



Reserve Bank of India/ भारतीय रिज़र्व बैंक
Estate Department / संपदा विभाग
Guwahati / गुवाहाटी

e-tender for

**RENOVATION OF ENTRANCE STAIRCASE AND 1st FLOOR
LIFT LOBBY AREA OF MAIN OFFICE BUILDING, RBI
GUWAHATI**

PART- I

Name of the Tenderer: _____

Address: _____

e-mail ID & Contact Number: _____

Date of Publication of e-Tender	January 23, 2024 at 11:00 Hours
Last date of Submission of Bid	February 13, 2024 up-to 14:00 Hours
Date of Opening of Part- I of e-Tender	February 13, 2024 from 15:00 Hours



DISCLAIMER

Reserve Bank of India, Estate Department, Guwahati, has prepared this document to give background information on the Project to the interested parties. While Reserve Bank of India has taken due care in the preparation of the information contained herein and believe it to be accurate, neither Reserve Bank of India nor any of its authorities or agencies nor any of their respective officers, employees, agents or advisors give any warranty or make any representations, express or implied as to the completeness or accuracy of the information contained in this document or any information which may be provided in association with it.

The information is not intended to be exhaustive. Interested parties are required to make their own inquiries. Respondents to this e-tender are required to make their own inquiries and they should not rely solely on the information contained in the blank e-tender documents / forms. The Reserve Bank of India is not responsible if no due diligence is performed by the Respondents.

The information is provided on the basis that it is non – binding on Reserve Bank of India or any of its authorities or agencies or any of their respective officers, employees, agents or advisors.

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SCHEDULE OF TENDER (SOT)

Reserve Bank of India, Guwahati invites following 03 nos. of e-tenders comprehensively under Two Bid system (Techno-Commercial & Financial Bid) for the above mentioned work.

- i) **RBI/Guwahati/Estate/30/23-24/ET/412**
- ii) **RBI/Guwahati/Estate/31/23-24/ET/413**
- iii) **RBI/Guwahati/Estate/32/23-24/ET/414**

Please note that you are required to submit your bid in all three of the above mentioned e-tenders. Hence, the total pre-qualifications criterions/ quoted rates incorporated in all three tenders will be considered for qualifications or awarding of work thereof.

Your tender, duly filled-in and e-signed, should be submitted by e-tendering mode only through MSTC Portal (**New Common Portal**).

1. e-Tender No.	RBI/Guwahati/Estate/30/23-24/ET/412 RBI/Guwahati/Estate/31/23-24/ET/413 and RBI/Guwahati/Estate/32/23-24/ET/414
2. Name of the Work:	Renovation of Entrance Staircase and 1st Floor Lift Lobby Area of Main Office Building, Reserve Bank of India, Guwahati
3. Mode of Tender:	e-Procurement System Online (Part I – Techno-Commercial Bid and Part II - Financial Bid through MSTC Common Portal at www.mstcecommerce.com
4. Date & time from which NIT (along with complete tender documents) will available to the parties to download	January 23, 2024 from 11:00 Hours onwards
5. Estimated cost of the work:	₹50,40,953/- (Rupees Fifty Lakh Forty Thousand Nine Hundred Fifty Three Only.)
8. Earnest Money Deposit (EMD)	₹1,00,819/- (Rupees One Lakh Eight Hundred Nineteen Only) in the form of Demand Draft/ Bank Guarantee as per Annexure IV for EMD in favor of Reserve Bank of India, Guwahati to be delivered in physical form at Estate Department, 4 th floor, Reserve Bank of India, Guwahati. Or Deposited through NEFT in favor of Reserve Bank of India, Guwahati in A/c No. 8692299 & IFSC Code: RBIS0GWPA01 . <u>Please mention your company's name</u> in the NEFT transaction remarks.



Renovation of entrance staircase and 1st floor Lift Lobby
Area of main office building, RBI Guwahati

6. Last date of submission of EMD by NEFT/DD/ Bank Guarantee	February 13, 2024 up to 14:00 Hours
7. Performance Bank Guarantee (PBG)	5% of the contract value
8. Retention Money (RM) to be deducted from each bill	5% of the bill amount
9. Bank guarantee towards DLP	Total amount deducted as RM
10. Time allowed for completion of the works from tenth day after the date of written order to commence work	90 days
11. Bidding start date of Techno-commercial Bid and Financial Bid at www.mstcecommerce.com	January 23, 2024 from 11:00 Hours
12. Date of closing of online e-Tender for submission of Techno-commercial Bid and Financial Bid	February 13, 2024 up to 14:00 Hours
13. Date and Time of opening of Part-I (i.e. Techno-Commercial Bid)	February 13, 2024 from 15:00 Hours
14. Date and Time of opening of Part-II (i.e. Financial Bid)	Opening of Financial Bid will be intimated to all the eligible bidders later.



IMPORTANT INSTRUCTIONS FOR E-PROCUREMENT

Bidders are requested to read the terms & conditions of this tender before submitting their online tender.

Process of e-Tender:

A) **Registration:** The process involves vendor's registration with MSTC e-procurement portal which is free of cost. Only after registration, the vendor(s) can submit his/their bids electronically. Electronic Bidding for submission of Technical Bid will be done over the internet. The vendor should possess Class III signing type digital certificate. Vendors are to make their own arrangement for bidding from a P.C. connected with Internet. MSTC is not responsible for making such arrangement. (Bids will not be recorded without Digital Signature).

SPECIAL NOTE:

THE TECHNICAL BID HAS TO BE SUBMITTED ON-LINE at

www.mstcecommerce.com/eprochome/rbi

1) Vendors are required to register themselves online with www.mstcecommerce.com → e-Procurement → PSU/Govt. Depts. → Select RBI Logo → Register as Vendor → Filling up details and creating own user id and password → Submit.

2) Vendors will receive a system generated mail confirming their registration in their email which has been provided during filling the registration form.

In case of any clarification, please contact RBI/MSTC, before the scheduled time of e-Tender.

Contact person (RBI):

i) Shubh Raj
Asst. Manager (Technical-Civil),
Phone no: 8879257700

ii) Anjali Besra
Assistant Manager Phone no: 9681914108

Email ID Estate Department: estateguwahati@rbi.org.in

Contact person (MSTC Ltd):

S/N	Name of the Person	e-mail	Phone Number
1	Shri Prashant Chitranjan	pchitranjan@mstcindia.co.in	0361-2221199
		ghyopn1@mstcindia.in , ghyopn2@mstcindia.in helpdeskghy@mstcindia.in and bmghymstc@mstcindia.in	+91 8592888286

MSTC Technical Help Desk: **0361-2221199**



B) System Requirement:

- I. Windows 7 or above Operating System
- II. IE-7 and above Internet Explorer
- III. Signing type digital signature
- IV. Latest updated JRE 8 (x86 Offline) software to be downloaded and installed in the system

To disable “Protected Mode” for DSC to appear in the signer box following settings may be applied.

➤ Tools => Internet Options => Security => Disable protected Mode if enabled- i.e., Remove the tick from the tick box mentioning “Enable Protected Mode”.

Other Settings:

➤ Tools => Internet Options => General => Click on Settings under “browsing history/ Delete Browsing History” => Temporary Internet Files => Activate “Every time I Visit the Webpage”.

➤ To enable ALL active X controls and disable ‘use pop up blocker’ under Tools→ Internet Options
→ custom level (Please run IE settings from the page <https://www.mstcecommerce.com> once).

2. The Technical Bid and the Financial Bid shall have to be submitted online at www.mstcecommerce.com/eprochome/rbi. Bids will be opened electronically on specified date and time as given in the Tender.

3. All entries in the tender should be entered in online Technical & Commercial Formats without any ambiguity.

Special Note towards Transaction fee:

4. The vendors shall pay the transaction fee using “Transaction Fee Payment” Link under “My Menu” in the vendor login. The vendors have to select the particular tender from the event dropdown box. The vendor shall have the facility of making the payment either through NEFT or Online Payment. On selecting NEFT, the vendor shall generate a Challan by filling up a form. The vendor shall remit the transaction fee amount as per the details printed on the Challan without making change in the same. On selecting Online Payment, the vendor shall have the provision of making payment using its Credit/ Debit Card/ Net Banking. Once the payment gets credited to MSTC’s designated bank account, the transaction fee shall be auto authorized and the vendor shall be receiving a system generated mail.

5. Transaction fee is non-refundable. A vendor will not have the access to online e-Tender without making the payment towards transaction fee.



NOTE: Bidders are advised to remit the transaction fee well in advance before the closing time of the event so as to give themselves sufficient time to submit the bid.

6. Information about tenders /corrigendum uploaded shall be sent by email only during the process till finalization of tender. Hence the vendors are required to ensure that their corporate email I.D. provided is valid and updated at the time of registration of vendor with MSTC. Vendors are also requested to ensure validity of their DSC (Digital Signature Certificate).

7. E-Tender cannot be accessed after the due date and time mentioned in NIT.

8. Bidding in e-Tender:

a) Vendor(s) need to submit necessary EMD, Tender fees (if any) and Transaction fees (If any) to be eligible to bid online in the e-Tender. Tender fees and Transaction fees are non-refundable. No interest will be paid on EMD. EMD of the unsuccessful vendor(s) will be refunded by the tender inviting authority.

b) The process involves Electronic Bidding for submission of Technical and Commercial Bid.

c) The vendor(s) who have submitted transaction fee can only submit their Technical Bid and Commercial Bid through internet in MSTC website www.mstcecommerce.com → e- procurement → PSU/Govt depts → Login under RBI → My menu → Auction Floor Manager → live event → Selection of the live event.

d) The vendor should allow running JAVA application. This exercise has to be done immediately after opening of Bid floor. Then they have to fill up Common terms/Commercial specification and save the same. After that click on the Technical bid. If this application is not run, then the vendor will not be able to save/submit his Technical bid.

e) After filling the Technical Bid, vendor should click 'save' for recording their Technical bid. Once the same is done, the Commercial Bid link becomes active and the same has to be filled up and then vendor should click on "save" to record their Commercial bid. Then once both the Technical bid has been saved, the vendor can click on the "Final submission" button to register their bid.

f) Vendors are instructed to use Attach Doc button to upload documents. Multiple documents can be uploaded.

g) In all cases, vendor should use their own ID and Password along with Digital Signature at the time of submission of their bid.

h) During the entire e-Tender process, the vendors will remain completely anonymous to one another and also to everybody else.

i) The e-Tender floor shall remain open from the pre-announced date & time and for as much duration as mentioned above. All electronic bids submitted during the e-Tender process shall be legally binding on the vendor. Any bid will be considered as the valid bid offered by that vendor and acceptance of the same by the Buyer will form a binding contract between Buyer and the Vendor for execution of supply.



- j) It is mandatory that all the bids are submitted with digital signature certificate, otherwise the same will not be accepted by the system.
- k) Buyer reserves the right to cancel or reject or accept or withdraw or extend the tender in full or part as the case may be without assigning any reason thereof.
- l) No deviation of the terms and conditions of the tender document is acceptable. Submission of bid in the e-Tender floor by any vendor confirms his acceptance of terms & conditions of the tender.
- m) Any order resulting from this tender shall be governed by the terms and conditions mentioned therein.
- n) The tender inviting authority has the right to cancel this e-Tender or extend the due date of receipt of bid(s) without assigning any reason thereof.
- o) Vendors are requested to read the vendor guide and see the video in the page <https://www.mstcecommerce.com/eprochome> to familiarize them with the system before bidding.
- p) No deviation to the technical and commercial terms & conditions are allowed. Submission of bid in the e-tender floor by any vendor confirms his acceptance of terms & conditions for the tender. Any order resulting from this tender shall be governed by the terms and conditions mentioned therein. The tender inviting authority has the right to cancel this e-tender or extend the due date of receipt of bid(s) without assigning any reasons thereof. Vendors are requested to read the vendor guide and see the video in the page www.mstcecommerce.com/eprochome to familiarize them with the system before bidding.



Form of Tender

Date: _____

To, _____ / _____ / _____
Place: _____

Smt. Sushmita Phukan

Regional Director

Reserve Bank of India

Estate Department, Guwahati

Madam,

Sub: Tender for Renovation of Entrance Staircase and First Floor Lift Lobby Area of Main Office Building, RBI Guwahati

Having examined the drawings, specifications, designs and schedule 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 within the time specified in the said memorandum at the rates mentioned in the attached schedule of quantities (Part II) and in accordance in all respects with the specifications, designs, drawings and instructions in writing referred to in Conditions of Tender, the Articles of Agreement, Special Conditions, Schedule of Quantities and Conditions of Contract 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

Sl No.	Description of work	Renovation of Entrance Staircase and First Floor Lift Lobby Area of Main Office Building, RBI Guwahati
A	Estimated cost (Rs.)	Rs 50,40,953/-
B	Earnest Money (Rs.)	Rs. 1,00,819/- to be deposited by bidder along with tender part-1.
C	Percentage, if any, to be deducted from bill	5%
D	Performance Bank Guarantee	5%
E	Time allowed for completion of the works from tenth day after the date of written order to commence work	90 days

2. 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 the Reserve Bank of India the amount mentioned in the said conditions.



3. **Bidder / tenderer is advised to submit / deposit Rs. 1,00,819/- as Earnest Money** with the Reserve Bank of India, along with the tender which amount is not to bear any interest. 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 me/us to the Reserve Bank of India.

3. Our bankers are (full address)

(i)	
(ii)	

The names of partners of our firm are:

(i)	
(ii)	

Name of the partner of the firm authorized to sign	
OR	
Name of person having power of Attorney to sign the Contract (certified true copy of the Power of Attorney should be attached)	
Yours faithfully,	
Signature of Contractor	
Signatures and addresses of witnesses	

	Signature	Address
(i)		
(ii)		



ARTICLES OF AGREEMENT

ARTICLES OF AGREEMENT made theday of between the Reserve bank of India, GUWAHATI having its Central Office at, Mumbai-400001 (hereinafter called 'the Employer') of the one part and
... (Hereinafter called "the Contractor") on the other part.

WHEREAS THE Employer is desirous of getting '**TENDER FOR RENOVATION OF ENTRANCE STAIRCASE AND FIRST FLOOR LIFT LOBBY AREA OF MAIN OFFICE BUILDING, RBI GUWAHATI**' and related repair work done and has caused drawings and specifications describing the works has been prepared.

AND WHEREAS the drawings numbered----- of latest revision inclusive, the specifications and the schedule of Quantities have been signed by or on behalf of the parties hereto.

AND WHEREAS the Contractor has agreed to execute upon and subject to the Conditions set forth herein and to the conditions set forth in the special Conditions and in the Schedule of Quantities and Conditions of Contract (all of which are collectively hereinafter referred to as 'the said Conditions') the works shown upon the said drawings and/or described in the said specification and included in the Schedule of Quantities at the respective rates there in set forth amounting to the sum as therein arrived at or such other sum as shall become payable there under (hereinafter referred to as 'the said Contract Amount')

NOW IT IS HEREBY AGREED AS FOLLOWS

1. In consideration of the said Contract Amount to be paid at the times and in the manner set forth in the said Conditions, the Contractor shall upon and complete the work shown upon the said drawings and described in the said Specifications and the Schedule of Quantities.

2 The employer shall pay the contractor said Contract amount or such other sum as shall become payable, at the times and the manner specified in the said Conditions.

3 The term "Architect" in the said Conditions shall mean the architect engaged by the Bank for the purpose of architectural planning and designing etc. of the buildings/structures to be constructed under this contract. In the event of their ceasing to be Architects for the work mentioned in this contract for whatever reason such other person or persons as shall be nominated by the Employer for that purpose will function as "Architects".

4. The Reserve Bank of India will administer and directly arrange for supervision of works, certification of bills, making payments and implementation of various terms, conditions and stipulations of the contract (except as defined under **clause 3** above). For this purpose, the term "Architect" in the said conditions regarding execution of work, quality of construction, quality of materials, progress and completion of the project etc. shall mean the Assistant Manager (Tech) / Manager (Tech) or any other person designated for the purpose by the Reserve Bank of India. As far as the operation of the provision under **clause 44** of the contact viz. clause relating to settlement



of disputes through arbitration, the term "Architect" shall be read as **Chief General Manager/ Sr. Officer-in- Charge of Estate Department, Reserve Bank of India, Guwahati.**

5. The said conditions and appendix thereto shall be read and construed as forming part of this agreement and the parties hereto shall respectively abide by, submit themselves to the said conditions and the correspondence and perform the agreements on their part respectively in the said Conditions and the correspondence contained.

6. The plans, agreement and documents mentioned herein shall form the basis of this Contract. The Contractor shall not be entitled for the payment for the quantities beyond the tendered quantities unless ordered for by specific written instructions from the Bank's Engineer/ official.

This Contract is neither a fixed Lump Sum Contract nor a piece Work Contract but a contract to carry out the work in respect of the work "**TENDER FOR RENOVATION OF ENTRANCE STAIRCASE AND FIRST FLOOR LIFT LOBBY AREA OF MAIN OFFICE BUILDING, RBI GUWAHATI**" to be paid for according to actual measured quantities at the rate contained in the Schedule of rates and Probable Quantities or as provided in the said Conditions.

7. The Employer reserves to itself the right of altering the Drawings and nature of the work by adding to or omitting any items of work or having portions of the same carried out without prejudice to this contract.

8. Time shall be considered as the essence of this Contract and the Contractor hereby agrees to commence the work soon after the site is handed over to him or from tenth day after the date of issue of formal work order as provided for in the said Conditions whichever is later and to complete the entire work within **90 days** subject nevertheless to the provisions for extension of time.

9. All payments by the Employer under this Contract will be made only at Guwahati

10. All disputes arising out of or in any way connected with this agreement shall be deemed to have arisen at Guwahati and only Courts in Guwahati shall have jurisdiction to determine the same.

11. That the several parts of this Contract have been read by the Contractor and fully understood by the Contractor.

12. The Contractor shall not disclose directly or indirectly any information, materials and details of the Bank's infrastructure/systems/equipment etc., which may come to the possession or knowledge of the Contractor during the course of discharging its contractual obligations in connection with this agreement, to any third party and shall at all times hold the same in strictest confidence. The Contractor shall treat the details of the contract as private and confidential, except to the extent necessary to carry out the obligations under it or to comply with applicable laws. The Contractor shall not publish, permit to be published, or disclose any particulars of the works in any trade or technical paper or elsewhere without the previous written consent of the Employer. The Contractor shall indemnify the Employer for any loss suffered by the Employer as a result of disclosure of any confidential information. Failure to observe the above shall be treated as breach of contract on the part of the Contractor and the Employer shall be entitled to claim damages and pursue legal remedies.

The Contractor shall take all appropriate actions with respect to its employees to ensure that the obligations of non-disclosure of confidential information under this agreement are fully satisfied.



The Contractor's obligations with respect to non-disclosure and confidentiality will survive the expiry or termination of this agreement for whatever reason."

If the contractor is a partnership or an individual.

IN WITNESS WHEREOF the Employer and the Contractor have set their respective hands to these presents and two duplicates hereof the day and year first hereinabove written.

If the contractor is a company

IN WITNESS WHEREOF the Employer has set its hands to these presents through its duly authorized official and the Contractor has caused its common seal to be affixed hereunto and the said duplicate/ has caused these presents and the said two duplicate hereof to be executed on its behalf, the day and year first hereinabove written.

Signature Clause

SIGNED AND DELIVERED by the Reserve bank of India by the hand of

Shri
(Name and designation)

In the presence of

(1)
Address Witness

(2)
Address Witness

If the party is partnership firm or an individual should be signed by all or on behalf of all the partners. SIGNED AND DELIVERED by
In the presence of (1)

Address Witness

(2)
Address Witness

THE COMMON SEAL OF

If the Contractor signs under its common seal, the signature clause should tally with the sealing clause in the Articles of Association

Was hereunto affixed pursuant to the resolutions passed by its Board of Directors at the meeting held on _____ in the presence of

(1)

(2)



If the Contractor is signing by hand of power of Attorney, whether a company or individual.

Directors who have signed these presents in token thereof in the presence of (1)

(2)

SIGNED AND DELIVERED BY the Contractor by the hand of
Shri __ and duly constituted attorney.



PRE- BID QUALIFICATIONS. GENERAL INSTRUCTIONS TO CONTRACTORS

TENDER FOR RENOVATION OF ENTRANCE STAIRCASE AND FIRST FLOOR LIFT LOBBY AREA OF MAIN OFFICE BUILDING, RBI GUWAHATI		
1.	Tenders by e-tendering process are invited for the “ TENDER FOR RENOVATION OF ENTRANCE STAIRCASE AND FIRST FLOOR LIFT LOBBY AREA OF MAIN OFFICE BUILDING, RBI GUWAHATI ”	
	The work is estimated to cost Rs. 50,40,953/- and is to be completed within 90 days .	
2.	All pre-Qualification documents shall be uploaded with Techno-commercial bid (Part-I) on MSTC portal. Those who do not upload the Pre-qualification documents would not be considered for this tender process. Further, the contractor should submit the original of the documents to the Bank when demanded to qualify for further tendering process.	
3.	Only those firms who are GST registered and have minimum 5 years of experience in the field of work of similar nature (i.e. Renovation (Civil & carpentry works)) and have executed – <ul style="list-style-type: none">• -Three or more similar works individually costing not less than 40% of the estimated cost “OR”• -Two works costing not less than 50% of the estimated cost “OR”• -One work costing not less than 80% of the estimated cost during the last 5 years (works completed on or after April 2018).• and have a minimum average yearly turnover of 100% of the estimated cost during the last 3 years (2020-21, 2021-22 and 2022-23) are eligible for tender.	
4.	Only those contractors will be considered eligible who will invariably furnish, at the time of applying for e-tender, the following information to satisfy the Bank about their eligibility for participating in the tendering process.	
4.(a)	Composition of the firm	Full particulars (whether contractor is an individual, or a partnership firm, or a company etc.) of the composition of the firm of contractors in detail should be uploaded along with name(s) and address (es) of the partners, copy of the Articles of Association / Power of Attorney / any other relevant document. (Annexure-I to be filled and uploaded in the e-tendering portal)
4.(b)	Work & experience	Copies of the detailed work order indicating date of award,



	Completion of similar works of specified value during the specified period.	value of awarded work, time given for completing the work, etc. and the corresponding completion certificates indicating actual date of completion and actual value of executed similar works should be uploaded in proof of the work experience. Regarding minimum experience of 05 years, applicant should submit documentary evidence for undertaken work/s in year 2018 (on or before April 2018) . (Annexure-II to be filled and uploaded in the e-tendering portal along with the above specified documents)
		The details along with documentary evidences of previous experience, if any, of carrying out works for the Reserve Bank of India at any center should also be given.
4.(c)	Creditworthiness of the contractor & their Turnover during the specified period.	Copies of the Income Tax Clearance Certificates / Income Tax Assessment Orders along with the latest final accounts of the business of the contractor duly certified by a Chartered Accountant should be uploaded in proof of their creditworthiness and turnover for last three years. (To be uploaded in the e-tendering portal)
4.(d)	Service Set-up (not required)	NA
4.(e)	Name(s) & address (es) of the Bankers and their present contact executives	Written information about the names and addresses of their bankers along with full details, like names postal addresses, e-mail IDs, telephone (landline and mobile) nos. fax nos., etc., of the contact executives (i.e. the persons who can be contacted at the office of their banker by the Bank in case it is so needed) should be uploaded .
4.(f)	Details of bank accounts	Full particulars of their bank accounts, like account No., type, when opened, etc., should be given.
4.(g)	Name (s) & address (es) of the Clients and their present contact executives	Information about the names and addresses of their clients along with full details, like names postal addresses, e-mail IDs, telephone (landline and mobile) nos. fax nos., etc., of the contact executives (i.e. the persons who can be contacted at the office of their banker by the Bank in case it is so needed) should be furnished.



4.(h)	Details of completed works	The Client-wise names of work(s), year(s) of execution of work(s), awarded and actual cost(s) of executed work(s), completion time stipulated in the contract (s) and actual time taken to complete the work (s), name(s) and full contact-details of the officer / authorities / departments under whom the work (s) was / were executed should be furnished.
4.(i)	Client Certificates	The tenderers are advised to upload the Client Certificate as per enclosed Proforma (Annex-III) from at least two of their clients for whom they have carried out eligible works in terms of eligibility (Pre-qualification) criteria described in the notice inviting tenders. Client Certificates shall be accepted by the applicant / tender inviting authority of Reserve Bank of India only when the same are signed by an official of the rank of Executive Engineer or equivalent in respect of a Government / Semi Government organization or a PSU and only when they are supported by adequate proof of payment received by the tender for the work done by them. The client certificate issued by the private organization shall also accompany Tax Deducted at source (TDS) certificate. Applications / tenders received without the specified certificates in specified format shall be rejected and the Bank shall have the right to independently verify the submitted certificates
4.(j)	Banker's certificate	The tenderers are advised to upload the Banker's certificate from their banker / bankers as per (Annex-IV). Such certificate shall be addressed to the application / Tender inviting Authority of the Reserve Bank of India and shall be submitted along with their application / tender.
5.	Interested tenderers have to upload relevant documents satisfying all the points as stated above along with techno-commercial (Part-I) bid of tender. The same Eligibility documents and the scanned copy of EMD should be uploaded with Techno Commercial Bid (Part-I) on the MSTC portal. It is to be duly noted that the tender process shall be executed on the MSTC portal through e-Tendering.	
6.	In the event of intending tenderers' failure to satisfy the Bank; the Bank reserves the right to refuse their participation .	
	A pre-bid meeting will be held from January 30, 2024 at 11:00 hours at Bank Main Office premises.	



	<p>Tenders form can be downloaded for viewing from RBI website www.rbi.org.in or www.mstcecommerce.com/eprhome/rbi. The pre-Qualification papers and scanned copy of proof of EMD payment should be uploaded with Techno Commercial Bid (Part-I) on the MSTC portal. The Demand Draft or Bank Guarantee for EMD should reach in original in a sealed envelope to Estate Department, Reserve Bank of India, Station Road, Pan Bazar, Guwahati-781001 Or Deposited through NEFT in favour of Reserve Bank of India, Guwahati in A/c No. 8692299 & IFSC Code: RBIS0GWPA01. <u>Please mention your company name in NEFT transaction remarks by 2:00 pm on February 13, 2024.</u></p>
7.	<p>Interested vendors/firms can participate in e – Tender after getting registration with (www.mstcecommerce.com/eprhome/rbi). Online Part I – Techno-Commercial Bid and Part II – Price Bid shall be opened through (www.mstcecommerce.com/eprhome/rbi) and applicable transaction charges have to be paid by the firm.</p>
8.	<p>Tender in prescribed format shall be uploaded on MSTC website. Part-I of tender will contain the Bank's standard technical and commercial conditions for the proposed work, tenderers' covering letter, the EMD of Rs. 1,00,819/- should be submitted through a demand draft issued by a Scheduled Bank in favor of 'Reserve Bank of India, Guwahati' Or in the form of an irrevocable bank guarantee issued by a scheduled bank in the Bank's standard proforma (Annexure-V) which is available in the tender-form along with pre-Qualification documents. The documents pertaining to EMD should be scanned and uploaded with the pre- Qualification documents.</p> <p>Part-II of the tender will contain <u>no conditions</u> but Tenderer's Price Bid, Bank's Schedule of quantities, tender drawings, if any, only.</p> <p>The EMD of successful tenderer shall be released on acceptance of the tender and on production of a new Bank Guarantee called "Performance Bank Guarantee (PBG)" from any scheduled bank in the form prescribed by the Bank in (Annexure-VI) towards security deposit for due fulfilment of the contract.</p>
9.	<p>Part-I of the tenders will be submitted by the Tenderers in MSTC portal. The same will be opened by RBI on February 13, 2024 at 15:00 hrs. Those tenderers who would like to depute their representatives, may depute their representatives to Estate Department, Reserve Bank of India, Station Road, Pan Bazar, Guwahati- 781001 for the same. Part II of the tender will be opened later. Due intimations will be given for the same.</p>
10.	<p>The Bank shall obtain reports on the past performance of the tenderer from his clients and bankers. The Bank shall evaluate the said reports before opening of the Part-II of the tenders. If any tenderer is not found to possess the required eligibility for participating in the tendering process at any point of time and / or his performance reports received from his clients and / or his bankers and found unsatisfactory, the Bank reserves the right to reject his offer even after opening of Part-I of the tender. The Bank is not bound to assign any reason for doing so.</p>
11.	<p>The Bank is not bound to accept the lowest tender and reserves the right to accept either in full or in part of any tender. The Bank also reserves the right to reject all the tenders without assigning any reason thereof.</p>



12 Tenders shall remain open to acceptance by the Bank for a period of three months from the date of opening of the Part- II of the tender which period may be extended by mutual agreement and the tenderer shall not cancel or withdraw the tender during this period.

Preparation of the tender:

13 The tenderer must use only the forms issued by the Bank to fill in the rates.

14 The tender form must be filled in Hindi/English and all entries must be made by hand and written in ink. If any of the documents is missing or unsigned, the tender may be considered invalid by the Bank at its discretion.

15 Rates should be quoted both in figures and words in columns specified. All erasures and alterations made while filling the tender must be attested by initials of the tenderer. Overwriting of figures is not permitted and failure to comply with either of these conditions will render the tender void at the Bank's option. No advice of any change in rate or conditions after the opening of the tender will be entertained.

16 Each of the tender documents should be signed by the person or persons submitting the tender in token of his/their acquainted himself/themselves with the General Conditions of Contract, Specifications, Special Conditions, etc. as laid down. Any tender with any of the documents not signed will be rejected.

17 The tender submitted on behalf of a firm shall be signed by all the partners of the firm or by a partner who has the necessary authority on behalf of the firm to enter into the proposed contract. Otherwise the tender may be rejected by the Bank.

Right of the Employer:

18 The Reserve Bank of India does not bind itself to accept, the lowest or any tender and reserve to itself the right to accept or reject any or all the tenders, either in whole or in part, without assigning any reasons for doing so.

Earnest Money Deposit (EMD):

19 Tenderer shall pay as Earnest Money Deposit a sum of **Rs. 1,00,819/-** either by a demand draft issued by a Scheduled Bank in favour of Reserve Bank of India, Guwahati or by a Bank Guarantee issued by a Scheduled Bank in the approved format. A tender, which is not accompanied by EMD, will not be considered. The earnest Money will be refunded to the bidder if his tender is not accepted but without any interest.

20 Under no circumstances Earnest Money Deposit will be accepted in the form of fixed deposit receipt of Bank or Insurance Guarantee or cheque.

21 The Earnest Money Deposit paid by the successful bidder will be released after award of work on submission of Performance Bank Guarantee. No interest shall be paid on the said deposit.

22 On receipt of intimation from the Employer of the acceptance of his/their tender, the successful tenderer shall be bound to implement the contract and within fourteen days thereof, the successful tenderer shall sign an agreement in accordance with the draft articles of agreement. Further, the written acceptance by the Reserve Bank of India of a tender will constitute a binding



contract between the Reserve Bank of India and the person so tendering, whether such formal agreement is or is not subsequently executed.

Performance Bank Guarantee (PBG) / Security Deposit (SD):

23(a) **Performance Bank Guarantee (PBG) as security deposit for completion period:** Upon receipt of intimation from the Bank/Employer of the acceptance of his/their tender, the successful tenderer shall furnish an amount equal to 5% (Five percent) of the contract value in the form of a Bank Guarantee (BG) from any scheduled Bank in the form prescribed by the Bank as per **(Annexure-VI)** towards security deposit for the execution and due fulfilment of the contract. This Performance Bank Guarantee (PBG) shall be initially valid for a period of contract duration plus three (3) months and shall be suitably extended till final completion of the work plus three (3) months in case of extension of contract period. The Bank Guarantee towards the Earnest Money Deposit (EMD) furnished at the time of submission of tender will be returned thereafter. Such Performance Bank Guarantee (PBG) should be submitted to the Bank within 14 days of the issue of work order.

