Mumbai.

S.NO	CPWD - 2014	PARTICULARS	Qty	Unit	Rate	Total
					Unit	{In Rs}
3	1.10.2 & 1.24.1 & 1.27.2	5 Amp Switch & Universal Socket wiring - Wiring of electrical point using FRLS Wires(2x1.5) sq mm + (1x1.5) sq mm Copper conductor FRLS wire in conduit in surface or recessed in medium class conduit, to give a requisite insulation. . The single length wires to be laid from the switch to the source. The quoted rates shall be inclusive of 5 ampere universal modular switch & socket in all the materials & labor with all the materials & labour required for completion of work in every aspect..	36.00	nos.		
3	1.10.2 & 1.24.1 & 1.27.2	<b>Wiring For VRV INDOOR UNITS</b> 5 Amp Switch & Universal Socket wiring - Wiring of electrical point using FRLS Wires(2x1.5) sq mm + (1x1.5) sq mm Copper conductor FRLS wire in conduit in surface or recessed in medium class conduit, to give a requisite insulation. . The single length wires to be laid from the switch to the source. The quoted rates shall be inclusive of 5 ampere universal modular switch & socket in all the materials & labor with all the materials & labour required for completion of work in every aspect..	11.00	nos.		



## Bill of Quantities for the Electrical works to be Done for Khand bazar Branch ,Union Bank of India , Mumbai.

S.NO	CPWD - 2014	PARTICULARS	Qty	Unit	Rate	Total
					Unit	{In Rs}
4	1.14.2 & 1.24.3 & 1.24.5 & 1.27.2	Wiring of Power points using FRLS wires (2x4) sq mm + (1x4) sq mm Copper conductor FRLS wire in medium class conduit to give a requisite insulation. Maximum of 2 switch boards can be looped. The single length wires to be laid from the switch to the source. The quoted rates shall be inclusive of 15 ampere universal modular switch & socket fixed on modular plate with all the materials & labor required for completion of work in every aspect.	5.00	nos		
5	1.14.3 & 2.18	Wiring of A.C. points using FRLS wires (2x 4) sq mm + (1x2.5) sq mm Copper conductor FRLS wire in a medium class conduit, to give a requisite insulation. The single length wires to be laid from the switch to the source. The quoted rates shall be inclusive of A.C. switch & socket of Havels' or equivalent make as prescribed in material list, to be fitted in an enclosure having 32 ampere MCB enclosed in a box with all the materials & labour required for completion of work in every aspect.	2.00	nos.		

## Bill of Quantities for the Electrical works to be Done for Khand bazar Branch ,Union Bank of India , Mumbai.

S.NO	CPWD - 2014	PARTICULARS	Qty	Unit	Rate	Total
					Unit	{In Rs}
6	1.10.2 & 1.24.1 & 1.27.2	Wiring of Exhaust fan points using FRLS wires(2x 1.5) sq mm + (1x1.5) sq mm Copper conductor FRLS wire in surface or recessed in medium class conduit, to give a requisite insulation. . The single length wires to be laid from the switch to the source. The quoted rates shall be inclusive of 5 ampere universal modular switch & socket in all the materials & labor with all the materials & labour required for completion of work in every aspect..having wall thickness of 2mm, to give a requisite insulation. The single length wires to be laid from the switch to the source.	4	nos.		
7	1.10.2 & 1.24.1 & 1.27.2	Wiring of Wall fans/Ceiling fans using FRLS Wires (2 x 1.5) sq mm + (1x1.5) sq mm Copper conductor FRLS wire in surface or recessed in medium class conduit, to give a requisite insulation. . The single length wires to be laid from the switch to the source. The quoted rates shall be inclusive of 5 ampere universal modular switch & socket in all the materials & labor with all the materials & labour required for completion of work in every aspect..having wall thickness of 2mm, to give a requisite insulation. The single length wires to be laid from the switch to the source.	3.00	nos.		

