



**GREATER KOLKATA REGIONAL OFFICE**  
**3, MIDDLETON ROW.**  
**Gr. Floor**  
**KOLKATA – 700 071**

**TENDER DOCUMENT**  
**FOR**  
**AIR CONDITIONING WORKS**  
**FOR**  
**SOUTH DUMDUM E-AB BRANCH**

NAME OF THE TENDERER: .....

ADDRESS OF THE TENDERER: .....

LAST DATE OF SUBMISSION OF TENDER : **11.07.2022 UPTO 2.00 PM**

DATE OF OPENING OF THE TENDER: **11.07.2022 AT 2.30 PM**

PLACE OF SUBMISSION OF TENDER:

OFFICE OF  
THE CHIEF MANAGER (OPERATIONS)  
UNION BANK OF INDIA  
GREATER KOLKATA REGIONAL OFFICE:  
3, Middleton Row, Gr. Floor,  
KOLKATA – 700 071.

**CONSULTANT**  
**KALPANGAN CONSULTANTS PVT. LTD.**

ARCHIECTURE INTERIOR DESIGN STRUCTURAL DESIGN

Branch Office: UNIT # 4A, 8A, Harish Mukherjee Road, Kolkata-700020

Regd. Office: UNIT# 9, 4DR.S.M.Avenue, Kolkata-700014

Phone: +91 9830162952

e-mail: kcpl.vaswati@gmail.com

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## **SECTION – I**

### **NOTICE INVITING TENDER**

Sealed tenders on item rate basis are invited by Union Bank of India, GREATER KOLKATA Regional Office from Empanelled Contractors having Sound Technical and Financial capacity for **Air Conditioning works of SOUTH DUMDUM E-AB BRANCH.**

**A) Name of the Work:**

**Air Conditioning works of SOUTH DUMDUM E-AB BRANCH.**

**B) Location :**

SOUTH DUM DUM

**C) Estimated Cost :**

**Rs. 2,64,000.00** (excluding GST)

**D) Time of Completion :**

**15 days** from the date of written orders to commence the work or from the date of handing over of the site, whichever is later.

**E) Earnest Money Deposit (EMD) :**

The tender shall be accompanied by earnest money deposit of **Rs. 2,640.00 (Rupees Two Thousand Six Hundred Forty Only)** in the form of Crossed Demand Draft/Pay order issued in favour of 'UNION BANK OF INDIA' payable at Kolkata without which tender will be liable to rejection. Earnest money deposit in respect of the successful tenderer will be retained & it will become a part of Initial Security Deposit.

**F) Initial Security Deposit (ISD):**

The successful tenderer to whom the contract is awarded will have to deposit as "initial security deposit" (ISD) a further sum to make up **2%** of the value of the accepted tender including the Earnest Money. ISD may be submitted in the form of Demand Draft/Pay Order / Banker's Cheque. The Initial Security Deposit will have to be made within **7 days** from the date of acceptance of tender, failing which the Bank at its discretion may revoke the letter of acceptance and forfeit the Earnest Money deposit furnished along with the tender.

**G) Retention Money:**

To be deducted from Progressive running bills **@ 3 %** of the gross value of the Running / Final Bill.

**H) Release of Retention Money:**

100% after expiry of the Defect Liability period of 1 calendar year. Retention money will not bear any interest.

**I) Cost of Tender document:**

**Rs. 500/-** by DD/BC in favour of "UNION BANK OF INDIA" which is not refundable. (Without tender money, tender will be rejected)

**J) Availability of Tender Documents:**

At office of **UNION BANK OF INDIA, 3, Middleton Row, Gr. Floor, Kolkata - 71**, during working hours from 11 am up to 5 pm (Except Sunday & Bank Holidays) from **:01/07/2022 to 11/07/2022**

**K) Date & Place of Submission of Tender :**

**11/07/2022** up to **2 .00 P.M.** at Premises Department, GREATER KOLKATA Regional Office, Union Bank Of India at 3, Middleton Row, Gr. Floor, Kolkata - 71.

**L) Mode of Submission of Tender :**

Tenders are to be submitted on the printed forms issued by us. The Contractor should quote the rates in figures as well as in words. Special care should be taken to write the rates in figures only in such a way that interpretation is not possible. The total amount should be written both in figures and in words. In case of figures, the words. "Rs" should be written before the figure of rupees and words "P" after the decimal figures e.g. Rs. 2.15 "P" and in case of words, the word "Rupees", it should invariably be up to two decimal places. While quoting the rate in schedule of quantities, the words "Only" should be written closely following the amount and it should not be written in the next line. The amount of each item shall be worked out and the requisite total shall be given. All corrections shall be attested by the initials of the Tenderers. In case of any attested by the initials of the Tenderers. In case of any discrepancy/difference, the rate quoted in words in the original copy of the tender and the amount derived there from shall prevail and be binding. Tenders should always be placed in sealed cover with the name of the project and date of opening of tender written on the envelopes will be received by the

**THE CHIEF MANAGER (OPERATIONS)**  
**UNION BANK OF INDIA**  
**GREATER KOLKATA REGIONAL OFFICE**  
**3, MIDDLETON ROW, GR Floor,**  
**KOLKATA – 700 071.**

in a sealed envelope of appropriate size containing the documents as under :-

**ENVELOPE MARKED NO. – 1 :**

Envelope marked No.1 shall contain the following documents:

1. Forwarding letter without mentioning the cost of Tender value arrived at with quoted rates.
2. Earnest money deposit furnished in the form of Crossed Demand Draft/Banker's Cheque drawn in favor of UNION BANK OF INDIA for the amount indicated in the Notice of invitation to tender.
3. Letter of Empanelment.
4. Any other papers the tenderers wishes to submit.

**ENVELOPE MARKED NO. – 2 :**

Envelope marked No.2 shall contain the following documents :

1. The Tender Document comprising of General Conditions of Contract, Tender Notice, Technical Specifications etc. along with Bill of Quantities duly filled up indicating price (along with Tender drawing).
2. Any condition stipulated herein will not be accepted.

**ENVELOPE MARKED NO. – 3 :**

Envelope marked No.1 & 2 shall be put in larger envelope of adequate size marked No.3 which shall be properly sealed. This envelope shall be endorsed on the outside face "Air Conditioning works of SOUTH DUMDUM E-AB BRANCH

**ENVELOPE-1**

Containing Earnest money deposit shall be opened first and if the Earnest money deposit is not found as prescribed the tender shall be rejected and other sealed envelope will be returned unopened to the representatives of the concerned tender if present. Then the covering letter without mentioning the tender amount arrived from the quoted rates and other documents as specified herein above will then be scrutinized and comments/conditions which has financial implication will be evaluated by the Architect. Based on the recommendations and evaluation of the Architect the employer may discuss comments/conditions with the tenderers.

**ENVELOPE- 2**

Containing the priced tender volumes will be opened on the same day.

**N) Clarification, if any to be obtained from:**

KALPANGAN CONSULTANTS PVT. LTD.

Branch Office: UNIT # 4A, 8A, Harish Mukherjee Road, Kolkata-700020

Regd. Office: UNIT # 9, 4DR. S.M.Avenue Road, Kolkata-700014

Phn: +91 9830162952

e-mail: kcpl.vaswati@gmail.com

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

Yours faithfully,

For and on behalf of,

**The Chief Manager (OPERATIONS)**  
**UNION BANK OF INDIA**  
**GREATER KOLKATA REGIONAL OFFICE**  
**3, MIDDLETON ROW, GR Floor,**  
**KOLKATA – 700 071.**

## **SECTION –II**

### **FORM OF TENDER**

**To**  
**The Chief Manager (OPERATIONS)**  
**Union Bank Of India,**  
**GREATER KOLKATA REGIONAL OFFICE**  
**3, MIDDLETON ROW, GR Floor,**  
**KOLKATA – 700 071.**

Sir,

**Reg. : "Air Conditioning works of SOUTH DUMDUM E-AB BRANCH**

1. I/we refer to the tender notice issued by your consultants "Kalpangan Consultants Pvt. Ltd." on your behalf for Air Conditioning Works of **SOUTH DUMDUM E-AB BRANCH** in connection with the above.

