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**UNIVERSITY OF NORTH BENGAL
OFFICE OF THE REGISTRAR**

Abridged Notice Inviting Tenders

Rates are invited from the reputed agencies through online against the work vide e-NIT no- NBU/CE/62/22-23 (3rd Call).

For further details please visit www.nbu.ac.in/wbtenders.gov.in or may be communicated to the Office of the Chief Engineer, NBU.

Advt. No. 60/R-2022 Dated: 01.07.2022

Registrar (Offg.)

UNIVERSITY OF NORTH BENGAL



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OFFICE OF THE CHIEF ENGINEER

(Raja Rammohunpur, PO-North Bengal University, Dist-Darjeeling, Pin-734013)

Date: 30/06/2022

Abridged Notice Inviting e-Tender eNIT No. - NBU/CE/62/22-23 (3rd Call)

The **Chief Engineer**, University of North Bengal invites **PERCENTAGE RATE e -Tender** for the work detailed in the table below. (Submission of Bid through **online**).

List of scheme (s): -

Sl. No	Name of the work	Estimated Amount Put to Tender (Rs.)	Earnest Money (Rs.)	Agreement Fee	Period of Completion and DLP	Name of the Concerned Office	Eligibility of the Contractor
1	Construction of Annex Building of Engineering Department with (G+3) Foundation within the campus of University of North Bengal at Siliguri, Dist-Darjeeling.	Rs. 1,20,67,042/- - (Rupees one crore twenty lakhs sixty-seven thousand fourty two only) (Civil Rs 9791005/- + Electrical Rs 2276037/-)	A sum of Rs. 2,41,341/- (Rupees two lakhs forty-one thousand three hundred forty-one only) in the form of CTS Demand Draft from any Bank as recognized by the RBI in favour of University of North Bengal payable at Siliguri.	During execution of formal agreement price of tender documents have to be paid by the successful tenderer for 4 sets of agreement. @ Rs.3000.00/s et.	18 (eighteen) months from the date of commencement. DLP= 5 (five) years from the dated of successful completion)	Office of the Chief Engineer, University of North Bengal, Raja Rammohunpur, Siliguri, Dist-Darjeeling.	Contractors having credential of similar nature of work as mentioned in Sl. No.-3, page-2 of 45

NB: -

- Intending Tenderers will not have to pay the cost of tender documents for the purpose of participating in e-tendering, but the successful **L1 (Lowest)** bidder will have to pay the cost of tender documents of 4 (four) sets @ price mentioned in the list of scheme of NIT during purchase of tender documents for execution of agreement.
- In case of the works in the open tenders an Earnest Money amounting to 2% (two percent) of the Estimated Value of work for which tender has been called for, shall have to be deposited in the form of CTS Demand Draft from any Bank as recognized by the RBI in favour of University of North Bengal payable at Siliguri. **No exemption or preference will be given to any PSU, MSME or else from submitting this EMD.**
- Contractors intending to participate in the bid for works value exceeding Rs. 25.00 Crore may also furnish Earnest Money Deposit (EMD) in the form of Bank guarantee issued by any Bank which is authorized to conduct Government business in West Bengal by Reserve Bank of India as notified by State Government from time to time or any other Bank which has been authorized by the University of North Bengal.
- Enlistment of Contractors has been abolished as per Govt. order no. 71/SPW/2014 dated 03.03.2014 and G.O. no. 1177-F(Y) Dated: - 28.02.2014.
- Introduction of penal measures to the contractors who are participating in the tender process as well as selected for executing public works for their false declaration or forgery or falsification of records submitted or failure to execute committed contract or for their failure to perform contractual obligations

and there by resulting delay for execution of faulty works as per Memorandum No. 547-(C)/1M-387/15 Dated: 16/11/2015 of The Joint Secretary to the Government of West Bengal, PWD. Details guidelines are annexed with Special Terms & Conditions as a part of. However, the committees are modified accordingly to fit the designation/hierarchy of the University of North Bengal.

- vi) The Tender Accepting Authority/Chief Engineer, NBU reserves the right to reject any or all the tenders without assigning any reason whatsoever and without thereby incurring any liability to the affected bidder or bidders or any obligation to inform the affected bidder or bidders of the ground for such action. Bidders are requested to be present at the time of opening of tenders. For further enquiry, intending tenderers may contact office of the Chief Engineer, University of North Bengal, in any University's working day between 11.00 am to 4.00 p.m.
- 1) In the event of e-Filling, intending bidder may download the tender document from the website: <https://wbtdenders.gov.in> directly with the help of Digital Signature Certificate (DSC) & **earnest money may be submitted in shape of a CTS Demand Draft from any Bank as recognized by the RBI in favour of University of North Bengal payable at Siliguri.** The documents submitted by the bidders should be indexed and also should be according to his /their Firm name.
- 2) **Earnest Money:** Initially at the time of submitting bid, the bidders will have to upload the scan copy of EMD. The EMD in original as mentioned above has to be submitted offline by the selected bidder at the office of the Chief Engineer, NBU. The L1 bidder shall make the Formal Agreement after getting the Letter of Acceptance (LOA)/Work Order issued by the Chief Engineer, NBU. Failure to make the Formal Agreement within the time period as prescribed in the Letter of Acceptance (LOA)/Work Order for the said purpose, may be construed as an attempt to disturb the tendering process and will be dealt with accordingly in a legal manner as deemed fit by the authority of University of North Bengal including blacklisting the bidder.

3) **Eligibility criteria for participation in tender:**

- i) Credential certificate issued by the Executive Engineer or equivalent or competent authority of a State / Central Government, State / Central Government undertaking, Statutory / Autonomous bodies constituted under the Central / State statute, on the executed value of completed / running work of **similar nature of work with allied works like Sanitary & Plumbing, Electrical works etc.** will be taken as credential as follows:

A. For First call of NIT:

- i) Intending tenderers should produce credentials of a similar nature of completed work of the minimum value of **40%** of the estimated amount put to tender during last 5(five) years prior to the date of issue of this tender notice; or,
- ii) Intending tenderers should produce credentials of 2(two) similar nature of completed work, each of the minimum value of **30%** of the estimated amount put to tender during last 5(five) years prior to the date of issue of the tender notice; or,
- iii) Intending tenderers should produce credentials of one single running work of similar nature which has been completed to the extent of **80%** or more and value of which is not less than the desired value at (i) above;
- In case of running works, only those tenderers who will submit the Certificate of satisfactory running work from the concerned Executive Engineer, or equivalent competent authority will be eligible for the tender. In the required certificate it should be clearly stated that the work is in progress satisfactorily and also that no penal action has been initiated against the executed agency, i.e., the tenderer.

B. For 2nd Call of NIT:

- i) Intending tenderers should produce credentials of a similar nature of completed work of the minimum value of **30%** of the estimated amount put to tender during last 5(five) years prior to the date of issue of the tender notice; or,
- ii) Intending tenderers should produce credentials of 2(two) similar nature of completed work, each of the minimum value of **25%** of the estimated amount put to tender during last 5(five) years prior to the date of issue of the tender notice; or,
- iii) Intending tenderers should produce credentials of one single running work of similar nature which has been completed to the extent of **75%** or more and value of which is not less than the desired value at (i) above;

In case of running works, only those tenderers who will submit the Certificate of satisfactory running work from the concerned Executive Engineer, or equivalent competent authority will be eligible for the tender. In the required certificate it should be clearly stated that the work is in progress satisfactorily and also that no penal action has been initiated against the executed agency, i.e., the tenderer.

C. For 3rd Call of NIT:

- i) Intending tenderers should produce credentials of a similar nature of completed work of the minimum value of **20%** of the estimated amount put to tender during last 5(five) years prior to the date of issue of the tender notice; or,
- ii) Intending tenderers should produce credentials of one single running work of similar nature which has been completed to the extent of **70%** or more and value of which is not less than the desired value at (i) above;

In case of running works, only those tenderers who will submit the Certificate of satisfactory running work from the concerned Executive Engineer, or equivalent competent authority will be eligible for the tender. In the required certificate it should be clearly stated that the work is in progress satisfactorily and also that no penal action has been initiated against the executed agency, i.e., the tenderer.

The credential should be supported by Work Order, Price Schedule or BOQ of Work and Completion Certificate mentioning the *Date of Commencement and Date of Completion* as per Work Order and actual Date of Completion issued by the competent authority not below the rank of Executive Engineer or equivalent or competent authority as described in their office letter pad containing proper Office Address, Phone/Fax no. and email ID. The Completion Certificate should indicate the value of the work (equal to booked expenditure) [Non Statutory Documents].

N.B.-- Estimated amount put to Tender, Tendered Amount, Actual date of completion of the Project & detail Address for communication must be indicated in the Credential Certificate/Completion Certificate.

- ii) The prospective bidders will have in their full time engagement experienced technical personnel, the minimum being one Civil Engineering Degree holder and one Electrical Engineering Diploma holder (Authenticated documents in respect of qualification and documents of appointment / engagement into the firm will have to be furnished for Technical-Evaluation). [Non Statutory Documents].
- iii) PAN Card, Professional Tax Deposit Challan for the financial year 2022-2023, 15-digit Goods and Services Taxpayer Identification Number (GSTIN) under GST Act 2017, Income Tax return for the last 5 years etc. are to be accompanied with the Technical Bid document. [Non Statutory Documents]
- iv) The prospective bidders or any of their constituent partner(s) should not have **abandoned** more than one work. Not more than one of their contracts should have been **rescinded** during the last 3 (three) years from the date of publishing of this NIT. Such abandonment or rescission will be considered as disqualification towards eligibility (a declaration in this respect through Affidavit will have to be furnished by the prospective bidders without which the technical bid will be treated as **nonresponsive**. Neither prospective bidder nor any of constituent partner(s) should have been debarred to participate or failed to executed any work contract or terminated or penalised by the client in any work contract under any directorate of Public Works Department/any State or Central Universities or Institutes/CPWD/PHE/Indian Railway/Any Corporation or Statutory body/NBDD/SJDA/any Municipality/any Organisation of National Repute during the last 5 (five) years prior to the date of publication of this NIT. Such debarment/failure/termination/penalisation will be considered as disqualification towards eligibility. Also the bidders have to state the history of litigation or arbitration with any Client/Employer during last 5 (*five*) years prior to the date of this NIT in the prescribed format. (A declaration in this respect has to be furnished by the prospective bidders as per prescribed format without which the Technical Bid shall be treated **non-responsive**).
- v) The Bidder's Net Worth for the last year calculated on the basis of capital, profit and free reserve available to the firm should be positive.
- vi) The available **Bid Capacity** (to be calculated on the basis of prescribed format) of the prospective applicant at the expected time of bidding should be more than the Estimated amount put to tender.
- vii) In case of Proprietorship and Partnership Firms and Company the Tax Audited Report in 3CD/3CB Form supported with Income Tax return are to be furnished along with balance sheet and profit and loss account and all schedules forming the part of Balance Sheet and Profit & Loss Account. Tax Audited report,

Balance Sheet and Profit & Loss Account including all schedules forming the part of Balance Sheet and Profit & Loss Account should be in favour of applicant. [Non Statutory Documents].

- viii) The prospective bidders should own or arrange through lease hold agreement (as the case may be) the required plant and machineries of prescribed specifications as shown and mentioned in format [Section- B, Form- IV]. For both cases conclusive proof of ownership [such as Tax invoice, Way Bill, Delivery Challan, incorporation in the Balance Sheet as fixed asset etc. during the last 3(three) years] for each plant and machinery in working condition will have to be submitted.

An affidavit of appropriate value duly notarized should be submitted mentioning Present location of installation of the said main Plant and machinery, as mentioned, in specified format, should also be enclosed.

If the machineries are already engaged in the other works, then name of client along with his contact number and Email address should be furnished in the declaration by the intended tenderer duly countersigned by the client, with tentative date of release of such Plant and Machineries mentioning present location (working place) where the same are presently engaged. If necessary, authority/ tender evaluation committee may inspect Plant and Machineries physically or call for the original documents as proof of Ownership in favour of owner / lessor of the same. Plant & Machineries should be owned or arranged through lease hold agreement (wherever mentioned) by the Applicant. Scanned Copy of necessary lease deed should also be submitted. [Non Statutory Documents].