## Bill of Quantities for the Electrical works to be Done for Khand bazar Branch ,Union Bank of India , Mumbai.

S.NO	CPWD - 2014	PARTICULARS	Qty	Unit	Rate	Total
					Unit	{In Rs}
8	1.10.2	Wiring of Bell points: including the cost of the Bell, using FRLS Wires(2x1.5) sq mm + (1x1.5) sq mm Copper conductor FRLS wire in conduit in surface or recessed in medium class conduit, to give a requisite insulation. . The single length wires to be laid from the switch to the source. The quoted rates shall be inclusive of 5 ampere universal modular switch & socket in all the materials & labor with all the materials & labour required for completion of work in every aspect..having wall thickness of 2mm, to give a requisite insulation. The single length wires to be laid from the switch to the source.	4.00	nos.		
9	1.17.11 ,1.17.21 & 2.16	Wiring of Glow sign Board by using FRLS Wires 3 x 4 mm + 2.5 mm wire for earthing . These are to be conducted through a conduit having wall thickness of 2mm, . The connections are to be made using the timer and directly through DPMCB of 32 Amp in a panel board to the source.The quoted rates include providing all the accessories such as timer, Wires ,conduit etc& doing its wiring to the satisfaction of the architect/Consultant.	1.00	nos.		
10		<b>PANEL BOARDS</b>				

## Bill of Quantities for the Electrical works to be Done for Khand bazar Branch ,Union Bank of India , Mumbai.

S.NO	CPWD - 2014	PARTICULARS	Qty	Unit	Rate	Total
					Unit	{In Rs}
		Panel Board:- The panel board of 3ftx 6ft x 1ft, size shall be made up of MS Sheet of 16 gauge, duely Powder coated with Siemens Green Colour,having suitable Compartments for fitting of following enclosures, Placed on the bakelite sheet with proper Lock and key arrangement. The works will include suitable power factor panel with suitable relays and capacitors sufficient enough for 90 kw load. . :	1.00	Nos		
		`Load Changeover 150 Amp - 4 Pole 1 No MCCB - 150 Amp 4 Pole -1 No 35 KA MCCB 100 Amp 1 No for Power Factor Panel. MCCB 100 Amp 1 No for VRV Distribution Board The rates of this Panel will include providing supplying/installing of Power Factor Panel at load of 100 Amps @ 3 Phase. The capacitor relays of branded companyies to be used. The 4 Step Power control factor is to be designed. Copper Bus Bar suitable for 500 Amps LCD OF RYB - 2 SETS Voltmetre and Ammeter with Selector switch - 1 set each for incoming & otgoing supply. CT 50/5 - 6 Nos. 3 PLOE 1 WAY 63 Amps with rotary switch along with the indicator 3 Nos , For UPS Wiring . TPMCB 3 No of 40 Amps . & 2 Nos of 63 TPMCB DPMCB Isolator 40 Amps - 5 Nos. MCB 32 Amp - 4 Nos.				

## Bill of Quantities for the Electrical works to be Done for Khand bazar Branch ,Union Bank of India , Mumbai.

S.NO	CPWD - 2014	PARTICULARS	Qty	Unit	Rate	Total
					Unit	{In Rs}
		The abovementioned electrical gadgets must be enclosed in a panel board. The panel board shall have a proper lock & key arrangement .Load should be equally divided on each phase. The internal wiring of the panel board is to be done by 35 mm copper wire. Thimbles should be used while terminating the wire. The Line Diagram to be engrossed in the internal door of the Panel Board. Ferules numbering the wires to be done properly .				
11	MKT/DSR 2018 ELECTRICAL FOR TPNDB	<b>Distribution Board for VRV System</b> :-Providing and commissioning of Vertical Distribution Board for VRV having 12 slots. This will have 100 Amp TPNMCB as Incomer while the other 12, generally 63 Amp TPNMCB, as outgoing as suggested by the make used by VRV Vendor. Thimbles should be used while terminating the wires. The work should be complete in all respects.	1.00	Nos		
	MKT/DSR 2018 ELECTRICAL FOR TPNDB	<b>Distribution Board for VRV INDOOR System</b> :-Providing and commissioning of 4 WAY TPNDB DISTRIBUTION BOX for VRV. This will have 40 Amp TPNDB as Incomer while the other SPMCB/DPMCB as outgoing as suggested by the make used by VRV Vendor. Thimbles should be used while terminating the wires. The work should be complete in all respects. MCB WITH BREAKING CAPACITY OF 6K · TPNDBà 6 way comprising of the following enclosures:	1.00	Nos		