2. I/We do hereby offer to perform, provide, execute, complete and maintain the work in conformity with drawings, conditions of contract specifications, Bill of Quantities for the sum of Rs..... at the respective rates quoted in the schedule of quantities.

3. I/We have satisfied myself/ourselves as to the site conditions, examined the drawings and all aspects of the site tender conditions. Subject to above, I/We do hereby agree, should this tender be accepted in whole or in part, to:

A : Abide by and fulfill all the terms and provisions of the said conditions annexed hereto.

B : Complete the work within **15 days**, as stipulated in two or three shifts if considered necessary by the consultants at no extra cost to the Employer.

4. I/We have deposited Earnest Money of Rs..... in the form of Crossed DD / PO /BC No. .... Dated ..... which, I/We note, will not bear any interest and is subject to forfeiture solely at Bank's discretion :

i. If the work is not commenced by me/us within **7(seven) days** from the date of issue of formal work order.

Or,

ii. If the offer is withdrawn within the validity period of acceptance.

iii. If the contract is not executed within **90 days** from award of contract.

5. I/We understand that you are not bound to accept the lowest or any tender you receive.

6. The acceptance of this tender shall constitute a binding of any contract and any failure as mentioned in item 4 above shall constitute a breach of contract by us and the tender accepting authority shall be entitled to have the work executed at our risk and to claim extra cost / expenditure incurred by them from us.

7. Our Bankers :

i)

ii)

iii)

8. Name of partners / directors of our firm :

I.

II.

III.

IV.

Yours Faithfully,

Signature.....

Name .....

Designation.....

## **SECTION – III**

### **GENERAL RULES AND INSTRUCTIONS FOR THE GUIDANCE TO TENDERERS**

Tenders are invited on behalf of **UNION BANK OF INDIA, GREATER KOLKATA REGIONAL OFFICE**, 3, MIDDLETON ROW, Gr Floor, KOLKATA – 700 071, for **"Air Conditioning works of SOUTH DUMDUM E-AB BRANCH BRANCH"**. Contract document consisting of the plans, specifications, bill of quantities and drawings of various classes of work to be performed and set of conditions of contract to be complied with can be downloaded from the **UNION BANK OF INDIA website**.

1. The site of the work is available. The intending tenderer shall visit the site and make himself thoroughly acquainted with the local site condition, nature and requirements of the work, facilities of the work, facilities of transport condition, effective labour and materials, access and storage for materials and removal of rubbish etc.
2. As the entire work is to be completed in all respects within the stipulated period of **15 days** and to achieve the target date of entire completion if be required /essential, the work for day and night shifts have to be carried out by the tenderer/contractor, for that at no extra cost, charges shall be paid to the contractor by the employer. While quoting rates, in addition to above, whether mentioned or not the rate shall always include the charges for day to day removal of debris/spoils from site in conformity with the local Municipal rules. Bank's normal work shall not be jeopardized in any way for undertaking the work. Contractor shall include in his quoted rate for supplying the plastic sheets/tarpaulin to cover Banks materials as protection against getting damaged either due to dust or water while executing the work. Tenders in only printed forms issued by the consultants should be placed in sealed covers addressed to. The tenderers should quote in figures as well as in words the rates, and amount. The language for filling tender documents shall be in English. The amount for each item should be marked out and requisite total given. The initials of the tenderers with the seal of the firm shall attest all corrections. In case any discrepancy /difference is found on checking between rates quoted by the contractor in words and figures or in the amount worked out by him, the following procedure shall be followed:
  - A. When there is a difference between the rates in figures and in words, the rate, which corresponds to, the amounts worked out by the contractor, shall be taken as correct.
  - B. When the contractor does not work out the amount of any item or it does not correspond with the rate written either in figures or in words, then the rate quoted by the contractors in words shall be taken as correct.
  - C. When the rate quoted by the contractor in figures and in words tallies but the amount is not worked out correctly rate quoted by the contractor shall be taken as correct and not the amount.
  - D. Amendments as mentioned above shall be based on the tender marked original only.
3. Special care should be taken to write the rates in figures as well as in words and the amounts in figures only. In such a way that interpolation is not possible. Amount should be written in figures. In case of figures the words "RS". Should be written before the figures of rupees and words paise after the decimal figures, e.g. Rs 2.15 and in case of words, the word "Rupees" should precede and the word "Paise" should be written at the end, unless the rate is in whole rupees and followed by the words "only", it should invariably be up to two decimal places. While quoting the rate in schedule of quantities, the word "only" should be written closely following the amount and it should not be written in the next line.
4. The acceptance of a tender will rest with **UNION BANK OF INDIA, GREATER KOLKATA REGIONAL OFFICE**, which does not bind itself to accept the lowest tender and reserves to itself the authority to reject any or all the tenders received without assignment of any reason. All tenders in which any of the prescribed conditions are not fulfilled or incomplete in any respect are liable to be rejected. The bank reserves the right to accept the tender in full or in part and the tenderer shall have no claim for revision of rates or other conditions if his tender is accepted in parts.
5. Canvassing in connection with tenders is strictly prohibited and tenders submitted by the contractors who resort to canvassing will be liable to rejection.

6. An item rate tender containing percentage below /above will be summarily rejected. However, when a tenderer voluntarily offers a rebate for payment within a stipulated period, this may be considered.
7. On acceptance of the tender, the name of the accredited representative(s) of the Contractor who would be responsible for taking instructions from the Employer / Consultant shall be communicated to the Employer / Consultant.
8. GST or any other tax on materials or on finished work in respect of this contract whether in vogue or likely to be imposed in future, shall be payable by the Contractor. The Employer will not entertain any claim whatsoever in this respect at any time. Rates should include all these taxes.
9. No employee of the Employer is allowed to work as a Contractor for a period of two years of his retirement from Employer services, without the previous permission of the Employer. This contract is liable to be cancelled if either the Contractor or any of his employees is found at any time to be such a person who had not obtained the permission of the Employer /Consultant as aforesaid before submission of the tender or engagement in the Contractor's service.
10. The tender for work shall remain open for acceptance for a period of **1 month maximum** from the date of opening tenders. If any tenderer withdraws his tender before the said period, then the employer shall be at liberty to forfeit the earnest money paid along with the tender.
11. The tender for the work shall not be witnessed by a contractor or contractors who himself /themselves has / have tendered or who may and had/have tendered for the same work. Failure to observe this condition would render tenders of the contractors tendering as well as witnessing the tender liable to summary rejection.
12. It will be obligatory on the part of the tenderer to tender and sign the tender in all pages documents.
13. The Earnest money deposit of the contractor whose tender is accepted shall be forfeited in full in case he does not start the work by the stipulated date mentioned in the letter of award.
14. The Earnest money deposit of unsuccessful bidders will be refunded to them WITHOUT ANY INTEREST within **7 days** from the date of award of work to the successful bidder.
15. A certificate of completion shall accompany the final bill from the consultant. Payment of final bill shall be made after deduction of retention money as specified which sum will be refunded in the manner as stated conditions. In acceptance of payments of the final bill by the contractor would indicate that he will have no further claim in respect of the work executed.
16. **CLEARING SITE ON COMPLETION**  
On completion of the work the contractor shall clear away and remove from the site all constructional plant, surplus materials, rubbish and temporary work of every kind and leave the whole of the site and the work clean and in workmenlike conditions to the satisfaction of the employer /consultant.
17. **TERMS OF PAYMENT**
  - a) 50% may be claimed in the form running bill, against the value of work executed.
  - b) 47% may be released after entire work is completed and handed over to the satisfaction and certification of the consultant.
  - c) 03% to be released after the defect liability period of 12 months, without any interest.
18. **IDLE LABOUR**  
Whatever the reasons may be no claim for idle labour ; additional establishment cost of hire and labour charges of tools and plants would be entertained under any circumstances.
19. **LIQUIDATED DAMAGE**  
The contract period / completion time is the essence of the contract and in case the contractor fails to complete the entire work within the stipulated completion time, the clause of 'Liquidated Damage' shall be imposed at the rate of One percent (1%) per week or part there of the total value of the contract / order till the work is being completed subject to maximum of Ten percent (10%) of the total value of the work. It is agreed that this is a genuine pre-estimate of the loss / damage which will be suffered on account of the delay / breach on your part and this amount shall be payable on demand without their being any proof of the actual loss / damage caused by such delay / breach. In addition to this, the BANK will be at liberty to terminate the contract and get the work completed through any other agency at the contractor's risk and cost.
20. **ESCALATION**  
No Escalation of price will be permitted.