If the tenderer fails to furnish the Performance Bank Guarantee within stipulated time period, their tender is liable to be cancelled and the EMD deposited shall be enforced without prejudice for further loss or damage.

The Bank Guarantee towards EMD shall be suitably extended, if necessary, the successful tenderer till the date fixed by the Bank for furnishing the PBG towards security deposit for the due fulfilment of the contract.

The PBG will be revoked / encashed and forfeited to the Bank if the successful tenderer fails to satisfactorily perform the contract.

23 (b) In addition to the Earnest Money Deposit/PBG, as further security for the due fulfillment of the contract by the Contractor, 5% of the value of the work done will be deducted by the Employer from each payment to be made to the Contractor towards **Retention Money**. This total amount **(PBG + Retention Money)** will be termed as **Security Deposit**. On virtual completion of the works, the PBG would be released and the Employer will release the remaining Security Deposit after rectification of the defects pointed out during the **Defects Liability Period of twelve months from the date of completion of work**. The amounts retained by the Employer shall not bear any interest.

24 (a) In case if the Contractor so requests, the Security Deposit will be held in the form of a Bank Guarantee of an approved Scheduled Bank in the proforma to be approved by the Employer **(Annexure VII)**. After the successful completion of the defect liability period and/or after all the defects pointed out during the Defects Liability Period of **twelve months** are rectified to the satisfaction of the Employer/Architect, the amount to be held by the Bank by way of Bank Guarantee will be released.

24 (b) All compensation or other sums of money payable by the Contractor to the Employer under the terms and conditions of this Contract may be deducted from his PBG and/or from the security deposit if the amount so permits and the Contractor shall, unless such deposit has become otherwise payable, within ten days after such deduction, make good by a demand draft/NEFT of value equal to the amount so deducted.

Return of PBG / Refund of SD

25 The PBG shall be returned to the contractor after satisfactory completion of entire work and



after issue of virtual completion certificate by the competent authority.

26 The Security Deposit/ Retention Money shall be refunded to the contractor without any interest in due course i.e. on successful completion of the DLP and satisfactory rectification of all the defects developed and pointed out to the contractor during the said DLP.

Assignment / Sub-letting the contract:

27 The Contractor shall not assign the Contract. He shall not sublet any portion of the Contract except with the written consent of the Employer. In case of breach of these conditions, the Employer may serve a notice in writing on the Contractor rescinding the Contract whereupon the security deposit shall stand forfeited to the Employer.

28 The Contractor shall carry out all the work strictly in accordance with drawings, details and instructions of the Bank's Engineer. If in the opinion of the Bank's Engineer changes have to be made in the design and with the prior approval in writing of the Employer they desire the Contractor to carry out the same, the Contractor shall carry out the same without any extra charge.

If no such facility is available at the site of work and if available and found inadequate, it shall be the responsibility of the contractor to make his own arrangement for obtaining water and power at his cost.

Safety Code:

29. The contractor shall strictly comply with the provision of safety code annexed hereto.

Completion Time Period:

30(a) Time allowed for completion of the work is **90 calendar days** which shall be strictly observed by the tenderer. The time shall be reckoned from the tenth (10th) day of written order to commence the work is issued.

30(b) The successful tenderer shall be required to submit the **detailed work program** and the same shall be got approved from the Architect / Employer before commencing the work and accordingly progress shall be monitored by the Architect / Employer.

30(c) The work shall be carried out throughout the stipulated period of the contract with all due diligence.

Liquidated Damages:

31.If the Contractor fails to complete the work within the specified completion period he shall be liable to pay the Liquidated Damages at the rate of **Rs. 1800/- per day** subject to a maximum of 10% of the accepted contract amount.

Basic Prices:

32(a) Wherever the basic prices for the material is specified, the contractor should furnish to the



Architect / Employer for verifications all the tax paid bills. The purchase rate shall be got approved from the Architect/Bank's Engineers before purchasing such materials. **The adjustment in price of the materials shall be made only on measured quantity. Contractor's overheads and profits shall not be considered on the cost difference.**

32(b) The basic prices are ex-godown and are inclusive of GST and all other duties levied by Government or any public body (Ex-godown referred to here will be the dealers godown). The rate quoted for the respective item shall include transportation to the site, storing, handling etc.

33. The Security deposit of the successful tenderer will be forfeited if he fails to comply with any of the contract provisions.

Tenderer to inform himself fully:

34(a) The tenderer must obtain for himself on his own responsibility and at his own expense all the information which may be necessary for the purpose of making this tender and for entering into a contract and must examine the drawings and must inspect the site of the work and acquaint himself with all local conditions, means of access to the work, nature of the work and all matter appertaining thereto.

34(b) The tenderer shall be deemed to have carefully examined the work and site conditions including the labor, general and special conditions, the specifications, schedules and drawings and shall be deemed to have visited the site of work and have fully informed himself regarding the local conditions and carried out his own investigations to arrive at the rates quoted in the tender. In this regard, he will be given necessary information available with the department but without any guarantee about its accuracy.

34(c) If the tenderer shall have any doubts as to meaning of any portion of the general conditions, or the special conditions, or the scope of work or the specifications and drawings or any other matter concerning the contract he shall in good time, before submitting his tender, put forth, the particulars thereof and submit them to the Employer in writing in order that such doubts may be clarified authoritatively in writing before tendering. Once a tender is submitted the matter will be decided according to the tender conditions in the absence of such authentic pre-clarification.

35. The successful tenderer should make his own arrangements to procure all materials required for the work.

36. The tenderer shall have to use materials of the makes/manufacturers specified in the list of material of approved brand and/or manufacture contained in this tender form.

37. The Contractor shall strictly comply with the provision of safety code annexed hereto.

38. IS Code numbers wherever mentioned in the tender shall be the latest version of IS codes as on the date of opening of tenders.

39. The successful tenderer shall be required to submit Bar chart for the various activities



involved in this work including dependencies etc. and regularly monitor the progress of work accordingly.

40. The security deposit of the successful tenderer will be forfeited if he fails to comply with any of the conditions of the Contract.

Contractor to inform himself fully

41. The tenderer must obtain for himself on his own responsibility and at his own expense all the information which may be necessary for the purpose of making this tender and for entering into a contract and must examine the drawings and must inspect the site of the work and acquaint himself with all local conditions, means of access to the work, nature of the work and all matter appertaining thereto.

42 (a). The Contractor shall be deemed to have carefully examined the work and sited conditions including labour, the general and special conditions, the specifications, schedules and drainage and shall be deemed to have visited the site of work, to have fully informed himself regarding the local conditions and carried out his own investigations to arrive at the rates quoted in the tender. In this regard he will be given necessary information available with the department but without any guarantee about its accuracy.

42 (b). If the contractor shall have any doubt as to the meaning of any portion of the general conditions, or the special conditions or the scope of the work or the specifications and drawings or any other matter concerning the contract he shall in good time, before submitting his tender, put forth the particulars thereof and submit them to the Bank, in writing, in order that such doubts may be clarified authoritatively in writing before tendering. Once a tender is submitted the matter will be decided according to tender conditions in the absence of such authentic pre-clarification.

Errors, Omission and Descriptions

43 (a) In case of errors, omissions and/or disagreement between written and scaled dimensions on the drawings or between the drawings and specification etc. the following order of preferences shall apply.

(i) Between actual scaled and written dimension (or description) on a drawing the later shall be adopted.

(ii) Between the written or shown description or dimensions in the drawings and the corresponding one in the specification the later shall be taken as correct.

(iii) Between the written description of the item in the specifications and the detailed descriptions in the schedule of quantities of the same item, the later shall be adopted.

43(b) In case of difference between the rates written in figures and words, the rate adopted for working out the total amount of item in the original tender form, shall be taken as correct. In all other cases the correct rate would be that which is lower.

43(c) Between the duplicate/subsequent copies of the tender and original tender, the original shall be taken as correct.



43(d) In all cases of omissions and/or doubts or discrepancies in any item or specification a reference shall be made to the Assistant General Manager (Tech)/ AM(Tech), Estate Department, Reserve Bank of India, Guwahati whose elucidation, elaboration or decision shall be considered as authentic. The Contractor shall be held responsible for any errors that may occur in the work through lack of such reference and precaution.

Non-disclosure:

44. The Contractor shall not disclose directly or indirectly any information, materials and details of the Bank's infrastructure / systems/ equipment etc., which may come to the possession or knowledge of the Contractor during the course of discharging contractual obligations in connection with this agreement, to any third party and shall at all times hold the same in strictest confidence. The Contractor shall treat the details of the contract as private and confidential, except to the extent necessary to carry out the obligations under it or to comply with applicable laws. The Contractor shall not publish, permit to be published, or disclose any particulars of the works in any trade or technical paper or elsewhere without the previous written consent of the Employer. The Contractor shall indemnify the Employer for any loss suffered by the Employer as a result of disclosure of any confidential information. Failure to observe the above shall be treated as breach of contract on the part of the Contractor and the Employer shall be entitled to claim damages and pursue legal remedies. The Contractor shall take all appropriate actions with respect to its employees to ensure that the obligations of non-disclosure of confidential information under this agreement are fully satisfied. The Contractor's obligations with respect to non-disclosure and confidentiality will survive the expiry or termination of this agreement for whatever reason.

Neat & Clean Site:

45. After completion of the work contractor shall leave the premises in neat, clean and tidy conditions as directed by the Employer. If the contract is terminated prematurely for any reason what so ever, the contractor shall peacefully hand over everything back to the Employer and leave the premises in neat, clean and tidy conditions as directed by the Employer. The final dues of the contractors will be settled only after removal of all the debris from the site. In case of failure on the part of contractor to do so, the Employer will get it done at the risk and cost of the Contractor.

Prevention of Sexual Harassment of women at work places

46 (a) The Contractor shall be solely responsible for full compliance with the provisions of "the Sexual Harassment of women at work place (Prevention, Prohibition and Redressal) Act, 2013" In case of any complaint of sexual harassment against its employee within the premises of the Bank, the complaint will be filed before the Internal Complaints Committee constituted by the Contractor / Agency and the Contractor / Agency shall ensure appropriate action under the-said Act in respect to the complaint.

(b) Any complaint of sexual harassment from any aggrieved employee of the contractor against any employee of the Employer shall be taken cognizance of by the Regional Complaints Committee constituted by the Employer.



(c) The contractor shall be responsible for any monetary Compensation that may need to be paid in case the incident involves the employees /workmen of the contractor, for instance any monetary relief to Employer's employee, if sexual violence by the employee /workmen of the contractor is proved.

(d) The contractor shall be responsible for educating its employees about prevention of sexual harassment at work place and related issues.

(e) The contractor shall provide a complete and updated list of its employees who are deployed within the Employer's premises.

Labour Laws:

47 (a) The contractor shall abide by and fulfill all requirements laid down under the Contract Labour (Regulation and Abolition) Act, 1970 and the rules framed there under and all other relevant statutory acts (such as Minimum Wages Act etc.). If the number of labourers employed for the job is **twenty or more**, the contractor shall obtain the license from the Regional Labour Commissioner. The contractor shall maintain all registers/ documents as required by the Regional Labour Commissioner at site and should furnish the same to the Bank or its representative as and when required.

(b) The offices of the Regional Labour Commissioner (Central), Guwahati will have the jurisdiction over the implementation of the labour laws under this contract

Interest on delay Payment

48. Simple interest on delay payment will be made by the Employer @ 3 % per annum. The period of delay will be counted for each and every bill after the normal period of honoring from the date of the related certificate/s as stipulated in the Appendix referred to hereinbefore. The amount to be considered for calculation of simple interest will be the actual dues payable to the contractor against the related bill/s.

I /we hereby declare that I / we have read and understood the above instructions, terms and conditions, etc. provided for guidance of tenderers and have accordingly quoted my/our rates.

Place :
Signature of Tenderer :
Date :
Seal with Address :
Contact No/s. :



Special Instructions to the Bidders

1. The workmen will not be allowed to stay within the premises during night.
2. The Contractor shall submit the addresses, personal details and photographs of their workmen being engaged by them for the said work to the Bank for obtaining Entry passes. Workmen will be allowed inside the premises only on producing the photo passes issued by the Bank. The contractor, his staff and the labour will have to comply with the security regulations of the Bank.
3. Permission, if any, required from the local bodies shall be obtained by the Contractor.
4. The water required for the work or workmen can be availed from the available source at site **charges @ 0.25 % of contract value which shall be deducted from all the bills**. The Contractor has to make his own arrangements to take the supply to the requisite position.
5. The electric power required for the work can also be similarly drawn from the supply available at site **charges @ 0.5 % of contract value which shall be deducted from all the bills**. The Contractor has to make his own arrangements to take the supply to the requisite position. It will be ensured by the contractor that the entire work site is properly illuminated at all time when the work is in progress.
6. The intending bidder can obtain any clarifications regarding the tender drawings, specifications etc. if any from the office of the Regional Director, Reserve Bank of India, Estate Department, Guwahati on any Bank's working day.
7. The entire materials for the work shall be brought to the working area through the available passage only during specified time of working hours, as per instructions of Bank's Engineer.
8. The bidder may please note that the work has to be carried out in an occupied building during normal working hours/restricted hours without causing any inconvenience to the other occupants. The rates quoted for each item shall be quoted accordingly.
9. The Bidder may please note that, the work has to be carried out during the day time or as per the Bank's instructions. All dismantling work and work generating noise shall be done during the day time and on holidays and day time work may have to be done on restricted hours. Contractor shall take into account the above facts while quoting the rates. The entire work involved shall be carried out with the least disturbance to the occupants of building and also day to day cleaning has to be done by the contractor. The staircase and passages used by the labourers shall be cleaned properly, as per the entire satisfaction of Bank's Engineer.
10. Neat housekeeping at all times is the responsibility of the contractor. The debris / dust or any waste generated out of the above work shall be cleaned as frequently as required and shall be stored at the specified place inside the Bank's Premises, as per the instructions of the Bank's Engineer. The bidder shall remove all the debris stored at the specified place inside the Bank's



premises and shift it to the approved waste dumping place as per Municipal regulations as and when the accumulated waste is around one truck load or earlier, if instructed by Bank's Engineer. The contractor shall be solely responsible for any penal action/ penalties levied by Municipal authorities for violation of their rules/ regulations in this regard.

11. Some other works, such as electrical, structural repairs etc., have been organized by the Bank through separate agencies if necessary. The contractor shall coordinate his work with all other agencies deployed by the Bank at site so that no hindrances are presented to the planned work of any other agency.

12. The successful bidder should prepare the layout of the work and any other working drawings related to the said Work, if required, on a 1:4 scale and should get it approved from the Bank's Engineer before commencement of work.

13. Care shall be taken while executing the said job. If anything is damaged, the same shall be rectified at no extra cost.

14. **Wherever the basic rate for the material is specified, the contractor should furnish all the paid bills for Banks verification. The purchase rate shall be got approved from the Bank before purchasing.** The adjustment in price shall be made only on measured quantity. No overhead and profit shall be considered on the cost difference. The basic prices are ex-godown and are inclusive of GST and all other duties levied by Local authority / Government. The rate quoted shall include transportation to site, storing and handling etc.

15. Bank will require the contractor to produce, samples of all the materials, accessories/finishes prior to procurement/manufacture. The Bank's Engineer shall approve samples of the materials for the work. Failure to comply with these instructions can result in rejection of the work.

16. The Bidder should note that he should execute his part of work without causing any damage to any part of the building and also without disturbing the existing occupants. Any damage so caused shall be made good at the cost & risk of the bidder.

17. The bidder should note that the tender drawings and other documents describing each item in the schedule are only indicative in nature and cannot be taken as complete in detail and finishes. It is expected that the bidder should understand the intent of the tender drawings and specifications and provide for materials, workmanship, finishes and accessories appropriately so as to deliver the product of high standards. Bank reserves the right to insist on selection of material, workmanship, detailing and finishes, which they consider are appropriate and suitable for the intended use. The contractor is not eligible to claim extra on this account. No claim from the contractor at a later date will be entertained for his failure to understand this condition. The decision of the Bank in respect of the quality of material, type of work, workmanship, finish etc, shall be final and binding on the contractor.

18. The successful contractor shall make sure that they protect their materials during and after



installation and hand them over in good shape to the Bank satisfactorily. At the time of handing over, any damages, scratches, dents or such defects noticed shall be got rectified as directed without any extra charge by the Contractor to the satisfaction of the Bank.

19. The successful bidders shall include, in the quoted price, all allied civil works such as chasing in wall, drilling holes etc to support the frames, partitions, make the surface good after grouting, double scaffolding etc.

20. The successful contractor shall also be responsible for the safety and security of all their materials and also for ensuring fire prevention steps at all times in the working premises including their part of the work.

The scope of work covers the **“TENDER FOR RENOVATION OF ENTRANCE STAIRCASE AND FIRST FLOOR LIFT LOBBY AREA OF MAIN OFFICE BUILDING, RBI GUWAHATI”** The contractor will, therefore, be required to plan and organize man power and resources in a manner that the entire work are completed within the stipulated period.

21. The work may have to be carried out in phases (if required as per the site conditions) without disturbing the occupants of the office. Necessary barricading of the area, if required from the rest of the area shall have to be arranged by the successful contractor at no extra cost.

22. The contractor shall depute a qualified and experienced supervisor at all times during execution of the work. No work shall be carried out at site in unsupervised manner.

23. **The contractor shall submit the names and personal details of site in-charge/ supervisor and his authorized representative along with their role, responsibilities, and authority (with regard to supervision, quality control, documentation, measurements, signing measurement book, correspondence, receiving instructions from bank etc.) within 14 days from the date of issue of work order in the approved format.**

24. **All the bidders shall submit a detailed bar chart indicating the details of various major activities involved in the work and their expected completion period, specifying the parallel and sequential activities, starting from the scheduled commencement of work so as to complete the entire work within the tender specified period along with the Part-I of the tender. The bidders shall also indicate the approximate deployment of man power/ labour, as planned by them for the above purpose, commensurate with the planned schedule. After award of work, the contractor shall be required to carry out micro planning and the detailed schedule/ Bar Chart shall be submitted within 10 days from the date of issue of work order for proper planning, monitoring and review of progress of work.**

25. **The progress of work shall be reviewed by the Bank on a fortnightly basis. The meeting may be held at site or in Bank’s Main Office Premises. The meeting should be attended by the contractor himself (in case of proprietorship firm) or authorized partner/ senior official in case of partnership firm/ limited company along with contractor’s site in-charge. For this purpose, the contractor shall prepare and submit a progress report indicating following:**



- a) **Progress for the previous fortnight and the planning for the next fortnight along with a few photographs of work in progress and materials received during the fortnight and expected to be received during next fortnight.**
- b) **The reasons for major deviations in planned schedule and the actual progress achieved along with any hindrances/ decisions required from the Bank.**
- c) **Procurement schedule for long lead items**
- d) **Variations / extra item statement**
- e) **Statement indicating various tests conducted during the fortnight and planned for next fortnight.**

26. The contractor shall maintain following registers/ documents/details at site and keep them updated on a regular basis. These registers/ documents after completion of work shall be handed over to the Bank:

- a) Hindrance register in the Bank's approved format
- b) Site instruction book (in duplicate)
- c) Certified true copy of the contract
- d) Material receipt register along with copies of delivery challans
- e) Copies of all bills for which Basic rate is specified in the tender
- f) Labour daily attendance register
- g) Approved detailed schedule/ Bar chart and approved modifications of the same, If any.
- h) Signed Minutes of fortnightly progress review meetings
- i) Register for extra items/ variation/ deviation items
- j) Material test register along with copies of test reports/ certificates received from the manufacturer/ laboratory

27. **Terms of payment**

Payment shall be made based on the progress of work and on completed items of work on actual measurement. The minimum value of R.A bill shall be **Rs. 10 lakh (Rupees Ten lakh only)**. The contractors will be paid an advance of 75% of the cost of imperishable materials brought to site for consumption in the works. The assessment of the cost of the materials to be considered for advance shall be derived either from the actual cost of materials based on purchase vouchers or deduced from the quoted rate after deducting for labour, taxes, overhead and profit. The lesser of the two shall be considered for advance. Perishable items like cement, glass, paint, adhesive etc. will not be entitled for advance against materials at site. The contractor shall give an undertaking on stamp paper for the advance as per Bank's proforma. 5% Retention Money shall be deducted from each payment

28. The contractor shall use only approved brands of first quality materials as given in the



Annexure. In absence of any such choice indicated by the bidder in the Part – I, the contractor will be required to use the material as per Bank's instructions.

29. The contractor will have to arrange the services of authorized technical official of the manufacturer whose materials have been selected / approved by the Bank for the project work who will inspect the materials supplied/ available at site and the method of its uses/ application and will be required to submit a report on the manufacturer's letterhead, under official seal, indicating the genuineness or otherwise of the material and whether the materials are being used as per the Manufacturer's Specifications and specified consumption standards.

30. The successful bidder shall make necessary arrangement to protect the glazing, vehicles, occupants etc. by barricading/ covering the work area suitably with plyboards/construction net etc. The successful bidder shall also be required to provide proper danger/ caution notice boards at conspicuous places.

31. The bidders shall quote their rates taking in to account all the above instructions and conditions of the contract.

NAME AND ADDRESS OF THE CONTRACTOR: SIGN & SEAL OF THE CONTRACTOR:

Date:

Place:



SAFETY CODE

1. First aid appliances including adequate supply of sterilized dressings and cotton wool shall be kept in a readily accessible place.
2. An injured person shall be taken to a public hospital without loss of time, in cases where the injury necessitates hospitalization.
3. Suitable and strong double scaffolds should be provided for workmen for all works that cannot safely be done from ground.
4. No portable single ladder shall be over 8 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 30cm. When the ladder is used, an extra mazdoor shall be engaged for holding the ladder.
5. Every opening in the floor of a building or in a working platform be provided with suitable means to prevent the fall of persons or materials by providing suitable fencing or railing whose minimum height shall be one meters.
6. No floor, roof or other part of the structure shall be so overloaded with debris or materials as to render it unsafe.
7. Those engaged in welding works shall be provided with welder's protective eye-shields and gloves.
8. (i) No paint containing lead or lead products shall be used except in the form of paste or ready-made paint.
(ii) Suitable facemasks should be supplied for use by the workers when the paint is applied in the form of spray or surface having lead paint dry rubbed and scrapped.
9. Overalls shall be supplied by the contractor to the painters and adequate facilities shall be provided to enable the working painters to wash during the periods of cessation of work.
10. Hoisting machines and tackle used in the works, including their attachments, anchorage and supports shall be in perfect conditions.
11. The ropes used in hoisting or lowering materials or as means of suspension shall be of durable quality and adequate strength and free from defects.
12. First aid appliances including adequate supply of sterilized dressing and cotton wool shall be kept in a readily accessible place.
13. An injured person shall be taken to a public hospital without loss of time, in cases where the injury necessitates hospitalization.
14. Suitable and strong double scaffolds should be provided for workmen for all works that cannot safely be done from the ground.



15. All the workers shall be provided with safety belts, safety shoes and helmets. No workmen shall be allowed to work on scaffolding without safety helmets and safety belts.
16. No portable single ladder shall be over 8 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 a ladder is used, an extra mazdoor shall be engaged for holding the ladder.
17. Every opening in the floor of a building or in a working platform shall be provided with suitable means to prevent the fall of persons or materials by providing suitable fencing or railing whose minimum height shall be one metre.
18. The excavated material shall not be placed within 1.5 meters of the edge of trench or half of the depth of trench whichever is more. All trenches and excavations shall be provided with necessary fencing and lighting.
19. Workers employed on mixing and handling material such as asphalts, cement mortar or concrete and lime mortar shall be provided with protective footwear and rubber hand gloves.
20. Those engaged in welding works shall be provided with welder's protective eye-shields and gloves.
 - (i) No paint containing lead or lead products shall be used except in the form of paste of ready-made paint.
 - (ii) The workers should supply suitable facemasks for use when the paint is applied in the form of spray or surface having lead paint dry rubbed and scrapped.
21. Overalls (Protective clothing) shall be supplied by the Contractor to the painters and adequate facilities shall be provided to enable the working painters to wash during the periods of cessation of work.
22. Hoisting machines and tackle used in the works, including their attachments, anchorage and supports shall be in perfect condition.
23. The ropes used in hoisting or lowering material or as a means of suspension shall be of durable quality and adequate strength and free from defects.

Name & Address of the Firm / Contractor :.....

Signature of Contractor :..... **Date**

:.....
Place.....



The Conditions Hereinafter Referred To

Interpretation Clause

1. In construing these Conditions, the Specifications, Schedule of Quantities and Contract Agreement, the
2. following words shall have the meanings herein assigned to them except where the subject or context
3. otherwise required.

4.
 - (a) "Employer" Shall mean The Reserve Bank of India and shall include its assigns and successors.
 - (b) "Contractor"
(in the case of a partnership)

(in the case of individual)

(in the case of Company)
"Contractor" shall mean _____ and _____ trading in the name and style of _____ and having a place of business at _____ and shall include the partners for the time being of the said firm and the legal representatives of a deceased partner.
"Contractor" shall mean Shri _____ trading in the name and style of _____ and shall include his heirs, successors and legal representatives.
"Contractor" shall mean _____ a company incorporated under _____ and having its registered office at _____ and shall include its successors and assigns.
 - (c) "Site" Shall mean the site of the contract works including any building and erections thereon and any other land (inclusively) as aforesaid allotted by the Employer for the Contractor's use.
 - (d) "This Contract" Shall mean the Articles of Agreement, the Special Conditions, the Conditions, the Appendix, the Schedule of Quantities and Specifications etc. attached hereto and duly signed.
 - (e) "Notice in writing" Or written notice shall mean a notice in written, typed or printed characters sent (unless delivered personally or otherwise proved to have been received) by registered post to the last known private or business address to have been received when in the ordinary course of post it would have been delivered.
 - (f) "Act of Insolvency" Shall mean any Act of Insolvency as defined by the Presidency Towns Insolvency Act or the Provincial Insolvency Act or any Act amending such original.
 - (g) "Net Prices" If in arriving at the contract amount, the Contractor shall have added to or deducted from the total of the items in the Tender any sum, either as a percentage or otherwise, then the net price of any item in the tender shall be the sum arrived at by adding to or deducting from the actual figure appearing in the Tender as the price of that item a similar percentage or proportion of the sum so added or deducted by the Contractor the total amount of any Prime Cost items and provisional sums of money shall be deducted from the total amount of the tender. The expression "net rates" or "net prices" when used with reference to the contract or accounts shall be held to mean rates or prices so arrived at.
 - (h) "The works" Shall mean the **"TENDER FOR RENOVATION OF ENTRANCE STAIRCASE AND FIRST FLOOR LIFT LOBBY AREA OF MAIN OFFICE BUILDING, RBI GUWAHATI"**
"as provided herein.

2. The Contractor shall carry out and complete the said work in every respect in accordance with this Contract and with the directions of and to the satisfaction of the Employer. The Employer may in his absolute discretion and from time to time issue further drawings and/or written instructions, detailed directions and explanations which are hereafter collectively referred to as "Bank's



Instructions” in regard to :

- 2.a The variation or modification of the design, quality or quantity of works or the addition or omission or substitution of any work.
- 2.b. Any discrepancy in the drawings or between the Schedule of Quantities and/or drawings and/or specification
- 2.c The removal from the site of any material brought thereon by the Contractor not fulfilling the tender specifications and the substitution of any other material therefore.
- 2.d The removal and/or re-execution of any material/works executed by the Contractor but not fulfilling the tender specifications.
- 2.e The dismissal from the works of any persons employed thereupon.
- 2.f. The opening up for inspection of any work covered up.
- 2.g The amending and making good of any defects under clause 30 thereof

The Contractor shall forthwith comply with and duly execute any work comprised such Employers instructions provided always that verbal instructions, directions and explanations given to the Contractor or his representatives upon the works by the Bank shall, if involving a variation, be confirmed in writing by the Contractor within seven days, and if not dispensed from in writing within a further seven days by the employers, such shall be deemed to be Bank's Instructions within the scope of the Contract.

For the purpose of entering day to day instructions by the employer, the contractor shall maintain at his own cost, a "Site instruction Book" in triplicate in which the instructions shall be entered by the employer and to be maintained by engineer-in-charge of the contractor. Instructions to the contractor shall be issued through Bank's engineer / engineer-in-charge.

Scope of contract includes, but is not limited to, the following:

3. (a) The co-ordination, scheduling and management of work of component suppliers and sub-contractors.
- (b) Provide materials as specified in the technical specifications.
- (c) Assembly, installation and commissioning of all items as specified and handing over the completed lobby area in clean condition to the Employer.

Contractor's Duties:

4. Contractor's duties include the following;
 - (a) Provide and pay for labour, materials and equipment, tools and other facilities and services necessary for the proper execution and completion of the specified works.
 - (b) Secure and pay for required permits statutory workman's compensation insurance, fees and licenses necessary for proper execution and completion of required work.
 - (c) Give required notices.
 - (d) Promptly submit written notice to the Employer of observed variance of the Specifications from legal requirements.
 - (e) Enforce strict discipline and good order among employees. Do not employ persons unskilled in assigned task Variations to be approved by Employer.
5. The Contractor shall submit a statement of variations giving a quantity and rates duly supported by analysis



of rates, vouchers etc. The rates on scrutiny and final acceptance by the Employer shall form a supplementary tender. The Employer shall not be liable for payment of such variations until these statements are sanctioned by it.

Variations to be approved by Employer

2. 6. Notwithstanding anything herein contained, the Architect or his representative shall not, without the prior concurrence in writing of the Employer, issue any instructions, verbal or in writing, which will result in the Employer having to pay the Contractor an additional sum greater than Rs.2500/- and all instructions issued to the Contractor should forthwith be brought to the notice of the Employer. The Contractor shall submit through the Architect a statement of variations giving quantity and rates duly supported by analysis of rates, vouchers etc. The rates on scrutiny and final acceptance by the Employer shall form a supplementary tender. The Employer shall not be liable for payment of such variations until these statements are sanctioned by it.

Drawin Drawings, Schedule Of Quantities & Agreement

3. 7. The Contract shall be executed in triplicate and the Architect, the Employer and the Contractor shall be entitled to one executed copy each for his use. The Contractor on the signing hereof shall be furnished by the Architects free of cost one copy of each of the said drawings and of the specification and one copy of all further drawings issued during the progress of the works. He shall pay for any further copies of such drawings required by the contractor. The Contractor shall keep one copy of all drawings on the works and the Architect or his representative shall at all reasonable time have access to the same. Before the issue of the final certificate to the contractor he shall forthwith return to the Architect all drawings and specifications.

Work Sequence :

8. The successful Contractor shall include all costs in the tender to complete the works in the time schedule as given by him in the work schedule table. By submitting a tender, the contractor agrees that they have reviewed the project specifications and drawing, toured the job site and will complete all work in accordance with the overall time period as per the approved schedule. The scheduled time frame starts after a notice to proceed or contract is received from the Employer. The Contractor shall provide a detailed project schedule, in accordance with the time frame approved as per the work task schedule, prior to award of the project.