## Bill of Quantities for the Electrical works to be Done for Khand bazar Branch ,Union Bank of India , Mumbai.

S.NO	CPWD - 2014	PARTICULARS	Qty	Unit	Rate	Total
					Unit	{In Rs}
11.A.	From Page No 12 -14	<b><u>Distribution Board for 3 Phase Distribution :-The 3 No for Light &amp; Powe Distribution while 1 no in tbhe UPS Room.</u></b> Providing and commissioning of 4 Way TPNDDB (double door) Having following elements. Thimbles should be used while terminating the wires. The work should be complete in all respects. MCB WITH BREAKING CAPACITY OF 6K · TPNDDBà 6 way comprising of the following enclosures: TPN- 40 ampere - 1 no ·MCB -15 ampere -8 no. · MCB -20 ampere - 2 no. MCB - 32 ampere -2 Nos The TPNDDB box must be flushed to wall.The Distribution board should be of Havells, legrand, L&T etc as mentioned in the material list.	4	nos.		
12	From Page No 12 -14	<b><u>Distribution Boardà</u></b> Providing and commissioning of 6 Way, Single door, SPNDDB Having following elements. Thimbles should be used while terminating the wires. The work should be complete in all respects. SPNDDB should comprise of the 6 number of SPMCB(5 – 15 Amp)of suitable rating and 1 No DPMCB of 40 Amp . Thimbles should be used while terminating the wire. The quoted rates includes the wiring of the same & flushing the SPMCB in a wall . The Distribution board should be of Havells, legrand, L&T etc as mentioned in the material list.	2	nos.		

## Bill of Quantities for the Electrical works to be Done for Khand bazar Branch ,Union Bank of India , Mumbai.

S.NO	CPWD - 2014	PARTICULARS	Qty	Unit	Rate	Total
					Unit	{In Rs}
13	PAGE 23- 24	<b>Earthing:</b> - This process includes digging of a pit of 2ft x 2 ft and 10' ft deep <u>in</u> the earth. Slurry of wood charcoal & salt made by pouring water into it is then filled in the pit at a depth of 4 feet. Earth plate 600 mm X 600 mm X 6 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc.is then embedded on the slurry. This plate is bolted by the 3 bolts with chuck nuts to a GI strip of 25mm x 3mm thick. This strip at one end is terminated to the plate while its other end is clamped at -3 inch depth (Earth surface is considered as zero and all heights/depths are measured w.r.t. this zero level earth surface. A GI pipe of 3" diameter having staggered holes along its length is then vertically erected in the pit. The GI strip & the GI pipe hold each other tightly. The chamber of 1x1 sqft is flushed on the earth level to cover the pit in a manner that a funnel resting on the pipe emerges whenever the chamber is opened to pour the water through the funnel, passing through a GI pipe & finally reaching to the slurry to impart adequate moisture .	2	nos		
		A potential difference must be between 0 to 3 volt or less than 0.5 Ohms. The rates include the total labour & requisite material in achieving the aforesaid earthing to the satisfaction of the architect/Consultant and in perfect relevance to the I.E Rules.				
A		The linear measurement of GI strip of the size 25mm x 3mm running from the pit to the panel board.	15.00	Rmtrs		

## Bill of Quantities for the Electrical works to be Done for Khand bazar Branch ,Union Bank of India , Mumbai.

S.NO	CPWD - 2014	PARTICULARS	Qty	Unit	Rate	Total
					Unit	{In Rs}
B		The linear measurement of GI wire of 12 SWG gauge used for providing earthing for ceiling ,distribution boards etc.	75.00	Rmtrs.		
14	MARKET RATE ANALYSIS	<b>Light Fittings</b> ·Providing & fixing light fixtures of Philips,Wipro, Bajaj, Syska make (with LED suitably fitted & complete in all respects) - Resembling Havells Brilliance make/ equivialnet for 9 Watts .	39.00	nos.		
15	MARKET RATE ANALYSIS	· Providing & fixing 1x15 watt Model (Make Bajaj18W DELTA LED ROUND)CAT No - (L-155 }, down lighter, or equivalent, completely fitted in all respects of Philips,Wipro, as mentioned in the material list are permissible.	39.00	nos.		
15 A	MARKET RATE ANALYSIS	Providing & fixing recessed light fixtures of Philips,Wipro, Havells , Syska make (with LED Panel light having Warm Light, Neutal light, Bright white light etc. suitably fitted & complete in all respects) - Resembling Havells Brilliance make/ equivialnet for 28 Watts .	38.00	nos.		
15 B	MARKET RATE ANALYSIS	Providing & fixing 3 watt Model ( Eye Ball light) of Havells make ASTRAL 2-Watt downlihter with LED Panel, completely fitted in all respects or Equivalent make from Philips,Wipro, Crompton Greeves, as mentioned in the material list are permissible.	35.00	nos.		
15 C	MARKET RATE ANALYSIS	Providing & fixing LED Strip Light of a reputed make, completely fitted in all respects of Philips,Wipro, Crompton Greeves, as mentioned in the material list are permissible.	55.00	mtrs		