**21. TERMINATION OF CONTRACT BY EMPLOYER**

If the contractor being a company go into liquidation whether voluntary or compulsory or being a firm shall be dissolved or being an individual shall be adjudicated insolvent or shall make an assignment or a composition for the benefit of the greater part, in number or amount of his creditors or shall enter into a deed or arrangement with his creditors, or if the Official Assignee in insolvency, or the Receiver of the Contractor in insolvency, shall repudiate the contract or, if a receiver of the contractor's firm appointed by the court shall be unable, within fourteen days after notice to him requiring him to do so, to show to the reasonable satisfaction of the Employer that he is able to carry out and fulfill the contract, and if so required by the Employer to give reasonable security there for, or if the Contractor shall suffer execution to be issued, or shall suffer any payment under this contract to be attached by or on behalf of and of the creditors of the Contractor, or shall assign, charge or encumber this contract or any payments due or which may become due to the contractor, there under or shall neglect or fail to observe and perform all or any of the acts matters of things by this contract, to be observed and performed by the contractor within three clear days after the notice shall have been given to the contractor observe or perform the same or shall use improper materials or workmanship in carrying on the work or shall in the opinion of the employer not exercise such due diligence and make such due progress as would enable the work to be completed within due time agreed upon and shall fail to proceed to the satisfaction of the employer after three clear days notice requiring the contractor so to do shall have been given to the contractor as hereinafter mentioned or shall abandon the contract, then and in any of the said cases, the employer may notwithstanding previous waiver determine the contract by the notice in writing to the effect as herein after mentioned but without thereby affecting the powers of the employer of the obligations and liabilities of the contractor the whole of which shall continue in force as fully as if the contract had not been so determined as if the work subsequently executed had been executed by or on behalf of the contractor.

***IF THE CONTRACT HAS BEEN TERMINATED, THE EMPLOYER RESERVES THE RIGHT TO RECTIFY THE ITEMS AND COMPLETE THE JOB IN THE RISK AND COST OF THE TERMINATED VENDOR BY ANY OTHER APPROVED VENDOR(S).***



## **SECTION – IV**

### **GENERAL CONDITIONS OF CONTRACT**

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

**1. INTERPRETATION :**

In construing these conditions, the specifications the schedule of quantities tender and Agreement, the following words shall have the meaning herein assigned to them except where the subject or context otherwise requires.

**2. EMPLOYER :**

The term employer shall denote **UNION BANK OF INDIA, GREATER KOLKATA REGIONAL OFFICE** or any of its employees representative authorized on their behalf.

**3. CONSULTANT :**

The term consultant shall mean Kalpangan Consultants Pvt. Ltd., Branch Office at Unit 4A, 8A, H.M.Road, Kolkata-700020 in the event of their ceasing to be consultant for the purpose of this contract such other persons /as the employer shall nominate for the purpose.

**4. CONTRACTOR :**

The term contractor shall mean the individual or firm or company whether incorporated or not, undertaking the work and shall include legal representative of such individual of such firm or company or successors of such firm or company as the case may be m and permitted assigns of such individual of firm or company.

**5. SITE :**

The site shall mean the site where the work is to be executed at **SOUTH DUMDUM E-AB BRANCH**

**6. DRAWINGS :**

The work is to be carried out in accordance with drawings, specification, the schedule of quantities and any further drawings, which may be supplied, or any other instructions, which may be given by the employer consultant during the execution of the work. All drawings relating to work given to the contractor together with a copy of specification and schedule of quantities are to be kept at site and the employer /consultant shall be given access to such drawings or schedule of quantities wherever necessary. In case any detailed drawings are necessary contractor shall prepare such detailed drawings and or dimensions sketches there for and have it confirmed by the employer consultant prior to taking up such work. The contractor shall ask in writing for all clarifications on matters occurring anywhere in drawings, specifications and schedule of quantities or to additional instructions at least **7 days** ahead from the time when it is required for implementation so that the employer /consultant may be able to give decision thereon. The work shall mean the work to be executed or done under this contract.

**7. SCOPE :**

The work consists of **"Air Conditioning works of SOUTH DUMDUM E-AB BRANCH"**. In accordance with the drawings, specifications and schedule of items and quantities. It includes furnishing all material, labour, tools and equipment and management necessary for and incidental to the construction and completion of the work. All work during its progress and upon completion, shall conform to the lines, elevations and grades as shown on the drawings furnished by the employer /consultant and to furnish by the employer/consultant. Should any detail essential for efficient completion of the work be omitted from the drawings and specification it shall be the responsibility of the contractor to inform the employer /consultants concurrence, so that upon completion of the proposed work the same will be acceptable and ready for use. Employer/ consultant may in their absolute discretion issue further drawings and or written instructions, details, directions and explanations which are hereafter collectively referred to as the employer /consultants instructions in regard to :

A : The variation on modification of the design, quality or quantity of work or the addition or omission or substitution of any work :

B : Any discrepancy in the drawings or between the schedule of quantities and or drawings and or specification.

C : The removal from the site of any defective material brought thereon by the contractor and the substitution of any other material thereof.

D : The demolition removal and /or rejection of any work executed by the contractor/s.

E : The dismissal from the work of any persons employed there upon.

F : The opening up for inspection of any work covered up.

G : The rectification and making good of any defects under clauses herein after mentioned and those arising during the maintenance period (retention period). The contractor shall forth with comply with and duly execute any work comprised in such employer/consultants instructions provided always that verbal instruction direction and explanations given to the contractor or his representative upon the work by the employer/consultant shall if involving a variation be confirmed in writing to the contractor within seven days. No work for which rates are not specifically mentioned in the priced Schedule of quantities shall be taken up without written permission of the employer/consultant. The employer in consultation with the consultant shall fix rates of items not mentioned in the priced schedule of quantities.

#### **8. DETAILED DRAWINGS AND INSTRUCTIONS**

The employer through its consultant shall furnish with reasonable promptness additional instructions by means of drawings or otherwise necessary for the proper execution of the work. All such drawings and instructions shall be consistent with the contract documents true developments thereof and reasonably inferable there from. The work shall be executed in conformity therewith and the contractor shall not work without proper drawings and instructions. Immediately after receipt of the work order of the contract the contractor shall prepare a program schedule and submit the same to the employer through the consultant for approval which shall indicate the dates for the starting and completion of the various activities at the stages of construction.

#### **9. COPIES FURNISHED**

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

#### **10. OWNERSHIP OF DRAWINGS**

All drawing specification and copies thereof furnished by the employer through its consultants are the property of the employer. They are not to be used on other work, and with the execution of the signed contract set are to be returned to the employer on request at the completion of the work.