Contractor's use of Estate :

9. The site of the work is an occupied building. Contractor's use of Estate shall be subject to following:-

- * Confine operations at the site to areas permitted by law, ordinances, permits, Specification, and Employer's specific instructions.
- * Do not unreasonably encumber the site with materials or equipment.
- * Assume full responsibility for protection and safekeeping of tools and products stored on or off Estate.
- * Move stored products which interfere with operations of building or the operations of other trades.
- * Obtain and pay for use of additional storage or work areas needed for operations. Contractor to provide everything necessary at his cost

8. The contractor shall provide at his cost, everything necessary for the proper execution of the works according to the intent and meaning of the Drawing, schedule of Quantities and Specifications taken together whether the same may or may not be particularly shown or described therein provided that the same can reasonably be inferred there from and if the Contractor finds any discrepancy in the Drawings or between the Drawings, Schedule of Quantities and Specifications, he shall immediately and in writing refer same to the Employer who shall decide which is to be followed. The Contractor shall provide all works under this specification in full accordance with Health and Safety Regulations.

No disruption to normal building functions:

9. This project is to be executed in an occupied office building. It is essential that the Contractor gives special attention and priority to all matters concerning safety protection from dust and loose



materials, reduction of noise levels, protection from water and air infiltration into building and maintenance of neat and orderly conditions in and around work areas inside and outside of building. Packaging, scrap materials and demolition debris shall be promptly removed from the building and site on a daily basis.

10. If the contract includes works, which will be disruptive during normal business operations or would be dangerous to building occupants, said works shall be performed during hours as the Employer dictates. The Contractor shall perform such work during Employer dictated hours and shall include all cost in its tender.

11. The Contractor shall keep noise levels below 75 dB during normal building hours. When it is necessary to produce noise above this level, the Contractor shall advise the Employer of such needs and times will be scheduled as directed. The Contractor shall anticipate any excessive noise generating procedures and include an allowance for it in the tender.

Protection of Work and Property;

12. The Contractor shall take due care for protection of the work and Employer's property.

Variations to be approved by Employer

Authorities, notices and patents

12. The Contractor shall confirm to the provision of any Act of the Legislature relating to the work, and to the regulations and bye-laws of any authority, and of any water, electric supply and other companies and/or authorities with whose systems the structure is proposed to be connected and shall before making any variations from the Drawing or Specifications that may be necessitated by so conforming give to the Bank written notice, specifying the variation proposed to be made and the reason for making it and apply for instructions thereon. In case the Contractor shall not within ten days receive such instructions he shall proceed with the work conforming to the provisions, regulations or bye-laws in question, and any variation so necessitated shall be dealt with under Clause 13 thereof.

The Contract shall bring to the attention of the Bank all notices required by the said Acts, regulations or 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 receipts with the Bank.

The Contractor shall indemnify the Employer 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 and every sort that may be legally incurred in respect thereof.

Setting out of works

13. 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 in this respect shall appear during the progress of the works or within a period of one year from the completion of the works, the Contractor shall, if so required, at his own expense rectify such error to the satisfaction of the Bank.



Materials and workmanship to conform to descriptions

14. All materials and workmanship shall so far as procurable be of the respective kinds described in the Schedule of Quantities and/or Specifications and in accordance with the Employer's instructions, and the Contractor shall upon the request of the Employer furnish him with all invoices, accounts, receipts and other vouchers to prove that the materials comply therewith. The Contractor shall at his own cost arrange for and/or carry out any test of any materials which the Employer may require.

Contractor's superintendence and representative on the works

13. The Contractor shall give all necessary personal superintendence during the execution of the works, and as long thereafter as the Employer may consider necessary until the expiration of the "Defects Liability Period" stated in the Appendix hereto. **The Contractor shall also during the whole time the works are in progress employ a competent, qualified and experienced Supervisor who shall be constantly in attendance at the works while the men are at work. Necessary site Registers viz. Material receipt/consumption register/Hindrance Register/Labour Register etc. shall be strictly maintained by him on daily basis and get duly authenticated from Bank's Engineer. Any directions, explanations, instructions or notices given by the Bank's Engineer to such representative shall be held to be given to the Contractor for which, (after award of work) the firm should issue authority letter to the Bank in favour of said Supervisor for authorizing him to take up above mentioned activities.**

Setting out of work

14. The Contractor shall set out the works and shall be reasonable 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 in this respect shall appear during the progress of the works within a period of two year from the completion of the works, the Contractor shall, if so required, at his own expense, rectify such error to the satisfaction of the Employer

Materials and workmanship to conform the descriptions

15. All materials and workmanship shall so far as procurable be of the respective kinds described in the Schedule of Quantities and/or Specifications and in accordance with the Employer's instructions, and the Contractor shall upon the request of the Employer furnish him with all invoices, accounts receipts and other vouchers to prove that the materials comply therewith. The Contractor shall at his own cost arrange for and/or carry out any test of any materials which the Employer may require.

Contractor's superintendence and representative on the works

16. The Contractor shall give all necessary personal superintendence during the execution of the works, and as long thereafter as the Employer may consider necessary until the expiry of the "Defects Liability Period" stated in the appendix hereto. **The Contractor shall also during the whole time the works are in progress employ a competent, qualified and experienced Supervisor who shall be constantly in attendance at the works while the men are at work. Necessary site Registers viz. Material receipt/consumption register/Hindrance Register/Labour Register etc. shall be strictly maintained by him on daily basis and get duly authenticated from Bank's Engineer. Any directions, explanations, instructions or notices given by the Bank's Engineer to such representative shall be held to be given to the Contractor for which, (after**



award of work) the firm should issue authority letter to the Bank in favour of said Supervisor for authorizing him to take up above mentioned activities.

Access Access to Works

17. The Employer and their respective representatives shall at all reasonable times have free access to the works and/or the workshops, factories or other places where materials are lying or from which they are being obtained and the Contractor shall give every facility to the Employer and their representatives necessary for inspection and examination and test of the materials and workmanship. No person not authorized by the Employer except the representatives of public authorities shall be allowed on the works at any time.

Dismissal of workmen

The Contractor shall on request of the Bank's Engineer immediately dismiss from the works any person employed thereon by him who may, in the opinion of the Bank Engineer, be incompetent or misconduct himself and such persons shall not be again employed on the works without the permission of the Employer

Prevention of sexual harassment

18. The Contractor / Agency shall be solely responsible for full compliance with the provisions of "the Sexual Harassment of women at work place (Prevention, Prohibition and Redressal) Act, 2013.

20(a) Any complaint of sexual harassment from any aggrieved employee of the contractor against any employee of the Bank shall be taken cognizance of by the Regional Complaints Committee constituted by the Bank.

20(b) The contractor shall be responsible for any monetary compensation that may need to be paid in case the incident involves the employees of the contractor, for instance any monetary relief to the Bank's employee, if sexual violence by the employee of the contractor is proved.

20(c) The contractor shall be responsible for educating its employees about prevention of sexual harassment at work place and related issues.

20(d) The contractor shall provide a complete and updated list of its employees who are deployed within the bank's premises.

Junior Engineer / Assistant Manager(Tech)/Manager(Tech)/Assistant General Manager(ED)

19. The term "Junior Engineer / Assistant Manager(Tech)/Manager(Tech)/Assistant General Manager(ED) shall mean the person appointed and paid by the Employer and acting under the orders of the Employer to inspect the works. The Contractor shall afford the Junior Engineer/ Assistant Manager(Tech)/ Manager(Tech)/ Assistant General Manager(ED) every facility and assistance for inspecting the works and materials and for checking and measuring time and materials. Neither the Assistant Manager/Manager/ Deputy General Manager have power to set out works or to revoke, alter enlarge or relax any requirements of the Contract, or to sanction any day work, additions, alterations, deviations or omissions or any extra work whatever except in so far as such authority may be specially conferred by a written order with the prior concurrence in writing of the Employer.

The Assistant Manager (Tech)/Manager(Tech)/ Assistant General Manager(ED) or any representative of the Employer shall have power to give notice to the Contractor or to his



representative of non-approval of any work or materials and such work shall be suspended or the use of such materials shall be discontinued until the decision of the Bank obtained. The work will from time to time be examined by the Bank, the Assistant manager(Tech)/Manager(Tech)/Assistant General Manager(ED) but such examination shall not in any way exonerate the Contractor from the obligation to remedy any defects which may be found to exist at any stage of the works or after the same is completed. Subject to the limitation of this clause, the Contractor shall take instructions only from the Bank.

Assignment and sub-letting

20. The whole of the works included in the contract shall be executed by the Contractor and the Contractor or any part/share thereof or any interest therein without the prior written consent of the Employer, and no undertaking shall relieve the Contractor from the full and entire responsibility of the Contract or from active superintendence of the works during their progress.

Alterations, additions, omissions etc.

21. No alterations, omission or variation shall vitiate this Contract but in case the Employer thinks proper at any time during the progress of the works to make any alterations in, or additions to, or omissions from, the works or any alteration in the kind or quality of the materials to be used therein and shall give notice thereof under his hand to the Contractor. The Contractor shall alter, add to, or omit from, as the case may be in accordance with such notice, but the Contractor shall not do any work extra to or make any alterations or additions to or omissions from the works or any deviation from any of the provisions of the contract, stipulation, specification or contract drawings without the previous consent in writing of the Employer and the value of such extras, alterations, additions or omissions shall in all cases be determined by the Employer with the prior approval in writing of the Employer in accordance with the provisions of Clause 17 hereof, and the same shall be added to or deducted from the Contract Amount, as the case may be.

Schedule of Quantities

22. The Schedule of Quantities, unless otherwise stated shall be deemed to have been prepared in accordance with the standard method of measurement.

Any error in description or in quantity or in omission of items from the Schedule of Quantities shall not vitiate this contract but shall be rectified and the value thereof, as ascertained under Clause 17 hereof, shall be added to, or deducted, from the Contract Amount (as the case may be) provided that no rectification or errors, if any, shall be allowed in the contractor's Schedule of Rates.

Sufficiency of Schedule of Quantities

23. The Contractor shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender for the works and of the prices stated in the Schedule of Quantities and/or Schedule of Rates and prices which rates and prices shall cover all his obligations under the Contract, and all matters and things necessary for the proper completion of the works.

Measurement of Works

24. The Bank's Engineer may from time to time intimate to the Contractor and the Employer that he requires the works to be measured and the Contractor shall forthwith attend or send a qualified Agent to assist the Junior Engineer /Assistant Manager (Tech)/ Manager (Tech)/ Assistant General Manager (ED) in taking such measurements and calculations and to furnish all particulars



or to give all assistance required by any of them. Should the Contractor not attend or neglect or omit to send such agent then the measurement taken by the Bank's Engineer or a person approved by him shall be taken to be correct measurements of the works. Such measurements shall be taken in accordance with the Mode of Measurements detailed in the Specifications.

The Contractor or his Agent may at the time of measurement take such notes and measurements as he may require.

All authorized extra works, omissions and all variations made without the Employer's knowledge, but subsequently sanctioned by him in writing (with the prior approval in writing of the Employer) shall be included in such measurements.

Prices for extras etc. ascertainment of

25. The Contractor may, when authorized, and shall, when directed, in writing by the Bank's Engineer with the approval of the Employer add to, omit from or vary the works shown upon the drawings or described in the specification, or included in the Schedule of Quantities, but the Contractor shall make no addition, omission or variation without such authorization or direction. A verbal authority or direction by the Bank's Engineer shall, if confirmed by them in writing within seven days, be deemed to have been given in writing.

No claim for an extra shall be allowed unless it shall have been executed under provisions of Clause 5 hereof or by the authority of the Bank's Engineer with the concurrence of the Employer as herein mentioned. Any such extra is herein referred to as authorized extra and shall be made in accordance with the following provisions.

28(a) (i) The net rates or prices in the original tender shall determine the valuation of the extra work where such extra work is of similar character and executed under similar conditions as the work priced therein.

(ii) The net prices of the original tender shall determine the value of the items omitted provided if omissions vary the conditions under which any remaining items of works are carried out the prices for the same shall be valued under sub-clause (c) thereof.

28 (b) The net prices of the original tender shall determine the value of the items omitted provided if omissions vary the conditions under which any remaining items of works are carried out the prices for the same shall be valued under sub-clause (c) thereof.

28 (c) Where the extra works are not of similar character and/or executed under similar conditions as aforesaid or where the omissions vary the conditions under which any remaining items of works are carried out or if the amount of any omissions or additions relative to the amount of the whole of the contract works or to any part thereof shall be such that in the opinion of the Bank's Engineer the net rate or price contained in the Priced Schedule of Quantities or tender or for any item of the works involves loss or expense beyond that reasonably contemplated by the Contractor or is by reason of such omission or addition rendered unreasonable or inapplicable, the Bank's Engineer shall fix such other rate or price as in the circumstances he shall think reasonable and proper, with the prior approval in writing of the Employer.

28(d) Where extra work cannot be properly measured or valued the Contractor shall be allowed day work prices as the net rates stated in the tender of the Priced Schedule of Quantities or, if not so stated, then in accordance with the local day work rates and wages for the district, provided that in either case vouchers specifying the daily time (and if required by the Bank's Engineer, the workman's name) and materials employed be delivered for verification to the Bank's Engineer or his representative at or before the end of the week following that in which the work has been executed.

28. e) It is further clarified that for all such authorized extra items where rates cannot be derived from tender, the Contractors shall submit rates supported by rate analysis worked on the "actual cost basis" plus 15% towards establishment charges, contractor's overhead and profit. Such items will not be eligible for escalation.

28(f) The measurement and valuation in respect of the Contract shall be completed within the



“Period of Final Measurement” stated in the Appendix or if not stated then within **3 months** of the completion of the Contract works as defined in **Clause 32** thereof.

Unfixed materials when taken into account to be the property of the Employer

26. Where in any Certificate (of which the Contractor has received payment), the Bank’s Engineer has included the value of any unfixed materials intended for and/or placed on or adjacent to the works such materials shall become the property of the Employer and they shall not be removed except for use upon the works, without the written authority of the Bank’s Engineer. The Contractor shall be liable for any loss of, or damage to, such materials.

Removal of improper work

27. The Bank’s Engineer shall, during the progress of works, have power to order in writing from time to time the removal from, the works within such reasonable time or times as may be specified in the order, of any materials which in the opinion of the Bank’s Engineer are not in accordance with the Specifications or instructions of the Bank’s Engineer, the substitution of proper materials, and the removal and proper re- execution of any work executed with materials and workmanship not in accordance with the drawings and specifications or instructions, and the Contractor shall forthwith carry out such order, the Employer shall have the power to employ and pay other persons to carry out the same, and all expenses consequent thereon, or incidental thereto, as certified by the Bank’s Engineer shall be borne by the Contractor, or may be deducted by the Employer from any money due, or that may become due to the Contractor.

Defects after virtual completion

28. Any defect, shrinkage, settlement or other faults which may appear within the “Defects Liability Period” stated in the Appendix hereto or , if none stated, then within twelve months after the virtual completion of the works, arising in the opinion of the Bank’s Engineer from materials or workmanship not in accordance with the contract, shall upon the directions in writing of the Bank’s Engineer, and within such reasonable times as shall be specified therein, be amended and made good by the Contractor, at his own and in case of default the Employer 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, expenses shall be recoverable from him by the Employer or may be deducted by the Employer, upon the Bank’s Engineer’s Certificate in writing, from any money due or may become due to the Contractor, or the Employer may in lieu of such amending and making good by the Contractor deduct from any money due to the Contractor, a sum, to be determined by the Bank’s Engineer equivalent to the cost of amending such work and in the event of the amount retained under Clause 31 thereof being insufficient, recover the balance from the Contractor, together with any expenses the Employer may have incurred in connection therewith. Should any defective work have been done or material supplied by any sub-contractor employed on the works who has been nominated or approved by the Employer as provided in Clause 12 and 22 thereof, the Contractor shall be liable to make good in the same manner as if such work or material had been done or supplied by the Contractor and been subject to the provisions of this Clause and Clause 2 hereof. The Contractor shall remain liable under the provisions of this Clause notwithstanding the signing of any certificate or the passing of any accounts, by the Bank’s Engineer.

Certificate of Virtual Completion and Defects Liability Period

29. The works shall not be considered as completed until the Bank’s Engineer has certified in writing that they have been virtually completed. The Defects Liability Period shall commence from



the date of such certificate.

Nominated Sub-Contractors

30. All Specialists, Merchants, Tradesman and other executing any work of supplying and fixing any goods for which prime cost prices or provisional sums are included in the Schedule of Quantities and/or Specifications who may be nominated or selected by the Bank's Engineer are hereby declared to be Sub-Contractors employed by the Contractor and are herein referred to as nominated Sub-Contractors.

No nominated Sub-Contractor shall be employed on or in connection with the works against the Contractor shall make reasonable objection or (save where the Employer and Contractor shall otherwise agree) who will not enter into a Contract provided :

(a) That the nominated Sub-Contractor shall indemnify the Contractor against claims in respect of any negligence by the Sub-Contractor, his servants or agents or any misuse by him or them of any scaffolding or other plant, the property of the Contractor or under any Workmen's Compensation Act in force.

(b) That the nominated Sub-Contractor shall indemnify the Contractor against the same obligation in respect of the Sub-Contract as the Contractor is under in respect of this contract.

(c) Payment shall be made to the nominated Sub-Contractor within fourteen days of his receipt of the Bank's Engineer's Certificate provided that before any certificate is issued the Contractor shall upon request furnish to the Bank's Engineer proof that all nominated Sub- Contractor's accounts included in previous Certificates have been duly discharged, the default whereof the Employer may pay the same upon a Certificate of the Bank's Engineer and deduct the amount thereof from any sum due to the Contractor. The exercise of this power shall not create brevity of contract as between Employer and Sub-Contractor.

Other persons employed by Employer

31. The Employer reserves the right to use premises and any portions of the site for the execution of any work not included in this Contract which it may desire to have carried out by other persons and the Contractor shall allow all reasonable facilities for the execution of such work but shall not be required to provide any plant or material for the execution of such work except by special arrangement with the Employer. Such work shall be carried out in such manner as not to impede the progress of the works included in the Contract and the Contractor shall not be responsible for any damage or delay which may happen to or occasioned by such work.

Insurance in respect of damages to persons and property

32. The Contractor shall be reasonable for all injury to persons, animals or things, and for all structural and decorative damage to property which may arise from the operation or neglect of himself or of any nominated Sub-Contractor or any employee or either, whether such injury or damage arises from carelessness, accident or any other cause whatever, in any way connected with the carrying out of this Contract. The liability under this clause shall be held to include inter alia, any damage to buildings, whether immediately adjacent or otherwise, and any damage to roads, streets, footpaths, bridges or ways as well as all damage caused to the buildings and other structures and works forming the subject matter of this Contract. The contractor shall also be responsible for any damage caused to the buildings and other structures and works forming the subject matter of this Contract by frost, rain, wind or other inclemency of weather. The Contractor shall indemnify and keep indemnified the Employer and hold him harmless in respect of all and any loss and expenses arising from any such injury or damage to persons or property as aforesaid



and also against any claim made in respect of injury or damage, whether under any Statute or otherwise and also in respect of any award of compensation or damages consequent upon such claim. The contractor shall, at his own expense, effect and maintain with effect from the date of commencement till issue of the completion certificate under this contract, with an approved insurance company, an All Risks Policy for insurance for an amount equal to the amount of the contract including earthquake risk in the joint names of the Employer and the contractor (the name of the former being placed first in the policy) against all risks as per the standard **all risk policy for contractors** and deposit such policy or policies with the employer before commencing the works. The Contractor shall reinstate all damage of every sort mentioned in this Clause, so as to do delivery of the whole of the Contract works complete and perfect in every respect and so as to make good or otherwise satisfy all claims for damage to the property of third parties. The Contractor shall also indemnify and keep indemnified the Employer against all claims which may be made against the Employer by any person/ member of the public or other third 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, with effect from the date of commencement until the completion of the Contract, with an approved Insurance company a policy of Insurance in the joint names of the Employer and the Contractor (the name of the former being placed first in the policy) against such risks and deposit such Policy or Policies with the Employer before commencement of the work. The minimum limit of coverage under the policy shall be as defined elsewhere under General instructions to the tenderer. The Contractor shall also similarly indemnify the Employer against all claims which may be made upon the Employer whether under the **Workmen Compensation Act** or any other statute in force during the currency of this contract or at Common Law in respect of any employee of the Contractor or any Sub-Contractor and shall at his own expenses effect and maintain, with effect from the date of commencement until the completion of the Contract, with an approved Insurance company a policy of Insurance in the joint names of the Employer and the Contractor (the name of the former being placed first in the policy) against such risks and deposit such Policy or Policies with the Employer from time to time during the currency of the Contract. In default of the contractor ensuring as provided above, the employer may so ensure and may deduct the premiums paid from any money due or which may become due to the contractor.

The Contractor shall be responsible for any liability which may be excluded from the Insurance Policies above referred to and also for all other damages to any person, animal or property arising out of and incidental to the negligent or defective carrying out of this Contract, whatever may be the reasons due to which the damage shall have been caused. He shall also indemnify and keep indemnified the Employer in respect of all and any costs, charges or expenses arising out of any claim or proceedings relating to the works and also in respect of any award of compensation or damages, arising there from. Without prejudice to the other rights of the employer against contractor in respect of such default, the Employer shall be entitled to deduct from any sums payable to the Contractor the amount of any damage, compensation, costs, charges and other expenses paid by the employer and which are payable by the contractor under this clause. The contractor shall upon settlement by the insurer of any claim made against the insurer pursuant to a policy taken under this clause proceed with due diligence to rebuild or repair the works destroyed or damaged. In this event all the money received from the insurer in respect of such damage shall be paid to the contractor and the contractor shall not be entitled to any further payments in respect of the expenditure incurred for rebuilding or repairing of the materials or goods destroyed or damaged.

The contractor, in case of re-building or reinstatement after damage shall be entitled to such extension of time for completion as the Employer may deem fit, but shall, however, not be entitled to reimbursement by the employer of any shortfall or deficiency in the amount finally paid by the insurer in settlement of any claim arising as set out herein.



Without prejudice to his liability under this clause, the contractor shall also cause all nominated sub-contractors to effect, for their respective portions of works similar policies of insurance in accordance with the provisions of this clause and shall produce or cause to produce to the employer such policies. The contractor shall not permit a nominated sub-contractor to commence work at site unless said insurance policies are submitted. In the event of failure of the sub-contractor to take out such policy or policies of insurance before commencing the works at site, the contractor shall be responsible for any claim or damage attributable to the said sub-contractor.

Date of commencement and completion

33. The Contractor shall be allowed admittance to the site on the "Date of Commencement" stated in the Appendix hereto, or such later date as may be specified by the Bank's Engineer and he shall thereupon and forthwith begin the work and shall regularly proceed with and complete the same (except such painting or other decorative work as the Bank's Engineer may desire to delay) on or before the "Date of Completion" stated in the Appendix subject nevertheless to the provision for extension of time hereinafter contained.

Damage for non-completion

34. If the Contractor fails to maintain the required progress of the works and fails to complete the works by the completion time stipulated in the Contract or within any extended time under time extension Clause 27 hereof and the employer certifies in writing that in his opinion the same ought reasonably to have been completed, the Contractor shall pay the Employer the sum named as "**Liquidated Damages**" for the period during which the said works shall so remain incomplete and the Employer may deduct such damages from any moneys due to the Contractor. The contractor hereby specifically agrees and authorizes the Employer to deduct such liquidated damages, if any, from any installment of payment becoming due and payable to the contractor in terms of this contract or from the retention money."

Delay and Extension of Time

35. If in the opinion of the Bank's Engineer, the works be delayed (a) by force majeure or (b) by reason of any exceptionally inclement weather or (c) by reason of proceedings taken or threatened by or dispute with adjoining or neighboring owners or public authorities arising otherwise than through the Contractor's own fault or (d) by the works or delays of other Contractors of Tradesmen engaged or nominated by the Employer and not referred to in the Schedule of Quantities and/or Specification or (e) by reason of Bank's Engineer's instruction as per Clause 2 hereof or (f) by reason of civil commotion, local combination of workmen or strike or lockout affecting any of the building trades or (g) in consequence of the Contractor not having received in due time necessary instructions from the Bank's Engineer for which he shall have specifically applied in writing or (h) from other causes which the Bank's Engineer may certify as beyond the control of Contractor or (i) in the event, the value of the work exceed the value of the Priced Schedule of Quantities owing to variation, the Bank's Engineer may with previous approval in writing of the Employer, make a fair and reasonable extension of time for completion of the contract works. In case of such strike or lock-out, the Contractor shall immediately give written notice thereof to the Employer but the Contractor shall nevertheless constantly use his endeavors to prevent delay and shall do all that may reasonably be required to the satisfaction of the Bank's Engineer to proceed with work. Stoppage of work due to normal monsoon cannot be considered as hindrances.

If the contractor needs an extension of time for completion of the work or if the completion of work



gets delayed for any reason beyond the due date of completion stipulated in the contract, the contractor shall apply to the employer for extension of time in writing at least 7 days before the expiry of the scheduled time and while applying for extension of time, contractor shall furnish the reasons in detail and his justification along with documentary evidence (copy of relevant pages of hindrance register), if any, for delays. Only that period of extension of time as granted by the employer (on receipt of the application from the contractor or even in absence of any such application certification as to the reasonableness of the grounds for delay) will qualify for exemption of imposition of liquidated damages. For the balance period in excess of original stipulated period and an authorized extension of time granted by the employer, the provision of liquidated damages as stated under clause 36 will become applicable.

Further the contract shall remain in force even for the period beyond the due date of completion *i r r e s p e c t i v e* whether the Contractor has applied or not, for the grant of extension of time for completion unless the Employer decides to terminate the contract. The delay for completion of work for any reason will not entail any right to the Contractor to claim any revision of rates or any extra compensation for any reason.

Failure by Contractor to comply with the Bank's Engineer's Instructions

36. If the Contractor after receipt of written notice from the Bank's Engineer requiring compliance within ten days fails to comply with such further drawings and/or Bank's Engineer's instructions, the Employer may employ and pay other persons to execute any such work whatsoever, that may be necessary to give effect thereto, and all costs incurred in connection therewith shall be recoverable from the Contractor by the Employer on the Certificate of the Bank's Engineer as a debit or may be deducted by him from any money due to the Contractor.

Termination of Contract by the Employer

37. If the Contractor being an individual or a firm commits any "Act of insolvency", or shall be adjudged an Insolvent or being an Incorporated Company shall have an order for compulsory winding up made against it or pass an effective resolution for winding up voluntarily or subject to the supervision of the Court and the Official Assignee or the Liquidator in such acts of insolvency or winding up, as the case may be, shall be unable within seven days after notice to him requiring him to do so, to show to the reasonable satisfaction of the Bank's Engineer that he is able to carry out and fulfill the contract and to give security therefore, if so required by the Bank's Engineer.

OR if the Contractor (when and individual, firm or Incorporated Company) shall suffer execution or other process of Court attaching property to be issued against the Contractor.

OR shall suffer any payment under this Contract to be attached by or on behalf of any of the creditors or the Contractor.

OR shall assign or sublet this Contract without the consent in writing of the Employer firsthand and obtained.

OR shall charge or encumber this Contract or any payments due or which may become due to the Contractor hereunder.

OR if the Bank's Engineer shall clarify in writing to the Employer that the Contractor.

i) Has abandoned the Contract or

(i) Has failed to commence the works or has without any lawful excuse under these Conditions suspended the progress of the works for fourteen days after receiving from the Employer notice to proceed or.

(ii) Has failed to proceed with the works with such due diligence and failed to make such due



progress as would enable the works to be completed within the time agreed upon or

(iii) Has failed to remove materials from the site or to pull down and replace work for seven days after receiving from the Bank's Engineer written notice that the said Materials or work were condemned and rejected by the Bank's Engineer under these conditions, or

(iv) Has neglected or failed persistently to observe and perform all or any of the acts, matters of things by this contract to be observed and performed by the Contractor for seven days after written shall have been given to the Contractor requiring the Contractor to observe or perform the same. Then and in any of the said cases the Employer may, notwithstanding any previous waiver, after giving seven days' notice in writing to the Contractor, determine the Contract, but without thereby affecting the powers of the Bank's Engineer or the obligations and liabilities of the Contractor, the whole of which shall continue in force as fully as if the Contract had not been so determined, and as if the work subsequently executed had been executed by or on behalf of the Contractor. And further, the Employer by his agents or servants may enter upon and take possession of the works and all plants, tools, scaffoldings, sheds, machinery steam and other power utensils and materials lying upon the premises or the adjoining lands or roads, and use the same as his own property or may employ the same by means of his own servants and workmen in carrying on and completing the works or by employing any other Contractor or other person or persons to complete the works, and the Contractor shall not in any way interrupt or do any act, matter or thing to prevent or hinder such other Contractor or other person or persons employed for completing and finishing or using the materials and plant for the works. When the works shall be completed or as soon thereafter as convenient the Bank's Engineer shall give a notice in writing to the Contractor to remove his surplus materials and plant, and should the Contractor fail to do so within a period of fourteen days after receipt of thereof by him, the Employer may sell the same by public auction, and give credit to the Contractor for the net amount realized. The Employer shall thereafter ascertain and certify in writing under his hand what (if anything) shall be due or payable to or by the Employer and expense or loss which the Employer shall have been put to in procuring the works to be completed and the amount, if any, owing to the Contractor and the amount which shall be so certified shall thereupon be paid by the Employer to the Contractor or by the Contractor to the Employer, as the case may be, and the Certificate of the Bank's Engineer shall be final and conclusive between the parties.

Termination of Contract by Contractor

38. If the payment of the amount payable by the Employer under Certificate of the Engineer shall be in arrears and unpaid for thirty days after notice in writing requiring payment of the amount as aforesaid shall have been given by the Contractor to the Employer, or if the Employer interferes with or obstructs the issue of any such Certificate, or if the Employer shall repudiate the Contract, or if the works be stopped for three months under the order of the Bank's Engineer or the Employer or by any injunction or other order of any court of Law, then and in any of the cases the Contractor shall be at liberty to determine the Contract by notice in writing to the Employer, through the Bank's Engineer and he shall be entitled to recover from the Employer, payment for all works executed and for any loss he may sustain upon any plant or materials supplied or purchased or prepared for the purpose of the Contract.

In arriving at the amount of such payment the net rates contained in the Contractor's original tender shall be followed or where the same may not apply, valuation shall be made in accordance with Clause hereof.

Certificate of payments

39. The Contractor shall be paid by the Employer from time to time by instalments under Interim Certificate to be issued by the Employer's engineer on account of the works executed, work to the approximate value named in the Appendix as "Value of work for Interim Certificates" (or less at the reasonable discretion of the Employer) has been executed in accordance with this Contract. The



Employer may, at his discretion, include in the Interim Certificate such amount as he may consider proper on account of materials delivered upon the site by the Contractor for use in the works. And when the works have been virtually completed and the Employer shall have certified in writing that they have been completed, the contractor shall be paid the balance amount by the employer in accordance with the certificate to be issued by the Employer's engineer. The Contractor shall be entitled to the release of the Bank guarantee towards Security Deposit in accordance with the Final certificate to be issued in writing by the Employer at the expiration of the period referred to as "the Defects Liability Period" in the Appendix hereto from the date of Virtual Completion or as soon after the expiration of such period as the works shall have been finally completed and defects made good according to the true intent and meaning hereof, whichever shall last happen, provided always that the issue by the Employer of any certificate during the progress of the works at or after their completion shall not relieve the Contractor from his liability under Clause 2, 28 and 29 nor relieve the Contractor of his inability in cases of fraud, dishonesty or fraudulent concealment relating to the works or materials or to any matter dealt within the Certificate, and in case of all defects and insufficiencies in the works or materials, which a reasonable examination would not have disclosed. No Certificate shall of itself be conclusive evidence that any works or materials, to which it relates, are in accordance with the Contract neither will the Contractor have a claim for any amounts which the Employer might have certified in any interim bill and paid by the Employer and which might subsequently be discovered as not payable and in this respect the Employer's decision shall be final and binding.