## Bill of Quantities for the Electrical works to be Done for Khand bazar Branch ,Union Bank of India , Mumbai.

S.NO	CPWD - 2014	PARTICULARS	Qty	Unit	Rate	Total
					Unit	{In Rs}
15 D	MARKET RATE ANALYSIS	· Providing & fixing Picture Tube Light of a reputed make, LED Tube Light (Endura 10 Watt 2 ft) make Havells, completely fitted in all respects of Philips,Wipro, Crompton Greeves, as mentioned in the material list are permissible.	5.00	nos		
16	MARKET RATE ANALYSIS	· Providing & fixing of energy saving Patti tube light, LED Endura 22 Watt 4 ft, or equivalent i.e. Philips, Wipro , as mentioned in the material list are permissible.	5.00	nos.		
17	MARKET RATE ANALYSIS	· P/Commission of Exhaust fan of (225mm) : Make of Crompton Greaves Driftair 3 Blade (225mm) or Equivalent at the required place. The installation includes all the Civil work/repairs required to be done for the said purpose. The make of Bajaj, Havells, Crompton Greeves, Khaitan , as mentioned in the material list are Permissible for the pupose.	4.00	nos		
18	MARKET RATE ANALYSIS	·P/Commission of wall fan (16" dia ) having two chords , one for Swing and one for Speed regulation/WITH REMOTE . Resembling or equivalent to Orient make :400 mm Snow Fall 16WB01 ( Snow White ).The wall fan must be properly fixed in wall and all the necessary walls are to be completed in order to make the fan in ready to use Condition.The make of Bajaj, Havells, Crompton Greeves, Khaitan , as mentioned in the material list are Permissible for the pupose.	3.00	nos		

## Bill of Quantities for the Electrical works to be Done for Khand bazar Branch ,Union Bank of India , Mumbai.

S.NO	CPWD - 2014	PARTICULARS	Qty	Unit	Rate	Total
					Unit	{In Rs}
19	MARKET RATE ANALYSIS	· P/Commission of Ceiling fan (28" dia ) .The Ceiling fan must be properly fixed in Ceiling and all the necessary walls are to be completed in order to make the fan in ready to use Condition.Having step up regulator.The make of Bajaj, Havells, Crompton Greeves, Khaitan , as mentioned in the material list are Permissible for the pupose.	0.0	nos.		
Main ca	PAGE 26 - 27	<b>Cable &amp; Circuit wiring</b> – This includes laying of FRLS cables/wires, earthing the glands crimping with copper lugs, using insulation tape etc to complete the entire job to the full satisfaction of the Architect/ engineer . <b>Main cable -</b> Supplying/commissioning 120 Sqmm 3.5 core Aluminum armored cable from Main source of Supply to Metre/ Panel Board .Worksincludes crimping and earthing the Brass glands of appropriate sizes and numbering with ferules	25.00	Rmtrs.		
20 A	PAGE 26 - 27	<b>Cable for VRV System</b> - This includes laying of FRLS cables/wires, earthing the glands crimping with copper lugs, using insulation tape etc to complete the entire job to the full satisfaction of the Architect/ engineer . Supplying/commissioning 25 Sqmm 4 core Copper armored cable from Main Supply Panel Board to VRV Panel Board Along with providing weather proof for suitable VRF Supply system.Systems with 2 No SWG Copper wire for Earthing.Worksincludes crimping and earthing the glands and numbering with ferules	35.00	Rmtrs		