- ix) Registered Unemployed Engineers' Co-operative Societies/ Unemployed Labour Co.- Op. Societies are required to furnish valid Bye Law, Current Audit Report, Certificate of Registration and professional tax deposit challan for the Financial Year 2022-23, PAN Card, GST Registration Certificate with latest return along with other relevant supporting papers. [Non Statutory Documents]

- x) **Joint Ventures** will not be allowed for works **upto 25.00 crores**. For work more than 25.00 crores in case of a joint venture, Lead Member of such joint venture will be required to meet 60% of required Bid Capacity and each of the Joint Venture members will be required to meet at least 30% of requirement of BID Capacity. Bid Capacity of all the members in total should be at least 100% of required Bid Capacity.

However, in a composite NIEt to facilitate Joint Venture for building works worth value less than Rs 25 crore and which are predominantly civil work in nature with electrical components less than 25% of the estimated amount put to tender, the civil contractor may be allowed to submit an agreement in non-judicial stamp paper of requisite value with an electrical contractor for execution of the electrical components of the work. In that case, the electrical contractor will have to qualify for all requirements set forth in the NIEt for electrical works including credential, electrical supervisor's certificate of competency (SSC), electrical licence from the competent authority of Government of West Bengal etc. The civil contractor will have to qualify for all requirements set forth in the NIEt including requisite credential for civil component of such works but excluding credential, licence and SSC requirements for electrical works. However, the onus and full responsibility for execution of the total work (civil & electrical) will be on the civil contractor who will execute the agreement with the Department. Payment will also be made to the civil contractor only.

- xi) The Bidder must have valid Electrical Contractors License with Electrical Supervisors having certificate of competency from Directorate of Electricity, Govt. of W.B. / competent authority of other Govt. as applicable or equivalent National Supervisors' Certificate of Competency. (Self-attested scan copy of documents of appointment / engagement regarding Electrical Supervisor are required to be submitted in case of electrical work as Non statutory Documents)

- xii) A prospective bidder shall be allowed to participate in the particular Job either in the capacity of individual or as a partner of a firm. If found to have applied severally for a single job, all his applications will be rejected for that job, without assigning any reason thereof.

- xiii) A prospective bidder (including his participation in partnership) will be allowed to participate in more than one work provided the bid capacity permits and the bidder is capable to arrange and deploy separate set of required machineries for multiple works and complete the work in specified time.

- xiv) A partnership firm will have to furnish the **registered partnership deed** and a company will have to furnish the Article of Association and Memorandum. [Non Statutory Documents].

Where an individual person holds a digital certificate in his/her own name duly issued to him / her by the company or the firm of which he / she happens to be a director or partner, such individual person, either belonging to an appropriate cadre officer of the company or an authorized partner of a firm, having a registered power of attorney empowered by the Board or by the firm, shall invariably upload a copy of registered power of attorney showing clear authorization in his / her favour, to upload such tender. The power of attorney shall have to be registered in accordance with the provisions of the **Registration Act.1908. as per G.O. no. 09-W(C)/1M-286/15 dated: -23.09.2015** of the Principal Secretary to the Govt. of West Bengal, Public Works Department.

- xv) Partnership Firm, Company Limited Firm, Private Company Limited Firm shall be registered by the respective competent authority from the Registrar of Firms, Society, Non-Trading Corporation, Registrar of Companies etc. & copy of Registration Certificate (with allotment of Registration No.) will have to be submitted, otherwise the Technical Bid will not be considered for qualification & Financial Bid shall not be opened [Non Statutory Documents].
- xvi) An undertaking should be given stating thereby that the firm has not been debarred or penalized for any reasons out of work by any Government Department during the last 5 (five) years prior to the date of this NIT.
- 4) The successful bidder will have to establish field testing laboratory equipped with requisite instruments in conformity with relevant code of practice and technical staff according to the requirements of works to be executed. The executing agency will have to produce satisfactory test report of all the materials of the work as well as on samples collection jointly by him and concerned authority of the Engineer-in-Charge from all completed items of works as per relevant codes of practice at his own cost from any Govt. approved / Govt. testing laboratory outside the jurisdiction of the Chief Engineer, NBU during execution of works. The successful bidder will have to bring all requisite plants and mechanical equipments and / or technical personnel and / or laboratory and field testing machineries and equipments for all the items of work as per BOQ and / or as per relevant IRC /IS codes of practice and / or as per direction of the Engineer-In-Charge and / or as per relevant PWD Schedule of Rates at the time of execution of work at site even if upon technical evaluation he is declared as “qualified” without having all the requisite plants and mechanical equipments and / or technical personnel and / or laboratory and field testing machineries and equipments at the time of submission of tender.
- 5) **The payment will be made as and when fund is available from the concerned source.** No claim whatsoever for delay in payment, if any, will be entertained. Retention money towards performance Security amount to 10% (ten percent) of the value of the work will be deducted from the running account bill of the tender as per prevailing order. No interest will be paid on security deposit.
- 6) Tax Invoice(s) needs to be issued by the supplier for raising claim under the contract showing separately the tax charged in accordance with the provisions of GST Act 2017 for (a) procurement of Goods and Services and (b) works related contract involving supply of goods and services by contractor including procurement under rule 47(C).
- 7) **Construction Labour Welfare Cess @ 1(one) % of cost of construction will be deducted from the bills of the contractors on all contracts awarded on or after 01.11.2006 in pursuance with G.O. No.599A/4M-28/06 dated 27.09.2006. GST, Royalty & all other Statutory levy/ Cess will have to be borne by the contractor & the rate in the schedule of rates are inclusive of all the taxes & Cess stated above.**

Successful Tenderers will be required to obtain valid Registration Certificate & Labour License from respective Regional Labour Offices where construction work by them are proposed to be carried out as per Clauses u/s 7 of West Bengal Building & other Construction Works’ Act, 1996 and u/s 12 of Contract Labour Act.

Successful tenderers will be required to observe the following conditions strictly:

- (a) Employees’ Provident Fund and Miscellaneous Provisions Act, 1952 and Employees State Insurance Act, 1948 should be strictly adhered to wherever such Acts become applicable.
- (b) Minimum wages to the workers shall be paid according to the rates notified and/or revised by the State Government from time to time under the Minimum Wages Act, 1948 in respect of scheduled employments, within the specified time as per law. Payment of bonus, wherever applicable, has to be made.
- (c) Adequate safety and welfare measures must be provided as per the provisions of the Building and other Construction Workers’ (Regulation of Employment & Conditions of Service) Act, 1996 read with West Bengal Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Rules, 2004.
- (d) All liabilities arising out of engagement of workers are required to be duly met before submission of bills for payment.

If there is any violation of one or all the relevant above criteria during execution of the job, it will render the concerned agencies ineligible for the work then and there or at any subsequent stage as may be found convenient.

- 8) Adjustment of Price (increase or decrease) Vide Notification No.23-CRC/2M-61/2008, Dated: 13.03.2009 & Notification No.38-CRC/2M-61/2008 Dated 20.04.2009 shall not be applicable. Since B.O.Q. for the works under this N.I.e.T. is based upon the current schedule of rates of Public Works Directorate for Building Works(vol-I), Sanitary & Plumbing Works(vol-II) and Road & Bridge Works (vol-III) and Electrical Works as

applicable, including all Addenda & Corrigendum upto the date of Technical Sanction/vetting, the bidders shall quote their rate (percentage above / below / at par) accordingly considering that no escalation and/ or price adjustment will be allowed by the department thereto under any circumstances.

9) No Mobilisation Advance and Secured Advance will be allowed.

- 10)** Agencies shall have to arrange required land for installation of Plant & Machineries (specified for each awarded work), storing of materials, labour shed, laboratory, electricity, water etc. for work at their own cost and responsibility nearest to the work site. The agencies have to submit declaration that they will install all machineries on the working site within **15 (Fifteen) days** from the date of issue of work order from this end positively with application of Tender.
- 11)** Bids shall remain valid for a period not less than 120 (One Hundred Twenty) days from the last date of submission of Financial Bid / Sealed Bid. In case of inadvertent typographical mistake found in the specified schedule of rates / BOQ, the same will be treated to be so corrected as to conform with the relevant schedule of rates prevailing at the time of vetting of estimate. No claim whatsoever for such inadvertent typographical mistake will be entertained.
- 12)** All materials required for the proposed scheme as mentioned in the SI including bitumen (all grade), bitumen emulsion, cement & steel will have to be of specified grade & approved brand in conformity with relevant code of practice (latest revision) & manufactured accordingly & will have to be procured & supplied by the agency at his/ their own cost including all taxes. Authenticated evidence for purchase of bitumen, bitumen emulsion, cement and steel are to be submitted along with challan and test certificate.

In the event of further testing opted by the Engineer-in-Charge, such testing from any Government approved/ Govt. outside the jurisdiction of Chief Engineer, NBU Testing Laboratory will have to be conducted by the agency at his/their own cost. Only 60/70(VG 30) grade paving bitumen of I.O.C.L/B.P.C. L/ H.P.C.L (from nearest depot) will be permitted as Straight run Bitumen.

Steel reinforcement to be procured from any of the producers should be tested (physical test and chemical test) as per required frequencies and as per relevant code of BUREAU OF INDIAN STANDARD by the procuring authority from the laboratory / institution with proper testing infrastructure (preferably NABL accredited), approved by the Procuring authority / Engineer in Charge of the works. Cost of such testing will be borne by the producers / suppliers/contractors from whom the department is going to procure the steel reinforcement. The test result (both physical & chemical) should conform to IS-1786- (latest revision) or IS-432 (latest revision) whichever is applicable.

For all buildings with pile / raft foundations and for all bridges the reinforcement steel should be procured as per PWD SOR Vol-I, II & III with effect from 01.11.2017 or as latest and also with up to date CORRIGENDA & ADDENDA PWD SOR Vol-I, II & III or any latest order by the Government.

Cement to be used should satisfy all criteria as per relevant IS codes of practice. Cement manufactured from mini plants shall not be used in any case.

13) Date & Time Schedule: -

Sl. No	Particulars	Date and Time
1	Date of publishing NIT & Tender Documents. (online) (Publishing date)	30.06.22 from 02.00 P.M. Onwards.
2	Tender Document download start date and time (online).	30.06.22 from 02.00 P.M. Onwards.
3	Start Date of Bid Submission (Technical and Financial) (online).	30.06.22 from 02.00 P.M. Onwards.
4	Pre Bid Meeting with the intending Bidders. (Optional for the bidders)	NA.
5	Closing date and time of download of Tender Document (online)	22.07.22 up to 02.00 P.M.
6	Closing date and time of Bid submission (Technical and Financial) (online).	22.07.22 up to 02.00 P.M.

7	Date and time of opening of Technical Proposals (online).	25.07.2022 after 11.00 A.M. at Office of the Chief Engineer, University of North Bengal, Raja Rammohunpur, Siliguri, Dist-Darjeeling, Pin-734013.
8	Date and time of uploading of list of Technically qualified bidders.(online)	Will be notified later on.
9	Date of uploading of final list of technically qualified bidders after disposal of appeals, if any.	Will be notified later on.
10	Date and time of opening of Financial Proposal (online).	Will be notified later on.

14) The Dispute Redressal Committee shall be constituted with the following officials as members-

1	Vice Chancellor, NBU	Chairperson of the Committee
2	Chief Engineer, NBU	Member Secretary & Convener
3	Registrar, NBU	Member
4	Joint Finance Officer, NBU	Member
5	Concerned Assistant Engineer, NBU	Member

This provision will be applicable irrespective of the value of the works to which the dispute may relate.

- 15) The Bidder, at the Bidder's own responsibility and risk is encouraged to visit and examine the site of works and its surroundings and obtain all information that may be necessary for preparing the Bid and entering into a contract for the work as mentioned in the Notice inviting Tender, the cost of visiting the site shall be at the Bidder's own expense. Issuance of Letter of Acceptance / Work Order may be delayed and / or work may be financially restricted unto the limit of existing Administrative Approval until receipt of Revised Administrative Approval from the competent authority (in applicable cases). Also issuance of Letter of Acceptance / Work Order may be delayed and / or work may be restricted in some stretches till necessary land for the same is made available and / or encroachments are removed (in applicable cases). No claim, whatsoever, for such delay in issuance of Letter of Acceptance / Work Order and / or restriction of work will be entertained. Intending bidders may keep these criteria in mind while participating in tender and / or while quoting their rates.
- 16) Prospective applicants are advised to note carefully the minimum qualification criteria as mentioned in the 'Instructions to Bidders' before bidding.
- 17) There will be a "Defect Liability Period" of **05 [Five] years** for this original works from the date of successful completion and the security deposit will be released phase wise as detailed below. Prospective bidders will have to execute the work in such manner so that appropriate service level for the stipulated stretch(s)/length of the road under improvement is to be maintained during stipulated contractual period till completion and a period of **05 [Five] years** from the date of successful completion of the work to the entire satisfaction of Engineer-in-Charge. If any defect/damage is found during the period as mentioned above, the contractor will make the same good at his own expense up to the specification at par with the instant project work, or on default, the Engineer-in-Charge may cause the same to be made good by other agency and deduct the expense (of which the certificate of the Engineer-in-Charge shall be final) from any sums that may be then, or at any time thereafter become due to the contract or from his security deposit, or the proceeds of the sale thereof, or of sufficient portion thereof. Refund of Security Deposit will only be made on the pro-rata basis.