42 (a) 75% of the amount payable to the Contractor on the RA bills will be released as ad- hoc payment within 7 working days from the date of certification by the Bank's Site Engineer, pending test checking of work and measurement checking of detailed arithmetical accuracy and certification by Engineers.

42(b) The Employer shall have power to withhold any Certificate if the works or any parts thereof are not being carried out to his satisfaction.

42 (c) The Employer may by any Certificate make any correction in any previous certificate which shall have been issued by him.

42 (d) No payment shall be made to the Contractor if the Contractor fails to insure the works and keep them insured till the issue of the Virtual Completion Certificate.

42 (e) Payments upon the engineer's Certificate shall be made within the periods named in the Appendix as "Period for honour of Certificates".

42 (f) Any amounts payable by the Employer to the Contractor in pursuance of any certificates given by the Engineer hereunder shall, if not paid, within the "Period of honouring certificates" named in the Appendix carry interest at the rate named in the Appendix as the "rate of interest for delayed payment" from the date upon which such sum ought to have been paid by the Employer until the payment.

Matter to be finally determined by the Employer

43. The decision, opinion, direction, certificate of payment with respect to all or any of the matters under Clause 2, 4, 6, 7, 12, 16, 17, 19, 20, 21, 27 (a,b,c,d,f), 28 hereof (which matters are herein referred to as excepted matters) shall be final and conclusive and binding on the parties hereto and shall be without appeal. Any other decision, opinion, direction. Certificate of valuation of the Bank's Engineer or any refusal of the Bank's Engineer to give any of the same, shall be



subject to the right of Arbitration and review under **Clause 44** hereof in the same way in all respect (including the provisions as to opening the reference) as if it were a decision of the Bank's Engineer.

Settlement of disputes by arbitration

44. All disputes and differences of any kind whatever arising out of or in connection with the contract or the carrying out of the works (whether during the progress of the works or after their completion and whether before or after the determination abandonment or breach of the contract) shall be referred to and settled by the Bank who shall state its decision in writing. Such decision may be in the form of a final certificate or otherwise. The decision of the Bank with respect to any of the excepted matters shall be final and without appeal as stated in Clause 33 hereof. But if either the Contractor be dissatisfied on any matter the Contractor may within 28 days after receiving notice of such decision give a written notice to the other party requiring that the matters in dispute be arbitrated upon. Such written notice shall specify the matters, which are in dispute or difference of which such written notice has been given. If both the parties agree, a single arbitrator would be appointed for the purpose. In case no agreement could be reached on the appointment of single arbitrator, both the parties will nominate one person each as an arbitrator on their behalf. The two arbitrators nominated by the parties shall nominate one more person to act as third arbitrator or umpire.

The arbitrator or arbitrators, as the case may be, shall have power to open up, review and revise any certificate, opinion, decision, requisition or notice, save in regard to the excepted matters, referred to in the preceding clause, and to determine all matters to dispute which shall be submitted to arbitration and of which notice shall have been given as aforesaid.

The arbitrator or arbitrators, as the case may be, shall make his or their award within one year (or such further extended time as may be decided by him or them as the case may be with the consent of the parties) from the date of entering on the reference. In case during the arbitration proceedings the parties mutually settle or compromise their dispute or difference, on the parties filing their joint memorandum of the settlement or compromise, the arbitrator or the arbitrators as the case may be, shall make an award in terms of such settlement or compromise.

Upon any such reference, the decision on the cost incidental to the reference and award respectively shall be in the discretion of the arbitrator or arbitrators as the case may be., who may determine the amount thereof or direct the same to be taxed as between the party and party, and shall direct by whom and to whom and in what manner the same shall be borne and paid. This submission shall be deemed to be a submission to arbitration within the meaning of the **Indian Arbitration and Conciliation Act, 1996 or any statutory modification thereof**. The award of the arbitrator or arbitrators, as the case may be, shall be final and binding on the parties. It is agreed that the Contractor shall not delay the carrying out of the works by reason of any such matter, question or dispute being referred to arbitration, but shall proceed with the works with all due diligence and shall until the decision of the arbitrator or arbitrators is given, abide by the decision of the Bank. No award of the arbitrator or arbitrators, as the case may be, shall relieve the Contractor of his obligations to adhere strictly to the Bank's instructions with regard to the actual carrying out of the works. The Employer and the Contractor hereby also agree that arbitration under this clause shall be a condition precedent to any right of action under the contract.

The venue of arbitration shall be Guwahati, Assam, India.

Right of Technical Scrutiny of Final Bill



45. The Employer shall have a right to cause a technical examination of the works by any of the persons or organization as appointed by the Employer and the final bill of the Contractor including all supporting vouchers, abstracts etc. If as a result of this examination or otherwise any sum is found to have been overpaid or over-certified it shall be lawful for the Employer to recover the sum from any payment due to the Contractor for this work or any other work or works being carried out by Contractors elsewhere under the RESERVE BANK OF INDIA.

Employer entitled to recover compensations paid to workman

46. If, for any reason, the Employer is obliged by virtue of the provisions of the Workmen's Compensation Act, 1923, or any statutory modification or re-enactment thereof to pay compensation to a workman employed by the Contractor in execution of the works, the Employer shall be entitled to recover from the Contractor the amount of compensation so paid and without prejudice to the rights of the Employer under the said Act. The Employer shall be at liberty to recover such amount or any part thereof by deducting it from the security deposit or from any sum due by the Employer to the Contractor under this Contract or otherwise. The Employer shall not be bound to contest any claim made against it under the said Act, except on the written request of the contractor and upon his giving to the Employer full security to the satisfaction of the Employer for all costs for which the Employer might become liable in consequence of contesting such claim.

Abandonment of works

47. If at any time after the acceptance of the tender, the Employer shall for any reasons whatsoever not require the whole or any part of the work to be carried out, the Employer shall give notice in writing to the Contractor who shall have no claim to any payment of compensation or otherwise whatsoever on account of any profit or advantage which he might have derived from the execution of the whole works.

Return of surplus materials

48. Notwithstanding anything to the contrary contained in any or all the clause of this Contract, where any material for the execution of the Contract is procured with the assistance of the Employer by purchases made under orders or permits or licenses issued by Government, the Contractor shall hold the said Materials economically and solely for the purpose of the Contract and not dispose them without the prior written permission of the Employer and return it to the Employer, if required by the Employer, at the price to be determined by the Bank's Engineer having due regard to the condition of the materials, the price to be determined not to exceed the purchase price thereof inclusive of GST and other such levies paid by Contractor in respect thereof. In the event of breach of the aforesaid condition, the Contractor shall, in addition to being liable to action for contravention of the terms of licenses or permit and or criminal breach of trust, be liable to Employer for all moneys, advantages or profits resulting or which in the usual course would have resulted by reason of such breach.

Right of Employer to terminate contract in the event of death of contractor if individual

49. Without prejudice to any of the rights or remedies under this contract, if the Contractor, being an individual, dies, the Employer shall have the option of termination of the contract without incurring any liability for such termination.



Accident Reports

50. In the event of accidents of any kind, the Contractor shall furnish the Client with copies of all accident reports. The reports shall be sent without delay and at the same time that they are forwarded to any other parties.

Marginal Notes

51. The notes in the box and in the catch lines hereto and in the annexures hereto are meant only for convenience of reference and shall not in any way be taken into account in the interpretation of these presents and the annexures hereto.

NON-DISCLOSURE CLAUSE

52. The contractor shall not disclose directly or indirectly any information, materials and of the Bank's infrastructure/ system / equipments etc. which may come to the profession or knowledge of the contractor during the course of discharging its contractual obligations in connection with the agreement, to any third party and shall at all times hold the same in strictest confidence. The contractor shall treat the details of the contract as private and confidential, except to the extent necessary to carry out the obligations under it or to comply with applicable laws. The contractor shall not publish, permit to be published, or disclose any particulars of the works in any trade or technical paper or elsewhere without the previous written consent of the Employer. The contractor shall indemnify the Employer for any loss suffered by the Employer as a result of disclosure of any confidential information. Failure to observe the above shall be treated as breach of contract on the part of the contractor and the Employer shall be entitled to claim damages and pursue legal remedies.

The contractor shall take all appropriate actions with respect to its employees to ensure that the obligations of non-disclosure of confidential information under this agreement are fully satisfied.

The contractor's obligations with respect to non-disclosure and confidentiality will survive the expiry or termination of this agreement for whatever reason.

Compliance to all the statutory Acts

The contractor shall comply to the provisions of Labour laws and all other relevant statutory acts (minimum wages act etc.)

53. The contractor shall provide the required project team at site for managing various aspects of the project. The details of the Project Team, as required under special instructions to the bidders, shall be provided by the contractor if required or as per Bank's Instructions.

Progress Of Work

54. The contractor shall provide the project schedule, as required under Special instructions to the bidders.

Upon award of work, the Contractor shall reconfirm, in writing, the starting and completion schedule including material delivery dates based upon the information submitted in his tender form along with detailed Project schedule/ Bar chart (including details of all the important activities involved), as specified in the Special instructions to the bidders.

The Contractor shall submit, in writing, progress reports as specifically described in the Special Instructions to the Bidders and shall attend the progress review meetings as and when convened by the Employer.



Project Documentation

55. The contractor shall be required to maintain all the relevant documents, details, registers etc. as specifically mentioned in the Special instructions to the bidders at site and shall hand them over to the Employer after completion of the work.

NAME AND ADDRESS OF THE CONTRACTOR SIGNATURE & SEAL OF THE

CONTRACTOR:

Date:

Place



Appendix Hereinbefore Referred To

Reference to clauses in Conditions Hereinbefore Referred To

1	Defects Liability Period	12 Months from the date of virtual completion certificate referred to in clause 31 of section "Conditions Hereinafter Referred To"
2	Period of Final Measurement	3 months from the date of virtual completion
3	Date of commencement	10 th day from the date of issue of work order
4	Date of Completion	Date of virtual completion
5	Completion Period	90 days from the 10 th day of issuing work order
6	Rate of liquidated damages	Rs. 1800/- per day of delay subject to maximum of 10% of the contract value, in terms of clause 26 of the General conditions of Contract
7	Value of works for interim certificates	Rs. 10 lakh
8	Retention percentage	5% from Each bills
9	Security Deposit	(EMD/PB + Total Retention money G Deposit)
10	Part of Security Deposit to be refunded after virtual completion	Amount equal to EMD/ Performance Bank Guarantee
11	Return of Performance Bank Guarantee	Final balance amount remaining after all reasonable deductions, if any, out of PBG of value equivalent to 5 % of the contract value shall be refunded after virtual completion of the work.
12	Part of Security Deposit to be refunded after defect liability period	Amount equal to Retention Money
13	Period of honoring certificates of payment	1 month for RA bills and 3 months for final bill from the date of receipt of complete bill along with supporting documents.
14	Interest for delayed payment	3% per annum

NAME AND ADDRESS OF THE CONTRACTOR

SIGNATURE & SEAL OF THE CONTRACTOR:

Date:

Place:



General Condition

Civil & Carpentry Works

The scope of work covers **TENDER FOR RENOVATION OF ENTRANCE STAIRCASE AND FIRST FLOOR LIFT LOBBY AREA OF MAIN OFFICE BUILDING, RBI GUWAHATI**

1. for the Reserve Bank of India in accordance with drawings and specifications prepared by and under the direction and to the satisfaction of the Bank .

Contract:

2. The form of contract shall be according to the printed form "conditions of contract". The following clauses shall be considered as an extension and not in the limitation of obligation of the contractor.

All important drawings are to be mounted on boards and placed in racks and indexed.

Dimensions:

3. Figured dimensions are in all cases to be accepted in preference to scaled sizes. Large scale details take precedence over small scale drawings. In case if discrepancy the contractor is to ask for clarification before proceeding with the work.

Contractor to include in his rates:

4. The Contractor shall include in his rates for all the items listed in this section.

Contractor to inspect site:

5. The Contractor shall visit and examine the site of work and satisfy himself as to the nature of the existing roads or other means of communications, the extent and magnitude of the work and facilities for obtaining materials and shall obtain generally his own information on all matters affecting the execution of work. No extra charge made in consequence of any misunderstanding or incorrect information on any of these points or the grounds of insufficient description will be allowed. All expenses incurred by the contractor in connection with obtaining information for submitting this tender including his visits to site or efforts in compiling the tender shall be borne by the Tenderer and no claims for the reimbursement thereof shall be entertained

Access to Site

6. The contractor is to include in his rates for forming access to the site, required for the works.

Setting out

7. The contractor shall set out the works in accordance with the plans. All grid/center line shall be marked out to the satisfaction of the Architect / Employer. The contractor shall be responsible for the correctness of the lining out and any inaccuracies are to be rectified at his own expenses.

Treasure Trove: (Not Applicable)

8. Should any treasure, fossils, minerals, or works of art of an queried interest be found while carrying out the works, the contractor shall give immediate notice to the Architects/ Employer of any such discovery and shall hand over such find to the Employer.

Access for Inspection:

9. The Contractor is to provide at all times during the progress of the works and the maintenance period proper means of access, with ladders, etc. and the necessary attendance to move and adapt as directed for the inspection of measurement of the works by the Architects or



their representatives / Employer .

Attendance upon all trades

10. The general contractor shall be required to attend on all the Tradesmen or Sub-contractors/contractors appointed by the Employer for water supply and sanitary, Electrical Installation, Lifts, Air-conditioning, Security Equipment, Hardware, Telephone and other specialist contractors. The rates quoted shall be inclusive of all attendance and also allow the other contractors, appointed by the Employer, use of his scaffolding and retain until such time the relevant sub-contract works are completed

Gatekeeper and Watchmen: (Not Applicable to this contract)

11. The contractor from the time of being placed in possession of the site must make arrangements for watching, lighting and protecting the work, all materials, workmen and the public by day and night on all days including Sundays and Holidays at his own cost.

Cost of Transporting:

12. The contractor shall allow in his own cost for all transporting, unloading, stacking and storing of supplies and goods and materials for this work on the site and in the places approved from time to time by the Architects. The contractor shall allow in his price for transport of all materials (controlled or otherwise) to the site.

Materials, Workmanship and Samples:

13. Materials shall be of approved quality and the best of their kind available and shall generally conform to I.S. Specifications. The contractor shall order all the materials required for the execution of work as early as necessary and ensure that such materials are on site well ahead of requirements for use in the work. The work involved calls for high standard of workmanship combined with speed and to the entire satisfaction of the Architects / Employer. **Rates for Non-**

tender Items:

14. Rates of items not included in Schedule of quantities shall be settled by the Architects /Employer as mentioned in the variation clause of the Contract conditions.

Rates to include:

15. The rates quoted shall be for all leads and lifts and finished work.

To ascertain from Contractor for the other Trades:

16. The Contractor shall ascertain from other contractor as directed by the Architects / Employer all particulars relating to their work with regard to the order of its execution and the position in which chases, holes and similar items will be required, before the work is taken in hand as no claims for extras will be allowed for cutting away work already executed in consequence of any neglect by the contractor to ascertain these particulars beforehand. Before ordering materials, the contractor shall get the sample approved from the Architects /Employer well in time.

Testing of Work and Material:

17. The contractor shall arrange to test the materials to be used for the work as decided and directed by the Architect/Employer, at his cost in order to prove their soundness and efficiency. Before sending the samples of materials for testing, the samples shall be sealed and signed jointly by the contractor and the representative from the Bank and each sample shall be given distinct identification mark. On receipt of various test reports, proper record shall be maintained for all the



test carried out showing respective identification marks of the samples and results. If after any such tests, the work or portion of works is found to be defective or unsound in the opinion of the Architects / Employer the contractor shall pull down and redo such works at their own cost. The materials found to be defective or declared unsound or not conforming to specifications etc., after testing, shall be immediately removed from the site by the contractor.

In case, the contractor fails to get the work / portion of works / materials tested at appropriate time, the Employer will arrange for getting such testing done and all testing charges and other incidental expenditure incurred by the Employer in connection with such tests shall be recovered from the Contractor.

After any such tests, the work or portion of works is found to be defective or unsound in the opinion of the Architects / Employer, the contractor shall pull down and redo such works at their own cost. The materials found to be defective or declared unsound or not conforming to specifications etc., after testing, shall be immediately removed from the site by the contractor

Clearing of site

18. As work is to be carried out in office premises the contractor shall remove debris and clean the premises at the end of every day on his expense and maintained the area in clean and tidy conditions.



SPECIAL CONDITION AND INSTRUCTION FOR WORK

Tenderer may specially note the following:-

1. The work involved in this contract is for the renovation of windows on various floor of Main building. Offices of the Bank will be functioning in this Building and hence work is required to be carried out in a restricted place and no extra claim on this account shall be entertained by the Employer/Bank.
2. The work shall be carried out by the Contractor by taking all necessary precautions to avoid inconvenience to the offices and the people working therein.
3. The Contractor shall obtain working passes for the laborers to be employed for the work. Working passes with Identity Card with Photos to be obtained. The Contractor has to obtain the Police Verification done to his work men employed in this work.
4. No debris shall be stored or stacked in any area other than the area designated by the Architect/Bank in the compound area of premises. The contractors shall keep the premises clear during the progress of work and ensure to remove the debris / unwanted and or unserviceable materials created in the process of work on a day to day basis, and debris shall be taken out from premises on regular basis but in no case debris will be allowed to remain within Bank for more than a week. Any debris etc. shall, in no case, be kept on Municipal footpath. In case of failure to do so, the contractors will be fully responsible for paying all the fines, if any, imposed by the Municipality or Court including attending to Court Summons etc.
5. No movement of materials including debris into and out of the premises shall be permitted without the requisite formalities. Contractor will keep the Bank advised about the movement of materials/debris.
6. No worker of the contractor other than security staff will be allowed to stay at site.
7. The rates quoted shall be valid for working at all levels, heights. No extra payment shall be made for scaffolding, staging, ladders etc. for transportation of laborers and materials at higher or lower levels.
8. The rates quoted should also include cost of covering all the furniture, computers and its peripherals, machines, cooler etc. in the work area with PVC sheet and cleaning and dusting the entire area and furniture before opening of office on next day.

Place:

Contractor's Signature:

Date: Address:



TECHNICAL SPECIFICATIONS

1.1.1 SCOPE OF WORK

The scope of work covered under this contract comprises the civil and Carpentry work and other related works, First Floor of main office building Guwahati.

1.1.2 MATERIALS AND WORKMANSHIP

The contractor under this contract binds himself to use first class materials. Quality of workmanship shall be of the highest order befitting the nature of the project. All work not up to the standard shall be summarily rejected and the Contractor will be required to dismantle the defective work and redo the work at his own cost and risk. The decision of architect/employer regarding the quality/standard of workmanship shall be final and binding on the contractor.

1.2.0 MATERIALS

1.2.1 Cement:

Cement shall be Portland cement conforming to relevant IS and of grade 43.

1.2.2 Water:

Water used for mixing and curing shall be potable clean, reasonably clear and free from objectionable quantities of silt, oils, alkalis, acids, salts so as not to weaken mortar.

1.2.3 Sand:

Sand shall conform to IS 1542 specifications for sand for mortars and plaster.

1.2.4 Metal:

Metal shall conform to IS 1542 specifications for Metal for concrete.

1.2.5 Cement mortar:

For PCC/backing coat to stone shall be prepared by mixing cement and sand in specified proportion. Proportioning shall be carried out as detailed in BOQ. Cement and sand shall be thoroughly mixed and water shall be added to it gradually. After addition of water the mix shall be mixed for a minimum of 3 minutes. The mortar mixed shall be consumed within 30 minutes of its mixing.

1.2.6 AAC Block

AAC Block of size 600mmx200mmx150mm with a compressive strength of 3to 4.5 N/mm² as per IS 2185 Part 3, normal dry density of 550 to 650 kg/m³, 2 to 6 hrs. fire resistance. The blocks shall



be stored on site in such way that contact of moisture is avoided. Use Hacksaw or rotary cutter to cut the blocks. Chases for plumbing and electrical to be grooved before plaster. The blocks should be fixed or joined only by approved chemical mortar having dry density of 600kg/cum, initial setting time of 120 to 150 minutes, final setting time of Coating thickness should Coating thickness should not be more than 4mm. It should have a shelf life of 6 months.

1.2.7 APP/SBS Membrane

APP/SBS membrane having thickness of 4mm and water absorption should be less than 1%. The weight should be 3 to 6 kg/m². The membrane should have polyethylene film as upper and lower surface finish. Water impermeability or water tightness at high pressure should be minimum 300 kpa.

1.2.8 Vitrified tiles Flooring:

1.2.8.1 Vitrified tiles as specified in Schedule of Quantities and approved by Bank's Engineers/Architect shall be procured from the approved source. The color/pattern of tiles shall be uniform and free from all defects.

1.2.8.2 The edges of tiles shall be protected from any damage in transit.

1.2.8.3 The tiles shall be laid on bedding of approved adhesive and in the manner as specified by the manufactures.

The base tiles/Indian Patent Stone shall be wetted and mopped clean. The greasy stains, if any shall be removed completely by using detergent, kerosene or any other approved method. The rate quoted shall be deemed to include rectifying the base where any of the base tiles/I.P.S. found loose/hollow, the same shall be removed completely and filled with 1:4 proportion cement and sand bedding mortar, cured properly and then tiles laid with adhesive.

1.2.8.4 The tiles shall be laid in pattern/design as approved by Architect/Bank's Engineer. Necessary cutting of tiles where required shall be done. Joints shall be as thin as possible or as directed by Bank's Engineer.

Laying shall start after due consideration is given to the following points and approved by Bank's Engineer.

- 1) Datum levels of floors in room, passages, etc.
- 2) In case there is any architectural feature, the same shall be considered and Pattern adjusted accordingly.
- 3) Location and fixing of floor trunking and junction boxes.
- 4) Tiles may be allowed to go under plaster/skirting/dado for about 10 mm.

1.2.8.5 After the flooring is laid surplus adhesive from the joints shall be cleaned. The following day the joints shall again be cleaned and grouted with white cement mixed with



matching pigment. Excessive grouts shall be cleaned off. The joints shall be cured for seven days.

1.2.8.6 The floors shall be washed with oxalic acid, cleaned and dried with a soft cloth before handing over the site.

1.2.9 Measurement:

The flooring shall be measured in square meters. No extra shall be admitted on account of cutting of tiles to size in shape, preparing a pattern, or a special border or band. The area of floor shall be measured between finished face of skirting to skirting. Portion of flooring below plaster or skirting shall not be measured.

1.3.0 SKIRTING/DADO

1.3.1 Material for skirting, dado shall be as specified herein above.

1.3.2 Surface preparation shall be same as for flooring for each type. Backing coat, plaster for dado and skirting shall be done as detailed herein above. The plaster shall be combed for creating a key and better adhesion with skirting material.

1.3.3 External and internal facings shall be fixed with adequate provision for expansion and compression joints.

1.3.4 Skirting and dado shall be fixed as under:

- 1) Sufficiently hardened backing/under coat must be damp.
- 2) Tiles cut to size must be buttered with white/colored cement paste on the back side as directed.
- 3) Tiles shall be fixed on the under coat and tamped with wooden mallet or rubber mallet to achieve full adhesion to the under coat. Edges shall be tamped to line and level.
- 4) Care shall be taken to achieve pattern of laying with respect to drawings and the floor.
- 5) The laid tiles shall be mopped with wet cloth to remove grout coming out of the joints.

1.3.5 The cleaning shall be as described herein above and the operation shall be manual

1.3.6 Measurement shall be in running meters for skirting for specified width. Dado shall be measured in square meters.

1.3.7 Rate shall include material and labor required to complete the item as specified and approved by the EIC/Architect/ Employer. It shall include dividing strips if any, treating expansion joints if any, sealing corners and edges around fittings and fixtures, etc. all completed as approved by the EIC/Architect/Employer.



2.0 DOORS:

2.0.0 MATERIALS:

2.0.1 Timber shall be of quality as specified in the BOQ and well-seasoned. When and timber is not specified, good quality approved hard wood/imported teak shall be used.

It shall have uniform colour, be free from defects such as cracks, dead knots, soft spongy spots and waves of injurious open shakes. Grain shall be reasonably straight. The individual hard sound knots shall not be larger than 6 sq.cm. The aggregate area of all knots shall not exceed 0.5% area of a piece.

2.0.2 All timber shall be kiln seasoned to IS 1141 and conform to IS 287 for moisture content. Maximum permissible limit shall be + 3% for average moisture content of all samples from a given lot and + 5% for individual sample of the given lot. This is applicable when thickness of timber is more than 50 mm. For small sizes, tolerances shall be + 2 and + 3 respectively.

2.0.3 Timber used shall be treated with approved anti termite treatment. Wood work in contact with masonry or concrete shall be painted with hot bitumen coal tar before being placed in position.

2.0.4 Readymade flush shutters shall be as specified and shall comply with respective code of practice. Manufacturer's certificate conforming that shutters supplied comply to IS shall have to be obtained and submitted to the EIC/Architects/ Employer. Also a copy of test certificate from an independent agency/laboratory shall be obtained.

2.0.5 Shutters shall be of specified thickness. They will have laminate of 1.5 mm thickness as specified.

2.0.6 Tolerances on width and height shall be +/-2 mm. Tolerances on thickness shall be +/- 1.2 mm. Thickness of shutter shall be uniform throughout.

2.0.7 Fittings and fixtures shall be as specified in BOQ and shall comply with respective IS specifications.

2.0.8 All nails, screws etc. shall be hot dipped galvanized or of brass or nonferrous stainless steel.

2.0.9 Adhesive and glues shall be as per IS for exterior quality and water repellent.

2.1.0 WORKMANSHIP:

2.1.1 Timber brought at site shall be as approved by the Architect/Employer.

2.1.2 No timber shall be painted, tarred, oiled, etc. before its inspection by the EIC. Any efforts to hide the defects by plugging, painting, etc. shall render the piece to be rejected by the EIC.

2.1.3 All rejected timber shall be removed at once from the site of work.

2.1.4 All sawing of timber shall be done in straight lines and planes of uniform thickness.



2.1.5 All joints shall be tongued and grooved or of the type shown in the drawings specified in the item or as directed by the EIC. All joints shall be glued with approved adhesive.

2.1.6 Joints shall be strong, neat and shall fit without welding or filling. They shall be pinned with hard wood or bamboo pins of 10-15 mm dia. after the members of the frame are glued and pressed together in a suitable vice mechanism.

2.1.7 Prior to joining, wood members of frame shall be planed smooth and accurate to the full depth. Rebates, rounding, moldings, etc. as shown in the drawings shall be done before the members are joined.

2.1.8 All timber items shall be subjected to inspection by the EIC prior to any treatment like primer, etc. to be carried out. No item shall be installed unless it is approved by the EIC.

2.2.0 DOOR FRAMES:

2.2.1 Size of the timber shall be as specified in BOQ/Drawings. Frames shall be rebated to house the shutter. They shall be rebated on both sides and rounded or molded etc. as per drawings. For single rebate the depth shall be 12.5 mm.

2.2.2 Frame shall be finished smooth to receive paint/polish or any other specified finish. Surface abutting against the masonry or concrete must be with anti-termite treatment and a coat of boiling coal tar or any other approved wood preservative or primer applied prior to placing in the final position.

2.3.0 GLAZED PANEL SHUTTERS:

2.3.1 These shall be as detailed and specified in the drawing. The thickness of the styles and rails shall also be as specified in the drawing. The thickness of panels will be as specified and the type of panel also noted therein.

2.3.2 Styles and rails of shutter shall be made out of a single piece of wood. The tenons shall pass clear through styles. The styles and rails shall have a 12 mm groove to receive panel of glass.

2.4.0 GLAZING:

2.4.1 Glazing shall be in accordance with IS 3548 code of practice for glazing in building works (doors and windows)

2.4.2 Glass used for the works shall be float glass – clear or frosted as per the approved manufacturers.

2.4.3 Glass shall be flat, transparent and clear when judged by the unaided eye. It may, however, possess a tint when viewed edge-wise.

2.4.4 Glass shall be free from cracks, blisters, stones, scratches, bubbles. Glass shall not show any distortion of light when tested to IS.

2.4.5 Thickness and tolerances on cut sizes of glass shall be as per IS.



2.4.6 Actual cut size glass shall be measured in square meters.

2.4.7 Irregular shaped or circular glass shall be measured as smallest rectangular area from which the irregular or circular pane can be cut.

2.4.8 Glass panes shall be fixed by wooden beading having mitred joints. A thin layer of clear silicon sealant shall be applied between glass panes and the beading. Fixing of glass panes with simple putty and beads shall not be permitted.

2.4.9 Mirrors shall be out of best quality Belgian or equivalent glass, silvered to give a truly plane and smooth surface which shall produce a good 'undisturbed image'.

2.4.10 Glass shall be well protected from any damage during transportation, storage and progress of work. Any glass, which is in the opinion of the Architect/Employer, is not suitable for the work shall be rejected and the contractor shall replace the same forthwith.

2.4.11 The rates for various items shall include material, labor required for proper completion of the item including wastage, breakage involved in process, cutting, cost of subsidiary material required for proper fixing and functioning of glass such as nails, spirits, etc. This shall also include carriage, hoisting, scaffolding, etc.

2.5.0 FITTING AND FIXTURES

2.5.1 The following standard fittings and fixtures shall be included when not specified in the BOQ or the drawings for door shutters in stainless steel. Required brass CP/SS screws for fixing them in the same colour shall also be included in the pricing. Fittings and fixtures shall be as approved by the Architects/Employer. This shall also include making grooves, chases, reinforcing, etc.

2.5.1.1 DOOR SHUTTERS TO CABINS/ROOMS IN GLASS OR TIMBER:

1. Mortise door handle with lock.
2. Hinges: 4 nos. 100 x 63 x 4 mm.
3. Rubber stopper.
4. Concealed Door closer.

2.6.0 MEASUREMENTS AND RATES

2.6.1 Wood work and joinery shall be measured in cubic meters, square meters, running meters or any other manner as detailed in the BOQ.

2.6.2 The price for an item shall include supply of specified quantity and type of timber, sawn, cut, joined, framed and fixed in position including supply and fixing of approved anti-corrosive treated fixtures, straps, bolts, hold fasts, spikes, nails, screws, etc. supplying and applying glue, coal tar, paint and anti-termite treatment. The item shall also include scaffolding, all materials, labor, use of equipment, etc.

2.6.3 Fittings and fixtures shall be as specified herein before if not detailed elsewhere in the



drawings and BOQ.

2.6.4 If wood work is found to be defective due to bad workmanship, shrinkage, etc. within 1 year after completion of work, the defective wood work shall be refixed by the contractor at his own cost to the entire satisfaction of the Architect/Employer. This includes the repairs required to the complete work as it was finished earlier.

2.7.0 THERMAL INSULATION

2.7.1 The Thermal insulation used shall be of approved quality heavy density expanded polyurethane or resin bonded glass wool or equivalent. The glass wool shall have a minimum density of 200 gm/sq. meter

2.8.0 VENEER, PLYWOOD

2.8.1 The veneers, ply wood used in the work shall conform to the IS 851 and IS 303 respectively. It shall be resin bonded suitable for the intended use. The contractor shall produce 1 no. 2400 x 1200 (8'-0" x 4'-0") sample of veneer sheet for the approval of the Architect/Employer.

2.8.2 The laminate to be used shall be as specified and shall be of approved brand like Formica, Decolam, National, Greenlam, etc. The shades and pattern shall be got approved from the Architect/Employer in case the trade name and the pattern number has not been specified in the drawings.

2.8.3 The 'Faux Ebony' veneer shall be imported and this shall be in accordance with the sample available for inspection at the site with Employer.