## Bill of Quantities for the Electrical works to be Done for Khand bazar Branch ,Union Bank of India , Mumbai.

S.NO	CPWD - 2014	PARTICULARS	Qty	Unit	Rate	Total
					Unit	{In Rs}
21	PAGE 26 - 27	<b>From Main Panel Board to TPND</b> - Supplying/commissioning 16 sq mm 4 core copper armored FRLS cable from panel board to the respective TPND distribution boards with 2 No SWG Copper wire for Earthing, Works includes crimping and earthing the glands and numbering with ferules	125.00	Rmtrs.		
22	PAGE 26 - 27	Supplying/commissioning 10 sq mm 4 core copper armored FRLS cable from panel board to the respective SPND distribution boards with 2 No SWG Copper wire for Earthing, Works includes crimping and earthing the glands and numbering with ferules	95.00	Rmtrs.		
23	PAGE NO 2	Supplying/commissioning of (2 x 2.5 )sq mm + (2 x 2.5) sq mm Copper FRLS wire for circuit wiring of 5 ampere switch boards.	345.00	Rmtrs		
24	PAGE NO 2	Supplying/commissioning of (2 x 6)sq mm + (1 x 4 )sq mm Copper FRLS Wire for circuit wiring of power boards.	70.00	Rmtrs		
25	1.18 & 1.24	<b>Telephone wiring:</b> - Providing/laying 5 pair telephone line in a conduit with RJ 11 connector /sockets etc. to be positioned as per the requirement of the architect/Consultant. The telephone line to be distributed using the appropriate Telephone box, of Krone or equivalent make. Crimping of wires with ferules etc. are part of the Job. The completion of works means completing, checking the works in ready to use condition.	6.00	points.		

**Bill of Quantities for the Electrical works to be Done for Khand bazar Branch ,Union Bank of India , Mumbai.**

S.NO	CPWD - 2014	PARTICULARS	Qty	Unit	Rate	Total
					Unit	{In Rs}
		Buy Back Charges to be deducted from the Bill for Purchasing of the electrical items in the Branch/ Premises. ( In Rs )	1	nos		
		<b>TOTAL COST OF ELECTRICAL WORK ( In Rs)</b>				

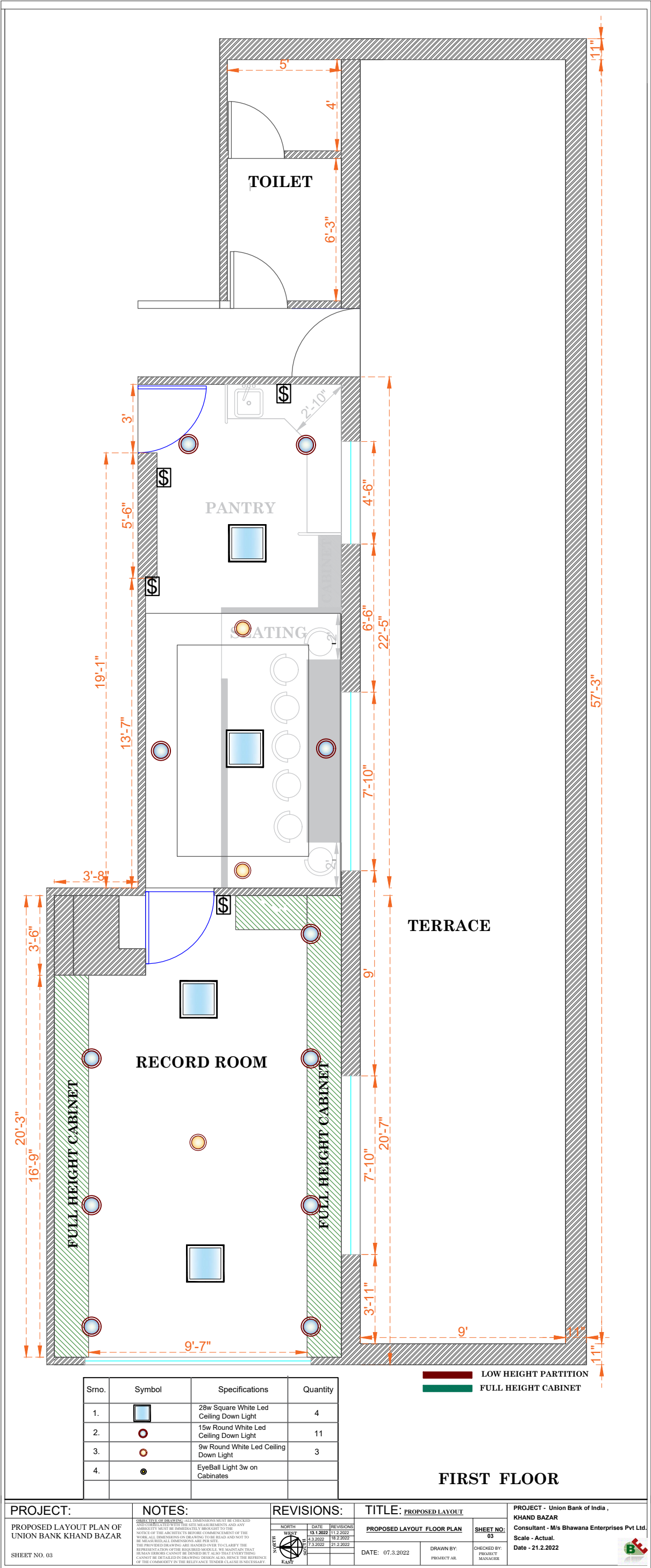
**Bill of Quantities for the Data Cabling works to be Done for Khand bazar Branch ,Union Bank of India , Mumbai.**