If the contractor or his workmen or servants or authorized representatives shall break, deface, injure, or destroy any part of building, in which they may be working, or any building, road, road-curbs, fence, enclosure, water pipes, cables, drains, electric or telephone posts or wires, trees, grass or grassland or cultivated ground contiguous to the premises, on which the work or any part of it is being executed, or if any damage shall happen to the work from any cause whatsoever or any imperfection become apparent in it at any time whether during its execution or within a period of three months or one year or three years or five years, as the cause may be (depending upon the nature of the work as described in the explanation appended hereto) hereinafter referred to as the Defect Liability Period, from the actual date of completion of work as per completion certificate issued by the Engineer-in-charge may cause the same to be made good by other

workmen and deduct the expense (of which the certificate of the Engineer-in-Charge shall be final and binding on all concerned) from any sums, whether this contract or otherwise, that may be then, or at any time thereafter become due to the contractor from the Government or from his security deposit, either full, or of a sufficient portion thereof and if the cost, in the opinion of the Engineer-in-Charge (which opinion shall be final and conclusive against the contractor), of making such damage or imperfection good shall exceed the amount of such security deposit and / or such sums, it shall be law full for the Government to recover excess cost from the contractor in accordance with the procedure prescribed by any law for the contractor in accordance with the procedure prescribed by any law for the time being in force.

Provided further that the Engineer-in-Charge shall pass the "Final Bill" and certify thereon, within a period of thirty days with effect from the date of submission of the final bill in acceptable form by the contractor, the amount payable to the contractor under this contract and shall also issue a separate completion certificate mentioning the actual date of completion of the work to the contractor within the said period of thirty days. The certificate of the Engineer-in-Charge whether in respect of the amount payable to the contractor against the contractor. However, the security deposit of the work held with the Government/University under the provision of clause 1 hereof shall be refundable to the contractor in the manner provided here under: -

a) For work with three months Defect Liability Period:

(i) Full security deposit shall be refunded to the contractor on expiry of three months from the actual date of completion of the work.

b) For work with one-year Defect Liability Period:

(i) Full security deposit shall be refunded to the contractor on expiry of one year from the actual date of completion of work.

c) For work with three years Defect Liability Period:

(i) 30% of the security deposit shall be refunded to the contractor on expiry of two years from the actual date of completion of the work;

(ii) The balance 70% of the security deposit shall be refunded to the contractor on expiry of three years from the actual date of completion of the work;

d) For work with five years Defect Liability Period:

(i) No security deposit shall be refunded to the contractor for 1st 3 years from the actual date of completion of the work;

(ii) 30% of the security deposit shall be refunded to the contractor on expiry of four years from the actual date of completion of the work;

(iii) The balance 70% of the security deposit shall be refunded to the contractor on expiry of five years from the actual date of completion of the work;

Explanation:

The word 'work' means and includes road work, bridge work, building work, sanitary and plumbing work, electrical work and / or any other work contemplated within the scope and ambit of the contract. For

(i) The work of patch repair or patch maintenance in nature combination thereof, the Defect Liability Period of the work shall be three months from the actual date of completion of the work.

(ii) Thorough Bituminous Surfacing work with bituminous thickness less than 40mm. Repair & Rehabilitation of any road / bridge / culvert / building/ Sanitary & Plumbing work, the Defect Liability Period of the work shall be one year from the actual date of completion of the work;

(iii) Extension of building / bridge/ culvert, Construction of new flexible pavement up to bituminous level which has been designed for a period of 3 years or more, Widening and strengthening of flexible pavement designed for a period of 3 years or more, Improvement of riding quality/ Strengthening of flexible pavement designed for a period of 3 years or more; Providing only mastic asphalt layer over existing bituminous surface without providing bituminous profile corrective course / bituminous base course, the Defect Liability Period of the work shall be three years from the actual date to completion of the work;

(iv) Construction of new building / new bridge / new culvert, Reconstruction of building / bridge / culvert including construction of approach roads for / bridge/ culvert, Construction of ridge pavement, Reconstruction of ridge pavement, Construction of new flexible pavement covered by mastic work which has been designed for a period of 5 years or more, Improvement of riding quality / Strengthening of flexible pavement covered by mastic work which has been designed for a period of 5 years or more, the Defect Liability Period of the work shall be five years from the actual date of completion of the work;

The following paragraph shall be added to the **Interpretation clause of CONDITION OF CONTRACT:**

“The word ‘Government’ means the Government of State of West Bengal”; ‘University’ means the University of North Bengal and ‘Engineer-in-Charge’ means the Chief Engineer, University of North Bengal and ‘NBU’ means the University of North Bengal and ‘Department’ means the University of North Bengal.

In cases of Refunding and Releasing of 100% Security Deposit held with the University, arising out from works contract, Security Deposit will be released after issuance of Completion Certificate on submission of unconditional **BANK GUARANTEE** by the Contractor for the Security Deposit subject to the following conditions:

1. The Bank Guarantee will be issued by a Scheduled Commercial Bank in favour of the Engineer -In-Charge of the concern work, NBU on behalf of the contractor.
2. The Bank Guarantee will remain valid for the Defect liability period/Security period as per contract of the work.
3. The Bank Guarantee will be submitted as per Format attached in Annexure –I. The Engineer-In-Charge should obtain confirmation of the Bank Guarantee directly from the Bank before its acceptance.
- 4) The Bank Guarantee, now pledged in the form of Security Deposit will be released to the contractor in the following manner, if not forfeited under conditions of contract-
 - (a) For work with three months Defect Liability Period:
 - i. Full amount shall be refunded to the contractor on expiry of three months from the actual date of completion of the work.
 - (b) For work with one year’s Defect Liability Period:
 - i. Full amount shall be refunded to the contractor on expiry of one year from the actual date of completion of the work.
 - (c) For work with three years Defect Liability Period:
 - i. 30% of the same shall be refunded to the contractor on expiry of two years from the actual date of completion of the work.
 - ii. The balance 70% of the same shall be refunded to the contractor on expiry of three years from the actual date of completion of the work.
 - (d) For work with five years Defect Liability Period:
 - i. No amount same shall be refunded to the contractor for the first 3 years from the actual date of completion of the work.
 - ii. 30% of the same shall be refunded to the contractor on expiry of four years from the actual date of completion of the work.
 - iii. The balance 70% of the same shall be refunded to the contractor on expiry of five years from the actual date of completion of the work.

WHEREAFTER, in cases for those contractors, who will not intend to opt for the provisions laid down hereinabove for refund of security deposit, may continue with the earlier provisions as already laid down before that.

18) All intending bidders are requested to be present in the office of the Chief Engineer, University of North Bengal, Raja Rammohunpur, Siliguri, Dist-Darjeeing, Pin-734013 during opening of the Tender to observe the tender opening procedure.

19) No **CONDITIONAL/ INCOMPLETE TENDER** will be accepted under any circumstances.

20) Requirement of Principal Machineries which must be possessed by own/ Lease Hold agreement (as the case may be) are as shown and mentioned in Section – B, Form – IV. Original documents in support of own / lease possession of the aforesaid machineries are to be furnished if required by the Tender Inviting Authority.

21) In the event of acceptance of lowest tendered rate no multiple minimum rates will be considered by the Department.

22) The Chief Engineer, University of North Bengal reserves the right to cancel the N.I.e.T. due to unavoidable circumstances and no claim in this respect will be entertained.

23) During the scrutiny, if it comes to the notice of the tender inviting authority that the credential(s) and/or any other paper(s) of any bidder are incorrect/ manufactured/ fabricated, that tender will be out rightly rejected and further penal action may be taken against him as per rule.

24) In case there is any objection regarding prequalifying an agency, that should be lodged to The Chief Engineer, University of North Bengal, Raja Rammohunpur, Siliguri, Dist-Darjeeing, Pin-734013 within 48 hours from the date and time of publication of list of qualified agencies and beyond that time schedule no objection will be entertained by the Chief Engineer, NBU.

25) Before issuance of LOA/ work order, the tender inviting authority may verify the credentials & other documents of the lowest tenderer if found necessary. After verification, if it is found that such documents submitted by the lowest tenderer are either manufactured or false, in that case LOA/work order will not be

issued in favour of that tenderer under any circumstances and further penal action may be taken against him as per rule.

26) If any discrepancy arises between two similar clauses on different notifications, the clause as stated in later notification will supersede former one in following sequence: -

- i) Form No. 2911
- ii) e-NIT
- iii) Special terms & Conditions.
- iv) Technical bid
- v) Financial bid

In case of inadvertent typographical mistake in the BOQ / Schedule of works/ Price Schedule/rates /elsewhere, the same may be treated to be so corrected as to conform with the relevant schedule of rates and or technically sanctioned estimate.

27) Qualification Criteria:

As per guideline of NBU Rule a Tender Committee has been constituted for evaluation of bids with the following members where Chief Engineer is the Tender Inviting Authority for all works: -

- i) The Chief Engineer, University of North Bengal – Convenor.
- ii) Professor Soumitra De, University of North Bengal--Member (EC nominated).
- iii) The Joint Finance Officer, University of North Bengal—Member.

The Tender Committee will do the technical and financial evaluation of the bidders for different type of works and make recommendation to the tender accepting authority. The bidders will have to meet all the minimum criteria regarding: -

- a) **Financial Capacity**
- b) **Technical Capability comprising of personnel and plant & equipment capability**
- c) **Experience / Credential**

The eligibility of a bidder will be ascertained on the basis of his digitally signed documents in support of the minimum criteria as mentioned in a, b, c above with the help of his DSC and the declaration executed through prescribed affidavit in non-judicial stamp paper of appropriate value duly notarized. If any document submitted by a bidder is either manufactured or false, in such case the eligibility of the bidder/ tenderer will be out rightly rejected at any stage without any prejudice and further penal action may be taken against him as per rule.

28) The Tender Committee reserves the right to ignore minor deficiencies at their discretion in case of first call and no challenge whatsoever against such decision of the said committee/ authority will be entertained. In case of second and subsequent calls, the Tender Committee reserves the right to ignore some deficiencies at their discretion and no challenge whatsoever against such decision of the said committee will be entertained.

29) Bidders should upload their documents from original copies. Uploading Photocopy & illegible copies will not be accepted.

30) Each work will be awarded against specific set of machineries as indicated in Sl. No. 20 of this NIT & section B (Form-IV).

INSTRUCTION TO BIDDERS

SECTION – A

1. General guidance for e-Tendering

Instructions/ Guidelines for tenders for electronic submission of the tenders have been annexed for assisting the contractors to participate in e-Tendering.

2. Registration of Contractor

Any contractor willing to take part in the process of e-Tendering will have to be enrolled & registered with the Government e-Procurement system; through logging on to <https://wbtenders.gov.in>. The contractor is to click on the link for e-Tendering site as given on the web portal.

3. Digital Signature certificate (DSC)

Each contractor is required to obtain a class-II or Class-III Digital Signature Certificate (DSC) for submission of tenders, from the approved service provider of the National Information's Centre (NIC) on payment of requisite amount details are available at the Web Site stated in Clause 2 of Guideline to Tenderer DSC is given as a USB e-Token.

4. The contractor can search & download NIT & Tender Documents electronically from computer once he logs on to the website mentioned in Clause 2 using the Digital Signature Certificate. This is the only mode of collection of Tender Documents.

5. *Participation in more than one work*

A prospective bidder shall be allowed to participate in the job either in the capacity of individual or as a partner of a firm. If found to have applied severally in a single job, all his applications will be rejected for that job. A prospective bidder (including his participation in partnership) shall be allowed to participate in 2 (two) works anywhere for each set of prescribed machinery and equipment owned/lease hold agreement by the bidder. In no case a bidder will be allowed to participate in bid for more than 2(Two) works anywhere per set of required machineries.