#### **11. FAILURE BY CONTRACTORS TO COMPLY WITH EMPLOYERS / CONSULTANTS INSTRUCTION**

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

#### **12. TENDERER SHALL VISIT THE SITE**

Intending tendered shall visit the site and make himself thoroughly acquainted with the local site condition, nature and requirements of the work, facilities of transport condition, effective labour and materials, access and storage for materials and removal of rubbish. The tenderer shall provide in their tender for cost carriage, freight and other charges including all taxes etc. as also for any special difficulties and including all taxes etc. as also for any special difficulties and including police restriction for transport etc. for proper execution of work as indicated in the drawings. The successful tenderer will not be entitled to any claim of compensation for difficulties faced or losses incurred on account of any site condition which existed before the commencement of the work or which in the opinion of the employer /consultant might be deemed to have reasonably been inferred to be so existing before commencement of work.

#### **13. TENDERS**

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

1. The Rate column to be legibly filled in ink in both English figures and English words.
2. Amount column to be filled in for each item and the amount for each subhead as detailed in the schedule of quantities.
3. All corrections overwriting are to be initiated with the seal of the firm.
4. In case of any errors/omissions in the quoted rates, the rates given in the tender. No modification writing or corrections can be made in the tender papers by tenderer. The employer reserves the right to reject the lowest or any tender and also to discharge any or all of the tenders for each section or to split up each and every item should be correct, workable and self-supporting. If called upon by the employer consultant detailed analysis of any or all the rates shall be submitted. The employer/consultant shall not be bound to recognize the contractor analysis.

The work will be paid for as measured work on the basis of actual work done and not as lump sum contract. All items of work described in the schedule of quantities are to be deemed and paid as complete work in all respects and details including preparatory and finishing work involved, directly, related to and reasonably detectable from the drawings specification and schedule of quantities and no further extra charges will be allowed in this connection. In the case of lump sum charges in the tender in respect of any item or work, the payment of such time of work will be made for the actual work done the basis of lump sum charges as will be assessed to be payable by the employer consultant. The employer has power to add to omit from any work as shown in drawings or described in specifications or included in schedule of quantities and intimate the same in writing but no addition, omission or variation shall be made by the contractor without authorization from the employer no variation shall vitiate the contract.

**14. AGREEMENT**

The successful contractor shall sign the agreement as per draft agreement within **7 days** from the date of issue of formal work order and he shall pay for all stamps and legal expenses, incidental there to. However the written acceptance of the tender by the employer /consultant on behalf of employer will constitute a binding contract between the employer and the person so tendering whether such formal agreement is or is not subsequently executed.

**15. ROYALTIES & PATENTS**

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

**16. PERMITS AND LICENCES**

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

**17. GOVERNMENT AND LOCAL RULES**

The contractor shall confirm to the provisions of all local to the provisions of all local by laws and acts relating to the work and to the regulations etc. of the government and local authorities and of any company with whose system the structure is proposed to be connected. The contractor shall give all notices required by the said act, rules, regulations and bye laws etc and pay all fees payable to such authority for execution of the work involved. The cost, if any shall be deemed to have been included in his quoted rates, taking into account all liabilities for licenses, fees for footpath encroachment and restorations etc. and shall indemnify the employer against such liabilities and shall defend all actions arising from such claims or liabilities.

**18. TAXES AND DUTIES**

The tenderers must include in their tender prices quoted for all duties, royalties, or any other taxes or local charges if applicable. Only GST will be paid extra.

**19. QUANTITY OF WORK TO BE EXECUTED**

The quantities shown in the schedule of quantities are intended to cover the entire new structure indicated in the drawings but the employer reserves the right to execute only a part or the whole or any excess thereof without assigning any reason therefore. If at any after the commencement of the work, the employer consultant shall for any reason whatsoever not require the whole work thereof as specified in the tender to be carried out the consultant employer shall give notice in writing of the fact to the contractor who shall have no claim to any payment for compensation whatsoever on account of any profit or advantage with which he might have derived from the execution of the work in full, but which he did not derive in consequence of the full amount of the work not having been carried out, neither shall he have any claim for compensation by reason of any alterations having been made in the original specification, drawings, designs and instructions which shall involve any curtailment of the work as originally contemplated.

**20. EARNEST MONEY /SECURITY DEPOSIT & RETENTION MONEY :**

The tenderer will have to deposit **1%** of the **Total Tender Amount** in the form of crossed demand Bank Draft/Pay Order/Banker's cheque drawn in favour of **UNION BANK OF INDIA** payable at **KOLKATA** from any nationalized Bank at the time of submission of tender as an earnest money. The employer is not liable to pay any interest on the earnest money. The earnest, money of the unsuccessful tenderers will be refunded without any interest after the decision to award the work is taken. Retention money will be deducted from interim bills **@ 3 %** of the accepted value of the tender. This retention money shall be refunded to the successful contractor without any interest 14 days after successful completion of the defects liability period of **12 months** provided the contractor has satisfactorily carried out all the work and attended to all defects in accordance with the condition of the contract. In case the contractor fails to do so appropriate amount shall be deducted by the Bank from retention money.

**21. CONTRACTOR TO PROVIDE EVERYTHING NECESSARY:**

The contractor shall provide everything necessary for the proper execution of the work according to the intent and meaning of the drawings, schedule of quantities and specifications taken together whether the same may or may not be particularly shown or described therein provided that the same can reasonably be inferred there from and if the contractor finds any discrepancies therein the shall immediately and in

writing refer the same to the employer /consultant whose decision shall be final and binding. The contractor shall provide himself for ground and fresh water for carrying out the work at his own cost. The employer shall on no account be responsible for the expenses incurred by the contractor for hired ground of fresh water obtained from elsewhere. The rates quoted against individual items will be inclusive of everything necessary to Complete the said items of work within the contemplation of the contract, and beyond the unit price no extra payment will be allowed for incidental or contingent work, Labour and /or materials inclusive of all tax and duties whatsoever except for specific items, if any stipulated in the tender documents. The contractor shall supply fix and maintain at his own cost for the execution of any work all tools tackles machinery's and equipment's and all the necessary centering, scaffolding, staging, planking, timbering, strutting, shoring, pumping, fencing, boarding, watching and lighting by night as well as by day required not only for the proper execution and protection of the public and safety of any adjacent roads, streets, walls houses buildings all other erections matters and things and the contractor shall take down and remove any or all such centering, scaffolding, planking, timbering etc. shall be required or when so to do and shall fully reinstate and make good all matters and things disturbed during the execution of work to the satisfaction of the employer/ consultant.

## **22. TIME OF COMPLETION, EXTENSION OF TIME AND PROGRESS CHART**

### **A. TIME OF COMPLETION**

The entire work is to be completed in all respects within the stipulated period of **15 days**, from the date of issue of formal work order. Time is the essence of the contract and shall be strictly adhered to by the contractor. The work shall not be considered as complete until the employer consultant have certified in writing that this has been completed and the defects liability period shall commence from the date of such certificate.

### **B. PROGRAMME CHART TO BE PROVIDED**

During the period of construction the contractor shall maintain proportionate progress on the basis of the program chart submitted by the contractor immediately before commencement of work and agreed to by the employer consultant.

## **23. CLEARING SITE AND SETTING OUT WORK**

The site shown on the plan shall be cleared of all obstruction, loose stone and materials rubbish of all kinds.

## **24. MATERIALS WORKMANSHIP, SAMPLES, TESTING OF MATERIALS**

All the materials specified to be maintained and the contractor shall have to carry out tests on materials and workmanship in approved materials testing laboratories or as prescribed by the employer.

## **25. REMOVAL OF IMPROPER WORK**

The employer consultant shall during the progress of the work have power to order in writing from time to time the removal from the work within such reasonable time to times as may be specified in the order of any materials which in the opinion of the employer consultant are not in accordance with specifications or instruction .In case the contractor refuses to comply with the order the employer consultant shall have the power to employ and pay other agencies to carry out the work and all expenses consequent thereon or incidental thereto as certified by the employer consultant shall be borne by the contractor or may be deducted from any money due to or that may become due to the contractor. No certificate, which may be given by the consultant, shall relieve the contractor from his liability in respect or unsound work or bad materials.