S.N	DSR	PARTICULARS	Qty	Unit	Rates per unit (Rs)	Amount (Rs)
				(Sqft)		
A		<b><u>Data Cabling:-</u></b>				
1	1.53 & MAKET ANALYSIS	<ul style="list-style-type: none"> <li>Providing/laying cat 6 E cable (DLink make) with RJ 45 connector , IO she etc. &amp; making the connection complete in all respects. Patch cord required for termination of cat 6 cable (DLink make).</li> </ul>	30.00	point.		
	DO	1.5 meter length	30.00	nos		
	DO	2.0 meter length	30.00	nos		
	DO	<ul style="list-style-type: none"> <li>Fixing mounting rack for jack panel having the minimum of 30 Ports.</li> </ul>	1.00	nos.		
2	1.7,1.24, & 1.27	<b><u>UPS Computer wiring</u></b> <b>Computer wiring:-</b> This is generally done using 2 x2.5 + 1x1.5 Sq.mm Copper wire, in a manner to have the computer Strip, fitted beneath the Table/counters so that they are not visible in open area. The wires are drawn from beneath the table/counters through the wire manager on the tables/counters to reach the destinations i.e. computer. It is very important to take into consideration that one end of these wires come across through the UPS output while the another end reaches to the destination i.e. Computer. Maximum of 3 No Computers can be looped.	30.00	point.		

**Bill of Quantities for the Data Cabling works to be Done for Khand bazar Branch ,Union Bank of India , Mumbai.**

		Hence, the path through which these wires pass should be traced in a manner so that it does not disturb the aesthetics of the interiors. The quoted rates of the computer point wiring include 1 power switch of 16 ampere & 3 sockets of 5 ampere each with an indicator fitted onto the modular plate comprising of all the switches & sockets mentioned. Wiring includes 2x 2.5) sq mm and 1x 1.5 sq mm FRLS wires running from UPS output to the destination through the medium class conduit having required insulation. looping of maximum of 3 computers can be done.				
		<b>TOTAL COST OF DATA CABLING WORKS</b>	<b>Rs.</b>			





PROJECT:  
PROPOSED LAYOUT PLAN OF  
UNION BANK KHAND BAZAR  
SHEET NO. 03

NOTES:  
OBJECTIVE OF DRAWING: ALL DIMENSIONS MUST BE CHECKED  
AND CORRECTED BEFORE THE SITE WORK BEGINS. ANY  
NOTICE OF THE ARCHITECTS BEFORE COMMENCEMENT OF THE  
WORK. ALL DIMENSIONS ON DRAWING TO BE READ AND NOT TO  
BE MEASURED. ALL DIMENSIONS ARE PER SITE.  
THE PROPOSED DRAWING ARE HANDS OVER TO CLARENCE THE  
REPRESENTATION OF THE REQUIRED MODEL. WE MAINTAIN THAT  
CANNOT BE DETAIL IN DRAWING DESIGN ALSO HENCE THE REFERENCE  
OF THE COMMODITY IN THE RELEVANCE FORMER CLARENCE IS NECESSARY.

REVISIONS:	
NO.	DATE
1	13.1.2022
2	11.2.2022
3	4.3.2022
4	18.2.2022
5	7.3.2022
6	21.2.2022

TITLE: PROPOSED LAYOUT  
PROPOSED LAYOUT FLOOR PLAN  
DATE: 07.3.2022  
DRAWN BY:  
PROJECT AR.  
CHECKED BY:  
PROJECT  
MANAGER

PROJECT - Union Bank of India ,  
KHAND BAZAR  
Consultant - M/s Bhawana Enterprises Pvt Ltd.  
Scale - Actual.  
Date - 21.2.2022