6. *Submission of Tenders.*

General process of submission: Tenders are to be submitted online through the website stated in Cl. 2 in two folders at a time for each work, one in Technical Proposal & the other is Financial Proposal before the prescribed date & time using the Digital Signature Certificate (DSC). The documents are to be uploaded virus scanned copy duly Digitally Signed. The documents will get encrypted (transformed into non readable formats).

A. Technical proposal

The Technical proposal should contain scanned copies of the following in further two covers (folders):

A-1. Statutory Cover Containing

- i. Prequalification Application (Sec-B, Form – I)
- ii. Scan copy of DD as Earnest Money Deposit (EMD) as prescribed in the NIT against each of the serial of work in favour of the University of North Bengal payable at Siliguri.
- iii. Financial Statement (Section – B, Form – II).
- iv. **Affidavits (Ref: - format shown in “X” of Part “B” & format for general affidavit shown in “Y” of Part “B”).**
- v. Tender form No. 2911 & NIT with all Agenda & Corrigendum (***download & upload the same digitally Signed, quoting rate will only encrypted in the B.O.Q. under Financial Bid. In case quoting any rate in 2911 the tender liable to summarily rejected.***)
- vi. Special Terms, conditions & specification of works.
- vii. Certificate of revolving line of credit by the Bank (if required).
- viii. Declaration by bidder (Sec-B, Form-VI).

A-2. Non statutory Cover Containing

- i. Professional Tax (PT) deposit receipt challan for the financial year 2022-2023, PAN Card, last 5 years IT return, 15-digit Goods and Services Taxpayer Identification Number (GSTIN) under GST Act, 2017 (Amendment of Rule 47(9)(b) of WBFR, Vol.-I vide memo no. 4374-F(Y) dated 13.07.2017 of Finance Department (Audit Branch), Govt. of West Bengal), EPF Registration Certificate and latest challan.
- ii. Trade License and Registration Certificate under Company Act. (if any).
- iii. Registered Deed of partnership Firm/ Article of Association & Memorandum.
- iv. Registered Power of Attorney (For Partnership Firm/ Private Limited Company, if any) against authorized signatory and holding of DSC.
- v. Tax Audited Report in 3CD/3CB Form supported with Income Tax return along with Balance Sheet & Profit & Loss A/c for the last five years (year just preceding the current Financial Year will be considered as year-I)
- vi. Bye laws are to be submitted by the Registered labour Co-Op (S) & Engineers' Co.-Opt.(S)
- vii. List of machineries possessed by own/ leased along with authenticated copy of invoice, challan & waybill Ref.: - Cl. No. 3(viii) & 20 of this NIT (Section –B, Form IV) **and an affidavit of appropriate value duly notarized should be submitted with mentioning the present status and location of installation of main plant and machineries.**
- viii. List of laboratory Instrument along with authenticated Invoice & Challan. (Ref.: - Cl. No.4 of NIT)
- ix. List of Technical staffs along with structure & organization (Section – B, Form – III). **Identity proof, Qualification proof of Technical Staff and Declaration of engagement from the both ends on regards to this e-NIT are to be submitted.**
- x. **Electrical Supervisory competency certificate from Directorate of Electricity, Govt. of W.B. competent authority of other Govt. as applicable.** Valid Electrical S.C.C Part No. 1,2,3,4,5,6A,6B,7A,7B,10,11 & 12 issued by the Licensing Board, Govt. of West Bengal or competent authority of other Govt. as applicable. The agency should have submitted credential in respect of similar

nature of Electrical works and electrical licence from the competent authority of Government of West Bengal in favour of the firm.

In case of Association with an Electrical agency, the Bidder must have Memorandum of Understanding with an Electrical agency which is duly notarized in non-judicial stamp paper. All liabilities regarding electrical works will be vested upon the bidder. M.O.U. of electrical agency and the bidder must be submitted along with the technical bid.

xi. Credential certificate issued by the Executive Engineer or equivalent or competent authority of a State / Central Government., State / Central Government undertaking, Statutory / Autonomous bodies constituted under the Central / State statute, on the executed value of completed / running work will be taken as credential (Ref. Cl. No. 3(i) of this NIT).

Scanned copy of Original Credential Certificate (supported by Work order, Price Schedule or BOQ) during the last 5(five) years prior to the date of issue of this NIT is to be furnished.

Note: - Failure of submission of any of the above mentioned documents (as stated in A1 & A2) will render the tender liable to be summarily rejected for both statutory & non statutory cover.

B. Tender Committee

i. Tender Committee constituted as per guideline of NBU Rule, will continue to function as Bid Evaluation Committee for determination of technically qualified contractors.

ii. Opening & evaluation of tender: -

Initially receipt copy of earnest money amounting to 2 %(two percent) of the estimated value of work for which tender has been called for, shall have to be submitted/uploaded online in shape of a Demand Draft in favour of University of North Bengal payable at Siliguri.

iii. Opening of Technical proposal: -

Technical proposals will be opened by the Chief Engineer, University of North Bengal, Siliguri.

iv. Intending tenderers may remain present if they so desire.

v. Cover (folder) statutory documents (vide Cl. No. 6.A-1) will be opened first & if found in order, cover (Folder) for non-statutory documents (vide Cl. No. – 6.A-2) will be opened. If there is any deficiency in the statutory documents, the tender will summarily be rejected.

vi. Decrypted (transformed in to readable formats) documents of the non-statutory cover will be downloaded & handed over to the tender evaluation committee.

vii. Pursuant to scrutiny & decision of the Tender Committee, the summary list of eligible bidders & the serial number of work for which their proposal will be considered will be uploaded in the web portals.

viii. While evaluation the committee may summon the bidders(s) & seek clarification / information or additional documents or original hard copy of any of the documents already submitted & if these are not produced within the stipulated time frame, their proposals will be liable for rejection.

THE ABOVE STATED NON-STATUTORY / TECHNICAL DOCUMENTS SHOULD BE ARRANGED IN THE FOLLOWING MANNER

Click the check boxes beside the necessary documents in the My Document list and then click the tab “Submit Non Statutory Documents” to send the selected documents to Non-Statutory Folder. Next Click the tab “Click to Encrypt and upload” and then click the “Technical” Folder to upload the Technical Documents.

Sl No	Category	Sub-Category Description	Details
A	CERTIFICATES	CERTIFICATES	1. Valid 15-digit Goods and Services Taxpayer Identification Number (GSTIN) under GST Act, 2017. 2. Valid PAN Card & last 5 years IT return. 3. P. Tax Deposit Challan / P. Tax Clearance Certificate (2022-2023). 4. P.F Registration & Latest Challan (ECR). 5. Any other document(s) as relevant with this NIT.
B	COMPANY DETAILS	COMPANY DETAILS 1	1. Proprietorship Firm (Trade Licence). 2. Partnership Firm (Partnership Deed, Valid Trade Licence & Firm registration certificate). 3. Limited Company (Incorporation certificate, Valid Trade Licence). 4. Co-operative Society (Society Registration

			Certificate copy, Trade Licence). 5.Registered Power of Attorney.
C	CREDENTIAL	CREDENTIAL -1	1. Similar nature of work done and completion certificate with price schedule or BOQ which is applicable for eligibility in this tender. (Ref. Cl. No.3(i) of this NIT(Section – B, Form – V)
D	EQUIPMENT	MACHINERIES – 1 MACHINERIES – 2 MACHINERIES – 3 MACHINERIES – 4 LAB EQUIPMENT -	1. Authenticated copy of Invoice Challan and Way bill (Machinery). (Form no. IV). 2. Authenticated copy of Invoice and challan (Laboratory). (Form no. IV).
E	FINANCIAL (INFO).	WORK IN HAND	1. Authenticated Documents. (Form no. II).
		PAYMENT CERTIFICATE 1 PAYMENT CERTIFICATE 2	Only Payment Certificate not the TDS certificate. (Issued by an officer not below the rank of Executive Engineer/competent authority).
		P/L AND BALANCE SHEET FY-2020-2021	Profit and Loss and Balance Sheet (with Annexure)
		P/L AND BALANCE SHEET FY-2019-2020	Profit and Loss and Balance Sheet (with Annexure)
		P/L AND BALANCE SHEET FY-2018-2019	Profit and Loss and Balance Sheet (with Annexure)
		P/L AND BALANCE SHEET FY-2017-2018	Profit and Loss and Balance Sheet (with Annexure)
		P/L AND BALANCE SHEET FY-2016-2017	Profit and Loss and Balance Sheet (with Annexure)
F	MANPOWER	TECHNICAL PERSONNEL	List of Technical Staffs Along with Structures and Organization (As per NIT). – Form no. III.
		TECHNICAL PERSONNEL ON CONTACT	List of Technical Staffs Along with structures and Organization (As per NIT). – Form no. III.

C. Financial proposal

i. The financial proposal should contain the following documents in one cover (folder) i.e. Bill of Quantities (BOQ). The contractor is to quote the rate (percentage Excess/ Less/ AT PAR) online through computer in the space marked for quoting rate in the BOQ.

ii. Only downloaded copies of the above documents are to be uploaded virus scanned & Digitally Signed by the contractor.

7. Financial capacity of a bidder will be judged on the basis of net worth and available bid capacity as mentioned in the N.I.T. to be derived from the information furnished in Form-I & II (Section-B) i.e., Application (for Pre-qualification) & Financial Statement.

The audited Balance sheet for the last five years, net worth, bid capacity etc. are to be submitted which must demonstrate the soundness of Bidder's financial position, showing long term profitability including an estimated financial projection for the next two years.

8. Prospective bidders are encouraged to visit the concerned office to have an overview of the drawings and also for necessary site inspection.

9. Penalty for suppression / distortion of facts: -

Suppression of any fact or submission of false/fabricated document, by tenderer is strictly prohibited & if found the matter may be referred to the appropriate authority for prosecution as per relevant IT Act/ other relevant Acts and further penal action may be taken against him as per rule.

10. REJECTION OF BID: -

The Employer (tender inviting/accepting authority) reserves the right to accept or reject any Bid and to cancel the Bidding processes and reject all Bids at any time prior to the award of Contract without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the ground for Employer's (tender inviting/accepting authority) action.

11. AWARD OF CONTRACT: -

(i) The Bidder whose Bid has been accepted will be notified by the Chief Engineer/Tender Inviting Authority through Letter of Acceptance.

(ii) The Letter of Acceptance will constitute the formation of the Contract. Issuance of LOA / work order may be delayed due to non-receipt of clear site for the work and no claim, whatsoever, for delay in issuance of LOA/ Work order will be entertained.

(iii) The Agreement in W.B.F.No.-2911 will incorporate all necessary documents e.g. N.I.T., all addenda-corrigendum, special terms & conditions (Section –C), different filled-up forms (Section –B), B.O.Q., for the works under this N.I.eT. is based upon the schedule of rates of Public Works Department for Building Works(vol-I), Sanitary & Plumbing Works(vol-II), Road & Bridge Works(vol-III) **w.e.f. 01.11.2017** and for Electrical Works as applicable including all up to date Addenda & Corrigenda (Date of vetting), at the time of floating of NIT, and the same will be constituted between the Chief Engineer and the successful Bidder.

Chief Engineer
University of North Bengal

SECTION – B

FORM –I

PRE-QUALIFICATION APPLICATION

**To
The Chief Engineer,
University of North Bengal,
Siliguri.**

Ref:- Tender for -----

----- (Name of work)----- (NIT No-----
----- of 2022-23 of Chief Engineer, NBU).

Dear Sir,

Having examined the Statutory, Non statutory & NIT documents, I /we hereby submit all the necessary information and relevant documents for evaluation.

The application is made by me / us on behalf of _____ In the capacity _____ duly authorized to submit the order.

The necessary evidence admissible by law in respect of authority assigned to us on behalf of the group of firms for application and for completion of the contract documents is attached herewith.

We are interested in bidding for the work(s) given in enclosure to this letter.

We understand that:

(a) Tender Inviting or Accepting Authority/Chief Engineer can amend the scope & value of the contract bid under this project.

(b) Tender Inviting or Accepting Authority/Chief Engineer reserve the right to reject any application without assigning any reason.

Encls: - e-Filing: -

1. Statutory Documents.
2. Non Statutory Documents.

Date: -

Signature of applicant including title and capacity in which application is made

SECTION – B
FINANCIAL STATEMENT
Form – II A

N.I.e.T. No. _____ SI No. ____ OF 2022-23 OF THE CHIEF ENGINEER, UNIVERSITY OF NORTH BENGAL.