## **26. MEASUREMENT**

The consultant shall from time to time intimate to the contractor that he requires the work to be measured, and the contractor shall forthwith attend or send a qualified agent to assist the consultant or the consultants representative/employers representatives in taking such measurements and calculations and to furnish all particulars or to give all assistance required by either of them.

## **27. ACTION WHERE NO SPECIFICATION**

In the case of any class of work for which there is no such specification in technical specification, such work shall be carried out in accordance with the I.S. specification and in the event of there being no I.S. specification, then in such case the work shall carried out in all respect in accordance with the instructions and requirements of the consultant /employer.

## **28. CONTRACTOR NOT TO DEPOSIT MATERIALS IN A MANNER THAT MAY CAUSE INCONVENIENCE TO THE PUBLIC.**

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

**29. PAYMENTS**

a) All bills shall be prepared by the Contractor in the form prescribed by the Employer/Consultant, format enclosed. In the bill it has to be shown deductions for all previous payments, retention money, etc. Advance/adhoc payment for work actually executed will not be normally made. However, adhoc payment may be made at the discretion of Consultant /Employer in case of exigency.

b) The Consultant /Employer shall issue a certificate after due scrutiny of the Contractor's bill stating the amount due to the Contractor from the Employer and the contractor shall be entitled to payment thereof, by the Employer.

- 30.** The contractor shall work in close coordination with other agencies to avoid rework/damage and ensure timely completion.
- 31.** Any damage to the work before the building is handed over is to be replaced or made good at contractor expense to the entire satisfaction of the consultant.
- 32.** The quantities indicated are subject to change .The payment of the bill will be made as per actual measurement at site and will be certified by the Consultant and cleared by the employer.
- 33.** The tender shall sign each and every page of the tender documents including the drawings attached hereto.
- 34.** The consultant shall have power to insist to the contractor to submit the sample /color/ test certificate from any Govt. Authorized agent of any materials to be used in the work, where the expenditure is to be borne by the contractor.
- 35.** 10 % of the total value of work will be retained as retention money from Contractor's bills which shall be released without any interest after the defect liability period of 12 months provided the contractor has satisfactorily attended to all defects if any, in this period.
- 36.** In case of any dispute the matter will be referred to the **Chief Manager (operations), Union Bank Of India, Greater Kolkata Regional Office**, for an arbitration, whose decision shall be final and binding on both parties.
- 37.** For litigation if any arising thereof, the competent court at Kolkata alone will have jurisdiction.
- 38. DECLARATION**  
I/we have inspected the site of work and have made me/us fully acquainted with the local conditions in and around the sites of works. I/we hereby declare that I/we have gone through the conditions laid down in the Notice Inviting Tender, General Conditions of Contract, Technical Specifications and understood the same and on the basis of the same I /we quoted our rates in the schedule of quantities attached with the tender documents.  
I /we shall also uniformly maintain such progress with the work, as may be directed by the Employer /Architects to ensure completion of same within the target date as mentioned in the tender document.

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Signature of Tenderer

Witness :

Name & Address :

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Date :

## **SECTION – V**

### **SPECIAL CONDITIONS OF CONTRACT**

#### **GENERAL**

The scope of work covers execution and completion of the proposed "Air Conditioning works of SOUTH DUMDUM E-AB BRANCH". in accordance with drawings and specifications prepared by and under the direction and to the satisfaction of the Consultant/ Employer.

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

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

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

- 1 **Contractor to inspect site** : The Contractor shall visit and examine the construction site and satisfy himself at his own cost as to the nature of the existing roads or other means of communications, the extent and magnitude of the work and facilities for obtaining materials and shall obtain generally his own information. Any misunderstanding or incorrect information on any of these points or on the grounds of insufficient description, will not be allowed.
1. **Access to site** : The Contractor is to include in his rates for forming access to site, with all temporary roads gangways required for the works.
2. **Setting out** : The Contractor shall set out the site in accordance with the plans. All grid/centre-lines shall be pegged out to the satisfaction of the Consultant. The Contractor shall be responsible for the correctness of the lining out and any inaccuracies are to be rectified at his own expense. He will be responsible for taking levels of work at the site before setting out and recording them without any extra charge.
3. **Treasure grove** : Should any treasure fossils, minerals or work of art of antiquarian interest be found during carrying out the works, the Contractor shall give immediate notice to the Consultant /Bank of any such discovery and shall hand over such finds to the Employer.
4. **Access for inspection** : The Contractor is to provide at his own cost all times during the progress of the works and the maintenance period proper means of access, with ladders, gangways etc. and the necessary attendance to move and adapt as directed for the inspection of measurement of the works by the Consultant or their representatives.
5. **Attendance upon all trades** : The general Contractors shall be required to attend on all the tradesmen or sub-contractors appointed by the Employer for water supply and sanitary, electrical installation, lifts, air-conditioning, security, equipment, hardware, telephone and other specialist Contractors. The rates quoted shall be inclusive of all attendance and also allow the other Contractors, appointed by the Employer, use of his scaffolding and retain until such time the relevant sub-contract works are completed.
6. **Water supply** : Water shall be arranged by the Contractor. The general Contractor shall allow the use of water for other works on the site done by other Contractors appointed by the Employer and the consumption charges shall be paid by each agency as appointed by the Employer.
7. **Stores and watchmen** : The Contractor shall provide at his own cost for necessary stores of adequate dimension for storage and protection of materials. All such stores shall be cleared away and the whole area left in good order on completion of the Contract to the satisfaction of the Consultant. All materials which are stored such as ply, wood, Laminates or any other matter shall be stacked in such a manner as to facilitate rapid and easy checking of quantities of such materials. The Contractor shall nominate a person who would take instruction from the Consultant/employer.
8. **Cost of transporting** : The Contractor shall allow at his cost for all transporting unloading, stacking and storing of supplies of goods and materials for this work on the site and in the places approved from time to time by the Consultant. The Contractor shall allow at his price for transport of all materials controlled or otherwise to the site.
9. **Office accessories and accommodation** : The Contractor shall also provide at his own expense office furniture with drawing accessories for the official use of the controller and at all times maintain in good working order necessary instruments at site to enable the Consultant/employer to check the lines and levels of the work.
10. **Materials workmanship & samples** : Materials shall be of approved quality and the best of their kind available and shall generally conform to relevant I.S. specifications. The Contractor shall order all the materials required for the execution of work as early as necessary and ensure that such materials are on site well ahead of requirement for use in the work. The work involved calls for high standard of workmanship combined with speed and to the entire satisfaction of the Consultant. Before ordering materials, the Contractor shall get the samples approved from the Consultant well in advance.

**11. Rates for non-tender items :** Rates of items not included in schedule of specification shall be settled as per current PWD schedule of rates if not available then to be settled as per variation clause of the condition of contract.

**Rates to include :** The rates quoted shall be for all heights and depths and for finished works, in any shape. The Contractor shall ascertain from other Contractors as directed by the Architects all particulars relating to their work with regard to the order of its execution and the position in which chases, holes and similar items will be required, before the work is taken in hand as no claims for extra will be allowed for cutting away work already executed in consequence of any neglect by the Contractors to ascertain these particulars beforehand.

**12. Testing of work and material :** The Contractors shall, if required by the Consultant/employer, arrange to test materials and/or portions of the work at his own cost in order to prove their soundness and efficiency. If after any such test the work or portion of work is found in the opinion of the Consultant to be defective or unsound, the Contractor shall pull down and redo the same at his own cost, defective materials and the debris shall immediately be removed from the site.

**13. Foreman and Tradesmen :** All tradesmen shall be experienced men properly equipped with suitable tools for carrying out all the work of carpentry and joinery and other special trades in a first class manner and where the Consultant deem necessary, the Contractor shall provide any such tools, special or ordinary which are considered necessary for carrying out the work in a proper manner. All such tradesmen shall work under an experienced and properly trained Foreman, who shall be capable of reading and understanding all drawings pertaining to this work .