2.9.0 PANELLING :

The frame work for the paneling shall be in accordance with the BOQ/detail drawings out of 1st quality approved hardwood/imported TW. The members of frame work shall have been treated with a coat of approved anti-termite treatment. The planks used for the paneling shall be of seasoned timber of specified type and thickness. These are to be fixed with counter sunk screws and finished as in the manner specified in BOQ and relevant drawings. The rate quoted shall be also being conclusive of providing grooves, etc. as indicated in the drawings. The rate quoted shall be also being conclusive of providing grooves, etc. as indicated in the drawings.

2.10.0 GYPSUM BOARD CEILING

2.10.1 Description: Gypsum board ceiling system consisting of a range of metal component supporting one or two layers of 12.5 mm Gypboard screws fixed to the underside of suspended grid. Tapered edge board used, are then taped and filled to give a smooth, seamless ceiling which can receive most forms of decoration.

- | | | |
|----|----------------------|---|
| 1. | Intermediate channel | 1200 mm c/c (max.) |
| 2. | M/F Ceiling Section | 450 mm c/c (max.) |
| 3. | Ceiling angle | 1200 mm c/c (Max.) |
| 4. | Perimeter channel | along the wall all around the perimeter side of ceiling |



5. Expansion rawl plug type ½ “

2.10.2 Installation: Framing, Perimeter channels are leveled at the required position above the finished ceiling line and fixed to the wall at 610 mm centers. The remaining metal components are installed to form a regular grid suspended from soffit cleats by ceiling angle at 1200 mm centers connected to the intermediate channels are set 1220 mm apart. M/F ceiling sections are fixed at 450 mm centers at right angles to the underside of intermediate channels using connecting clips.

2.10.3 The Gypboard membrane comprising one layer are fixed with bound edges at right angles to ceiling section with all joints staggered. Gypboard layers are screwed to the M/F ceiling section and perimeter channels at board ends with Gypboard drywall screws with joints staggered. Jointing the screws, taping, POP, etc. are to be carried out according to the recommendation of India Gypsum.

2.10.4 Suspension: Fixing points for suspending the metal grid are required at 1220 mm centers in each direction. When the ceiling is intended to provide fire protection, the fixing to the structure must be non-combustible.

2.10.5 Imposed Loads: The table provides loading data for the suspension grid based on a limiting deflection factor of L/400

Suspension grid layout * Suspension point centers (mm)	Intermediate channel Centers (mm)	Maximum load including Weight of board (kg/Sq. m.)
1200	1200	30
1200	915	40
1200	610	60

Ceiling sections are always spaced at 450 mm centers,

2.10.6 Fixing:

Fixing to the system should always be made into the metal grid to supplementary framing as may be necessary fixing or attachments should not be made into the membrane. Some adjustments of the primary grid may be required to support particularly heavy loads, where loads outside this range are anticipated, independent suspension should be provided from the structure.

2.10.7 Fittings and access panels:

Where light fittings, access panels and similar components are incorporated as part of the design requirements, consideration must be given to maintain the integrity of the ceiling when fire resistance and sound insulation are also important factors.



2.10.8 Materials

Components	Dimensions (mm)	Applications
Ceiling Section	80 x 26 0.5 x 3657	Main supporting section to fix Gypboard
Perimeter channel	20 x 27 30 x 0.5 x 3657	Fixed round the perimeter to receive end of ceiling section the outer edges to Gypboard.
Intermediate channel	15 x 45 0.9 x 3657	Used on intermediate support to ceiling section.
Ceiling angle Connecting Clip	25 x 10 x 0.50 2.64	Used as a hanger bracket from the structural soffit. Used to connect ceiling sections to intermediate channels.
Soffit cleat	22 x 37	To provide a suspension point to the structural soffit.

2.10.9 For light fittings, grills, diffusers and cut-outs etc. have to be made with the frame of perimeter channels of size 20 mm x 27 mm x 30 mm x 0.55 mm thick, supported suitably and should be considered and included in the rate of false ceiling.

2.11.0 GYPSUM PLASTER TO WALLS (POP PUNNING)

2.11.1 GYPSIM UNIVERSAL PLASTER (Base coat), a gypsum based material in a handy application can be applied over any normal background in not more than one coat, depending on evenness or the back ground. Smooth finish and good impact strength are its virtue.

2.11.2 Gyplaster base coat plaster is a calcium sulphate hemi hydrate plaster with additives including light weight aggregate to improve plasters handling workability and application. It attains early strength and is free from shrinkage cracks. The thickness of the plaster should be a maximum of 13 mm on uneven background but should not exceed 10 mm or less than 5 mm on a level and even background.

2.11.3 The setting time of plaster is approximately 30 minutes after the application, depending upon suction of background. The setting progresses evenly and gradually until the surface is hard enough to receive a final stroke of a trowel, at approximately 45 to 60 minutes.

2.11.4 The coverage is approximately 65 to 75 sq. meters per 1000 kg at 13 mm thickness

2.11.5 For application of gyplaster, the wall is first marked vertically at 1220 mm centers, and then checked with straight edge, or line (preferably aluminum square tube) centers to find the high spots



which are used as guide for level to be set.

2.11.6 The background should be suitably wetted with a brush 5-10 minutes before plastering to displace the trapped air and for a good plaster contact with the surface.

2.11.7 Four points (by putting plaster with flat surface) are fixed in level and plumb to each corner of the wall to determine the thickness of the plaster required to be done.

2.11.8 40 mm wide strips of plaster are fixed. Then the points are applied vertically, in level and plumb of both ends of the wall.

2.11.9 These vertical strips are then made with plaster at even 1220 (or 1550 mm) centers on the entire area of the wall, to ensure level and plumb of the strips, to be in line.

2.11.10 The plaster is applied to surface of the wall with a trowel to required thickness and finish the surface by setting straight edge (sq. tube) horizontally by them placing on the vertical strips already fixed above, with firm pressure.

2.11.11 A tight coat is applied then turned back with the same batch material to fill out to required thickness.

2.11.12 A featheredge should be used to straighten the plaster to a reasonable plane, whilst at the same time filling in any slacks or hollows when the plaster has stiffened sufficiently, further ruling out the feather edge is necessary to achieve a flat surface.

2.11.13 As the plaster stiffens progressively, further flattening and paring should be carried out with a spatula.

2.11.14 When the plaster is sufficiently formed, the surface should be soaked lightly with a sponge float and light application of water if necessary to raise the flat and bring the

2.11.15 Closing in with the trowel should commence as soon as plaster starts to set, followed by a final trowel at the appropriate time.

2.11.16 Over polishing should not be done at any cost.

2.11.17 Decoration and final finish should be delayed until the plaster work has dried out thoroughly.

2.11.18 Precautions:

- a. Tools and water used in mixing must be clean and free from set plaster and other impurities.
- b. Set plaster shortens the setting time and thus reduces the strength of plaster which sets.
- c. Surfaces should be protected from weather and should be reasonably wetted 5- 10 minutes before plastering so that the plaster holds on the background
- d. Fittings and plugging of all kinds should be done before proceeding to plaster.
- e. Openings, chases or other apertures for cable conduits and other's should be cut before



plastering.

- f. Background to be plastered should be thoroughly brushed with broom to remove dust and loose mortar.
- g. Once a mix has started to set, it should not be re-tempered neither should be a fresh gauging be mixed with an old one.

2.11.19 Background surface should be reasonably dry and protected from the weather. The suitability of a particular background for plastering should be considered in relation to its length, suction, bonding properties, shrinkage or thermal movement characteristics, water and soluble salt content. The high suction of certain backgrounds (like concrete block masonry) should be adjusted by sprinkling water.

2.11.20 Plaster is not supposed to isolate dampness and they are not suitable for use in continuously damp or humid conditions. During application of Gyplaster in hot or dry conditions, care should be taken to ensure that rapid loss of water is avoided. The reason is that Gyplaster requires a proportion of the mixing water in order to set and achieve full strength. If the water is dried off too rapidly then the strength of the plaster will be impaired. Once set and fully dry, it is suitable for use in situation where the inside temperature is 50 de. C maximum.

2.11.21 Universal plaster attains early strength during the drying process and the plaster work does not suffer from inherent shrinkage cracks. Whilst the finished surface can be intended by impact, the natural resilience of set plaster prevents more serious damage.

2.11.22 Tubular service conduits should be chased into the background wherever possible. The following precautions should be taken in order to minimize any risk of subsequent plaster cracking or rust staining over service runs.

1. Conduit of minimum permissible dimensions should be used.
2. High spots in the background should be chiseled if possible.
3. The undercoat plaster thickness specified should be sufficient to cover the extreme protrusions of the conduit by at least 5 mm.
4. Service routes should avoid door frames, ground, etc.
5. Service piping, conduits, fixing clips and other metallic objects should be adequately protected by galvanizing, painting or applying a thicker layer of lacquer in order to protect it from rusting.
6. At junctions of different materials (like concrete blocks and RCC columns/ beams) a fiber mesh shall be applied prior to the application of the plaster to avoid cracks at a later date.

2.11.23 Gyplaster universal shall be mixed in a clean mixing bucket using clean water. Plastic buckets can be used to avoid rust staining from metal containers.

2.12.0 PAINTING AND POLISHING

2.12.1 Materials: Paints used in the works shall conform to the respective IS code of practices: These shall be the latest revised.

Paints shall be factory made and no site preparation shall be allowed except for the white wash.



Paints received at the site shall be in manufacturer's sealed drum.

2.12.2 Paints should be such as to withstand weathering effects of the atmosphere, decay of wood, corrosion of metal and of pleasing appearance. Also their surface should become hygienic, clean and attractive.

2.12.3 Paints shall conform to the following points:

1. Good spreading coverage.
2. Easy application.
3. Should form a thin uniform film on application.
4. Surface should not crack when paint dries.
5. Should be inert to weathering actions of atmosphere.
6. Final surface should be hard and durable.

2.12.4 The manufacturer and shades of paint used at the work site shall be to the approval of the Architects/Employer.

2.12.5 Workmanship : the work shall be carried out as specified in IS 2395 Part I and Part II schedule of painting system to be as per table of IS 2395 Part II.

2.12.6 Surface preparation:

- a. Surface shall be cleaned and any existing fungus or mould shall be removed. A coat of fungicidal wash shall then be applied and allowed to dry if necessary.
- b. Any cracks, defects in the plaster of Paris surface shall be cut out made good, cured and allowed to dry. Minor cracks may be filled with suitable filler.
- c. Lime mortar plaster shall be left unpainted for the first few months to allow plaster to carbonate, harden and dry thoroughly.
- d. In case of gypsum plaster it shall be ensured that the surface is either alkaline or neutral and tested in accordance with E-1 as specified in IS 2395 Part I.

2.12.7 All paints and products shall be from one manufacturer only. The steps for painting operation to be followed as under :

- a. Primer/sealer – coat as recommended by paint manufacturer.
- b. Filler/Putty as many layer as required and approved of
- c. Undercoats.
- d. Finishing coat or coats.

2.12.8 Paints to be applied shall be spread uniformly over the entire area. Paints shall be mixed and stirred thoroughly prior to use. No addition of thinner or water shall be permitted other than the quantity specified by the manufacturers.

2.12.9 Paint may be sprayed or applied with brush depending upon type of paint used.

2.12.10 Finishing shall be to the satisfaction of the Architect/EIC/Employer.



- 2.12.11** Sufficient time shall be allowed between two coats to ensure that the earlier coat is fully dry prior to the application of the successive coat.
- 2.12.12** Application of paint shall be carried out in properly ventilated and dry weather for painting of interiors.
- 2.12.13** Application of one coat in one room shall be finished in one operation.
- 2.12.14** Filler shall be plaster of Paris or as approved by the Architects/EIC/Employer.
- 2.12.15** Brushing of paints in coats shall be in a direction that is at right angles to the previous one. No brush mark must be visible. The final coat shall be finished with a roller sponge.
- 2.12.16** Painting shall be measured in square meters.
- 2.12.17** The number of finished coats specified in the BOQ are the minimum require and for guideline only. The finish surface shall be the acceptance and approval of Architects/EIC/Employer. Any additional coats required to achieve this shall be to the account of the Contractor and no extra charges shall be payable for any additional coat applied.

2.13.0 PAINTING/POLISHING OF WOOD WORK

2.13.1 Work shall be carried out to specifications IS 2338 Part I and Part II. The system shall be installed as per the schedule for finishing and shall be as per table of IS 2338 Part II.

2.13.2 Surface Preparation

- a. Wood to be painted shall be seasoned and free from discolored sap wood and from large resinous or loose knots.
- b. Nail shall be punched well below the surface to provide a firm key for stopping.
- c. Moldings, sills shall be carefully smoothed with abrasive paper and the fibers left after machining shall be cleaned and removed.
- d. Flat portions shall be smoothed.
- e. Any knot, resinous streaks or bluish sapwood shall be treated with two coats of shellac knotting, applied thinly and extended to about 25 mm beyond the actual are requiring treatment.

2.13.3 Priming

- a. Dirt or any other extraneous material shall be removed. A priming coat shall be applied to the bare wood.
- b. All exposed surfaces of the wood shall be primed.
- c. Unless specified otherwise, all joinery work which is intended to be painted shall receive at least two priming coats.

2.13.4 Stopping and filling

- a. Stopping and filling shall be carried out only after priming. Filler material shall conform to IS and shall be approved by the Architect/Employer.
- b. Filler of stiff paste shall be applied with putty knife to fill holes and cracks and subsequently



rubbed down to a level surface with abrasive paper, pumice stone or other suitable abrasive material.

c. The filler coat shall be of an optimum thickness and shall be allowed to fully hardened and flatten before the subsequent coat is applied. As many layers as necessary shall be applied allowing sufficient time between the coats to harden and flatten.

2.13.5 Undercoats:

a. The undercoat shall be applied after the surface has been primed, stopped, filled and rubbed down to a smooth surface.

b. The undercoat may be brushed or sprayed.

c. After drying the coat shall be carefully rubbed down and wiped clean before the next coat is applied.

2.13.6 Finishing: The application of finishing paint varies according to the type of paint employed. Cleanliness is essential and as far as possible the application shall be carried out in a normal dry condition. The finishing coat may be applied either with brush or may be sprayed.

2.13.7 Measurement shall be to the actual surface area and in square meters.

2.13.8 Clear finishes for wood surfaces: Clear finishes shall be applied to wood and wood-based interior surfaces. They shall be carried out to IS 2338 Part I. The procedure of application shall be as detailed hereafter.

2.13.9 Filling

a. Filler conforming to IS 345 shall be used to level off, to make smooth, to prevent the excessive penetration of the finish and to fill the open cells.

b. For special stain effects colour fillers shall be used.

c. On the fine textured woods having minute pores that do not require filling, thin varnishes, lacquer or shellac may be used.

d. Filler or stain filler shall be applied by hand using hessian or jute rag across the grain. The filled surfaces shall be dried preferably overnight and smoothed with abrasive paper.

2.13.10 Staining

a. Staining of wood shall be restored to create special effects for subsequent clear finishes.

b. Stains used shall be water based, spirit based or oil based as approved by the Architects/EIC/Employer according to the purpose and location.

c. Surfaces shall be kept scrupulously clean and free from greasy finger marks.

d. Small cracks or nail holes shall be stopped with fine plaster of Paris or suitable stopping.

e. Stains may be applied by brushing and wiping or spraying. Application shall be liberal but without over-staining that may spoil the stained surface.

2.13.11 Sealing: A suitable seal shall be applied on the filled and sanded surface to prevent absorption by the wood of successive coats of finish and to seal stain and filler and thus preclude their bleeding into the finished coat. When fully dry, the surface shall be sanded taking care not to cut through at corners and edges. Dust shall be blown off and the surface wiped with a



clean rag.

2.13.12 French Polish :

- a. Work shall be carried out to IS 2338 Part I and Part II.
- b. Pure shellac varying pale orange to lemon yellow colour, free from resin or dirt shall be dissolved in methylated spirit at the ratio of 0.15 kg of shellac per liter of spirit. Suitable pigment should be added to get the required colour.
- c. All unevenness should be rubbed down to smoothness with sand paper and thus surface shall be well dusted. The pores in wood shall be filled up with filler made of paste of whiting dissolved in water or methylated spirit. Otherwise the French polish will get absorbed and a good gloss will be difficult to obtain.
- d. A pad of woolen cloth covered by a fine cloth should be used to apply the polish. The pad shall be moistened with polish and rub hard on the surface in a series of overlapping circles so that the polish is applied uniformly over the entire area to give it an uneven surface. The surface shall be allowed to dry and the remaining coats applied in the same day.
- e. To finish off, the pad shall be covered with a fresh piece of clean cloth, slightly dampened with methylated spirit and rubbed lightly and quickly with clear motions. The finished surface shall have a uniform texture and high gloss/matt finish as per specifications.
- f. Measurements shall be in square meters.

2.13.13 Protection: All metal fittings and fixing shall be removed before preparatory process are commenced and shall be re-fixed on completion of the painting/ polishing. All finished work including glass, shall be adequately protected from paint splashes. No paint or other material shall be stored in direct contact with finished floor surface and no mixing shall be carried out on finished floor surface. Provide all necessary pans, trays on which to store and prepare materials. Provide all necessary protective covers for the protection of surrounding surfaces.

2.14.0 Synthetic Carpet:

Carpet should be tufted carpet in loop pile, having bitumen + synthetic non-woven canvas. Yarn should be 100% BCF olefin type having pile weight of 680gm/Sq. m or 20 oz. /Sq. m. It should be solution dyed. The gauge should be 1/10 and pile height should be 4mm. Carpet should be having primary and secondary backing of woven polypropylene. It should have permanent static control.

The manufacturer of this carpet should warrant against excessive indoor abrasion wear for the 10 years from the date of proper indoor installation and assuming normal usage and proper maintenance. If the surface pile of any portion of the carpet is abrasively worn more than 30% the manufacturer should guarantee to remove the work area and replace the removed portion at its expense.

2.15.0 Armstrong Tile and Framework:

Providing and fixing mineral fiber tile having premium sand textured finish, 99% humidity resistance, having size of 600x600x16mm, weight 3.9kg/Sq. m (DUNE H3651B by Armstrong or Equivalent), tegular/reveal edge, Fine Factory-applied vinyl latex paint, colour white, Noise Reduction Coefficient (N.R.C.) 0.50 AS 1045- 1988, Ceiling attenuation class (C.A.C) 33 AS



2499- 1981, Sag shall not be more than

2.5mm in the center of the panel in an environment not exceeding 49 C and 99% Relative Humidity.

2.15.1 Suspension grid shall be Armstrong Select 15mm Black Revel, White to approximate Armstrong Ceiling Panels, Incorporating 5mm steel rod and Suspension Clip /2.5mm wire, 3000mm Main tees must be installed on 600/ 1200/ 1350 mm center, Cross Tees to be installed to create a specified nominal opening, Perimeter Trim to be null.

2.15.2 Jobsite Conditions

Before Armstrong ceiling materials are installed, the units (ceiling panels or tile) should be permitted to reach room temperature and have stabilized moisture content. They should not, however, be installed in spaces where the temperature or humidity conditions vary greatly from the temperatures and conditions that will be normal in the occupied space. It is not good to locate acoustical ceiling tile or panels on low wall or ceiling surfaces where they might be damaged. Dirty air can soil any ceiling. Proper design for both supply air and return air, and maintenance of the HVAC filters and building interior space are essential to minimize soiling. Before starting the HVAC system, make sure supply air is properly filtered and the building interior is free of construction dust.

2.15.3 Temperatures and Humidity During Installation

Acoustical materials are interior finish products and are designed for installation to be carried out in temperature conditions up to 86°F (30°C) in spaces where the building is enclosed and HVAC systems are functioning and will be in continuous operation. There shall be proper ventilation of the plenum in high moisture areas. All plastering, concrete, terrazzo or any other wet work should be complete and dry. All windows and doors should be in place. The heating, ventilating and air-conditioning systems should be installed and operable, where necessary, to maintain proper temperatures before, during and after installation of the acoustical material.

2.16.0 UPVC Pipe

Providing and fixing UPVC soil / vent / waste SWR pipe of 110 mm diameter conforming to IS: 13592: 1992 and IS: 4985: 2000 to withstand continuous internal hydraulic pressure of 4kg/cm² including necessary fixtures and fittings, such as bends, tees, single junctions, double junctions and jointing with rubber rings and lubricants, on wall by means of clips including testing etc. complete.

Note:

Pipes shall be supported on MS clamps and shall be away from wall surface by 50 mm.

2.17.0 PPR Pipes

PPR Pipes should have Better Corrosion Resistance Nontoxic, Hygienic 'Green' product, High vicat softening Temperature, Good Thermal Insulating Property, Good Chemical Resistance, Better impact strength Heat fusion Jointing (No use of solvent) Better Noise Insulation - Extremely long life (i.e. more than 50 years), 100% leak Proof systems.

2.17.1 Jointing Method of PPR Systems



2.17.1.1 CUTTING

1. Cut the pipe right angle to its axis using burr free cutter.
2. Ensure that pipes is free from burrs or cutting chip
3. Clean the pipe & fitting perfectly before welding.
4. Mark welding depth at the end of pipes.

2.17.1.2 HEATING

1. Mount the suitable dies on heating element of welding machine according to the diameter of Pipe and fitting to be welded.
2. Connect the welding machine to 220/230 volts A.C. power supply.
3. Select 260 Deg. C. temperature on the welding machine thermostat.
4. Wait for reaching the required working temperature.
5. Insert the pipe and the fitting in the dies by exerting light pressure.
6. For heating time, refer the table given for different sizes of Pipes.

2.17.1.3 WELDING

1. After heating, quickly insert pipe into the fitting by exerting light pressure.
2. Any misalignment should be corrected immediately after insertion to avoid any Stress in the weld.
3. Allow the joint to cool as per cooling time given in table.

This type of connection ensures perfect sealing even under the severe working Conditions.

2.18.0 FRP Door Frames

FRP Frames are Made of Super Class Newly Formulated high Quality of Raw Material with Core Material of Polyurethane Foam. Poly Fiber [FRP] Moulded Frame Champhered type of section size 90mm x 45 mm having Gel coat finish. It shell be straight in line and level. Remaining hollow portion is to be filled with Injected Polyurethane Foam along with embedded wooded pieces for Stiffening and Holding Hinges. Frame shell be fixed in Masonry or R.C.C. The FRP skin thickness should be 1.5 to 2.0 mm. It should be mild acid and alkali proof.

2.19.0 FRP depressed door panel

FRP Doors are Made of Super Class Newly Formulated and High Quality of Raw Material with Core Material of Polyurethane Foam with Attributes like Weather Proof, termite Pro Light Weight, Sound Proof, Easy Installation, Water Proof, mild Acid and Alkali Proof. It should have a thickness



of 35 mm. Surface shall be finished of Gel coat finish for long las finish. The FRP skin thickness should be 1.5 to 2.0 mm. It shall be straight in line and level. Remaining hollow portion is to be filled with Injected Polyurethane Foam along with embedded wooden pieces for Stiffening and Holding Hinges.

2.20.0 ARMSTRONG WALL PANELLING

Providing and Fixing Armstrong Channeled Woodworks perforated panels of width 128mm, thickness of 15mm and length 2440 mm or as required by the Architect/ approving engineer, made of a high density fiber board with minimum 830 Kg/M³ density substrate with a laminated facing / wood veneer as per the approved shade/ species & finish and a melamine balancing layer on the reverse side. The boards shall have a special perforation pattern where the visible surface has a "Helmholtz" fluted perforation of 2mm width and 14mm of visible panel each. The panels shall provide a fire reaction of Class of 1 as per Part 7 of BS 476. The edges of the panels shall be "tongue-and-grooved" to receive special clips for installation. The back of the perforated panel shall have sound absorbing non-woven acoustical fleece having NRC of 0.55. The panels shall be mounted on special aluminum splines using clips provided by Armstrong and approved by the Architect/ Engineer-in-Charge.

Date

Place
Contractor

Signature of the



LIST OF APPROVED MATERIAL AND SUPPLIERS

Sr. No.	Materials	Approved Manufacturer / Brand name
1.	Cement	Larsen & Toubro, Birla Gold, Gujarat Ambuja, ACC or approved equivalent.
2.	Marine Plywood	Kitply, Anchor, Century, Sylvan ply, green ply or approved equivalent
3.	BWR grade phenol bonded plywood	Swastik, Kit/Kenwood, Mayur, Sylvan ply, Century, green ply or approved equivalent
4.	Block Board	Mysore Mafatlal, Sylvan ply, Century, green ply or equivalent approved.
5.	Fiber Board (MDF, LDF)	Nuwud, Novapan, Swastik, Anchor, Century or approved equivalent
6.	P.O.P. Board	Gypsum India or approved equivalent
7.	Laminates	Formica, Decolam, Neoluxe, NAVImika, Green Lam , Century or approved equivalent
8.	Handles	Godrej, Dorma, Hafele or approved equivalent. or approved equivalent
9.	Glass	Modi Guard, Saint Gobain, Float Glass India (Asahi) or approved equivalent
10.	Soft Board	Jolly Board or equivalent approved.
11.	Screws	G.K.W., Atul, Hilti or approved equivalent.
12.	Hardware	Earl Bihari (EBCO), Shalimar, Vijayan, Sobbit or approved equivalent.
13.	Adhesive	Fevicol SH, Movicol HV of Mafatlal. Araldite of Ciba Geigy, Bal Endura or approved equivalent
14.	Door Closers and Varnish	Doorma, Everite, Hardwyn, Godrej or approved equivalent
15.	Locks	Godrej, Enox, Vision/Vijayan or approved equivalent
16.	Wood preservative	Berger, Shalimar, Asian or equivalent approved.
17.	G.I. Sheets	TISCO, SAIL, JINDAL or approved equivalent
18.	Cement Primer	Shalimar, Goodlass Nerolac, Berger, Asian Paint or approved equivalent
19.	Acrylic Emulsion paints synthetic	Shalimar, Goodlass Nerolac , Asian Paint or approved equivalent



Renovation of entrance staircase and 1st floor Lift Lobby
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20	Enamel paints	Shalimar, Goodlass Nerolac, Asian Paint or approved equivalent
21	Wood primer	Shalimar, Asian, Berger. or approved equivalent
22	Zinc chromate (yellow) primer	Shalimar, Asian, Berger or approved equivalent
23.	Vitrified tiles	H&R Johnson, Nitco , Kajaria, Naveen, Somani, RAK or approved equivalent
24.	Synthetic Carpet	Donair or equivalent
25.	Mineral Fiber Tile	Armstrong, or equivalent
26.	Framing for Mineral Fiber Tile	Select Black Reveal by Armstrong or approved equivalent
27.	PPR/UPVC Pipe	Prince, Supreme or equivalent or approved equivalent
28.	Gypsum Board	Saint Gobain or Gypsum India or Equivalent.
29.	AAC Block	Ecolight or Siporex or Equivalent.
30.	FRP Frame and Door	Everlast, Shreeji or Equivalent
31.	Fire Retardant Paint	Shalimar, Berger, or approved equivalent
32.	Aluminium Section	Jindal, Hindalco or approved equivalent
33.	Tile Adhesive or grout	Bal Endura, Roff, Pidilite, Fosroc or approved equivalent
34.	Floor Spring	Dorma, Hafele,Doreset or approved equivalent
35.	Corian	Corian, Merino, LG or approved equivalent
36.	Flush Door	Century, green or approved equivalent



II. ELECTRICAL MATERIAL SPECIFICATION, INSTALLATION AND TESTING

ELECTRICAL INSTALLATION:

The installations shall generally be carried out in conformity with the requirements of Indian Electricity Act, 1910 as amended up to date and Indian Electricity Rules, 1956 framed there under, the relevant regulations of the Electric Supply Authority concerned and also with the specifications laid down in the Indian Standard IS: 732/1963 "Code of Practice (Revised) for Electrical Wiring Installations (System Voltage not exceeding 650V)". The work shall be executed as per National Electrical Code and if any item is not covered there under or there is any doubt, the specification approved by the Engineer-in-charge will be final and binding.

The installation has to be carried out by an agency holding a valid license issued by the Local Government for carrying out installation work of the voltage classes involved under the direct supervision of persons holding valid certificate of competency issued by the State Government. The Tenderer shall furnish the particulars of the license held by him for carrying out the installation work along with particulars of certificates of competency held by his supervisory staff.

The Tenderer shall visit the premises and ascertain site conditions, existing structures / ceiling and other obstructions if any, and suitably allow for these exigencies in his offer. No extra claims will be admissible later on these grounds.

1. LIGHT FIXTURES & FANS

1.0 Scope

1.1 The scope of work shall cover the supply, installation and testing of **LED light fixtures and wall bracket fans.**

2.0 Standards

2.1 The following standards and rules shall be applicable:

- 1) IS 3646-1968 Code of practice for interior illumination.



2) IS 1913-1969 General and safety requirements for electric lighting fittings.

3) Indian Electricity Act and Rules issued thereunder.

2.2 All codes and standards mean the latest. Where not specified otherwise the installation shall generally follow the Indian standard codes of practice or the relevant British standard codes of practice absence of Indian Standard.

3.0 General Requirements

3.1 All fixtures shall be complete with accessories and fixing necessary for installation whether so detailed under fixture description or not.

3.2 Fixture housing, frame or canopy shall provide a suitable cover for the fixture outlet box or fixture opening.

3.3 Fixtures shall be installed at mounting heights as detailed on the drawings or instructed on site by the R.B.I. Engineer.

3.4 Fixtures and / or fixture outlet boxes shall be provided with hangers supporting conduit to adequately support the complete weight of the fixture. Design of hangers and method of fastening other than shown on the drawings or herein specified shall be submitted to the R.B.I. Engineer for approval.

3.5 Pendant fixtures within the same room or area shall be installed plumb and at a uniform height from the finished floor. Adjustment of height shall be made during installation as per Drawings.

3.6 Flush mounted and recessed fixtures shall be installed so as to completely eliminate light leakage within the fixture and between the fixture and adjacent finished surface.

3.7 Fixture mounted on outlet boxes shall be tightly secured to a fixture stud in the outlet box. Extension pieces shall be installed where required to facilitate proper installation.



3.8 Fixture shall be completely wired and constructed to comply with the regulations and standards for Electric Lighting Fixtures, unless otherwise specified. Fixtures shall bear manufacturer's name and the factory inspection unless otherwise approved.

3.9 Wiring within the fixture and for connection to the branch circuit wiring shall be not less than 1.5 sq. mm copper for 250 volt application. Wire installation shall suit the temperature conditions inside the fixture and wires bypassing the choke shall be heat protected with a heat resistant sleeve. Suitable 6/16A PVC insulated terminals shall be provided for looping purpose.

3.10 Metal used in lighting fixtures shall be not less than 22 SWG or heavier if so required to comply with the specification or standards. Sheet steel reflectors shall have a thickness of not less than 20 SWG. The metal parts of the fixtures shall be completely free from burrs and tool marks. Solder shall not be used as mechanical fastening device for any part of fixture.

3.11 Ferrous metal shall be given a corrosion resistant phosphate treatment or other approved rust inhibiting prime coat to provide a rust proof base before application of finish.

3.12 Non - reflecting surfaces such as fixture frames and trim shall be finished in baked enamel paint.

3.13 Light reflecting surface shall be finished in baked white enamel having a reflection factor of not less than 80 %. All parts of reflector shall be completely covered by finish and free from irregularities. After finish has been applied and cured, it shall be capable of withstanding a 6 mm radius bend without showing sign of cracking, peeling or loosening from the base metal. Finish shall be capable of withstanding 72 hours exposure to an ultraviolet sun lamp placed 10 cm from the surface without discoloration, hardening or warping and obtain the same reflection factor after exposure. Test result shall be furnished for each lot of fixtures.

3.14 Fixture with visible frames shall have concealed hinges and catches. Pendant fixtures and



lamp holders shall be provided with ball type aligners or similar approved means. Recessed fixtures shall be constructed so as to fit into an acoustic tile ceiling or plaster ceiling without distorting either the fixture or the ceiling plaster rings / flanges shall be provided for plaster ceiling. Fixture with hinged diffuser doors shall be provided with spring clips or other retaining device prevent the diffuser from moving.