Name of Bidder:

1. The Bidder's Net Worth for the last year calculated on the basis of capital, profit and free reserve available to the firm should be positive.
2. Bidders, who meet the minimum qualification criteria, will be qualified only if their available bid capacity at the expected time of bidding is more than the total estimated cost of the works. The available bid capacity will be calculated as under:

Assessed Available Bid capacity = (A x N x 2 – B) where

A = Maximum value of engineering works in respect of projects executed in any one year during the last five years (updated to the price level of the year indicated in table below under note) taking into account the completed as well as works in progress. The projects include turnkey projects / Item rate contract /Construction works.

N = Number of years (i.e., _____ year) prescribed for completion of the works for which Bids are invited.

B = Financial Liability of the bidder to be incurred for existing commitments and on-going works during the period of the subject contract.

To calculate the value of "A"

A table containing value of Engineering Works in respect to Projects (Turnkey projects / Item rate contract /Construction works) undertaken by the Bidder during the last 5 years is as follows:

SI No	Year	Value of Engineering Works undertaken w.r.t. Projects (Rs. In Crores)
1	Year – 5 (2016-17)	
2	Year – 4 (2017-18)	
3	Year – 3 (2018-19)	
4	Year – 2 (2019-20)	
5	Year – 1 (2020-21)	

ii) Maximum value of projects that have been undertaken during the F.Y. _____ out of the last 5 years and value thereof is Rs. _____ Crores (Rupees _____). Further, value updated to the price level of the year indicated in Table is as follows:

Rs. _____ Crores x _____ (Updation Factor as per Table annexed)= Rs. _____ Crores (Rupees _____).

Table indicating the factor for the year for updation to the price level is indicated as under

SI No	F.Y. / Calendar Year	Updation Factor
1	Year-1	1.00
2	Year-2	1.05
3	Year-3	1.10
4	Year-4	1.15
5	Year-5	1.20

iii) Net worth for the last year Rs. _____ of _____ (name of the company)

(The Bidder's Net Worth for the last year calculated on the basis of capital, profit and free reserve available to the firm should be positive.)

Signature, name and designation
of Authorised Signatory

For and on behalf of

(Name of the Applicant)

Signature of authorized signatory of the
Statutory Auditors firm/Chartered Accountant

Name of the Statutory Auditor's firm/Chartered Accountant:

Seal of the audit firm:

(Signature, name and designation and

Membership no. & Mobile no. of authorized Signatory)

To calculate the value of "B"

3. A table containing value of all the existing commitments and on-going works to be completed during the next 18 months (prescribed time for completion of the works for which Bids are invited) is as follows:

Sl no	Name of Work/ Project	Name of the Employer	Percentage of participation of Bidder in the project	Stipulated period of completion as per Agreement/ LOA with the Start date	Value of Contract as per Agreement/LOA Rs	Value of work completed Rs	Balance value of work to be completed Rs	Anticipated date of completion	Financial Liability to Incurred for the said work/ project during the period of the subject contract Rs
1	2	3	4	5	6	7	8	9	10

Note: Please enclose copy of work order & up-to-date work progress certificate from the concerned Executive Engineer or equivalent officer.

Signature, name and designation
of Authorised Signatory

For and on behalf of

(Name of the Applicant)

Note:

1. All the documents to be submitted in support of "Financial Statement" must be duly signed and sealed by the applicant/bidder and authenticated by Statutory Auditor's firm.
2. In case of a Joint Venture, Lead Member of such joint venture will be required to meet 60% of required Bid Capacity and each of the Joint Venture members will be required to meet at least 30% of requirement of BID Capacity. Bid Capacity of all the members in total should be at least 100% of required Bid Capacity.
3. Year just preceding the current financial year will be considered as year-1.
4. To calculate the value of B, the work order issued on or before the date publishing NIT should be taken as financial liability.

FORM-II B

This is to certify that we have verified the consolidated financial statement of -----
(Name of the Firm in which application is made) having registered office at -----
------(address of the Firm).

Based on our examination of Books and Records and other documentary evidences we certify that the financial data of the company given in the balance sheets are detailed hereunder for the Financial Year (s) as mentioned below are true and correct.

Sl no.	Description	Financial data for the last 5 audited Financial Years				
		16-17	17-18	18-19	19-20	20-21
1	Net Worth (Calculated on the basis of capital, profit and free reserve available to the Firm)					
2	Working Capital					
3	Annual Turnover (Engineering Works)					

Available Liquid Assets:

1. Working Capital=Rs.-----
2. Uncommitted Bank Guarantees=Rs-----
3. Credit facilities=Rs------(Certificate to be submitted in **Format II C**)
4. **Total Liquid Assets=Rs** _____

Signature, name and designation
of Authorised Signatory

For and on behalf of

(Name of the Applicant)

Signature of authorized signatory of the
Statutory Auditors firm/Chartered Accountant

Name of the Statutory Auditor's firm/Chartered Accountant:

Seal of the audit firm:

(Signature, name and designation and

Membership no. & Mobile no. of authorized Signatory)

N.B: - This Form (i.e. Form-II B) must be properly made in the letter head of the Auditor's/Chartered Accountant Firm, clearly mentioning the address, email ID and contact number of the Firm and should preferably be made in a single page else to be authenticated in each page similarly.
All information sought w.r.t Auditor's Farm/Chartered Accountant is mandatory.
All data as mentioned in form II B should be available through UDIN verification.

Format-II C

PROFORMA OF BANKERS' CERTIFICATE FROM A SCHEDULED BANK

This is to certify that to the best of our knowledge and information Shri/Smt./M/s
..... of-----
------(address) a customer of our bank are/is respectable and can
be treated as good for any engagement up to a limit of Rs. -----(Rupees-----
-----) as overdraft/credit facilities.

This certificate is issued on the request of Shri/Smt./M/s.-----for
participating Tender no- in University of North Bengal.

Signature of Bank Manager with date-----

Name of the Bank Manager-----

-

Contact number of the Manager-----

-

Seal of the Bank-----

Note: -Certificate should be on the letterhead of the bank and clearly mentioning the phone number, e-mail ID, address of the bank/branch.

AFFIDAVIT – “X”

(To be furnished in Non – Judicial Stamp paper of appropriate value duly notarized)

N.I.e.T. No. _____ SI No. _____ OF 2022-23 OF THE CHIEF ENGINEER,
UNIVERSITY OF NORTH BENGAL.

Work in progress				Work order issued but work not started		
Sl. No.	Name of the work with Tender No.	Tendered Amount	% of work executed	Sl. No	Name of the work with Tender No.	Tendered Amount

Date _____

Signature, name and designation
of Authorised Signatory

For and on behalf of

(Name of the Firm with Seal)

AFFIDAVIT – “Y”

(To be furnished in Non – Judicial Stamp paper of appropriate value duly notarized)

**N.I.e.T. No. _____ SI No. _____ OF 2022-23 OF THE CHIEF ENGINEER,
UNIVERSITY OF NORTH BENGAL.**

1. I, the under-signed do certify that all the statements made in the attached documents are true and correct. In case of any information submitted is proved to be false or concealed, the application may be rejected and no objection/claim will be raised by the under-signed.
2. The under-signed also hereby certifies that neither our firm M/S _____ nor any of constituent partners had been debarred/delisted/blacklisted by any sub-rule under clause 3 of Tender Form No. 2911/Standard Bidding Document to participate in tender by any directorate of Public Works Department/any State or Central Universities or Institutes/CPWD/PHE/Indian Railway/Any Corporation or Statutory body/NBDD/SJDA/any Municipality/any Organisation of National Repute during the last 5(five) years prior to the date of this NIT.
3. Certified that I have access to or have available liquid assets (aggregate of working capital, cash-in-hand, uncommitted Bank Guarantees) and/or credit facilities not less than 10% of the estimated cost put to tender. In this respect, I have attached necessary documents with this application. The under-signed would authorize and request any Bank, person, Firm or Corporation to furnish pertinent information as deemed necessary and/or as requested by the Department to verify this statement.
4. The under-signed understands and agrees that further qualifying information may be requested and agrees to furnish any such information at the request of the Department.
5. Certified that I have applied in the tender in the capacity of individual/ as a partner of a firm & I have not applied severally for the same job.
6. The under-signed also hereby certifies that the Bid shall remain valid for a period not less than 120 (One Hundred twenty) days, after the dead line date for Bid submission.
7. I, the under-signed, declare that all the statements made in the attached documents in respect of mode of ownership of machineries are true and correct.
8. Certified that required specified machineries for the works under this NIT will be installed at the working site within 15 (Fifteen) days from the date of issue of Work Order.
9. I / we do hereby certify that I shall bring all requisite technical personnel and /or plants/ testing machineries / equipments for all the items of works as per relevant IRC / IS codes of practice and as per BOQ and as per direction of the Engineer-In-Charge at the time of execution of work at site even if upon Technical evaluation I am declared as “qualified” without having all the requisite technical personnel and /or plants/ testing machineries / equipments at the time of submission of tender.
10. I, the under-signed do certify that all the statements made in the attached documents are true and correct. If any declaration submitted is found / ascertain to be incorrect / fabricated / misrepresented / fraudulent etc. accordingly tender will be liable to be cancelled / terminated immediately & I / my firm / company shall also be liable to prosecuted under section 197, 199 & 200 of Indian Penal Code, 1860 along with section-71 & section-73 of Indian Information & Technology Act 2008 & any other applicable law for the time being in force in addition to forfeiture of Earnest Money / Security Deposit.

Date _____

Signature, name and designation
of Authorised Signatory

For and on behalf of

(Name of the Firm with Seal)

SECTION – B

FORM- III

STRUCTURE AND ORGANISATION

A.1 Name of applicant:

A.2 Office Address:

Telephone No.:

Cell Phone No.:

Fax No.:

E mail I.D.:

A.3 Name and address of Bankers:

A.4 Attach an organization chart showing the structure of the company with names of key personnel and technical staffs with Bio-data.:

Note: Application covers Proprietary Firm, Partnership, Limited Company or Corporation,

Signature, name and designation
of Authorised Signatory

For and on behalf of

(Name of the Applicant)

SECTION –B
FORM – IV

C. DEPLOYMENT OF MACHINERIES (in favour of owner/ lease): -

(Original document of own possession / lease hold agreement)

(If engaged before Certificate from E.I.C. to be annexed in respect of anticipated date of release of Machineries.)

Name of Machine	Make	Type	Capacity	Motor / Engine No	Machine No	Possession Status		Date of release If Engaged
						Idle	Engaged	
1	2	3	4	5	6	7	8	9

- For each item of equipment the application should attach copies of
- (i) Document showing proof of full payment,
 - (ii) Receipt of Delivery,
 - (iii) Way Bill & Road Challan from Factory to delivery spot is to be furnish.

Signature, name and designation
of Authorised Signatory

For and on behalf of

(Name of the Applicant)

SECTION - B
FORM – IV (contd...)

G. CONTRACTOR'S EQUIPMENT

MINIMUM PLANT AND EQUIPMENT TO BE DEPLOYED BY THE CONTRACTOR

Whereas it is entirely the responsibility of the Contractor to deploy sufficient plant and mechanical equipment to ensure compliance with his obligations under the Contract, the following list is an indicative list of the minimum essential basic holding of plant and mechanical equipment (not the exhaustive) which the bidder must own or where mentioned in the following list arrange through lease hold agreement.

SI No	TYPE OF EQUIPMENT	Minimum No. & capacity		Bidders' Responsibility	For NIT Scheme Sl.No.
		No.	Capacity		
1	Tilting / Reversible Drum concrete mixer with Hopper	1	Minimum 230-280 ltr (7/10 cft)capacity	Own/Lease	1
2	Tilting Drum Mixer Diesel or Electric operated with automatic water measuring system and integral weigh batching..	1	Minimum size of 230-280 ltr capacity (Hydraulic/Pneumatic type)	Own/Lease	1
3	Internal or immersion vibrators	2	Adequate Capacity	Own/Lease	1
4	Surface/Screed Vibrator	2	Adequate Capacity	Own/Lease	1
5	Steel reinforcement Cutting & Bending machine	1	Adequate Capacity	Own/Lease	1
6	Steel Shuttering/Ply Shuttering (good quality)		Adequate Capacity	Own/Lease	1
7	Dewatering Pump	2	5 HP Capacity	Own/Lease	1
8	Welding Machine	1	Adequate Capacity	Own/Lease	1
9	Portable Cutter	1	Adequate Capacity	Own/Lease	1
10	Generator	1	Adequate Capacity	Own/Lease	1
11	Survey Equipments	1 Set	Adequate Capacity	Own/Lease	1
12	Laboratory Instruments for Concrete works	One full set of Laboratory Testing Equipments and Field Testing Instruments as required for the execution of the schedule item of works.		Own/Lease	1
13	Steel Props/Sal Bullah/Eucalyptus Bullah		Adequate Capacity	Own/Lease	1
14					

For each item of equipment the applicant should attach copies of: -

- (i) Document showing proof of full payment,
- (ii) Receipt of Delivery,
- (iii) Way Bill & Road Challan from Factory to delivery spot, are to be furnished.