**14. Work programme weekly progress report :** The Contractor shall prepare and submit to Consultant/employer for approval, a bar chart showing the programme of construction of various items, fitted within the period stipulated for completion, along with submission of the tender. The Contractor shall also furnish necessary particulars to the Consultant for compiling weekly progress reports in the form furnished by the Consultant/employer.

**15. Clearing of site :** The Contractor shall after completion of the work clear the site of all debris and left over material at his own expense to the entire satisfaction of the Consultant and municipal or other public authorities.

**16. Photographs :** The Contractor shall at his own expense supply to the Consultant with duplicate copies of large coloured photographs not less than 25 x 20 cm. (10" x 8") of the works taken from two approved portions of each building, at beginning of the work, at completion of work and at every important stage of construction without fail.

**17. Preparation of Premises for occupation and use on completion :** The whole of the work shall be thoroughly inspected by the Contractors and all deficiencies and defects put right. On completion of such inspection, the Contractor shall inform the Consultant in writing, that he has finished the work and it is ready for the inspection of Consultant/employer.

**18. Vouchers :** The Contractors shall furnish the Architect with vouchers on request to prove that the materials are as specified and to indicate the rates at which the materials are purchased in order to without the rate analysis of tender and non-tender items which he may be called upon to carry out thereafter.

**19. Protection :** The Contractor shall properly cover up and protect all work throughout the duration of work and until completion, particularly masonry, mouldings, steps, or special floor finishes, staircases and balustrades, doors and window frames, plaster, angles, lighting and sanitary fittings, glass, paint work and all finishings at his cost till the same is handed over to the owner.

## **20. Safety Code :**

- i) These shall be maintained in a readily accessible place, first-aid appliances including adequate supply of sterilized dressing and cottonwood.
- ii) An injured person shall be taken to a public Hospital without loss of time, in cases where the injury necessitates Hospitalization.
- iii) Suitable and strong scaffolds should be provided for workmen for all works that cannot safely be done from ground.



- iv) 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 the adjacent rungs shall not be more than 30 cm. When a ladder is used, an extra Mazdoor shall be engaged for holding the ladder.
- v) Every opening in the floor of a building or in the 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 meter.
- vi) No floor, roof or other part of the structure shall be so over loaded with debris or materials as to render it unsafe.
- vii) Those engaged in welding works shall be provided with welder's protective eye-shields and gloves.
- viii) No paint containing lead or lead products shall be used except in the form of paste or ready-made paint. Suitable facemasks should be supplied for use by the workers when paint is applied in the form of spray or surface having lead paint dry rubbed and scrapped.
- ix) Over all 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 execution.



## **SECTION –VI**

### **ARTICLES OF AGREEMENT**

(ON NON-JUDICIAL STAMP PAPER of Rs.100.00 purchased in the name of Contractor / Employer)

Articles of agreement made the .....th day of June 2022 Between the **UNION BANK OF INDIA, GREATER KOLKATA REGIONAL OFFICE, 3, MIDDLETON ROW, GR. FLOOR, KOLKATA – 700 071.** (Herein after called the employer) which expression should include its successors and assignee of the one part and ..... (*herein after, called the contractor*) of the other part, which expression should include its successor and assignee where as the employer is desirous of executing the **"Air Conditioning works of SOUTH DUMDUM E-AB BRANCH"**. and has caused drawings and specifications describing the work to be prepared by **Kalpangan Consultants Pvt. Ltd.**, (herein after called the consultants) and whereas the said drawings the Technical specifications and the schedule of items and quantities have been signed by and on behalf of the parties hereto. And whereas the contractor has agreed to execute upon and subject to the conditions set forth herein and schedule of items and quantities, General conditions of contract, special conditions including other conditions etc. technical specifications and all correspondences exchanged by or between the parties from the date of tender notice decision of negotiations meetings, if any, till the award of work, both letters inclusive, (all of which are collectively hereinafter referred to as the said conditions) the work shown upon the drawings and or described in the said specification and included in the schedule of items and quantities at the respective rates therein set forth amounting to the sum as therein arrived at or such other sum as shall become payable there under (Herein after 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 in the manner set forth in the said conditions, the contractor shall upon and subject to the said conditions execute and complete the work shown upon the drawings and described in the said specifications and the schedule of items and quantities.
2. The employer shall pay the contractor the said contract amount or such other sum as shall become payable, at the times and in the manner specified in the said conditions.
3. The consultant in the said conditions shall mean the said Kalpangan Consultants Pvt. Ltd., having Branch office at Unit 4A, 8A, Harish Mukherjee Road, Kolkata-700020 Phn 9830162952 or in the event of their ceasing to be the consultant for the purpose if this contract for whatever reason such other person or persons as shall be nominated for that purpose by the Employer, provided always that the person subsequently appointed to be consultant under this contract shall be entitled to disregard or overrule any previous decision or approval or direction given or expressed in writing by the consultant for the time being.
4. The said conditions and appendices thereto shall be read and considered as forming part of this agreement and the parties here to shall respectively abide by, submit themselves to the said conditions and perform the agreements on their part respectively in the said conditions contained.
5. The plan agreement and documents mentioned herein shall form the basis of this contract.  
This contract is neither a fixed lump sum contract not a piece work in respect of **"Air Conditioning works of SOUTH DUMDUM E-AB BRANCH"**. as per the scope described and to be paid for according to actual measured quantities at the rates contained in the schedule of rates probable quantities or as provided in the said conditions.
6. 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.
7. Time shall be considered as the essence of this contract and the contractor hereby agrees to commence the work on the day on which he is instructed to take possession of the site, or from the **7th 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 **15 days** subject nevertheless to the provisions for extension of time.
8. All payment by the Employer under this contract will be made only at **UNION BANK OF INDIA, GREATER KOLKATA REGIONAL OFFICE.**

9. Any dispute arising under this agreement shall be referred to arbitration in accordance with the stipulation laid down in the general conditions of contract.
10. That the several parts of this contract have been read by the contractor and fully understood by the contractor.
11. This agreement can be terminated by either client on giving **3 months'** notice normally however, in exigent circumstance ; the services of the contractor can be terminated by giving notice of lesser period

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

This agreement will become effective upon signature by both the parties.

Signed by-----

-----

Signature & seal of the contractor

Name & Address of the signatory

-----

Signature & seal of the bank official

Name & Address of the signatory

Witness

Signed in the presence of

1. -----  
Name & Address

2. -----  
Name & Address

## **SECTION – VII**

### **TECHNICAL SPECIFICATION OF AIR CONDITIONERS, COMPRESSORS, WIRING CIRCUIT, FIXTURES & AUXILLARY ITEMS**

#### **1.00 INTENT OF THE SPECIFICATION**

1.01 This specification is intended to cover the design, manufacture, testing and delivery, duly packed for railway transport FOR supply, installation, testing and commissioning for complete Air-conditioning Work as specified herein after.

1.02 The scope of the specification also includes the complete erection, final check-up, testing and commissioning at the site of the entire equipment's to be supplied under this specification.

#### **2.01 BASIS OF DESIGN**

##### **2.02.01 OUTSIDE DESIGN CONDITION**

Summer: 105 F DBT 83 F WBT

Monsoon: 90 F DBT 86 F WBT

##### **2.02.02 INSIDE CONDITION**

DBT : 75 F DBT  $\pm$  2 Deg. F

RH : 60%

#### **Noise level should not exceed 60 dBA**

2.02.03 Occupancy : 35 – 40 Sqft per person

2.02.04 Lighting & Equipment Load : 3.5 W/Sqft.

2.02.05 Ventilation Air : 10 Cfm/Person or 1 air change/hour whichever is higher.

2.02.06 Building data and technical data based on above basis of design is given on Table1

2.02.07 Location of the refrigeration pipe lines and the condensate drain lines are marked on the drawing.

2.02.08 Location of split units are shown in the drawing.

#### **3.00.0 SCOPE OF WORK AND SERVICES COVERED UNDER THIS SPECIFICATION**

##### **3.01 Air-cooled split refrigerant units. (High Pressure Ductable Split Units )**

Indoor Unit –1 No, consists of copper cooling coil Horizontal and DX type with Al. Fins. Blower reputed make with low noise level. The blower shall be statically and dynamically balanced. The Blower external static pressure should not be less than 15 mm of H<sub>2</sub>O. The Blower shall be of belt driven.