3.15 Detailed catalogue cuts for all fixtures, or if so requested by the R.B.I. Engineer sample fixtures shall be submitted for approval to the Architect Consultant before orders for the fixtures are placed. Shop drawings for non-standard fixture type shall be submitted for approval to the Architect / Consultant.

3.16 Recessed fixtures shall be constructed so that all components are replaceable without removing housing from the ceiling.

- 1) Lamps shall be supplied and installed in all lighting fixtures.
- 2) Lamps used for temporary lighting service shall not be used in the final lamping of fixtures units.
- 3) Lamps types & wattage as shown on the drawing and schedule.
- 4) Lamps for permanent installation shall not be placed in the fixtures until so directed by the R.B.I. Engineer, and this shall be accomplished directly before the building portions are ready for occupation.

4.0 LED fittings

4.1 Only single and / or two lamp ballasts shall be used in any one fixture. Ballasts shall be completely enclosed inside sheet casing and shall have a corrosion-resistant finish. Ballast shall contain a thermosetting type compound not subject to softening or liquefying under any operating conditions or upon ballast failure. Compound shall not support combustion. All ballasts shall be of high power factor compensated to above 0.9 PF. Ballast temperature and sound rating shall be specified by the manufacturer and guaranteed. Ballasts shall be for operation at the voltages and frequencies indicated and under temperature conditions



prevailing in the various locations of the premises. Tapped ballasts are preferred.

4.2 All LED fixtures shall be provided with separate wiring channel with cover plate and an earth terminal. All screws shall be chromium brass screws. Lamps and starter holders shall be out of tough molded plastic with spring loaded rotor type contractors rendered shock and vibration proof. Condensers shall be low loss paper impregnated hermetically sealed complying with IS 1969. Internal shall be neatly clipped and where by passing the ballast, a suitable heat resistant barrier or sleeve shall be provided.

4.3 Surface mounted fixtures longer than two feet need additional point of support besides the outlet box fixture stud when installed individually. Pendant individually mounted fixtures four feet long and smaller shall be provided with twin stem / conduit hangers. Stems shall have ball aligners or similar devices and provided for a minimum of 25 mm vertical adjustment. Stems shall be of appropriate length to suspend fixtures at required mounting height.

4.4 Lamps shall have BI - pin bases.

4.5 Test Reports: _The below mentioned test reports of LEDs shall be provided.

a) LM79 Report:- Should be from NABL approved laboratory. This report shall be provided with the following results.

- i) Total Luminous Flux-
- ii) Luminous Intensity distribution-
- iii) Electrical power characteristics-
- iv) Luminous Efficiency (calculated)-
- v) Colour Characteristics(CRI,CCT..)-

b) LM80 Reports:-

4.6 Workmanship: Good workmanship and neat appearance are the pre-requisites for compliance with the various sections of these specifications. The work shall carried out under direct supervision of a person holding certificate of competency issued by the State Govt. and in accordance with the statutory rules and regulations in force. The relevant ISI code of practice shall be followed wherever applicable.



10. Additional Specifications:

- a) Any damage to walls, floors, etc during installation and erection must be repaired by the Contractor to match the original surface for which no extra amount will be paid.
- b) For conduits all the junction boxes etc. should be of inspection type and there must be electrical continuity throughout the length.
- c) Approved materials and fittings shall only be used. The Contractor shall replace the unapproved materials and fittings at his own cost.
- d) Intending tenderers are advised to study all the drawings, specifications, conditions etc in detail and inspect the site before submitting tenders so as to ascertain the nature and scope of the work involved and the methods to be adopted for executing the work.
- e) The rate quoted shall include cost of cutting holes and chase in walls floor slabs, repairing the same and restoration of original surface. Nothing extra shall be entertained on this account.
- f) The Contractor will also be required to submit the 'Form of Completion Certificate' in the required proforma.

2. **CONDUIT WIRING**

1.0 Scope

1.1 The scope of work shall cover supply, installation, testing and commissioning of all conduit wiring.

2.0 Standards

2.1 The following standards and rules shall be applicable.

- 1) IS: 732 Code of Practice for Electrical wiring installation (System voltage not exceeding 650V)



2) IS:

1646 Code of Practice for fire safety of buildings (General) Electrical Installation.

- 3) IS: 3480 Flexible steel conduits for electrical wiring.
- 4) IS: 3837 Accessories for rigid steel conduit for electrical wiring.
- 5) IS: 694 PVC insulated cables.
- 6) IS: 6946 Flexible (Pliable) non-metallic conduits for electrical installation.
- 7) IS: 1293 3 Pin plugs and sockets.
- 8) IS: 8130 Conductors for insulated electric cables and flexible cord.
- 9) IS: 9537 Specification for conduits for Electrical installation.
- 10) Indian Electricity Act 1910 and rules issued thereunder.
- 11) Regulations for the electrical equipment in buildings issued by the Tariff Advisory Committee of the Insurance Association of India.

2.2 All standards and codes mean the latest.

3.0 Rigid and Flexible conduits – As Specified

3.1 Conduits can be

i) Mild steel black enameled

ii) Mild

steel :

galvanized



iii) Rigid PVC as specified and required by the schedule of work. Wall thickness in each case shall be as follow:

STEEL	Black enameled Galvanized PVC	Minimum wall thickness
-------	-------------------------------	------------------------

(a) Up to 32 mm Dia 1.4 to 1.8 Up to 25 2.1 mm

(b) Over 32 mm Dia 1.6 to 2.2 32 & over 2.8 mm

3.2 PVC conduits shall be used only where ever specified.

3.3 Flexible conduits shall be formed from a continuous length of spirally would interlocked strip steel with a fused zinc coating on both sides. The conduit shall be terminated in brass or PVC adaptors. PVC flexible shall not be used.

4.0 Accessories

4.1 Conduit fittings such as bends, elbows, reducers, chase nipples, split couplings, plugs, etc. shall be heavy duty specifically designed and manufactured or their particular application and in accordance with relevant I.S.S. Wherever galvanized conduits are specified in the schedule of work , the fittings also shall be galvanized ;

5.0 Wires

5.1 All wires shall be single core multi - strand copper FRLS insulated to IS : 694 and shall be 110 V grade as specified and required in the Schedule of work.

5.2 All wires shall be colour-coded as per standard IS specifications

Green	(insulat	Control	(If
any)			
Grey			

6.0 Switches & Sockets



6.1 Switches shall be moulded type of modular design with silver-plated contacts. Sockets shall be 3 pin & earth with switch & plate type. All switch mounting shall be 16 SWG galvanized steel or PVC specially made as specified for the switches and sockets used. Combination of multiple switch units and sockets should be used in appropriate manner to minimize the switch boxes.

6.2 Whether and waterproof switches/sockets shall be used in all outdoor location.

6.3 For heavy duty, metal clad sockets with M.C.B. isolator mounted in a galvanized steel box shall be provided.

7.0 Installation

7.1 The size of conduit shall be selected in accordance with the number of wires permitted under table given below. The minimum size of the conduit shall be 20 mm Dia unless otherwise indicated or approved. Size of wire shall be not less than 1.5 sq.mm Copper or 2.5 sq.mm Aluminum, but as specified in the schedule of work.

Nominal Dia of Wires (mm)	Cross sec.Area (sq.mm)	20 mm		25 mm		32 mm		38 mm	
		S	B	S	B	S	B	S	B
1/2.40	1.50	4	3	8	6	1 5	9	-	-
1/2.80	2.50	4	2	6	4	1 0	8	-	-
1/2.24	4.00	2	2	4	3	8	6	-	-
1/2.80	6.00	1	-	4	3	6	6	-	-
1/3.55	10.00	1	-	3	2	5	4	6	5

S-runs of conduits which have distance not exceeding 4.25m between draw boxes & which do not deflect from the straight by an angle more than 15 degree.

B-runs of conduits which deflect from the straight by more than 15 degree.



7.2 Conduits shall be kept at a minimum of 100mm from the pipes of other non-electrical services.

7.3 Separate conduits/raceways shall be used for each of the following as specified:

- a) Normal outlets - 15 A 3-pin sockets on lighting circuit.
- b) Power outlets - 15 A 3-pin 20 A/30 A 2-pin + scraping earth metal clad sockets.
- c) Emergency lighting.
- d) Telephone
- e) Data Cables
- f) Fire alarm system
- g) Public address system &
- h) Call bell wiring.

7.4 Conduit layout shall be generally as indicated on drawings and the layout shall be supplemented and complemented by Contractor on site with the approval of the Engineer. Wiring for short extensions to outlets in hung ceiling or to vibrating equipment, motor, etc., shall be installed in flexible conduits. Otherwise rigid conduits shall be used. No flexible extension shall exceed 1.25 m.

7.5 Conduits run on surfaces shall be supported on metal 6 mm thick saddles which in turn are properly screwed to the wall or ceiling. Saddles shall be at intervals of not more than 500 mm. Fixing screws shall be with round or cheese head and of rust-proof materials. Exposed conduits shall be neatly run parallel or at right angles to the walls of the building. Unseemly conduit bends and offsets shall be avoided by using fabricated mild steel junction / pull through boxes for better appearance. No crossover of conduits shall be allowed unless it is necessary



and entire conduit installation shall be clean and neat in appearance.

7.6 Conduits embedded into the walls shall be fixed by means of staples at not more than 500 mm intervals. Chases in the walls shall be neatly made and refilled after laying the conduit and brought to the finish of the wall but final finish will be done by the building Contractor / client.

7.7 Conduits buried in concrete structure shall be put in position and securely fastened to the reinforcement and got approved by the Engineer, before the concrete is poured. Proper care shall be taken to ensure that the conduits are neither dislocated nor chocked at the time of pouring the concrete.

Suitable galvanized steel fish wires of not less than 0.63 mm dia shall be drawn in all conduits before they are embedded. Where conduit passes through expansion joints in the building, adequate expansion fittings shall be used to take care of any relative movement.

7.8 Inspection boxes shall be provided for periodical inspection to facilitate with drawl and removal of wires. Such inspection boxes shall be flush with the wall or ceiling in the case of concealed conduits. Inspection boxes shall be spaced at not more than 12 meters apart or two 90 degree solid bends or equal. All junction and switch boxes shall be covered by 6 mm clear Perspex plate truly cut and fixed with cadmium plated brass screws. These junction boxes shall form part of point wiring or conduit wiring as the case may be including the cost of removing the Perspex cover for painting and re-fixing.

7.9 Conduits shall be free from sharp edges and burrs as and the threading free from grease or oil. Conduit ends shall be threaded to a minimum length of 15 mm so as to provide sufficient length of thread for proper grip and continuity.

7.10 An insulated earth wire of not less than 2.5 sq.mm Aluminium or Copper shall be run in each conduit as specified in the Schedule of work.

8.0 Lighting & Power Wiring

8.1 All final branch circuits for lighting and appliances shall be single conductor cables run inside conduits. The conduit shall be properly threaded and screwed into sockets, bends and junction boxes. No part of the wiring shall be open without a suitable conduit piping.



8.2 Branch circuit conductor sizes shall be as shown in the schedule of quantities and or drawings.

8.3 Final branch circuits shall preferably be kept in a separate conduit up to the Distribution Board. No other wiring shall be bunched in the same conduit except those belonging to the same phase. Each lighting branch circuit shall not have more than ten outlets or 800 watts, whichever is lower or as shown on drawings. Each conduit shall not hold more than three branchcircuits.

8.4 Flexible cords for connection to appliance, fans and pendants shall be 660/1000V grade (three or four cores i.e. with insulated neutral wire of same size) with tinned stranded copper wires, insulated, twisted and sheathed with strengthening cord. Colour of sheath shall be subject to the Engineer's approval.

8.5 Looping system of wiring shall be used. Wires shall not be joined. Where joints are unavoidable, they shall be made through approved mechanical connectors. No such joints shall be made unless the length of the sub-circuit, sub main or main is more than the length of the stranded coil.

8.6 Control switches shall be connected in the phase conductors only and shall be `ON` when knob is down. Switches shall be fixed in 2mm thick galvanized steel boxes with cover plates as specified. Cadmium plated brass screws shall be used.

8.7 Power wiring shall be distinctly separate from lighting wiring. Conduits not less than 25 mm and wires not less than 2.5 sq. mm Aluminium / Copper shall be used as specified in the Schedule of work.

8.8 Every conductor shall be provided with identification ferrules at both ends matching the drawings.

9.0 Testing

9.1 The entire installation shall be tested for:



- a) Insulation resistance
 - i) Between phases.
 - ii) Between each phase and earth.
- b) Earth continuity
- c) Polarity of single pole switches.

No installation shall be commissioned unless and until the insulation resistance is 2.0 Mega ohms or less between phase and neutral. All tests shall be witnessed by the Engineer-in-charge and attested.

A test certified shall be submitted as per IS 732.

10.0 Mode of measurement

10.1 The final sub circuit wiring commencing from the distribution board till the first switch box or light fitting shall be measured as one point.

10.2 The secondary point wiring shall be in accordance with drawing and should include wiring from 10.1 onwards together with all junction boxes, connectors, earth-wire, fixing accessories connection to all light fittings switches etc., as specified and shown on drawings. Measurements shall be along the conduit and concurrent length of sub-circuit wiring shall not form part of the point wiring for purposes of assessment of point length.

10.3 All switches sockets with boxes, earthing interconnection and plate type silver contact switch shall be paid for per unit of 1 switch, 2 switch, 3 switch, 4 switch units, 5 A, 15 A switch-sockets, 20 A / 30 A / 60 M.C. sockets & MCB shall be paid extra.

10.4 All empty conduit runs, including junction boxes fish wire etc., shall be paid on the basis of unit length.



10.5 Two way points shall be classified as separate point and shall consist of 2 Nos.2 way plate type switches, wiring from the 1st 2 way switch to the 2nd 2 way switch to the first light controlled. Subsequent lights, if any shall be measured as ordinary points according to the length.

10.6 Staircase lighting shall be measured as shown in the schedule of work.

3. M.V. SWITCHGEAR

1.0 Scope

1.1 The scope of work shall cover the supply, installation, testing and commissioning of all power panels, incorporating circuit breakers, switch fuses, bus bars, interconnections, earthing, etc., meeting the requirements shown in equipment schedule and the drawings.

2.0 Standards

2.1 The following standards and rules shall be applicable:

- 1) IS: 2516-1972 Specification for AC circuit breakers.
- 2) IS: 4047-1977 Specification for heavy duty air breaker switch gear & fuses for voltage not exceeding 1000V.
- 3) IS:1818-1972 Specification for AC isolator and earthing switches.
- 4) IS: 3072-1975 Code of Practice for installation and maintenance of switch gear.
- 5) IS: 3106-1966 Code of Practice for selection, installation and maintenance of fuses (Voltage not exceeding 650 V)
- 6) IS: 4237-1967 General requirements for switch gear and control gear for voltage not exceeding 1000V.
- 7) IS: 2607-1976 Air break isolators for Voltages not exceeding 1000V.



8) IS: 8623-1977 Specification for factory built assemblies of switch gear and control gear for voltages up to and including 1000V AC & 1200 VDC.

9) Indian Electricity Act and Rules.

All codes and standards mean the latest. Where not specified otherwise the installation shall generally follow the Indian Standard Codes of Practice or the relevant British Standard Codes of Practice in the absence of corresponding Indian Standards.

3.0 Circuit Breakers

3.1 Circuit breakers shall be air break horizontal draw out type fully interlocked and meeting the requirements of IS:2516 or BS:3659. Breakers shall not be rated for a medium voltage of 600 V and rated full load current as indicated on drawings. Breaker shall be capable of making and breaking system short circuits specified.

3.2 Breakers shall be unless specified otherwise manually operated, complete with front-of-the panel operating handle, isolating plug with safety shutters, mechanical ON/OFF indicator, silver plated arcing and main contacts, are chutes, trip free operation. Breakers shall be capable of being racked out into `testing`, `Isolator` and `Maintenance` positions and kept locked in any position. Breakers for operation shall be motor operated spring charged.

4.0 MCCBs

4.1 Moulded cases circuit breakers shall be standard products of established manufacturers and shall conform to BS: 3871. Breakers shall be rated for system short circuit levels and if unavoidable, backed up by HRC fuses. Breakers shall incorporate thermal and magnetic Trips unless shown otherwise in the drawings.

5.0 Switch fuse units & Disconnects

5.1 Switch fuse units shall have quick-make, quick-break silver plated preferably double break contacts with operating mechanism suitable for rotary operation in the case of cubicle mounting.



All switches shall be rated according to the equipment schedule or drawings and shall withstand the system prospective fault current let through. Cam operated rotary switches with adequate terminal adapters up to 25A are acceptable but for all higher rating switch fuse units shall be heavy duty type conforming to IS 4047.

5.2 Fuse shall be HRC cartridge type conforming to IS:2208 with a breaking capacity corresponding to system fault level Fuses shall be link type with visible indication. Screw type Bottle fuses are not acceptable for any rating.

5.3 All disconnects shall consist of switch units quick-make, quick-break type with silver plated contacts. The switches shall preferably have double breaks. The switches shall preferably have sheet steel enclosure, which in turn is mounted on angle iron frame work. In wet locations, switches shall have cast iron enclosures. Disconnects shall have a minimum breaking capacity of 5 KA at 415 Volts.

6.0 Instrument Transformers, Meters and Relays

6.1 Ammeters and voltmeters shall have moving iron spring controlled dead-beat elements in square bezel flush type cases 96 mm in size and suitable for switch board mounting. Meters shall conform to BS:89 and have grade `A` accuracy. Scale ranges shall meet with the requirements or as indicated on the drawing or in the schedule of quantities.

6.2 Energy meter shall be two element switch board mounting type suitable for unbalanced loads. Meters should incorporate a KVA demand meter with an integration time of 30 minutes. Meters shall conform to BS:37. The energy meters for DG Set and transformer shall be calibrated and got certified by the respective electricity authority.

7.0 Cubical Boards

7.1 All boards shall be combination of 14 & 16 SWG sheet steel, free standing ,extensible, totally enclosed, dust tight, vermin-proof cubicle,flush dead front and modular construction suitable for 3 phase 415V 4 wire 50 Hertz system. All boards shall be accessible from the front for the maintenance of switch fuses, bus bars, cable terminations, meters, etc. Cables shall be capable of entering the board both from top as well as bottom. All panels shall be machine



pressed with punched opening for meters, etc. All sheet steel shall be rust inhibited through a process of degreasing acid pickling, phosphating, etc. The panels shall be finished two coats of synthetic enamel of approved colour applied over one coat of red oxide primer. Engraved plastic labels shall be provided indicating the feeder details, and capacity and danger signs.

7.2 The boards shall accommodate air insulated bus bars, air circuit breakers, switch fuse units with HRC fuses, starters, necessary meters, relays, contractors, etc. as required and arranged in suitable tiers. All breakers and switch fuse shall be suitably rated taking into account specified ambient temperature and ruling temperature inside the cubicle.

7.3 The switch board shall be fully compartmentalized in vertical tiers housing the feeders in totally enclosed independent compartments. Each compartment shall be self-sufficient with switch unit, fused, contractors, relays, indicating lamps and an inter-locked door with facility for padlocking. Each feeder must terminate in an independent labeled terminal block. Strip type terminal block accommodating several feeders together is not acceptable. Pressure clamp type terminals suitable for Aluminium wires may be used up to switches of 25A and cable lugs for higher ratings. All terminations shall be shrouded in an approved manner. The entire enclosure shall meet with IS: 2147-1962. Feeder connections shall be UT of solid insulated Copper/Aluminum wires or strips with bimetallic clamps wherever required. Internal wiring, bus bar markings etc., shall conform to IS: 375 / 1963. Internal wiring shall have terminal ferrules.

Main switch should be at an easily accessible height and the highest switch operating handle should not be over 1.75m from floor level. Cable glands need not form part of the switch board as the cost of glands will form part of the cable termination.

8.0 Bus bars

8.1 Bus bars shall be three phase and neutral and of copper or Aluminum alloy as specified and shown on drawings and rated for a temperature rise of 30 deg. Cover the ambient temperature specified, based on insulated conductor rating (IS: 8084-1976). Neutral bars may be of one half the size of the phase bars. The main horizontal bus bars shall be of uniform cross section and rated in accord with the incoming switch. The vertical bus bars for the feeder columns may be rated at 75% of aggregate feeder capacity and shall be of uniform size. Bus bars and interconnections shall be taped with PVC colour coded tape to prevent bar-to-bar accidental



shorts. Each bus bar shall be directly and easily accessible on removal of the front cover. Bus bars shall be totally enclosed, shrouded and supported on non-hygroscopic insulator blocks to withstand thermal and dynamic over loads during system short circuits. An earth bus of size 50% of the phase subject to the following maximum and minimum shall be provided. Individual switch components shall be connected with the earth bus through Copper or Aluminium or galvanized steel strip size as shown. All wire connections to bars shall be through lugs, bolts and nuts and spring washers.

Copper Aluminium Galvanized Steel

Minimum 6.5 sq. mm 10 sq. mm 16 sq. mm

Maximum 65 sq. mm 120 sq. mm 200 sq. mm

The minimum size of earth bar in a board shall however be 15x3 Cu or 25x3 Al or equivalent.

9.0 Isolators

9.1 Isolators shall be fixed on wall on self-supported angle iron framework as required and mounted as near to the motor as possible. Where several motors are installed, isolators, if required, shall be provided at a central location on a common framework.

9.2 Painting, earthing and labels shall be provided as generally indicating for MV Switchgear and shown on drawings.

10.1 Earthing

10.1 All switches panels shall be provided with an earth bar as specified.

10.2 Earthing of the switchboards shall be through the equipment earthing system provided in the building with two-earth connection as shown.

11.0 Installation

11.1 All panels shall be supported on MS channels incorporated in the panel during the fabrication. All such supports shall be prime coated with two finish coats after completion of the



work. All panels shall be touched up for damaged painting.

11.2 All panels shall be megger phase to phase and phase to neutral using a 1000V megger with all outgoing feeders in closed position. The megger value should not be less than 2.5 megaohms between phases and 1.5 mega ohms between phases and neutral.

11.3 Fabrication drawings of all panels shall be approved by the Consulting Engineers before fabrication.

12.0 Testing & Inspection

12.1 All switchboards shall be factory inspected before finishing and dispatch. Certificate for all routine and type tests for circuit breakers in accordance with the IS: 2516-1963 shall be furnished. In addition, all panels shall be meggered phase to phase and phase to neutral, using a 1000V megger with all switchgear in closed position. The megger value should not be less than 2.5 mega ohms between phases and 1.5 mega ohms between phase and neutral.

12.2 All meters shall be calibrated and tested through secondary injection testes.

12.3 All field tests shall be witnessed by Bank and recorded.

13.0 Mode of measurement:

13.1 Panels will each be considered as one unit for the purpose of measurement and shall include the following:

- i) Incoming and outgoing feeder terminals.
- ii) Interconnections and controls and instrument wiring with necessary protective fuses.
- iii) Meters Relays, Indicating lamps, CT's control fuses etc.
- iv) Supporting structure, sheet steel enclosure.
- v) Installation and testing.

13.2 Isolators shall each be measured as on unit complete with:

- i) Mounting frame



ii) Switch / fuse

13.3 Earthing of the Panel / Isolator from the equipment earthing system will be measured separately and paid at unit rates.

13.4 Outgoing and incoming feeder terminations will be paid for at the unit rates separately as specified under cabling.

4. MEDIUM VOLTAGE CABLING

1.0 Scope

1.1 The scope of work shall cover supply, laying, connecting, testing and commissioning of low and medium voltage power and control cabling.

2.0 Standards

2.1 The following standards and rules shall be applicable:

1) BS: 6346 PVC insulated mains

2) I.E.E. Wiring regulations

All codes and standards mean the latest. Where not specified otherwise the installation shall generally follow the British Standard Codes of Practice.

3.0 Cables

3.1 All cables shall be 1100-Volt grade PVC insulated sheathed with or without steel armoring as specified and with an outer PVC protective sheath. Cables shall have high conductivity stranded Aluminum or Copper conductor and cable core color coded to the Indian Standards.

3.2 All cables shall be new without any kinks or visible damage. The manufacturer's name, insulating material, conductor size and voltage class shall be marked on the surface of the cable every 600 mm centers.



4.0 Installation

4.1 Cables shall be laid in the routes marked in the drawings. Where the route is not marked, the Contractor shall mark it out on the drawings and also on the site and obtain the approval of the R.B.I. Engineer before laying the cable. Procurement of cables shall be on the basis of actual site measurements and the quantities shown in the schedule of work shall be regarded as a guide only.

4.2 Cables running indoors shall be laid on walls, ceiling, inside shafts or trenches. Single cables laid shall be fixed directly to walls or ceiling and supported at not more than 500 mm by G.I. spacer & G.I. clamp, cable angle iron support, etc. Where number of cables is run, necessary perforated cable trays if specified shall be provided where shown. Perforated trays shall be steel or Aluminium as specified in the schedule of work and supported on mild steel framework as shown on drawings or as approved. Cables laid in built-up trenches shall be on steel supports. Plastic identification tags shall be provided at every 30 m.

4.3 Cables shall be bent to a radius not less than 12 (twelve) times the overall diameter of the cable or in accordance with the manufacturer's recommendations whichever is higher.

4.4 In the case of cables buried directly in ground, the cable route shall be parallel or perpendicular to roadways, walls etc. Cables shall be laid on an excavated, graded trench, over a sand or soft earth cushion to provide protection against abrasion. Cables shall be protected with brick or cement tiles as shown on drawings. Width of excavated trenches shall be as per drawings. Backfill over buried cables shall be with a minimum earth cover of 600mm. The cables shall be provided with cable markers at every 35 meters and at all loops/points.

4.5 The general arrangement of cable laying is shown on drawings. All cables shall have one length from panel to panel without any joints or splices. Cables shall be identified at end terminations indicating the feeder number and the Panel/Distribution board from where it is being laid. All cable terminations for conductors up to 4 sq. mm may be insertion type and all higher sizes shall be tinned copper crimp type lugs. Cable terminations shall have necessary brass glands. The end termination shall be insulated with a minimum of six half-lapped layers of PVC tape. Cable armoring shall be earthed at both ends.



5.0 Testing

5.1 MV cables shall be tested upon installation with a 500V Megger and the following readings established.

- 1) Continuity on all phases.
- 2) Insulation Resistance
 - (a) Between conductors
 - (b) All conductors and ground

All test readings shall be recorded and shall form part of the completion documentation.

6.0 Mode of measurement

6.1 Cables will be measured on the basis of common rate per unit length indoor or outdoor and shall include the following:

For cables laid indoors:

- i) G.I. spacer, Clamp & angle iron cable support.
- ii) Installation, commissioning and testing
- iii) Cable marking

OR

For cable buried underground:

- i) Cables and protective bricks & tiles
- ii) Installation, commissioning & testing



iii) Cable markers

6.2 Cable trays/racks will be measured on the basis of unit length for individual sizes and shall include.

i) Perforated trays on M.S. framing ladder wall support or ceiling suspenders.

ii) Installation and painting in 2 coats of black bituminous paint on one coat of red oxide primer.

6.3 Each cable termination will be measured as one unit for payment. Certain cable sizes are grouped together and rates shall be furnished against each group. The item shall include the following:

- i) Cable glands, lugs, bolts, nuts
- ii) All jointing materials
- iii) Installations, testing and commissioning.
- iv) Earthing the glands.

6.4 For cables buried underground, excavation shall be paid for additionally for the following per unit volume:

- i) Excavation and back filling.
- ii) 6" soft earth cushioning below and above cable.

The cost of laying protective tiles shall be part of cable cost.

5. DISTRIBUTION BOARDS

1.0 Scope

1.1 The scope of work shall cover the supply installation, testing and commissioning of lighting



and power distribution boards. Associated minor civil work required for the erection of the DBs, such as opening in wall, etc., also included in the scope of this contract.

2.0 Standards

2.1 The following standards and rules shall be applicable:

- 1) IS: 2675-1983 Enclosed distribution fuse boards and cutout for voltages not exceeding 1000V
- 2) IS: 375-1963 Marking and arrangement of Switchgear bus bars main connections and auxiliary wiring.
- 3) IS: 8828-1978 Miniature circuit Breakers.
- 4) IS: 2607-1976 Air break isolators for voltages not exceeding 1000V
- 5) IS: 9926-1981 Fuse wire used in Rewritable type Electric fuses up to 650 Volts
- 6) Indian Electricity Act 1910 and rules issued thereunder.

2.2 All codes and standards mean the latest. Wherever not specified, the installation shall generally follow the Indian Standard Codes of Practice or the relevant British Standard Codes of Practice in the absence of Indian Standard.

3.0 Distribution Boards

3.1 Distribution boards Factory fabricated & painted along with the controlling MCB's or Isolator as shown shall be fixed in mild steel box with hinged lockable door suitable for recessed mounting in wall. Distribution boards shall be made of 16 SWG sheet duly rust inhibited through a process of degreasing, acid pickling, phosphating and spray painting to an approved colour over a coat of red oxide primer.

Three phase boards shall have phase barriers and a wire channel on three sides generally



as shown on drawings. Neutral bars shall be solid tinned copper bars with tapped holes and chase headed screws. For 3 phase DBs 3mm independent neutral bars shall be provided. All DBs shall be internally pre-wired using copper insulated PVC wires brought to a terminal strip of appropriate rating for outgoing feeders. All Blank space shall be provided with suitable PVC Blank plate.

3.2 Conduit knockout shall be provided as required/shown on drawings and the entire board shall be rendered dust and vermin proof with necessary sealing gaskets.

3.3 MCBs shall have quick make-and-break non-welding self-wiping silver alloy contacts for SKA short circuit both the manual and automatic operation. Each pole of the breaker shall be provided with inverse time thermal over load and instantons over current tripping elements, with trip-free mechanism. In case of multiple breakers, the tripping must be on all the poles and operating handle shall be common. Breakers must conform to BS: 3871 with facility for locking in OFF position. Pressure clamp terminals for standard/solid conductor insertion are acceptable up to 4 sq. mm Aluminium or 2.5 sq. mm copper and for higher ratings, the terminals shall be suitably shrouded. Wherever MCB isolators are specified they are without the tripping elements.

3.4 Fuses shall be HRC link type or rewire-able with necessary fuse carriers and with S.C. rating of not less than 50KA. Bottle type fuses are not acceptable. Fuse carrier terminals shall be suitably shrouded.

3.5 Distribution boards shall have HRC/rewire-able fuses as shown on the schedule and drawings. Board shall meet with the requirements of IS: 2675 and marking arrangement of bus bars shall be in accordance with IS: 375. Bus bars shall be suitable for the incomer switch rating and sized for a temperature rise of 30deg Cover the ambient. Each board shall have two separate earthing terminals. Circuit diagram indicating the load distribution shall be pasted on the inside of the DB as instructed. One earthing terminal for single phase and two terminals for 3 phase DBs shall be provided with an earth strip connecting the studs and the outgoing earth bar.

3.6 In the case of MCB distribution boards, the back-up fuses wherever shows hall be not less than 63A with a delayed characteristic and a minimum piercing time of 0.5 sec at 9 KA fault current.



3.7 All outgoing feeders shall terminate on terminal strip which in turn is power wired to the MCB/Fuse base by means of insulated single conductor copper wires as follows:

Up to 15 A - 2.5 Sq. mm

25 A - 4.0 Sq. mm

63 A - 6.0 Sq. mm

3.8 Each DB shall have indicating lamps preferably neon type denoting power availability in the board after the switch. Indicating lamps shall be completely with fuses.