Note: - 1) For leased plant & Machineries (wherever applicable), **registered/notarized agreement** is to be submitted. The agreement should mention existing commitments and on-going works taken up with those plants / machineries. More than one commitment with same plant / machineries will not be considered as eligible.

2) Date of completion of existing commitment with the plant / machineries should be mentioned in the registered agreement including present location (working place) where the same are presently engaged.

3) As per order no. 293-W(C)/1M-24/15 Dated: - 15.06.2015 of the Principal Secretary, PWD, (Works Branch), Government of West Bengal, initially for Concrete batching and mixing plant, Concrete mixer with integral weigh batching facility maximum age of the plants, machineries will be 5 years as on the date of publication of NIT. It may be extended upto 7 years after getting fit certificate from the manufacturer and this certificate should be produced at the time of submission of bid. All other machineries and equipments should be in running condition. All plants, machineries and equipments will be verified by the competent authority before execution of the work.

SECTION – B

FORM – V

EXPERIENCE PROFILE

Name of the Firm: --

D.1: -LIST OF PROJECTS COMPLETED THAT ARE SIMILAR IN NATURE TO THE WORKS HAVING MORE THAN 40% IN RESPECT OF 1st CALL, 30% IN RESPECT OF 2nd CALL AND 20% IN RESPECT OF 3rd AND SUBSEQUENT CALLS AS MENTION IN CLAUSE NO 3(i) OF NIT OF THE PROJECT COST EXECUTED DURING THE LAST FIVE YEARS.

Name of Employer	Name, Location & nature of work	Name of Consulting Engineer responsible for supervision	Contract price in Indian Rs.	Percentage of Participation of company	Original Date of start of work	Original Date of completion of work	Actual Date of starting the work	Actual Date of completion of work	Reasons for delay in completion (if any)

Note: - a) Certificate from the Employers to be attached
b) Non-disclosure of any information in the Schedule will result in disqualification of the firm.

Signature, name and designation
of Authorised Signatory

For and on behalf of

(Name of the Applicant)

SECTION-B
FORM-VI
DECLARATION BY BIDDER

Declaration in support of Finance Rule No-11(i) in respect of University works stating that no tender shall be accepted from any person directly or indirectly related with the employees of the University who hold University Service Book: --

N.I.T No: (Sl. No.....) of 2022-23 by the Chief Engineer, University of North Bengal.

I, **son** **of**
....., **aged** **about**.....**years**
residing **at**
.....
....., **by** **occupation**
.....**do hereby solemnly affirm and say as follows:--**

- 1) That I am the..... (Designation) of(Name of Tenderer) and I am duly authorized and competent to affirm on behalf of the said Tenderer.
- 2) The undersigned also hereby certifies that neither our firm nor any of its constituent partner is directly or indirectly related with any employees/officials of the University who hold University Service Book.
- 3) I, the undersigned do certify that all the statements made hereinabove are true and correct. In case of any information submitted is proven to be false or concealed, the application may be rejected or the work might be revoked at any stages and no objection / claim will be raised by the undersigned. Moreover, it may be considered as an attempt to disturb the tendering process and the University authority may take such legal or administrative action as they deem fit against such misconduct.

Date---

Signature, name and designation
of Authorised Signatory

For and on behalf of

(Name of the Applicant)

SECTION – C

Special terms and conditions

C.1 General:

Unless otherwise stipulated all the works are to be done as per general conditions and general specifications as mentioned either in—

(i) ‘Departmental Schedule’, which means the Public Works Department Schedule of Rates for Building Works (Volume – I), Sanitary & Plumbing Works (Volume – II), Road & Bridge Works (Volume – III) and Electrical Works and Carriage etc. in different district of West Bengal for the working area effecting from **01.11.2017**, with up-to-date addenda and corrigenda (Date of Technical Sanction) or as Vetted.

(ii) Latest edition (5th Revision) of the book of name ‘Specification for Road and Bridge Works’ of the M.O.R.T. & H., Surface Transport (Roads Wing), Government of India, published by Indian Roads Congress, New Delhi and “Specification for Rural Road” by Ministry of Rural Development (MORD), for the specification of various works.

For general conditions and general specifications of items of works including supply and carriage works provided in this BOQ, not appearing in the aforesaid specification books, relevant Public Works Department Schedule of Rates for Building Works (Volume – I), Sanitary & Plumbing works (Volume – II) and Road & Bridge Works (Volume – III) including Materials, Labour & Carriage in force with up-to-date addenda and corrigenda, if any, issued from competent authority as applicable for the working area at the time of submission of tender for the working area will be considered. Also relevant specifications and criteria as provided in the relevant IS or IRC code of Practice may be followed where current PWD SOR is silent about the detail.

C.2 Definition of Engineer-in-Charge and commencement of work:

The word “Engineer-in-Charge” means the Chief Engineer, University of North Bengal. The word “Department” appearing anywhere in the tender documents means Engineering Department of University of North Bengal, who have jurisdiction, administrative or executive, over part or whole of the works forming the subject matter of the tender or contract. The word “approved” appearing anywhere in the documents means approved by the Engineer-in-Charge. The work will have to be taken up within specified time as mentioned in the work order. Failure to do so will constitute a violation of the contract stipulation as regards to proportionate progress and timely completion of work and the contractor will thereby make himself liable to pay compensation or other penal action as per stipulation of the printed tender form.

C.3 Terms & Conditions in extended period:

As per W.B.F. No. 2911 When an extension of time for completion of work is granted by the Engineer-in-Charge for valid reasons over which the contractor has no control, it will be taken as granted by the working contractor that the validity of the contract is extended automatically up to the extended period with all terms and conditions, rates etc. remaining unaltered, i.e. the tender is revalidated up to the extended period.

C.4 Co-operation with other agencies and damages and safety of road users:

All works are to be carried out in close co-operation with the Department and other contract or contracts that may be working in the area of work. The work should also be carried out with due regard to the convenience of the road users and occupants of the adjacent locality, if any. All arrangements and programme of work must be adjusted accordingly. All precautions must be taken to guard against chances of injury or accidents to workers, road users, occupants of the adjacent locality etc. The contractor must see that all damages to any property which, in the opinion of the Engineer-in-Charge are due to the negligence of the contractor are promptly rectified by the contractor at his own cost and expenses and according to the direction and satisfaction of the Engineer-in-Charge.

C.5 Transportation arrangement:

The contractor will arrange for all means of transport including railways wagons required for carriage and supply of materials and also the materials required for the construction work. The Department may however, at their own discretion grant necessary certificates, if required, for booking of railways wagons etc. But, in case of failure of the department to help the contractor in this respect, the contractor will have to arrange at his own initiative so that progress of work is not hampered and no claim whatsoever on this ground will be entertained under any circumstances. If railways facilities are not available, the contractor will have to depend on transport of materials by road as necessary to complete the work without claiming any extra payment from department in this regard. The contractor must consider this aspect while quoting rate.

C.6 Contractor's Site Office:

The contractor will have to set up an office adjacent to the work as may be approved by the Engineer-in-Charge where all directions and notice of any kind whatsoever, which the Engineer-in-Charge or his representative may desire to give to the contractor in connection with the contract, may be left or sent by post to such office or delivered to the contractor's authorised agent or representative. For such intimation to the contractor's site office, it will be deemed to be sufficient enough to be served upon the contractor.

C.7 Incidental and other charges:

The cost of all materials, hire charges of Tools and plants, labour, Corporation/Municipal Fees for water supply, Royalty or road materials (if any), electricity and other charges of Municipalities or statutory local bodies, ferry charges, Toll charges, loading and unloading charges, handling charges, overhead charges etc. will be deemed to have been covered by the rates quoted by the contractor inclusive of Sales Tax (Central and/or State), Income Tax, Octroi Duty/Terminal Tax, Turnover Tax, GST etc., all other charges for the execution of the specified work, including supply of materials and related carriage, complete or finished in all respect up to the entire satisfaction of the Engineer-in-charge of the work. No extra claim in this regard beyond the specified rate as per work schedule in this respect will be entertained.

C.8 Authorised Representative of Contractor:

The contractor should not assign the agreement or sublet any portion of the work. The contractor, may however, appoint and authorised representatives in respect of one or more of the following purposes only.

- a) General day to day management of work.
- b) To give requisition for Departmental materials, Tools & Plants etc., to receive the same and sign hand receipts thereof.
- c) To attend measurements when taken by the Departmental Officers and sign the records of such measurements which will be taken as accepted by the contractor.

The selection of the authorised representatives will be subject to the prior approval of the Engineer-in-Charge concerned and the contractor will in writing seek such approval of the Engineer-in-Charge giving therein the name of work, Tender No., the Name, Address and the attested specimen signature of the representative he wants to appoint and the specific purposes as specified here-in-above, which the representative will be authorised for. Even after first approval, the Engineer-in-Charge may issue at any subsequent date, revised directions about such authorised representatives and the contractor will be bound to abide by such directions. The Engineer-in-Charge will not be bound to assign any reason for his revised directions. Any notice correspondence etc. issued to the authorised representative or left at his address, will be deemed to have been issued to the contractor.

C.9 Power of Attorney:

The Provision of the power of attorney, if any, must be subject to the approval of the Department. Otherwise the Department will not be bound to take cognizance of such of attorney.

C.10 Extension of time:

For cogent reasons over which the contractor will have no control and which will retard the progress, extension of time for the period lost will be granted on receipt of application from the contractor before the expiry date of contract. No claim whatsoever for idle labour, additional establishment, enhanced cost of materials and labour and hire charges of tools & plants etc. will be entertained under any circumstances. The contractor should consider the above factor while quoting his rate. Applications for such extension of time should be submitted by the contractor in the manner indicated in Clause of the printed form of W.B.F. No.2911.

C.11 Contractor's Godown:

The contractor must provide suitable godowns for cement and other materials at the site of work. The cement godown should be sufficient in capacity and it must be water tight with either an elevated floor with proper ventilation arrangement underneath the floor or if solid raised flooring is made, cement is to be stored on bamboo or timber dunnage to the satisfaction of the Engineer-in-Charge. No separate payment will be made for these godowns or for the store yard. Any cement, which is found at the time of use to have been damaged, shall be rejected and must immediately to remove from the site by the contractor as per direction of the Engineer-in-Charge.

C.12 Arrangement of Land:

The contractor will arrange land for installation of his Plants and Machineries, his godown, store yard, labour camp etc. at his own cost for the execution of the work. Departmental land, if available and if applied for, may be spared for the purpose on usual charges as fixed by the Competent Authority.

C.13 Use of Government Land:

Before using any space in Government land for any purpose whatsoever, approval of the Engineer-in-charge will be required. Departmental land, if available and if applied for, may be spared for the purpose on usual charges as fixed by the Competent Authority. The contractor will have to make his own arrangements for storage of tools, plants, equipments; materials etc. of adequate capacity and will clear and remove on completion of work and will also remove the shed, huts etc. which he might have erected in Government land. If after such use, the contractor fails to clear the land, Department will arrange to remove those installations and adequate recovery will be made from the dues of the contractor.

C.14 Work Order Book:

The contractor will within seven days of receipt of the order to take up the work, supply at his own cost one Work Order Book to the Assistant Engineer Concerned, who is authorized to receive and keep in custody the Work Order Book on behalf of the Engineer-in-Charge. The Work Order Book will be kept at the site of work under the custody of the Assistant Engineer or his authorised representative. The Work Order Book should have machine numbered pages in triplicate. Directions or instructions from Departmental officers to be issued to the Contractor will be entered (in triplicate) in the Work Order Book (except when such directions or instructions are given by separate letters). The contractor or his authorised representatives should regularly note the entries made in the Work Order Book and also record thereon the actions taken or being taken by him for complying the said directions or instructions on any relevant points relating to the work. The contractor or his authorised representative may take away the triplicate pages of the Work Order Book for his own record and guidance.

Cases of supplementary items or of claims may not be entertained unless supported by entries in the Work Order Book or any written order from the Chief Engineer or the Tender Accepting Authority.