Outdoor Unit – Consisting of Hermetically sealed scroll compressor. Suction and discharge temp. 35 deg. F and 130 deg. F respectively. The compressors shall have necessary accessories. Outdoor units shall be provided with lockable grills.

Condenser : Horizontal copper coil with Al. Fins. The condenser shall have 0.00065 FPS units fouling factor.

Fan : Axial flow type, horizontal, directly driven by motor.

Accessories : Safety valve, hot gas connection, liquid trap, purge valve, fusible plug charging valves, thermostat, ON-OFF control, expansion device, solenoid valve, refrigerant pipe line and valve etc. Refrigerant pipes duly insulated shall be drawn as far as possible.

Insulation The Units accessories shall be properly insulated.

#### **Performance Data**

Cooling Capacity : As specified in BOQ

Sound Level : 60 dBA

Refrigerent : R22

### 3.02 HI – WALL DUCTABLE SPLIT UNITS

Indoor Units consists of copper cooling coil Horizontal and dx type with Al. Fins. Blower of reputed make with no noise. The blower shall be statically and dynamically balanced.

Outdoor Units consists of reciprocating hermetically sealed compressor of capacity as mentioned in BOQ. Suction and discharge temp. 45 deg. F and 130 deg. F respectively. The compressor shall have necessary accessories.

Condenser : Horizontal copper coil with Al. Fins. The condenser shall have 0.00065 FPS units fouling factor.

Condenser Fan : Axial flow type, horizontal, directly driven by motor.

Accessories : Insulated refrigerant copper pipes, Safety valve, hot gas connection, liquid trap, purge valve, fusible plug charging valves, thermostat, ON-OFF control, expansion device, solenoid valve, refrigerant pipe line and Valve, necessary electrical etc.

Insulation The Units accessories shall be properly insulated.

The outdoor units shall be covered with lockable safety grill for anti theft.

### 3.03 PIPING

G.I./HDPE condensate drain pipe in the drain point of split units shall be provided. All drain pipes shall be of G.I./HDPE. The condensate drain pipe of split units to be drawn with insulation as shown in the drawing. Drain pipes should be drawn with insulation in such a manner that prevents wrinkling and facilitates drain water to flow without obstruction.

### 3.04 PIPE INSULATION

The condensate drain from the Split Units shall be insulated with 10 mm thick Kynar foam and shall be terminated all the nearest drain point through wall chasing and floor trenching.

### 3.06 DUCTING & AUXILIARIES

Ducting SA and RA as shown in the layout drawings, including SA/RA Diffusers, Fresh Air Dampers shall be supplied. Duct hangers, supports with Vibration isolating pad over the supports shall be supplied. Joints shall be leak tight reasonably. Ducting wherever shown in the drawing is to be insulated as per specification. Manually operated damper and splitter damper shall be provided.

3.07 Acoustic insulation inside SA ducting up to 6m from blower mouth as shown in the

Drawing shall be done with 12 mm thick Rigid Board R.B. Fibre Glass crown 200 (36Kg/Cu.M) with perforated Al. sheets (32 SWG).

Thermal insulation over entire SA ducting shall be provided with factory laminated fibre glass 24 kg/cum, 25 mm thick in supply air.

3.08 Civil opening etc. of all machines and making good of them for taking the pipes etc.

3.09 Special tools and tackles including tools boxes for erection, operation, maintenance and overhauling of the system.

3.10 Two sets of drawings, data and instruction manuals of the entire system and Manufacturers literature of the components.

3.11 Erection, testing and commissioning at site of the equipment system

3.12 Supply and application of final painting at site.

3.13 Protective ladder type MS grilles with 2 coats of Red oxide painting and welding to the window and 2 coats of enamel paint as per approved shade for all outdoor units has to be provided and included.

3.14 Outdoor units for split units shall be properly installed on suitable angles or channels.

**SPECIAL NOTE :**

1. All the Air-conditioning units shall be provided with copper condenser coil
2. The Bidder shall ensure **one year replacement warranty** on each air conditioner unit along with **5 years replacement warranty on compressor** effective from the date of commissioning of the units duly certified by the Bank.
3. Supply, installation, testing and commissioning of refrigerant grade copper tubing in ceiling/wall interconnecting outdoor and indoor units duly insulated with insulation to prevent any heat loss with clamping and taping at regular intervals.
4. Drain pipes of the air conditioner units to be properly taken with necessary clamping at regular intervals and the outlet to be kept at a common drain for all the units.
5. All Civil works for refrigerant piping/drain pipe, cutting and chasing of walls, mounting angle for outdoor units and making them good to be done by the contractor.
6. All accessories for installation should be included in the quote. No separate payments will be made by the Bank.
7. All the parts or whole unit should be replaced free of cost in case of any damage in transit.
8. The contractor shall get themselves well versed with site condition. The scope of work includes masonry work, fabrication, fixing. The contractor shall be well versed with all the activity and should have specialized team of workers for the same.
9. The electrical installation works are to be carried out by engaging licensed electrical contractor. The successful tenderer shall submit the photocopy of Electrical Contractor's license at the time of execution of work. The copy of license of Electrical Supervisor and electricians also are to be submitted.
10. The contractor shall submit the single line drawing of electrical installations/wiring of completed work along with the final bill.
11. The contractor shall submit the Test Certificate of the Electrical installations carried out by him as per requirement of local Electrical supply Authority, Indian Electricity Rules, and Indian Electricity Act.
12. The work shall be carried out on holidays and Sundays after and before office hours and during office hours on working days. The Contractor shall ensure that there shall not be any problem, disturbance in office/other areas/floors as the work is to be executed in working office.
13. The Contractor shall depute one electrician and one helper during office hours to avoid any electrical breakdown in electrical installation.

# **LIST OF APPROVED MAKE OF MATERIALS FOR AIR-CONDITIONING & ALLIED ELECTRICAL WORKS**

<b><u>SL.NO.</u></b>	<b><u>ITEMS</u></b>	<b><u>APPROVED MAKE</u></b>
1	Air conditioner units	Daikin, Hitachi, Blue Star, with <b>copper condenser coil</b>
2	MS pipe ISI mark. 16 SWG	BEC / NIC
3	M.S. fittings (Bend / Elbow / G.I Saddle / 3way circular box)	BEC / NIC
4	Wire PVC insulated copper flexible wire. (FRLS)	Finolex / Polycab /Havells
5	A.C. starter	North – West / L & T
6	250 Volt 6 Amp Piano reed type switch, socket, modular plate	Legrand / MK
7	250 Volt 6/16 Amp. 3 pin modular type switch, socket	Crabtree / ABB / MDS Legrand / Siemens/ Schnieder/Merlin-Gerin/Northwest latest series
8	Relay	ALSTOM / L & T
9.	Capacitor	Mamal / L&T
10.	Current Transformer	Kappa / L&T / Schneider (CG) A.E.
11.	Changeover Switch	L&T/ HPL / Havells
12.	Amps meter & Voltmeter. 96 x 96 mm (Analog)	AE / IMP / L&T ALSTOM/ HPL / Havells
13.	Miniature Circuit Breaker & MCB Distribution Boards, RCBO	MDS / ABB / Merlin-Gerin
14.	Armoured Cable	NICCO / Fort Gloster / CCI/Finolex
14.	Telephone Socket RJ – 11	Crabtree / ABB / MDS
15.	Telephone Cable ( 0.51 mmsq) 10/20 pair	National / Delton / Netco / Finolex
17.	Lugs	Dowells
18.	Terminal Connector	ESSEN
19.	SFU / SPN / TPN Sheet metal housing / Open execution front handle with housing	L & T / Siemens / Havell's/ABB
20.	Rigid PVC Conduit ( Heavy Duty)	BEC / Kalinga / Plaza / AKG / Precession
21.	Sliding fuse / DZ fuse	Bharat Lender / BCH
22.	PVC casing ( 20 mm )	Precession / Supreme / Oriplast
23.	PVC Tape	Steel Grip / Anchor
24.	Join box ( 6" x 4" MS box ) heavy type	Local Make
25	LED Indicator ( bright type)	Mikadov / L&T / MDS
26.	PVC Flexible pipe	Hanuman / Precession / Kalinga
27	Metal Clad socket & plug having scraping earth arrangement	Siemens / L&T/ MDS / Schneider
28	MCCB	Siemens / L&T/ MDS / Schneider/Merlin Gerin