4.0 Installation & Testing

4.1 All distribution boards shall be mounted on wall or recessed, with necessary angle iron framework. All mounting frames shall have one prime coat and two finish coats after the completion of the work. All distribution boards shall be touched up for damaged painting.

4.2 All boards shall be meggered phase to phase and to neutral using 1000V megger with all switches in closed position. The megger value should not be less than 2.5 mega ohms between phase and 1.5 mega ohms between phase and neutral.

4.3 Fabrication drawings of all boards shall be approved by the consultants before fabrication and be inspected before dispatch, unless waived in writing.

5.0 Mode of measurement

5.1 The distribution board complete with the various components specified, indicating lamps, supporting frame, internal wiring, erection, etc., will be treated as one unit for the purpose of measurement and payment.

5.2 DBs with dimmers shall be separately counted.

6. **EARTHING**

1.0 Scope



1.1 The Scope of work shall cover supply and laying of Aluminium/Copper earth strips and connecting the power panels, DBs and switchboards.

2.0 Standards

2.1 The following standards and rules shall be applicable:

- 1) IS: 3043-1987 Code of Practice for earthing.
- 2) Indian Electricity Act and Rules.

2.2 All codes and standards mean the latest. Where not specified otherwise the installation shall generally follow the Indian Standard Code of Practice or the British Standard Codes of Practice in the absence of Indian Standards.

3.0 Plate Earthing Station

3.1 The substation earthing shall be with copper plate earthing station unless otherwise specified.

3.2 The earthing station shall be as shown on the drawing. The earth electrodes shall be 600x600x3 mm copper plate. The earth resistance shall be maintained with a suitable soil treatment and watering arrangement as shown on drawings. Excavated soft soil shall be thoroughly mixed with 6 percent by weight of common salt with 10 percent by weight of water and fill the earth pit.

3.3 The resistance of each earth station should not exceed 5 ohms.

3.4 The earth lead shall be connected to the earth plate through Copper / Brass bolts as shown on the drawing.

4.0 Pipe Earthing Station

4.1 The pipe earth station shall be as shown on the drawing and shall be used for equipment



earth grid. The earth electrodes shall be 2.5 m long 50mm dia 5mm thick galvanized steel pipe. The

earth resistance shall be maintained with a suitable soil treatment as shown on drawings and as per plate electrodes.

4.2 The resistance of each earth station should not exceed 5 ohms.

4.3 The earth lead shall be fixed to the pipe with a clamp & safety set screws. The clamps shall be permanently accessible.

5.0 Earth leads and connections

5.1 Earth lead shall be bear Copper or Aluminium or galvanized steel as specified sizes shown on drawings. Copper lead shall have a phosphor content of not over 0.15 percent. Aluminium and galvanized steel buried in ground shall be protected with bitumen and hessian wrap or polythene faced hessian and bitumen coating. At road crossing necessary Hume pipes shall be lead. Earth lead run on surface of wall or ceiling shall be fixed on saddles or wall so that the strip is at least 6 mm away from the wall surface.

5.2 All earth strips shall be jointed as follows:

Aluminium: Riveting with 2 Nos. 100 mm long bimetal fish plates using copper rivets.

Galvanized steel : Lap welding with 50mm minimum lap.

5.3 All strips shall be run on walls/beams with 6mm thick galvanized steel earth saddles at 500 mm center to center.

6.0 Equipment Earthing

6.1 All apparatus and equipment transmitting or utilizing power shall be earthed in the following manner. Copper earth wires shall be used where copper wires are specified. Aluminium wires may be used where aluminium phase wires are specified unless otherwise indicated in the schedule of work and drawings.

6.2 Power transmission apparatus



6.2 1) Metallic conduits shall not be acceptable as an earth continuity conductor. A separate insulated / bare earth continuity conductor of size related to phase conductor shall be provided as follow:

Cross-section in sq. mm			
Size of phase conductor	Copper	Aluminium	Galvanized steel
Up to 16	< same >		1.55
More than 16 up to 35	< 16 >		32
Over 35	< as shown in drawings >		
Minimum (bare)	2.5	4	6
Minimum (enclosed)	2.5	2.5	-

The earth continuity conductor may be drawn inside the conduit in which case, its hould be insulated.

6.2 2) Non-metallic conduit shall have an insulated earth continuity conductor of the same size as for metallic conduit. All metal junction and switch boxes shall have an inside earth stud to which the earth conductor shall be connected. The earth conductor shall be distinctly coloured Green and Yellow for easy identification.

6.2 3) Armoured cables shall be earthed by 2 distance earth connections to the armouring at both the ends. In multiple cables earthing a panel / DB, the cable joints shall be bonded together using a bonding wire selected on the basis of the largest size of cable in the group.

6.2 4) In the case of unarmoured cable, an earth continuity conductor shall either be run outside along the cable or should form a separate insulated core of the cable.

6.2 5) 3 pH Power panels and distribution boards shall have 2 distinct earth connections of the size correlated to the incoming cable size. In case of 1 pH DBs a single earth connection is adequate. Similarly, for 3 pH and 1 pH isolating switches there shall be 2 and 1 earth connections



respectively, size being correlated to the incoming cable.

7.0 **Testing**

7.1 The following earth resistance values shall be measured with an approved earth megger and recorded.

- 1) Each earthing station.
- 2) Earthing system as a whole
- 3) Earth continuity conductor.

Important:

- (i) The details / description mentioned in the tender Part-I & Part-II shall supersede the drawings.**
- (ii) Interior Designer or Architect wherever mentioned, shall mean the Bank's Architect.**

Place:
Signature of Contractor

Date:

Name and designation:
Name of firm with Seal:



APPROVED MAKES OF MATERIALS / EQUIPMENTS

Note:

1. The Contractor shall obtain prior approval from the Engineer-in-charge before placing order for any specific material or engaging any of the specialized agencies. The Contractor shall make a detailed submittal with catalogues and highlighted proposed specifications, as well as full details of the works executed by the specialized agency, as specified.
2. In case of non-availability of the brand specified in the contract the Contractor shall approach Engineer-in-charge to acquiring alternate equivalent brand of the material subject to submission of documentary evidence of non- availability of the specified brand. No claim on this account shall be entertained.

Sr. No.	Item/ Material	Make/ Name of the manufacturer
1	MCBs, ELCBs and MCB DBs	MDS LEGRAND, HAGER, SIEMENS, L & T
2	PVC INSULATED ARMoured CABLES (Cu)	POLYCAB, CCI, FINOLEX
3	FRLS COPPER CONDUCTOR PVC INSULATED WIRES	POLYCAB, FINOLEX, R K Cable
4	PVC CONDUITS (1.5 mm THICK) & ACCESSORIES	PRECISION/AKG
5	M.S.CONDUITS	BEC, SUPREME, AKG
6	PLUG SOCKET, TEL. SOCKET, INFORMATION OUTLET MODULAR TYPE	MDS LEGRAND, CPL OBSESSION, MKEI, ANCHOR
8	TEL WIRES AND CABLES	POLYCAB ,DELTON, ITL
11	SWITCH FUSE DISCONNECTOR UNIT	L&T-FN SERIES, SIEMENS
12	CTs, PTs	AE, KAPPA, PRAGATI
13	INDICATING LAMP (LED), PUSH BUTTON LAMPS (LED)	SIEMENS, L&T, TECHNIK
14	LIGHT FITTINGS, TUBES AND LAMPS	WIPRO, PHILIPS, JAQUAR ,CROMPTON
15	MS CONDUIT	JINDAL , BEC
16	WALL FANS	CROMPTON, BAJAJ, ELECTROMECH
17	DOUBLE COMPRESSION TYPE CABLE GLAND, SOCKETS CRIMP TYPE	DOWEL'S, SIEMENS, COMET
18	CAT 6 CABLE	AVAYA, D-LINK, POLYCAB

Place:

Signature of Contractor

Date:

Name and designName of firm with Seal:



Technical data to be furnished / uploaded by the bidders for LED lights:

Required technical specifications by the bank are as under:

1. LED Down lighter 12 W Technical Specifications:

Recessed LED downlighter made of PDC Al. housing. LED used shall be SMD type and fixture should have minimum efficacy at system level (not chip level) ≥ 100 lumens /watt with minimum system output of 1200 lumens with maximum system wattage of 12 watt. Life of the fixture (including driver): 5000 burning hrs. @L70B50 lumen maintenance, CCT of 6500K (SDCM <5), CRI >80 , PF >0.95 , Min working temp range – $0^{\circ} < T_a < 45^{\circ}$ C, an operating voltage range of 130-320 VAC. Minimum internal surge protection 2.5 KV & the fixture design should comply with EMC/EMI compliance along with separate BIS certification for LED driver & luminaire. Luminaire manufacture shall provide LM79 report from NABL accredited lab & LM80 report issued by LED.

2. LED Down lighter 20 W Technical specification:

Surface mounted LED downlighter made of metal housing, LED used shall be SMD type and fixture should have minimum efficacy at system level (not chip level) ≥ 100 lumens/watt with minimum system output of 2000 lumens with maximum system wattage of 20 watt. Life of fixture (including driver): 50000 burning hrs. @ L70B50 Lumen maintenance, CCT of 6500K (SDCM <5), CRI >80 , min working temperature range – $0^{\circ}C < T_a < 45^{\circ}C$, minimum internal surge protection of 2.5 KV & the fixture design should comply with EMC/EMI compliance along with separate BIS certification for LED driver & Luminaire. Luminaire manufacture shall provide LM79 report from NABL accredited lab & LM80 report issued by LED manufacturer, similar to Philips of equivalent.

3. LED continuous profile light technical specification:

LED continuous profile light with system wattage of 12 watt per meter as cove lighting at ceiling. Fixture should have minimum efficacy at system level (not chip level) ≥ 75 lumens/watt with minimum system output of 4500 lumens with maximum system wattage of 60W for 5 meter, operating voltage range of 130 – 320 VAC, CCT of 3000K. Minimum internal surge protection 2 KV & the fixture design should be as per architectural requirement to suit for decorative application.

4. LED strip light with system wattage of 12 watt per meter

LED as cove light fixture as cove lighting at ceiling. Fixture should have minimum efficacy at



system level (not chip level) ≥ 75 lumens /watt with minimum system output of 4500 lumens with maximum system wattage of 60W for 5 meter. Operating voltage range of 130-320 VAC, CCT of 3000K. minimum internal surge protection 2 KV & the fixture design should be as per architectural requirement to suit for decorative application.

5. Wall mounted 10W LED mirror light fixture technical specification:

Wall mounted type LED mirror light fixture for application in toilet area. High quality integrated LEDs assure soothing warm white light. It should be available in maximum 10W with minimum lumen output of 450 Lm.

6. 20W LED Decorative wall light fixture technical specification:

LED decorative wall light fixture with light bulb, decorative bracket and mounting arrangement. High quality integrated LEDs assure soothing warm white light. It should be available in maximum 20W with minimum lumen output of 1200 Lm.

7. LED Chandelier light fixture

LED based chandelier complete with all accessories and bulb having maximum wattage of around 200 watt and best suit for commercial application. Operating voltage range of 130-320 VAC, CCT of 3000K. Minimum internal surge protection 2 KV & the fixture design should be approved by the architect.

Place:
Signature of Contractor

Date:

Name and designation:

Name of firm with Seal:



CHECK LIST
(To be filled –in by the bidder)

Sr. No.	Documents/ Confirmation to be submitted along with Part-I of the tender	Bidder's response (Yes/No)
1	Earnest Money Deposit of Rs.1,00,819/- by Demand Draft/ Bank Guarantee	
2	<u>Pre- Qualification Criteria:</u> Composition of the firm (Refer Chapter 5 clause no.- 4(a))- Annexure I	
3	<u>Pre- Qualification Criteria:</u> Work Experience (Refer Chapter 5 clause no.- 4(b))- Annexure II	
4	<u>Pre- Qualification Criteria:</u> Creditworthiness of the contractor & their Turn over during the specified period (Refer Chapter 5 clause no.- 4(c))	
5	Client certificates (Refer Chapter 5 clause no.- 4(i))- Annexure III	
6	Banker's Certificate (Refer Chapter 5 clause no.- 4(j))- Annexure IV	
7	Whether the bidder satisfied himself with all aspects of work which may have bearing on project completion and/ or rates	

NAME AND ADDRESS OF THE CONTRACTOR:

SIGN & SEAL OF THE CONTRACTOR:

Date: Place:



Annexure I

Composition of the firm/Company

(To be uploaded by the Tenderer along in the e-tendering portal)

TENDER FOR RENOVATION OF ENTRANCE STAIRCASE AND FIRST FLOOR LIFT LOBBY AREA OF MAIN OFFICE BUILDING, RBI GUWAHATI

1	Name of the Applicant / Organisation and address of the registered office	
2	PAN No.	
3	GSTIN	
4	Type of Applicant /Organisation (whether sole proprietorship / partnership/ private limited/ limited or co-operative body etc.)	
5	Name of the Proprietor / Partners / Directors of the Applicant / Organisation / Firm.	
6	Details of Registration (Firm, Company, etc.) Registering Authority, Date, Number etc.	
7	Registered Office, Address, Telephone No.	
	Email Id	
	Office Address through which the work will be handled	
8	Indicate if involved in any litigation	
9	Any civil suits pending in any of the works executed. Give details.	



Declaration:

1. The above information, is true to the best of my / our knowledge and if any information is found untrue or false, I/We may be debarred from the tender process/being given the contract.
2. I/We agree to abide by all the terms and conditions stipulated by the Bank.
3. I/We understand that the Bank reserves the right to accept or reject any or all the tender either in full or in part without assigning any reason therefor.

**Date: Signature of the applicant
and seal**



Annexure II

List of Similar Works Executed by the Organization During Last Five Years

Sl. No.	Name of the work & Location	Nature & Specification of Works	Name, address & telephone no. of the owner. (Govt./Semi-Govt./Pvt. Body)	Name and address of the Officer under whom the work was carried out	Contract Amount	Completion Period		Whether the work Was left incomplete or contract was terminated from either side – Give details	Any other relevant information on including reason, if any, for delay in completion of work
						Stipulated	actual		

Place:

Name of the Contractor:

Date:

Address:

Sign & Seal of the Contractor:



Client's Certificate

(To be uploaded by the Tenderer along in the e-tendering portal)

CONFIDENTIAL

The Regional Director,
Reserve Bank of India
Guwahati-781001

Madam,

Client's Certificate Regarding Performance of M/s _____

Name & Address of the Client: _____

1.	Name of work with brief particulars	
2.	Agreement No.& date	
3.	Agreement amount	
4.	Date of commencement of work	
5.	Stipulated date of completion	
6.	Actual date of completion	
7.	Details of compensation levied for delay (indicate amount) if any	
8.	Gross amount of the work completed and paid	
9.	Name & address of the authority under whom works executed	
10.	Whether the contractor employed qualified Engineer/overseer during execution of work	
11.	i) Quality of work (indicate grading)	Outstanding/Very Good/Good/Satisfactory/Poor
	ii) Amount of work paid on reduced rates, if any	
12.	i) Did the contractor go for arbitration?	
	ii) If Yes, total amount claim	
	iii) Total amount awarded	
13.	Comments on the capabilities of the contractor	



Renovation of entrance staircase and 1st floor Lift Lobby
Area of main office building, RBI Guwahati

a) Technical Proficiency	Outstanding/Very Good/Good/Satisfactory/Poor
b) Financial Soundness	Outstanding/Very Good/Good/Satisfactory/Poor
c) Mobilization of adequate T & P	Outstanding/Very Good/Good/Satisfactory/Poor
d) Mobilization of Manpower	Outstanding/Very Good/Good/Satisfactory/Poor
e) General behavior	Outstanding/Very Good/Good/Satisfactory/Poor

Signature of the Reporting Officer* with Office Seal

Name:
Designation:
Contact No:
e-mail ID:

() Regarding performance report/clients certificate, for works carried out for Government/ public sector companies, the certificate should be signed by the concerned Executive Engineer or an officer in an equivalent or higher rank.*

For works carried out for Private companies, Copy of TDS has to be submitted for proving the credentials/contract amount.

(i) All columns should be filled in properly.

(ii) The Client Certificates should be submitted addressed to "Regional Director, Estate Department, Reserve Bank of India, Pan Bazar, Station Road, Guwahati, Assam- 781001" for each of the Prequalification work/s.



FORM OF BANKERS' CERTIFICATE FROM A SCHEDULED COMMERCIAL BANK

(To be uploaded by the Tenderer along in the e-tendering portal)

1. Name of the Company/Agency/Firm
2. Composition of the company/agency/firm
3. Name of the Proprietor/ Partners/ Directors of the company/agency/firm:
4. Type of Account:
5. Account Number:
6. Credit facility/ Overdraft facility enjoyed by the company/agency/firm:
7. Dealings:
8. The period from which the company/agency/firm has been banking with the bank:
9. Any other remarks:
10. You may also kindly forward your opinion whether the above company/agency/firm is considered financially sound to be entrusted with the contract for works estimated to cost of Rs. _____

(Signature) For the Bank Place:

Date:

Note:

- i. **Bankers' certificates should be on letter head of the bank**
- ii. **In case of partnership firm, certificate to include names of all partners as recorded with the bank.**
- iii. **Scanned copy (PDF format) of the original must be uploaded while submitting the e-tender online through MSTC e-commerce portal.**



Annexure-V

Draft of Bank Guarantee for Earnest Money Deposit

(To be stamped as Security Bond)

In consideration of Reserve Bank of India, Guwahati (hereinafter called "the Reserve Bank") having agreed to exempt M/s _____

(hereinafter called "the said tenderer") from the demand under the terms and conditions of the tender for
**TENDER FOR RENOVATION OF ENTRANCE STAIRCASE AND FIRST FLOOR LIFT LOBBY
AREA OF MAIN OFFICE BUILDING, RBI GUWAHATI**

(Hereinafter called "the said tender") of Earnest money for the due fulfillment by the said tenderer of the terms and conditions contained in the said tender on production of a Bank guarantee for Rs. -----

---We (hereinafter referred to as "the Bank") do hereby agree and undertake to indemnify and keep indemnified the Reserve Bank of India to the extent of Rs. -----

--- against any loss or damage caused to or suffered by the Reserve Bank of India by reason of any breach by the said tenderer of any of the terms and conditions contained in the said tender and pay to the Reserve Bank of India on demand without demur the said sum of Rs----- within a period of one week from

the date of receipt of demand from the Reserve Bank of India. Any statement made by the Reserve Bank of India and the amount mentioned in the demand notice given to us shall not be called in question by us and shall be conclusive proof regarding the amount that is payable under the guarantee and that we shall not demand any proof thereof. We further undertake that we will make the payment pursuant to the demand notice issued by the Reserve Bank of India notwithstanding any dispute that may exist or arise between the Reserve Bank of India and the tenderer or any other person.

We, _____, further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said tender and that it shall continue to be enforceable till all the dues of the Reserve Bank under or by virtue of the said tender have been fully paid and its claims satisfied or discharged or till the Reserve Bank certifies that the terms and conditions of the said tender have been fully and properly carried out by the said tenderer and accordingly discharges the guarantee subject however, that the Reserve Bank of India shall have no rights under this guarantee after the expiry of -----

-----or till such extended period required for completion of the entire work at the request of the tenderer and/or the Reserve Bank of India.

We, _____, lastly undertake not to revoke this guarantee _____ during its currency except with the previous consent of the Reserve Bank of India in writing.

Notwithstanding anything stated above, our liability under this guarantee is restricted to

Rs _____ Our guarantee shall remain in force until 6 months or such extended date, which may be granted by us at the request of the tenderer, and/or the Reserve Bank of India. Unless a suit or action to

enforce a claim under this guarantee is filled against us within _____ thereafter, all your rights

under the said guarantee shall be forfeited and we shall be released and discharged from all liability thereunder.

NAME AND ADDRESS OF THE CONTRACTOR:

SIGNATURE & SEAL OF THE CONTRACTOR:

Date:

Place:



Annexure-VI

FORM OF PERFORMANCE BANK GUARANTEE
(On Non-Judicial Stamp Paper of appropriate value)

This deed of guarantee made this day of _____ between Bank of _____ (hereinafter called the "Bank") of the one part, and Reserve Bank of India, (hereinafter called "RBI") of the other part

Whereas RBI, has awarded the Contract for -----(Name of the Project).....

for Reserve Bank of India (hereinafter called the "Contract") to _____ (Name of the contractor) _____ (hereinafter called the "Contractor").

AND WHEREAS the contractor is bound by the said Contract to submit to RBI a Performance

Security for a total amount of Rs. _____ (Rupees _____ only) (Amount in figures and words).

1. Now we the undersigned _____ (Name of the Bank) being fully authorized to sign and to incur obligations for and on behalf of and in the name of _____ (Full name of Bank), hereby declare that the said Bank will guarantee RBI the full amount of Rs. _____ (Rupees _____ only) (Amount in figures and Words) as stated above.
2. After the Contractor has signed the aforementioned Contract with RBI, the Bank is engaged to pay RBI, any amount up to and inclusive of the aforementioned full amount upon written order from RBI to indemnify RBI for any liability of damage resulting from any defects or shortcomings of the Contractor or the debts he may have incurred to any parties involved in the works under the Contract mentioned above, whether these defects or shortcomings or debts are actual or estimated or expected. The Bank will deliver the money required by RBI immediately on demand without delay without reference to the Contractor and without the necessity of a previous notice or of judicial or administrative procedures and without it being necessary to prove to the Bank the liability or damages resulting from any defects or shortcomings or debts of the contractor. The Bank shall pay to RBI any money so demanded notwithstanding any dispute/disputes raised by the Contractor in any suit or proceedings pending before any Court, Tribunal or Arbitrator/s relating thereto and the liability under this guarantee shall be absolute and unequivocal.
3. This guarantee is valid till _____ (date to be mentioned) (date of virtual completion) or the extended period, thereof)
4. At any time during the period in which this guarantee is still valid, if RBI agrees to grant a time extension to the Contractor or if the Contractor fails to complete the Works within the time of completion as stated in the Contract, or fails to discharge himself of the liability or damages or debts as stated under Para Numbered 2 above, it is understood that the Bank will extend this Guarantee under the same terms and conditions for the required time on demand by RBI and at the cost of the contractor.
5. The guarantee hereinbefore contained shall not be affected by any change in the Constitution of the Bank or of the contractor.
6. The neglect or forbearance of RBI in enforcement of payment of any moneys, the payment whereof is intended to be hereby secured or the giving of time by RBI for the payment hereof shall in no way relieve the bank of their liability under this deed.



7. The expressions "RBI", "the Bank" and "the Contractor" hereinbefore used shall include their respective successors and assigns.

In witness whereof I/We of the Bank have signed and sealed this guarantee on the _____ day of _____ (Month) **2018** being herewith duly authorized.

For and on behalf of
The Bank.

Signature of authorized Bank official

Name:

Designation:

Stamp/Seal of the Bank:

.....
Signed, sealed and delivered for and on behalf of the Bank by the above named _____ in the presence of :

Witness 1

Witness 2

Signature

Signature

..... Name
.....

.....
Name
.....

Address

Address

.....
.....
.....
.....

.....
.....
.....
.....



Annexure-VII

Proforma of Bank Guarantee for Security Deposit

(This guarantee will require stamp duty as applicable in the state, where it is executed and shall be signed by the official whose signature and authority shall be verified).

Regional Director
Reserve Bank of India
Estate Department Guwahati-781001

Date:
Place:

Dear Sir,

“TENDER FOR RENOVATION OF ENTRANCE STAIRCASE AND FIRST FLOOR LIFT LOBBY AREA OF MAIN OFFICE BUILDING, RBI GUWAHATI

”.

WHEREAS

The Reserve Bank of India, having its Central Office at Shahid Bhagat Singh Road, Mumbai and an office at GUWAHATI (hereinafter called the ‘Employer’) has invited tenders for the work "**TENDER FOR RENOVATION OF ENTRANCE STAIRCASE AND FIRST FLOOR LIFT LOBBY AREA OF MAIN OFFICE BUILDING, RBI GUWAHATI**” (hereinafter referred to as ‘the Work’) on the terms and conditions mentioned in the tender documents.

1. It is one of the terms of invitation of tenders that the tenderer shall furnish a Bank Guarantee for a sum of Rs. _____ (Rupees _____ only) towards satisfactory performance on Comprehensive AMC as per the tender.

2. M/s , (hereinafter called as Tenderer), who are our constituents intend to submit their tender for the said work and have requested us to furnish guarantee to the Employer in respect of the said sum of Rs. (Rupees _____ only).

NOW THIS GUARANTEE WITNESSETH

1. We (Bank) do hereby agree with and undertake to the Reserve Bank of India, their Successors, Assigns that in the event of the Reserve Bank of India coming to the conclusion that the Tenderer have not performed their obligations under the said conditions of the tender or have committed a breach thereof, which conclusion shall be binding on us as well as the said Tenderer, we shall on demand by the Reserve Bank of India, pay without demur to the Reserve

Bank of India, a sum of Rs ____ (Rupees _____ only) or any lower amount that may be demanded by

the Reserve Bank of India. Our guarantee shall be treated as Deposit for the due performance of the obligations of the Tenderer under the said Conditions, provided, however, that our liability



against such sum shall not exceed the sum of Rs. _____
_____only).(Rupees

2. Bank of India in enforcing the conditions of the said agreement or in compliance with any of the terms and conditions stipulated in the said tender and/or hereunder or granting of any time or showing of any indulgence by the Reserve Bank of India to the Tenderer or any other matters in connection therewith shall not discharge us in any way and our obligation under this guarantee. This guarantee shall be discharged only by the performance by the Tenderers of their obligations and in the event of their failure to do so, by payment by us of the sum not exceeding Rs. _____(Rupees _ only) We also agree to undertake to and confirm that the sum not exceeding Rs. _____/- (Rupees _____only) as aforesaid shall be paid by us without any demur or protest, merely on demand from the Reserve Bank of India on receipt of a notice in writing stating the amount is due to them and we shall not ask for any further proof or evidence and the notice from the Reserve Bank of India shall be conclusive and binding on us and shall not be questioned by us in any respect or manner whatsoever. We undertake to pay the amount claimed by the Reserve Bank of India within a period of one week from the date of receipt of the notice as aforesaid.

3. We confirm that our obligation to the Reserve Bank of India under this guarantee shall be independent of the agreement or agreements or other understandings between the Reserve Bank of India and the Tenderer. This guarantee shall not be revoked by us without prior consent in writing of the Reserve Bank of India.

We hereby further agree that -

- a) Any forbearance or commission on the part of the Reserve
- b) Our liability under these presents shall not exceed the sum of Rs. _____
(Rupees _____only)
- c) Our liability under this agreement shall not be affected by any infirmity or irregularity on the part of our said constituents in tendering for the said work or their obligations thereunder or by dissolution or change in the constitution of our said constituents.
- d) This guarantee shall remain in force up
_____to provided that if so desired by the Reserve Bank of India, this guarantee shall be renewed for a further period as may be indicated by them on the same terms and conditions as contained herein.
- e) Our liability under this presents will terminate unless these presents are renewed as provided herein above on the _____ or on the day when _____
our said constituents comply with their obligations, as to which a certificate in writing by the Reserve Bank of India alone is the conclusive proof whichever date is later. Unless a claim or suit or action is filed against us within six months from that date or any extended period, all the rights of the Reserve Bank of India against us under this guarantee shall be forfeited and we shall be released and discharged from all our obligations and liabilities hereunder.

Yours' faithfully,

For and on behalf of Bank.

(Authorized official with seal)



Annexure-VIII

Schedule of Quantity

PREAMBLE

The rates quoted shall include the following:

1. The item and quantities indicated in the schedule of quantity are tentative and as per need of work and as decided by the Bank certain items/ quantities may not be required to be executed or may be executed with reduction in quantities to any extent. The contractor has to execute items/quantities as per direction of Bank and no claim on this account whatsoever will be entertained by the Bank in respect of non-operation of items/reduction in quantities. It is advised to visit the site, gather the information about work and understand the scope of work well before quoting the rates

2. The contractor shall abide by and fulfill all requirements laid down under the Contract Labour (Regulation and Abolition) Act, 1970 and the rules framed there under and all other relevant statutory acts (such as Minimum Wages Act etc.). If the number of laborers employed by the contractor is twenty or more, the contractor shall obtain the license from the Regional Labour Commissioner. The contractor shall maintain all registers/ documents as required by the Regional Labour Commissioner at site and should furnish the same to the Bank or its representative as and when required.

3. The Contractor must comply with the provisions of Payment of Wages Act 1936, Minimum wages Act 1948, Gratuity Act 1972, Stamp Act 1899, EPF Act 1952, ESI Act 1948, Payment of Bonus Act 1965 etc. & all applicable statutory rules/ guidelines. Notices /penalty, if any, issued /imposed by any statutory norms/requirements shall be paid by the contractor, without any claim to the Employer.

4. Providing for all costs and charges incurred by the contractor complying with all safety health and welfare regulations, appertaining to staff and work people employed on the site.

5. The arrangement of water and electricity required for the work shall be done by the contractor at their own cost. However, the Bank may also consider allowing to contractor to take the water (in case of water supply with the Bank is sufficient during the work) and electricity from the Bank's premises and for these purpose water charges @ 0.25 % and electric charges @ 0.5 % of contract value shall be deducted from all the bills & the contractor has to arrange for suitable length electric wire/extension board with a cut out. The cutting machine etc. shall be arranged by the contractor as per load of the Bank's meter and wires in case if they are will to take use the electricity from Bank's common area. In case if any damage of electric line/electric meter is observed due to work the contractor has to make it good at his own cost, failing on which the Bank will recover the cost of damages from the bill/security deposit of the contractor without further referring the matter to contractor.

6. The contractor has to arrange for cleaning & moping of common area of the building at the end of the day's work every day to the entire satisfaction of caretaker/Bank's Engineer and also arrange for collection & disposal of debris outside from the premises and site is to be kept clean after day to day work.

7. The rates shall also be inclusive of cleaning of all site & sanitary fittings/fixtures and other surrounding area of the premises after completion of work. Removing/shifting of items to different locations as directed.

8. Necessary charges towards arranging and getting approved the all materials etc. to be used for work with reference to their make, quality, shade, size etc. of materials. Only approved materials are to be used in above work.



9. The contractor has to arrange for collection & disposal of debris outside from the premises and site is to be kept clean after day-to-day work.
10. The contractor shall ensure validity of the necessary insurance policies and the Bank Guarantees for the extended period of the work.
11. Contractors will have to submit a time bound programme just after the award of the work and get it approved from the Bank before commencement of work.
12. The contractor shall make arrangements for obtaining the necessary work permission / gate passes for bringing and taking out of the materials from the Banks premises including the permission from the authorities.
13. All the curing of the plastered / concrete surfaces to be done as per the manufactures specifications and as directed by the Bank's Engineer
14. The rates should be inclusive of all relevant taxes like GST, transportation charge, etc. and for all the accessories required for the completion of the work. No extra amount will be paid for whatsoever. All fluctuations in prices of all materials & labour shall be borne by the contractor.
15. Providing and erecting necessary scaffolding and providing access for work area as may be required for carrying out the repair works and for inspection of work at all levels and heights and removal the same after satisfactory completion of work. Allow the other Contractors, appointed by the Employer, use of scaffolding and retain until such time the relevant works e.g. the repairing of window frames, shutters & replacement of CI/PVC drain lines etc. are completed.
16. The Contractor shall at his own cost arrange for and/or carry out any test of any materials as decided and directed by the Bank. In case, the contractor fails to get the work / portion of works/ materials tested at appropriate time, the Bank will arrange for getting such testing done and all testing charges and other incidental expenditure incurred by the Bank in connection with such tests shall be recovered from the Contractor.