The first page of the Work Order Book shall contain the following particulars:

- a) Name of the Work
- b) Reference to contract number
- c) Contractual rate in percentage
- d) Date of opening of the Work Order Book
- e) Name and address of the Contractor
- f) Signature of the Contractor
- g) Name & address of the Authorized representative (if any)
- h) Specific purpose for which the contractor's representatives are authorized to act on behalf of the Contractor.
- i) Signature of the authorized representative duly attested by the Contractor.
- j) Signature of the Assistant Engineer concerned.
- k) Date of actual completion of work.
- l) Date of recording final measurement.

Entries in (k) & (l) above shall be filled in on completion of the work and before the Work Order Book is recorded in the office of the Assistant Engineer.

C.15 Clearing of Materials:

Before starting any work, work site, wherever necessary, must be properly dressed after cutting clearing of all varieties of jungles, shrubs, bamboo clusters or any undesirable vegetation from the alignment or site of works. On completion of works all temporary structures or obstructions including some pipes in underground works, if any, must also be removed. All scars of construction should be obliterated and the whole site should be left in a clear and neat manner to the satisfaction of the Engineer-In-Charge. Total length (in case of road project) should be demarcated by proper chain aging with fixing 200m post as per direction of the Engineer-in-Charge on both sides of the alignment and Bench Marking at desired locations as per direction of the Engineer-in-Charge. No separate payment will be made for all these works; the cost thereof being deemed to have been included in the rates of various items of works quoted by the contractor in the schedule of probable items of works.

C.16 Sundry Materials:

The contractor must erect temporary pillars, master pillars etc. as may be required in suitable places as directed by the Engineer-In-Charge at his own cost before starting and during the work by which the departmental staff will check levels layout of different works and fix up alignment and the contractor will have to maintain and protect the same till completion of the work. All machineries and equipments like Level Machine, Staff, Theodolite etc. and other sundry material like pegs, strings, nails, flakes instruments etc. and also skilled labour required for setting out the levels, for

laying out difference structures and alignment will also have to be supplied by the contractor at his own cost as per direction of the Engineer-in-Charge without any extra claim towards the department.

C.17 Supplementary / Additional items of Works:

Notwithstanding the provisions made in the related printed tender form, any item of the work which can legitimately be considered as not stipulated in the specific price schedule of probable items of work but has become necessary as a reasonable contingent item during actual execution of work will have to be done by the Contractor, if so directed by the Engineer-in-Charge and the rates will be fixed in the manner as stated below: -

(a) Rates of Supplementary items will be analysed in the 1st instant as far as possible from the rates of the allied items of works appearing in the tender schedule.

(b) Rate of supplementary items will be analysed to the maximum extent possible from the rates of allied items of works appearing in the P.W. Department Schedule of Rates of probable items of work forming part of the tender document. Rates of SOR for the working area at the time of floating of N.I.T. will be applicable.

(c) In Case, additional items do not appear in the above Public Works Department Schedule of Rates, such items for the works will be paid at the rates entered in the Public Works Department Schedule of Rates for the working area at the time floating of N.I.T.

(d) If the rates of the supplementary items cannot be computed even after application of clauses stated above, the same will be determined by analysis from market rates of material, labour and carriage cost, taxes etc prevailing at the time of execution of such items of work. Profit and overhead charges (both together) at 10% (Ten percent) will be allowed only. In that case the contractual percentage will not be applicable.

Unbalanced market rates will never be allowed. Contractual percentage shall only be applicable with regard to the portions of the analysis based on clauses (a), (b) & (c) stated above only. It may be noted that the cases of supplementary items of claim will not be entertained unless supported by entries in the Work Order Book or any written order from the Chief Engineer.

C.18 Covered up works:

When one item of work is to be covered up by another item of work the later item should not be done before the formal item has been measured up and has been inspected by the Engineer-in-Charge or the Assistant Engineer, as the authorized representative of the Engineer-in-Charge and order given by him for proceeding with the later item of work. When, however, this is not possible for practical reasons, the Sub-Assistant Engineer, if so authorized by the Assistant Engineer may do this inspection in respect of minor works and issue order regarding the later item.

C.19 Approval of Sample:

Samples of all materials to be supplied by the contractor and to be used in the work will have to be approved by the Engineer-in-Charge and checking the quality of such materials will have to be done by the concerned Department or as directed by the Engineer-in-Charge prior to utilization in the work.

C.20 Water and energy:

The contractor will have to arrange at his own cost, required energy for operation of equipments and machineries, for operating pump set, illuminating work site, office, etc. that may be necessary in difference stages of execution of work. No facility of any sort will be provided for utilization of the departmental sources of energy existing at the site of work. Arrangement for obtaining water for the work should also be made by the contractor at his own cost. All cost for getting energy and / or for any purpose whatsoever will have to be borne by the contractor for which no claim will be entertained.

All materials, tools and plants and all labour (skilled and unskilled) including their housing, water supply, sanitation, light, procurement of food for contractor's staff & crews, medical aids etc. are to be arranged for by the contractor at his own cost. The cost for transportation of labour, materials and all other incidental items as required for work shall also have to be borne by the Contractor without any extra claim from the department.

C.21 Drawings:

All works should be carried out in conformity with the drawings supplied by this Department. The Contractor will have to carry out all the works according to the Departmental General Arrangement Drawing and Detail Working Drawings to be supplied by the Department from time to time.

C.22 Serviceable Materials:

The responsibility for stacking the serviceable materials (as per decision of the Engineer-in-Charge) obtained during dismantling of existing structures/roads and handing over the same to the Engineer-in-charge of work of this

Department lies with the contractor and nothing will be paid on this account. In case of any loss or damage of serviceable materials prior to handing over the same to this Department, full value will be recovered from the Contractor's bill at rates as will be assessed by the Engineer-in-charge.

C.23 Unserviceable Materials:

The Contractor will have to remove all unserviceable materials, obtained during execution at a place as will be directed. The contractor should dress and clear the work site after completion of work as per direction of the Engineer-in-Charge. No extra payment will be made on this account.

C.24 Contractor's risk for loss or damage:

All risk on account of railway or road carriage or carriage by boat including loss or damage of vehicles, boats, barges, materials or labour, if any, will have to be borne by the contractor without any extra claim from the department.

C.25 Idle labour & additional cost:

Whatever may be the reason, no claim on idle labour, enhancement of labour rate additional establishment cost, cost of Toll and hire and labour charges of tools and plants, railway freight etc. will be entertained under any circumstances.

C.26 Charges and fees payable by contractor:

- a) The contractor will have to pay all fees required to be given or paid by any statute or any regulation or by-law of any local or other statutory authority which may be applicable to the works and will keep the department indemnified against all penalties and liabilities of every kind for breach of such statute, regulation or law.
- b) The Contractor will save and indemnify the department from and against all claims, demands, suit and proceedings for or on account of infringement of any patent, rights, design, trade mark of name of other protected right in respect of any constructional plant, machine, work, materials, thing or process used for or in connection with works or temporary works or any of them.

C.27 Tools and Plants:

All Tools and Plants required for the work will have to be supplied by the Contractor at his own cost. All cost of fuel and stores for proper running of the Tools and Plants must be borne by the Contractor.

C.28 Equipments for Testing Laboratory:

All necessary equipment for conducting necessary tests shall be provided at the site laboratory by the Contractor at his own cost. The following minimum laboratory equipments shall be set up at site office laboratory (these are indicative but not exhaustive):

Laboratory Equipments:

1. Balances
 - i) 7 Kg to 10 Kg capacity, semi-self-indicating type-accuracy 10 gm.
 - ii) 500 gm. Capacity. Semi-self-indicating type-accuracy 1 gm.
 - iii) Pan balance-5 kg. capacity-accuracy 10 gms.
2. Ovens-electrically operated, thermostatically controlled upto 110°C- sensitivity 1°C.
3. Sieves: as per IS 460-1962.
 - i. I.S. sieves-450 mm internal dia, of sizes 100 mm, 88 mm, 63 mm, 50 mm, 40 mm, 25 mm, 20 mm, 12.5 mm, 10 mm, 6.3 mm, 4.75 mm, complete with lid and pan.
 - ii. I.S. sieves-200 mm internal dia (brass frame) consisting of 2.36 mm, 1.18 mm, 600 microns, 425 microns, 300 microns, 212 microns, 150 microns, 90 microns, 75 microns, with lid and pan.
4. Sieve shaker capable of 200 mm and 300 mm dia sieves, manually operated with timing switch assembly.
5. Equipment for slump test- slump cone, steel plate, tamping rod, steel scale, scoop.
6. Dial gauges, 25 mm travel-0.01mm/ division least count- 2nos.
7. 100 tonnes compression testing machine, electrical- cum manually operated.
8. Graduated measuring cylinders 200 ml capacity- 3 nos.
9. Enamel trays (for efflorescence test for bricks).
 - i. 300 mm x 250 mm – 2 nos.
 - ii. Circular plates of 250 mm dia – 4 nos.
10. Cube Mould--12 nos.
11. Compression testing machine.
12. Others as per requirement.

Field Testing Instruments

1. Steel tapes-3 m, 15 m.
2. Vernier callipers.
3. Micrometre screw 25 mm gauge.
4. A good quality plumb bob.
5. Spirit level, Minimum 30 cms long with 3 bubbles for horizontal vertical.
6. Wire gauge (Circular type) disc.
7. Foot rule.
8. Long nylon thread.
9. Rebound hammer for testing concrete.
10. Dynamic penetrometer.
11. Magnifying glass.
12. Screw driver 30 cms long.
13. Ball pin hammer, 100 gms.
14. Plastic bags for taking samples.
15. Moisture meter for timber.
16. Earth resistance tests (for Electrical Divisions).
17. Meggar (for Electrical Divisions).
18. Others as per requirement.

C.29 Realisation of Departmental claims:

Any of sum money due and payable to the contractor (including security deposit refundable to him) under this contract may be appropriated by the Government/University of North Bengal and set off against any claim of Government/NBU for the payment of sum of money arising out of this contract or under any other contract made by the contractor with the Government/NBU. If the entire claim of Government/NBU is not appropriated by this way, claim for balance amount may be appropriated as per Public Demand Recovery Act.

C.30 Compliance of different Acts:

The contractor shall comply with the provisions of the Apprentices Act, 1961, Minimum Wages Act, 1848. Contract Labour (Regulation and Abolition) Act 1970 and the rules and orders issued hereunder from time to time. If he fails to do so, Engineer-in-Charge or the Tender Accepting Authority may at his discretions, take necessary measure over the contract. The Contractor shall also make himself responsible for any pecuniary liabilities arising out on account of any violation of the provision of the said Act(s). The Contractor must obtain necessary certificate and license from the concerned Registering Office under the Contract Labour (Regulation & Abolition) Act, 1970. The contractor shall be bound to furnish the Engineer-In-Charge all the returns, particulars or date as are called for from time to time in connection with implementation of the provisions of the above Acts and Rules and timely submission of the same, failing which the contractor will be liable for breach of contract and the Engineer-in-Charge may at his discretion take necessary measures over the contract.

C.31 Safety, Security and Protection of the Environment:

The Contractor shall, throughout the execution and completion of the Works and the remedying of any defects therein:

- (a) have full regard for the safety of all persons and the Works (so far as the same are not completed or occupied by the department),
- (b) provide and maintain at his own cost all lights, guards, fencing, warning signs and watching, when and where necessary or required by the Engineer-in-Charge for the protection of the Works or for the safety and convenience of the public or others,
- (c) take all reasonable steps to protect the environment on and off the Site and to avoid damage or nuisance to persons or to property of the public or others resulting from pollution, noise or other causes arising as a consequence of his methods of operation,
- (d) ensure that all lights provided by the Contractor shall be screened so as not to interfere with any signal light of the railways or with any traffic or signal lights of any local or other authority.

C.32 Commencement of work:

The work must be taken up within the date as stipulated in the work order and completed in all respects within the period specified in Notice Inviting Tender.

C.33 Programme of work:

Before actual commencement of work, the contractor shall submit a programme of construction of work with methodology clearly showing the required materials, men and equipment. The contractor will submit a programme of construction in the pattern of Bar Chart or Critical Path Method and a time table divided into four equal periods of progress of work to complete the work within the specific period for approval of the Engineer-In-Charge who reserves the right to make addition, alterations and substitutions to such programme in consultation with the contractor and such approved programme shall be adhered to by the contractor unless the same is subsequently found impracticable in part or full in the opinion of the Engineer-In-Charge and is modified by him. The contractor must pray in writing, showing sufficient reasons therein for modification of programme. The conditions laid down in clause 2 of the printed tender form regarding the division of total period and progress to work and the time table there for as provided in the said clause shall be deemed to have been sufficiently complied with the actual progress of work and does not fall short of the progress laid down in the approved time table for one fourth, half and three fourth of time allowed for the work.