## SECTION VIII

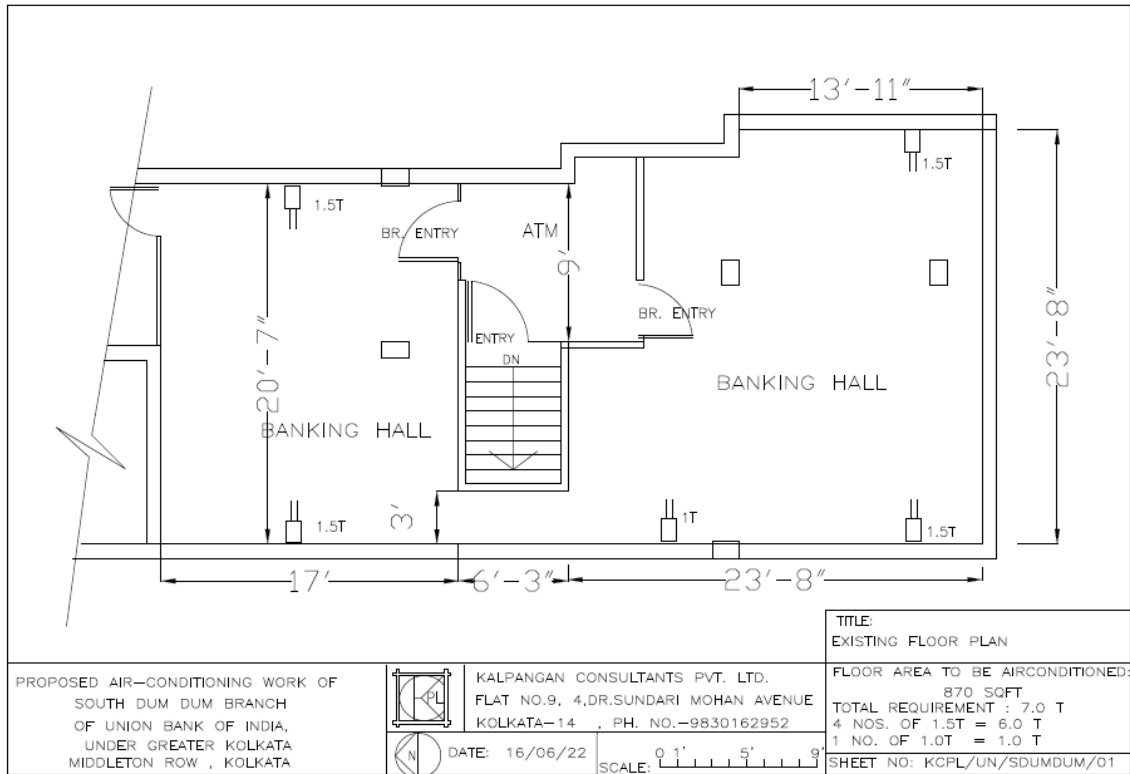
PROPOSED AIR-CONDITIONING WORKS OF SOUTH DUMDUM e AB BRANCH UNDER REGIONAL OFFICE : GREATER KOLKATA UNION BANK OF INDIA					
I. BOQ FOR SUPPLY OF AIR- CONDITIONERS					
NO.	DESCRIPTION	QNTY	UNIT	RATE RS. P.	AMOUNT RS. P.
1	Supply of Diakin/Hitachi/Blue Star Make 1.0 TR(5 STAR ) Inverter Type Split Air conditioner unit with copper condenser coil (Including initial length of 10ft of refrigerant and drain pipe ,power cable)	1	NOS		
2	Supply of Diakin/Hitachi/Blue Star Make 1.5 TR(5 STAR )Inverter Type Split Air conditioner unit with copper condenser coil (Including initial length of 10ft of refrigerant and drain pipe ,power cable)	4	NOS		
GROSS TOTAL					
NET VALUE AFTER ADDING 28% GST AS APPLICABLE					

II. BOQ FOR INSTALLATION OF AIR CONDITIONING AND ALLIED WORKS					
NO.	DESCRIPTION	QNTY	UNIT	RATE RS. P.	AMOUNT RS. P.
1	Installation and Commissioning of 1.0/1.5 TR Hi-Wall split air conditioner Units consisting of both Indoor & Outdoor units.	5	SETS		
2	MS Angle Brackets Stand(Painted) for Mounting Outdoor Units 1.0 /1.5 TR Hi wall Split Airconditioner	5	Nos		
3	Supply of Extra length of refrigerant Copper pipes along with 9/10 mm nitrile rubber insulation from Zero to actual length ODU to IDU for Split A.C	60	RFT		
4	Supply of Control & Transmission Communication cable connecting between outdoor to indoor unit	60	RFT		
5	Supply of Extra PVC Water Drainage pipe along with 9/10 mm nitrile rubber insulation from IDU to nearest water outlet	100	RFT		
6	Charges for Civil with Cutting & Plastering	40	RFT		
GROSS TOTAL					
NET VALUE AFTER ADDING 18% GST AS APPLICABLE					

III. SCHEDULE OF QUANTITIES FOR ELECTRICAL AND ALLIED WORKS FOR AIRCONDITIONING WORK					
NO.	DESCRIPTION	QNTY	UNIT	RATE RS. P.	AMOUNT RS. P.
1	<u>Supply &amp; erection of AC DB:</u> i) Incomer -1 No- 100A 4P MCB Isolator. ii) Outgoings- 10 nos. -16/20 SP MCB (10KA).	1	Set		
2	<u>DISTRIBUTION CABLE / WIRE</u>  Supply & lay 1.1 KV grade PVCA AL/CU cable on wall having MS /HDP pipe protection near floor level and clamping as required for the following:-  25 Sq mm 4 core Al with 2 nos 10 SWG GI wire	50	Mtr		
3	Making end termination of 1.1 KV grade PVCA Al/CU cable with supply of cable end box , brass Gland, CU crimping socket & jointing materials as required for the following:-  25 Sq mm 4 core Al	2	Each		
4	<u>A.C. POWER POINT WIRING</u>  A.C. power point wiring from PDB with 1.1KV grade 2 nos. single core 4.0 sq. mm + 1 no. 2.5 sq mm ( Green colour for Earthing) PVC insulated copper conductor wire (FR)through suitable size PVC pipe on wall / ceiling surface with all wiring accessories. The work includes supply & fixing by chase cutting on wall, North West /Cabtree make Starter 18-25A (MS housed) unit with 25A socket & matching Plug top complete with all interconnections for 1.0/1.5/2 Ton ACs. (due to shifting of A.C position as per furniture layout)	5	Each		
GROSS TOTAL					
NET VALUE SHALL ARRIVED AFTER ADDING 18% GST AS APPLICABLE					

ABSTRACT OF TOTAL BUDGETARY ESTIMATE		
SL.	PARTICULARS	AMOUNT
I	SUPPLY OF AIR-CONDITIONERS + PLUS APPLICABLE GST	
II	INSTALLATION OF AIR-CONDITIONERS + PLUS APPLICABLE GST	
III	ELECTRICAL & ALLIED WORKS + PLUS APPLICABLE GST	
NET TOTAL		





END