Place:

Name of the Contractor:

Date:

Address:

Sign & Seal of the Contractor:



**TENDER FOR RENOVATION OF ENTRANCE STAIRCASE AND FIRST FLOOR LIFT LOBBY
AREA OF MAIN OFFICE BUILDING, RBI GUWAHATI**

ITEM No.	ITEM DESCRIPTION	UNIT	QTY.
NO.			
A	DISMANTLING & DEMOLISHION WORKS		
1	Dismantling wooden/aluminium/ Gypsum partitions (both Side skins), doors, windows, fixed glazing/MS Grills and false ceiling etc. including disposal of unserviceable surplus material outside of the Bank's premises at approved dumping site by local municipal authorities and stacking of serviceable material. All complete as directed by Engineer-in-charge. (Work shall be measured as net area from anyone side of the Partition)	Sqm	200.0
2	Dismantling stone slab flooring laid in cement mortar including stacking of serviceable material and disposal of unserviceable material within 50 metres lead.	Sqm	620.0
3	Demolishing brick work manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge		
	In cement mortar	Cum	5.0
4	Dismantling of flushing cistern of all types (C.I./PVC/Vitrious China) including stacking of useful materials near the site and disposal of unserviceable materials within 50 metres lead.	Each	4.0
5	Cutting holes of required size in brick masonry wall for fixing of exhaust fan including providing and fixing 300 mm dia PVC pipe conforming BIS-12818 and making good the same etc. complete as per direction of Engineer-in-charge	Each	3.0
6	Dismantling W.C. Pan, Wash Basins, Urinals of all sizes including disposal of dismantled materials i/c malba all complete as per directions of Engineer-in Charge	Each	7.0
7	Dismantling 15 to 40 mm dia G.I. pipe including stacking of dismantled pipes (within 50 metres lead) as per direction of Engineer in-Charge		
	(a) Internal Work- Exposed on wall	Metre	50.0
8	Dismantling G.I. pipes (external work) including excavation and refilling trenches after taking out the pipes, manually/ by mechanical means including stacking of pipes within 50 metres lead as per direction of Engineer-in-charge :		
	15 mm to 40 mm nominal bore	Metre	50.0
	Above 40 mm nominal bore	Metre	40.0
B	CIVIL WORKS		



9	WATER PROOFING WORK		
	Waterproofing in toilets	Sqm	40.0
	Providing and laying water proofing treatment to vertical and horizontal surfaces of depressed portions of W.C., kitchen and the like consisting of:		
(i)	Ist course of applying cement slurry @ 4.4 kg/sqm mixed with water proofing compound conforming to IS 2645 in recommended proportions including rounding off junction of vertical and horizontal surface.		
(ii)	IIInd course of applying cement slurry @ 4.4 kg/sqm mixed with water proofing compound conforming to IS 2645 in recommended proportions including rounding off junction of vertical and horizontal surface.		
(iii)	IIIrd course of applying blown or residual bitumen applied hot at 1.7 kg. per sqm of area.		
(iv)	IVth course of 400 micron thick PVC sheet. (Overlaps at joints of PVC sheet should be 100 mm wide and pasted to each other with bitumen @ 1.7 kg/sqm).		
2	<u>FLOORING AND SKIRTING</u>		
10	VITRIFIED FLOOR TILES		
	Providing and laying Vitrified tiles in floor in different sizes (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS:15622, of approved brand & manufacturer, in all colours and shade, laid on 20 mm thick cement mortar 1:4 (1 cement: 4 coarse sand) jointing with grey cement slurry @3.3 kg/sqm including grouting the joints with white cement and matching pigments etc. The tiles must be cut with the zero chipping diamond cutter only . Laying of tiles will be done with the notch trowel, plier, wedge, clips of required thickness, leveling system and rubber mallet for placing the tiles gently and easily.		
	Glazed Vitrified tiles Matt/Antiskid finish of size		
i	Size of Tile 600 x 600 mm (Basic Rate - 603/ SQM)	Sqm	31.0
	WALL DADO AND JAMBS		
11a	Ceramic tile on walls		
	Providing and fixing Ist quality ceramic glazed wall tiles conforming to IS: 15622 (thickness to be specified by the manufacturer), of approved make, in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge, in skirting, risers of steps and dados, over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm, including pointing in white cement mixed with pigment of matching shade complete. (Basic Rate - 409/ SQM)	Sqm	120.0
11b	Vitrified Tiles for Walls of Lobby Areas		



	Providing and laying Vitrified tiles in different sizes (thickness to be specified by the manufacturer), with water absorption less than 0.08% and conforming to IS: 15622, of approved brand & manufacturer, in all colours and shade, in skirting, riser of steps, laid with cement based high polymer modified quick set tile adhesive (water based) conforming to IS: 15477, in average 6 mm thickness, including grouting of joints (Payment for grouting of joints to be made separately) (<u>Basic Rate- Rs 839/ SqM, Item Code-Arrow marfil décor punch</u>)		
	Size of Tile 600 x1200 mm	Sqm	150.0
	GRANITE COUNTER/ PLATFORM		
	Granite Platform for wash basin of approved colour & shade		
12	Providing and fixing 18 mm thick gang saw cut, mirror polished, premoulded and prepolished, machine cut for kitchen platforms, vanity counters, window sills, facias and similar locations of required size, approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 (1 cement : 4 coarse sand), joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing, moulding and polishing to edges to give high gloss finish etc. complete at all levels.		
	Granite stone slab of colour as approved by the EIC (<u>Basic Rate- Rs 2152/ SqM,Chocl. Brown</u>)		
	Area of slab over 0.50 sqm	Sqm	4.1
13	Extra for fixing marble /granite stone, over and above corresponding basic item, in facia and drops of width upto 150 mm with epoxy resin based adhesive, including cleaning etc. complete	Rmt	7.0
14	Extra for providing opening of required size & shape for wash basin/ kitchen sink in kitchen platform, vanity counter and similar location in marble/ Granite/ stone work, including necessary holes for pillar taps etc. including moulding, rubbing and polishing of cut edges etc. complete.	Each	6.0
15	Mirror polishing on marble work/Granite work/stone work where ever required to give high gloss finish complete.	Sqm	5.0
	GRANITE FLOORING ON TREAD, RISERS AND LANDING		
	Providing and laying Polished Granite stone flooring in required design and patterns, in linear as well as curvilinear portions of the building all complete as per the architectural drawings with 18 mm thick stone slab over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with cement slurry and pointing with white cement slurry admixed with pigment of matching shade including rubbing, curing and polishing etc. all complete as specified and as directed by the Engineer-in-Charge. (<u>Basic Rate- Rs 2479/ SqM, Item Code-BLUE DUNES GRANITE</u>)		



16	Polished Granite stone slab of shade/ Item Code-BLUE DUNES GRANITE	sqm	97.0
	EXTRA FOR DOUBLE NOSING IN TREADS		
	Extra for providing and fixing pre finished Double nosing to treads of steps of Granite stone in approved pattern and style as directed by the EIC. (The length of nosing shall be considered as double for double nosing while calculating the actual measurement of double nosing in Granite)	RM	222.0
	ITALIAN MARBLE SLAB FLOORING		
18	FOR FLOORS		
	Providing and laying machine cut, mirror polished, Italian Marble stone flooring laid in required pattern in linear portion of the building all complete as per architectural drawings, with 18 mm thick stone slab laid over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with white cement slurry @ 4.4 kg/sqm including pointing with white cement slurry admixed with pigment to match the marble shade including rubbing, curing and polishing etc. all complete as specified and as directed by the Engineer-in-Charge. (Basic rate- Rs 3228/ SqM, Item Code-CREMA LUMOS)		
	18 mm thick Italian Marble stone slab,	Sqm	94.0
	FOR BORDERS AND INLAYS		
19	FOR BORDERS AND INLAYS		
	Providing and laying machine cut, mirror polished Marble stone flooring, in required design (Simple geometrical, abstract etc.) and in patterns in combination with Italian marble stones of different colours, shades and finished surface texture etc., in linear portions of the building, all complete as per the architectural drawings, with 18 mm thick stone slab laid over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with white cement slurry @ 4.4 kg/sqm, including pointing with white cement slurry admixed with pigment to match the marble shade, including rubbing, curing and polishing etc. all complete as specified and as directed by the Engineer-in-Charge. (Basic rate- Rs 3228/ SqM, Item Code-SKODA BROWN)		
	18 mm thick Italian Marble stone slab,	Sqm	21.0
20	GRANITE FRAMES TO TOILET / PANTRY DOORS		
	Providing & fixing 3/4" thk Granite for door frames in vertical jambs & soffit, with outer part of 4" width and inner part of 2" width fixed on walls with a difference of 1/2" for door shutter, including machine polish on exposed edges and rounding of corners, necessary backing material, and joint filling compound of same shade of Granite.		



	Granite work gang saw cut (polished and machine cut) of thickness 18 mm for wall lining (veneer work), backing filled with a grout of average 12 mm thick in cement mortar 1:3 (1 cement : 3 coarse sand), including pointing with white cement mortar 1:2 (1 white cement : 2 marble dust) with an admixture of pigment to match the marble shade (To be secured to the backing by means of cramps, which shall be paid for separately).		
	Raj Nagar Plain white marble/ Udaipur green marble/ Zebra black marble		
	Area of slab upto 0.50 sqm	Sqm	5.0
21	BRICK WORK		
	Constructing Half brick masonry with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level.		
	Cement mortar 1:4 (1 cement :4 coarse sand)	SQ.M	90.0
22	CEMENT PLASTER (IN FINE SAND)		
	Providing & applying 15 mm cement plaster on the rough side of single or half brick wall of mix :		
	1:4 (1 cement: 4 fine sand)	Sqm	180.0
C	SANITARY WORKS AND WATER SUPPLY		
a	SANITARY WORKS		
	SANITARY FITTINGS & FIXTURES- Providing & fixing following fixtures, the rate for the following shall be inclusive of all necessary fixtures, labour charges accessories & attachments to make them operational.		
23	Providing and fixing wall hung, white vitreous china water closet of approved brand/make, shape, size and pattern including Low level vitreous china flushing cistern of capacity 10 litres with dual flushing system, including all fittings and fixtures with seat cover, cistern fittings, nuts, bolts and gasket etc including making connection with the existing P/S trap, complete in all respect as per directions of Engineer-in-Charge.	EACH	4.0
	EWC - MODEL No- CNS-WHT-551PSPP of M/S Jaquar or equivalent make		
	WALL HUNG CISTERN WITH 39MM DRAINAGE L-B- , Model N0- WHC-WHT 184 NL of M/S Jaquar or equivalent make		
	Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require:		
24	WASH BASIN - Model NoCNSWHT 701GS WHT Series of M/S Jaquar or equivalent make	NOS.	7.0
25	Providing and fixing CP BRASS HEALTH FAUCET, Model No-- ALD-CHR-573 of M/S Jaquar or equivalent make	NOS.	4.0



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26	Providing and fixing 2 WAY BIB COCK WITH WALL FLANGE , Model No- FLR-CHR-5041N of M/S Jaquar or equivalent make	NOS.	4.0
27	Providing and fixing ANGULAR STOP COCK WITH WALL FLANGE- Model No-FLR-CHR-5053N of M/S Jaquar or equivalent make	NOS.	4.0
28	Providing and fixing FLEXIBLE TUBE 8mm DIA. & 1.5M LONG , Model No- -SHA-CHR-549D8 of M/S Jaquar or equivalent make	NOS.	4.0
29	Providing and fixing TOILET ROLL HOLDER WITH STAINLESS STEEL, Model No- -AKPCHR- 35753PS of M/S Jaquar or equivalent make	NOS.	4.0
30	Providing and fixing SOAP DISPENSER WITH GLASS BOTTLE, Model No- -AKPCHR- 35735P of M/S Jaquar or equivalent make	NOS.	7.0
31	Providing and fixing TOWEL RING ROUND WITH ROUND FLANGE, Model No- -ACNCHR- 1121BN of M/S Jaquar or equivalent make	NOS.	7.0
32	Supplying & fixing 100 mm (4") fixing NAHANI TRAP (Supreme or quivalent) of self cleansing design with screwed down or hinged grating with or without vent arm complete, including cost of cutting and making good the walls and floors: and connecting it to the existing waste pipes outside. Rate should include cost of removing the existing trap, embedding in plain cement concrete all around in perfect level all complete as directed.	NOS.	5.0
33	Supplying & fixing box shape stainless steel heavy type grating 125 to 150 mm for traps etc. all complete as directed by Bank's engineer..	NOS.	5.0
34	Providing and fixing white vitreous china flat back half stall urinal of size 580x380x350 mm with white PVC automatic flushing cistern, with fittings, standard size C.P. brass flush pipe, spreaders with unions and clamps (all in C.P. brass) with waste fitting as per IS : 2556, C.I. trap with outlet grating and other couplings in C.P. brass, including painting of fittings and cutting and making good the walls and floors wherever required :		
	Single half stall urinal with 5 litre P.V.C. automatic flushing cistern	NOS.	2.0
35	PANELLING OF FLUSH DOOR WITH LAMINATE		
	Providing & Fixing decorative high pressure laminated sheet of plain /wood grain in gloss / matt/ suede finish with high density protective surface layer and reverse side of adhesive bonding quality conforming to IS : 2046 Type S, including cost of adhesive of approved quality.		
	1.0 mm thick	Sqm	30.0
	WATER SUPPLY WORKS		



36	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge.		
	Rate is inclusive of concealed work, including cutting chases and making good the walls etc.		
	20 mm nominal dia Pipes	Metre	30.0
SOIL, WASTE, VENT & ANTI PIPE SYSETM			
	Providing and fixing Polyvinyl Chloride (PVC) pipes, having thermal stability for hot & cold water supply including all PVC plain & brass threaded fittings This includes jointing of pipes & fittings with one step PVC solvent cement, trenching, refilling & testing of joints complete as per direction of Engineer in Charge.		
37	40 mm nominal dia Pipes	Metre	10.0
38	100 mm nominal dia Pipes	Metre	10.0
D	CARPENTRY WORKS		
39	GYPSUM FALSE CEILING		



	<p>Providing and fixing false ceiling at all height including providing and fixing of frame work made of special sections, power pressed from M.S. sheets and galvanized with zinc coating of 120 gms/sqm (both side inclusive) as per IS : 277 and consisting of angle cleats of size 25 mm wide x 1.6 mm thick with flanges of 27 mm and 37mm, at 1200 mm centre to centre, one flange fixed to the ceiling with dash fastener 12.5 mm dia x 50mm long with 6mm dia bolts, other flange of cleat fixed to the angle hangers of 25x10x0.50 mm of required length with nuts & bolts of required size and other end of angle hanger fixed with intermediate G.I. channels 45x15x0.9 mm running at the spacing of 1200 mm centre to centre, to which the ceiling section 0.5 mm thick bottom wedge of 80 mm with tapered flanges of 26 mm each having lips of 10.5 mm, at 450 mm centre to centre, shall be fixed in a direction perpendicular to G.I. intermediate channel with connecting clips made out of 2.64 mm dia x 230 mm long G.I. wire at every junction, including fixing perimeter channels 0.5 mm thick 27 mm high having flanges of 20 mm and 30 mm long, the perimeter of ceiling fixed to wall/partition with the help of rawl plugs at 450 mm centre, with 25mm long dry wall screws @ 230 mm interval, including fixing of gypsum board to ceiling section and perimeter channel with the help of dry wall screws of size 3.5 x 25 mm at 230 mm c/c, including jointing and finishing to a flush finish of tapered and square edges of the board with recommended jointing compound , jointing tapes , finishing with jointing compound in 3 layers covering upto 150 mm on both sides of joint and two coats of primer suitable for board, all as per manufacturer's specification and also including the cost of making openings for light fittings, grills, diffusers, cutouts made with frame of perimeter channels suitably fixed, all complete as per drawings, specification and direction of the Engineer in Charge but excluding the cost of painting with :</p>		
	12.5 mm thick tapered edge gypsum moisture resistant board	Sqm	260.0
	NOTE: The rate shall be inclusive of provision for core lighting, small moulding, verticals in two levels, 18.75mm x 12.5mm grooves on the edges, cutouts for cove lights and AC grills.		
40	SKINNING /PANELLING /BOXING		
	Providing and fixing panelling on walls with 6mm thk Solid surface with company's specified adhesive of approved shade and make and fixed over 9 mm thk plywood boxing with necessary framings as per the approved design and shape and as directed by the EIC. Rate shall be all inclusive and no extra shall be payable apart from all as mentioned in the specification.	Sqm	6.0
41	Flush door with vision panel (Without door frame)	SQM	15.0



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	Providing and fixing ISI marked flush door shutters conforming to IS : 2202 (Part I) non-decorative type, core of block board construction with frame of 1st class hard wood and well matched commercial 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters:		
i	30 mm thick including ISI marked Stainless Steel butt hinges with necessary screws		
42	Extra for providing lipping with 2nd class teak wood battens 25 mm minimum depth on all edges of flush door shutters (over all area of door shutter to be measured).	SQM	15.0
c	Extra for providing vision panel in all type of flush doors (cost of glass excluded) (overall area of door shutter to be measured):		
43	Rectangular or square	SQM	0.7
44	Extra for providing frosted glass panes 4 mm thick instead of ordinary float glass panes 4 mm thick in doors, windows and clerestory window shutters. (Area of opening for glass panes excluding portion inside rebate shall be measured).	SQM	0.7
45	Providing and fixing aluminium extruded section body tubular type universal hydraulic door closer (having brand logo with IS : 3564, embossed on the body, door weight upto 36 kg to 80 kg and door width from 701 mm to 1000 mm), with double speed adjustment with necessary accessories and screws etc. complete.	Each	3.0
46	Providing and fixing chromium plated brass 100 mm mortice latch and lock with 6 levers and a pair of lever handles of approved quality with necessary screws etc. complete.	Each	7.0
47	Providing and fixing bright finished brass hanging type floor door stopper with necessary screws, etc. complete.	Each	3.0
	PAINTING & POP WORKS		
48	POP PUNNING FOR GYPSUM CEILING	Sqm	210.0
	Providing and applying plaster of paris putty of 2 mm thickness over plastered surface/ gypsum ceiling/ partitions to prepare the surface even and smooth complete.		
49	WALL PUTTY FOR WALLS	Sqm	230.0
	Providing and applying white cement based putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete. (Make: Birla / Asian / Berger)		
50	PAINTINGS ON WALLS AND CEILINGS	Sqm	450.0



	Providing and applying two or more coats of wall painting with premium acrylic emulsion paint of interior grade, having VOC (Volatile Organic Compound) content less than 50 grams/ litre of approved brand, shade and manufacture, including providing & applying one coat of water thinable primer of approved make, scaffolding, cleaning, etc all complete as directed by Bank's enginee		
	Two coats		
52	ACP PANELLING IN WOODEN TEXTURE		
	Shade- TR-46, Classico Pine of AluDecor or equivalent Make		
	Designing, fabricating, testing, installing and fixing in position Curtain Wall with Aluminium Composite Panel Cladding, with open grooves for linear as well as curvilinear portions of the building , for all heights and all levels etc. including:		
	Structural analysis & design and preparation of shop drawings for pressure equalisation or rain screen principle as required, proper drainage of water to make it water tight including checking of all the structural and functional design.		
	Providing, fabricating and supplying and fixing panels of aluminium composite panel cladding in pan shape in <u>Wooden Texture</u> of approved shades made out of 4mm thick aluminium composite panel material consisting of 3mm thick FR grade mineral core sandwiched between two Aluminium sheets (each 0.5mm thick). The aluminium composite panel cladding sheet shall be coil coated, with Kynar 500 based PVDF / Lumiflon based fluoropolymer resin coating of approved colour and shade on face # 1 and polymer (Service) coating on face # 2 as specified using stainless steel screws, nuts, bolts, washers, cleats, adhesive, weather silicone sealant, backer rods etc whichever required.		



	<p>The fastening brackets of Aluminium alloy 6005 T5 / MS with Hot Dip Galvanised with serrations and serrated washers to arrest the wind load movement, fasteners, SS 316 Pins and anchor bolts of approved make in SS 316, Nylon separators to prevent bi-metallic contacts all complete required to perform as per specification and drawing The item includes cost of all material & labour component, the cost of all mock ups at site, cost of all samples of the individual components for testing in an approved laboratory, field tests on the assembled working curtain wall with aluminium composite panel cladding, cleaning and protection of the curtain wall with aluminium composite panel cladding till the handing over of the building for occupation. Base frame work for ACP cladding is payable under the relevant aluminium item.s The Contractor shall provide curtain wall with aluminium composite panel cladding, having all the performance characteristics all complete , as per the Architectural drawings, as per item description, as specified, as per the approved shop drawings and as directed by the Engineer-in-Charge. However, for the purpose of payment, only the actual area on the external face of the curtain wall with Aluminum Composite Panel Cladding (including width of groove) shall be measured in sqm. up to two decimal places.Rate shall be inclusive of 12Mm thk S.S Strips to be fixed at grooves/ joints of ACP panels as per design and as directed by the architect, instead of filling the same with silicone sealant</p>	Sqm	22.0
53	PANNELLING ON CEILING WITH WPC BAFFLE		
	<p>Providing and fixing panelling on wall & ceilings with PARE or equivalent make Vertica Louvers Panel of size 211 mm x 3060mm or other matching sizes as directed by the EiC of approved shade in approved pattern as directed by the EIC . Rates shall be inclusive of all hardware fittings and fixtures as required to fix the same on the wall and ceilings as per company's standard installation procedures.</p>	Sqm	11.0
55	CNC CUT JAALI in 12mm thk Cement Board		
	<p>Providing and fixing customised design CNC cut customised jalli made from 12mm thk Everest or equivalent make standard cement board with RHS MS frame screws/ adhesives etc., all complete as per direction of Engineer-In- Charge. (Note: Rate shall be inclusive of fasteners and SS screws and the same shall not be paid separately.)</p>	Sqm	64.0
56	TEXTURE PAINTS ON WALLS/ PARTITION	SQM	22.0



	Providing & applying a coat of textured finish on walls and columns. The rate shall include scrapping, levelling & preparing the surface. Primer coat + (minimum) 3 coats of approved make, quality & shade shall be provided.		
57	BI-PARTING AUTOMATED SLIDING DOOR WITH TWO FIXED SIDE SCREENS	SQM	13.5
	Providing, installation, Testing & Commissioning of Bi-Parting Automatic Sliding Door Operator complete with a pair of bi-parting doors and two fixed side screens. The door is activated by radar units mounted either side of the threshold. Side screen safety is provided by presence sensors mounted above the door run back area. All operating and safety accessories shall be supplied by Electro Automation as part of this contract. The screen and doors shall be manufactured from proprietary Aluminium sections, single glazed with 12mm laminated safety glass. The overall screen size shall be as per the drawings and existing color, Measurements must be verified on site and shall be the contractor's responsibility. The detail specification is as per attached.		
58	TOUGHENED GLASS COVERING FOR FRONT STATUE	SQM	6.0
	Providing and fixing of fully Glass partition with 12mm thick toughened glass using silicon to cover existing Statue on all sides and on top as per design and as directed by the EIC including cutting, making holes in glass and fixing the fittings in floors/ base, and making the same good with necessary sealant/ silicon wherever required.		
59	ST.STEEL RAILING (BUFF FINISH)		
	SS RAILING FOR STAIRCASE WITH SUPPORTS ON EACH STEP	SQM	3.0
	Providing and fixing stainless steel railing (height of 750mm) OF GRADE 304, GAUGE 16 using pipe section 76mm dia for top railing and vertical supports at ends and with 20mm dia SS pipes fixed to alternate tread using base plate of thickness 8mm (balustrades), and 4 Nos horizontals of 12mm dia for interconnecting the vertical supports fixed as directed by Bank's Engineer with necessary fixtures fittings, collars, rings strips etc. complete. All ends to be provided with SS end caps.		
60	SS PIPE FITTED ON WALL	RM	5.0
	Providing and fixing SS pipe section 3" dia on wall with elbow and SS base plate at the level of Handrails for easy access in the stair case		
61	MIRRORS IN TOILET		



	Providing & Fixing 12mm thk Clear Mirror (1st Quality) with bevelled edges of approved make fixed over 12mm thk marine ply prepared on the wall surface with 1 1/2 " dia S.S Screws driven through PVC Gutkas on wall surface. The Mirror should be fixed with 25mm dia S. S Studs fixed at a maximum intervals of 2'-6" distance both horizontally & vertically as per design and as directed by the EIC. The rate shall be all inclusive of fittings and fixtures all complete	SQM	6.0
62	SHUTTERS BELOW WASH BASIN COUNTERS	SQM	4.0
	Providing and fixing 19mm thk. BWR ply shutters with ply frame, skirting gap as shown in the drawing shall be maintained. Division of shutters shall be made equally according to the length of the counter. Shutters shall be hinged to the framework and finished with 1.0mm thk. Laminate (suede finish) of approved shade from outside, applied with approved oil paint from the inside and edges of shutters with steam beach lipping. Rate shall be inclusive of all necessary approved fittings like hinges, ball catch, handle, and any necessary hardware items.		
E	ELECTRICAL WORKS		
	CIRCUIT CUM POINT WIRING :		
	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable etc. as required.		
63	Group C	Point	26
	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.		
64	5/6 A switch	Each	8
65	15/16 A switch	Each	8
66	3 pin 5/6 A socket outlet	Each	4
67	6 pin 15/16 A socket outlet	Each	8
68	Supplying and fixing modular blanking plate on the existing modular plate & switch box excluding modular plate as required.	Each	28
69	Supplying and fixing following size/ modules, GI box alongwith modular base & cover plate for modular switches in recess etc. as required.		
	3 Module (100mmX75mm)	Each	12
70	6 Module (200mmX75mm)	Each	2



e	Wiring for circuit/ submain wiring along with earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required.		
71	2 X 1.5 sq. mm + 1 X 1.5 sq. mm earth wire	Meter	40
72	2 X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire	Meter	550
73	2 X 4 sq. mm + 1 X 4 sq. mm earth wire	Meter	600
74	4 X 6 sq. mm + 2 X 6 sq. mm earth wire	Meter	150
f	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required.		
75	20 mm	Meter	10
76	25 mm	Meter	10
	MCB DISTRIBUTION BOARD:		
a	supplying and fixing of following ways surface/ recess mounting, vertical type, 415 V, TPN MCB distribution board of sheet steel, dust protected, duly powder painted, inclusive of 200 A tinned copper bus bar, common neutral link, earth bar, din bar for mounting MCBs (but without MCBs and incomer) as required . (Note : Vertical type MCB TPDB is normally used where 3 phase outlets are required.)		
77	8 way (4 + 24), Double door	Each	1
b	Supplying and fixing following way, horizontal type three pole and neutral, sheet steel, MCB distribution board, 415 volts, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/ RCCB/ Isolator)		
78	4+2 way (4 + 6 + 12), Double door	Each	3
c	Supplying and fixing 5 A to 32 A rating, 240/415 V, 10 kA, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required.		
79	Single pole	Each	39
80	Triple pole	Each	7



d	Supplying and fixing following rating, four pole, 415 V, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required.		
81	63 A Four pole isolator	Each	1
e	Supplying and fixing following rating, double pole, (single phase and neutral), 240 V, residual current circuit breaker (RCCB), having a sensitivity current 30 mA in the existing MCB DB complete with connections, testing and commissioning etc. as required.		
82	25 A	Each	9
	INSTALLATION OF LIGHT FIXTURE/CEILING FAN/EXHAUST FAN		
83	Installation, testing and commissioning of pre-wired, fluorescent fitting / compact fluorescent fitting of all types, complete with all accessories and tube/lamp etc. directly on ceiling/ wall, including connections with 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable and earthing etc. as required.	Each	121
	ISOLATOR		
	Supplying and fixing following rating, four pole, 415 V, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required.		
84	25 A Four pole isolator	Each	3
	SUPPLY OF LIGHTING FIXTURE / FAN / EXHAUST FAN / SOCKET		
85	Supplying with fitting fixing of luminaries complete with all accessories such as ballast, starter etc. directly on wall / ceiling including connection as approved by the Deptt.)with 1.5 sq mm P.V.C. insulated S.C. copper conductor as required and as directed by the EIC.		



	<p>Recessed LED Downlighter made of PDC Al. housing, LED Used shall be SMD type and fixture should have minimum efficacy at System level (Not Chip Level) ≥ 100 lumens/watt with Minimum system output of 1200 lumens with maximum system wattage of 12W. Life of fixture (Including Driver) : 50000 burning Hrs. @ L70B50 Lumen maintenance, CCT of 6500K (SDCM<5), CRI >80, PF >0.95, Min working temp range - $0^{\circ}\text{C} < \text{Ta} < 45^{\circ}\text{C}$, an operating Voltage Range of 130 - 320 VAC. Minimum Internal Surge Protection 2.5KV & The fixture design should comply with EMC / EMI compliance along with separate BIS certification for LED Driver & Luminaire. Luminaire manufacture shall provide LM79 report from NABL accredited lab & LM80 report issued by LED manufacturer. Similar to Philips or equivalent.</p>	Nos.	11
86	<p>Surface mounted LED Downlighter made of Metal housing, LED Used shall be SMD type and fixture should have minimum efficacy at System level (Not Chip Level) ≥ 100 lumens/watt with Minimum system output of 2000 lumens with maximum system wattage of 20W. Life of fixture (Including Driver) : 50000 burning Hrs. @ L70B50 Lumen maintenance, CCT of 6500K (SDCM<5), CRI >80, Min working temp range - $0^{\circ}\text{C} < \text{Ta} < 45^{\circ}\text{C}$, Minimum Internal Surge Protection of 2.5KV & The fixture design should comply with EMC / EMI compliance along with separate BIS certification for LED Driver & Luminaire. Luminaire manufacture shall provide LM79 report from NABL accredited lab & LM80 report issued by LED manufacturer. Similar to Philips or equivalent.</p>	Nos.	9
87	<p>LED continuous profile light with system wattge of 12 watt per meter as cove lighting at ceiling. Fixture should have minimum efficacy at System level (Not Chip Level) ≥ 75 lumens/watt with Minimum system output of 4500 lumens with maximum system wattage of 60W for 5 meter. Operating Voltage Range of 130 - 320 VAC, CCT of 3000K. Minimum Internal Surge Protection 2 KV & The fixture design should be as per architectural requirement to suit for decorative application.</p>	Nos.	20
88	<p>LED strip light with system wattge of 12 watt per meter as cove lighting at ceiling. Fixture should have minimum efficacy at System level (Not Chip Level) ≥ 75 lumens/watt with Minimum system output of 4500 lumens with maximum system wattage of 60W for 5 meter. Operating Voltage Range of 130 - 320 VAC, CCT of 3000K. Minimum Internal Surge Protection 2 KV & The fixture design should be as per architectural requirement to suit for decorative application.</p>	RM	85



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89	Wall mounted type LED mirror light fixture for application in toilet area. High quality integrated LEDs assure soothing warm white light. It should be available in maximum 10W with minimum lumen output of 450Lm.	Nos.	4
90	LED decorative Wall light fixture with light bulb, decorative bracket and mounting arrangement. High quality integrated LEDs assure soothing warm white light. It should be available in maximum 20W with minimum lumen output of 1200Lm.	Nos.	8
91	LED based chandelier complete with all accessories and bulb having maximum wattage of around 200 watt and best suit for commercial application . Operating Voltage Range of 130 - 320 VAC, CCT of 3000K. Minimum Internal Surge Protection 2 KV & The fixture design should be approved by the EIC.	Nos.	1

NOTE: IN MSTC PORTAL, YOU ARE REQUIRED TO SUBMIT THE TOTAL AMOUNT FOR EACH OF INDIVIDUAL ITEMS (INCLUDING GST AND ANY OTHER APPLICABLE TAXES & CHARGES).