C.34 Setting out of the work:

The contractor shall be responsible for the true and perfect setting out of the work and for the correctness of the position, levels, dimensions and alignments of all parts of work, if any rectification or adjustment becomes necessary the contractor shall have to do the same at his own cost according to the direction of the Engineer-in-Charge. During progress of works, if any, error appears or arises in respect of position, level, dimensions or alignment of any part of the work contractor shall at his own cost rectify such defects to the satisfaction of the Engineer-in-Charge. Any setting out that may be done or checked by either of them shall not in any way relieve the contractor from their responsibility for correctness and rectification thereof.

C.35 Precautions during works:

The contractor shall carefully execute the work without disturbing or damaging underground or overhead service utilities viz. Electricity, Telephones, Gas, Water pipes, Sewers etc. In case disturbances of service utilities is found unavoidable the matter should immediately be brought to the notice of the Engineer-in-Charge and necessary precautionary measures as would be directed by the Engineer-in-Charge shall be carried out at the cost and expenses of the contractor. If the service utilities are damaged or disturbed in any way by the contractor during execution of the work, the cost of rectification or restoration of damages as would be fixed by the Engineer-in-Charge concerned will be recovered from the contractor.

C.36 Testing of qualities of materials & workmanship:

All materials and workmanship and methodology of work and process contract shall be in accordance with the specifications laid down in the contract and also as per relevant IS codes with its latest corrigenda/ amendment up to the date of submission tender and the Engineer-In-Charge reserves the right to test, examine and measure the materials/workmanship direct at the place of manufacture, fabrication or at the site of works or any suitable place. The contractor shall provide such assistance, instrument, machine, labour and materials as the Engineer-In-Charge may require for examining, measuring and testing the works and quality, weight or quantity of materials used and shall supply samples for testing as may be selected and required by the Engineer-In-Charge without any extra cost. Beside this, he will carry out tests from outside Laboratory as per instruction of Engineer-In-Charge. The cost of all such tests shall be borne by the agency in accordance with the clause of Printed Tender Form and hence the same must be considered at the time of quoting rate.

C.37 Timely completion of work:

All the supply and the work must have to be completed in all respects within the time specified in Notice Inviting Tender from the date of commencement as mentioned in work order. Time for completion as specified in the tender shall be deemed to be the essence of the contract.

C.38 Procurement of materials:

All materials required to complete execution of the work will have to be supplied by the contractor after procurement from authorized and approved source.

C.39 Rejection of materials:

All materials brought to the site must be approved by the Engineer-In-Charge. Rejected materials must be removed by the Contractor from the site within 24 hours from the issue of order to that effect. In case of non-compliance of such order, the Engineer-In-Charge will have the authority to cause such removal at the cost and expense of the contractor and the contractor will not be entitled to claim for any loss or damage on that account.

C.40 Implied elements of work in items:

Except of such items as are included in the Specific Priced Schedule of probable items and approximate quantities no separate charges will be paid for traffic control measures, shoring, shuttering, dewatering, curing etc. and the rates of respective items or works are deemed to be inclusive of the same.

C.41 Damaged cement:

Any cement lying at contractor's custody, which is found at the time of use to have been damaged, will be rejected and must immediately be removed from the site by the contractor or disposed of as directed by Engineer-in-Charge at the costs and expenses of the contractor.

C.42 Issue of Departmental Materials:

Departmental materials will not be issued under any circumstances.

C.43 Forced Closure:

In case of forced closure or abandonment of the works by the Department, the contractor will be eligible to be paid for the finished works and reimbursement of expenses actually incurred but not for any losses.

C.44 Tender Rate:

The contractor should note that the tender is strictly based on the rates quoted by the Contractor on the priced schedule of probable item of work. The quantities for various other items of works as shown in the priced schedule of probable items of works are based on the drawings and designs prepared by the Department. If variations become necessary due to design consideration and as per actual site conditions, those will have to be done by the contractor at the time of execution at the rate prescribed in the tender condition. **No conditional rate will be allowed in any case.**

C.45 Delay due to modification of drawing and design:

The contractor will not be entitled for any compensation for any loss due to delays arising out of modification of the drawing, addition & alterations of specifications.

C.46 Additional Conditions:

A few additional conditions under special terms and conditions:

C.46.1. Rate quoted will be inclusive of clearing site including removal of surplus (both serviceable & unserviceable) earth, rubbish, materials etc. as per direction of the Engineer-in-Charge.

C.46.2. Rate quoted will be inclusive of West Bengal Sales Tax, Income Tax, GST, Octroi and all other duties, if any.

C.46.3. Display board (Informatory) of size 150cm X 90cm is to be provided at starting and end chainage of the work-site with aluminum plate hoisted on steel tubular pipe/angle post to a height of 1.5 Meter at the cost of the contractor including fitting, fixing, painting, lettering etc. complete as per direction of Engineer-in-Charge.

C.46.4. The Contractor is to display caution board maintaining I.R.C. norms at his own cost as per direction of Engineer-in-Charge.

C.46.5. Deep excavation of trenches left out for days should be avoided.

C.46.6. Labour welfare Cess will be deducted @ 1(one) % of gross bill value as per rule.

C.46.7. The whole work will have to be executed as per Departmental drawings available in this connection at the tendered rate.

C.46.8. Income Tax will be deducted from each bill of the contractor as per applicable rate and rules in force.

C.46.9. In accordance with the West Bengal Taxation Laws (amendment) Ordinance,1993 amending the West Bengal Finance (Sales Tax) Act, 1994 or as amended necessary S.T / VAT /GST will be deducted as per rate in force from the bill in addition to other deduction as per extent rules.

C.47 Payment of Bills:

As mentioned in Clause of the NIT.

C.48 Refund of Security Deposit:

As mentioned in Cl. of NIT.

C.49 Arbitration:

As mentioned in Cl. of NIT.

SECTION – D

SPECIAL CONDITIONS OF CONTRACT (ELECTRICAL WORKS)

General

These Special Conditions of Contract supplement the preamble and General Instructions, General Conditions of Contract, Bill of Quantities and basic rates and Technical Specifications and tender drawings enclosed thereto, and shall be considered as part of the Tender Papers. Where the provisions of these Special Conditions of Contract are at variance with General Conditions of Contract, the provisions of these Special Conditions of Contract shall prevail.

The several documents forming the tender are to be taken as mutually complementary to one another. Detailed drawings shall be followed in preference to small-scale drawings and figured dimensions in preference to scaled dimensions.

If there are varying or conflicting provisions in the documents forming part of the contract, the Engineer-in-Charge shall be the deciding authority with regard to the intentions of the provisions and his decision shall be final and binding on the contractor. The Employer reserve the right to exclude any of the Schedule items on reasons of the rates not being reasonable or subsequent change of design for evaluation of tender and deciding the contract.

The Contractor may be required to carry out any additional or alteration work other than the specified in the schedule of work / bill of quantities as and when required, by the 'Employer' within the completion period of the project.

Scope of Work

The works to be governed by this contract shall cover designing and transportation upto destination, safe custody at site, insurance, erection, testing and commissioning of the following:

- i) Main Switchgear panel connecting cables of both incoming and outgoing feeders etc.
- ii) Laying of L.T underground cables from Switch Room to various buildings, feeder pillar boxes, street light poles, etc.
- iii) Electrification of new / old buildings, quarters, outer spaces including renovation works.

The works to be undertaken by the Contractor will inter alias include the following:

- i) Preparation of detailed drawings of electrical wiring, cable laying, erection /fixing of various power panels, distributed wiring, electrical equipment, fittings etc.
- ii) Insurance for all materials and complete work.
- iii) Commissioning tests as per relevant standard specifications, code of practice, Acts and Rules.
- iv) Warranty obligation.
- v) Cable trenches and road crossing as required at site.
- vi) Earthing of installations as per relevant Indian Standard Specifications.
- vii) All other earthwork and masonry works required to be done concerning the electrical works.

Drawings

Contractors shall prepare all the detailed design and working drawings and submit them to the Employer for approval within 15 days from the date of award of contract. The working drawings shall be furnished in triplicate furnishing physical dimensions of the equipment, constructional details, disposition of bus bar, terminal connection etc. The electrical layout, clearly indicating the electrical clearances, cable run layout with schematic diagram shall be furnished in triplicate for approval.

Execution of work

All the works i.e. power panels, distribution boards, equipment layout, conduits layout, electrical wiring, street lighting, cable laying, earthing etc. have to be done as per approved drawings and directions given at site by the Engineer-in-Charge.

Water and Power

The Contractor has to arrange water and power for construction at his own cost. If the Employer at his own discretion, provides either of the above, subject to the availability, suitable charges will be levied at the Municipal rates for water supply and at Electricity Board rates for power for electrical charges, Contractors would bear the cost for providing

electrical meter and meter charges as per the prevailing rate in the area and the same will be recovered from the monthly running bill. Water connection will be provided at a single point convenient to the Employer. The Contractor has to bear the charges for providing water meter and connection charges.

Period of Completion

Completion period is very important in this case. Normally no extension of time will be given, however, because delay if any, in the construction of building suitable extension will be considered. No price variation shall be admissible on the contract rate for any item during the entire period of contract including extended periods. The Contractor shall not have any claim whatsoever in this regard except statutory variation of duties and taxes imposed by Govt. of India.

Insurance Coverage

The Contractor shall within 15 days from the date of commencement of the work insure all the works and materials with any nationalized Insurance Company for the full amount of the contract at his own cost against loss or damage by fire, storm, tempest, lightning, floods, earthquake, air craft or anything dropped there from, aenal objects, nots, civil commotion and other such usual risks.

Quality of materials and works

All materials used in the execution of the contract shall be of the best quality and of the class most suited for the purpose specified. Components, assemblies and equipment to be obtained from sub-contractors should be from proves sources. The work shall also conform to the following Acts, Rules and Orders.

- i) Indian Factories Act
- ii) Indian Electricity Rules
- iii) National Building Code
- iv) National Electrical Code

All erection work shall be of the best quality to the entire satisfaction of the Employer. The Contractor shall ensure that the equipment and services under the scope of this contract whether manufactured or performed within the Contractor's premises or at his subordinate's premises or at the work site or at any other place are strictly in accordance with the provisions of this contract. For this purpose, the Contractor shall adopt necessary quality assurance programme to control such activities at all stages.

Electrical License

Only a Contractor / Subcontractor / authorized representative holding a valid license by the "State Government for carrying out the installation work of the voltage classes involved, under the direct supervision of the persons holding valid certificates issued or recognized by the State Government shall carry out the work. The tenderer should furnish with his tender the particulars of the license with validity period held by him. The successful tenderer shall furnish the names and particulars of the certificates of competency of the supervisors and workers to be engaged for carrying out this work. A Memorandum of Understanding executed on non-judicial stamp paper with the Contractor / subcontractor / authorized representative duly authenticated by the Notary Public should be submitted to the Chief Engineer, NBU.

Inspection

The inspection officer(s) for this contract shall be nominated by the Employer and notified to the Contractor.

The cost of the inspection will be on Employer's account subject to any other provisions contained hereunder or elsewhere in the contract. One week's notice must be given by the Contractor to the Inspecting Engineer to take up the inspection.

The Contractor shall provide without any extra cost of the Employer all materials, equipment, tools, labour and maintenance of every kind which the Employer's Inspecting Engineer may consider necessary for any test and examination to be made at the Contractor's or the Sub-contractor's premises and at site and shall pay all cost attended thereon.

All the equipment and materials shall be tested / inspected by the Employer or its authorized Inspecting Engineer and approved before they are installed / used in the execution of the works covered in the contract. If the Contractor uses any equipment /materials without the prior approval of Employer, those are liable to be rejected. The exact positions of all switch boards, OPDs and all runs-of-mains, sub-mains and distribution wiring to individual points including exact positions of all light fittings and switch-boards shall be first worked on the buildings and shall have to be approved by the Engineer-in-Charge before actual commencement work.

The Inspecting Engineer or his authorized representative shall have at all times access to the Contractor's premises and shall have the power to:

- i) Inspect and examine the materials and workmanship of the work at any time during the manufacture at the manufacturer's premises or in the premises of the Sub-Contractor or at the site of the erection.
- ii) Reject any part of the work submitted by the Contractor as not being in accordance with the Contractor.
- iii) Reject the whole of the work including equipment tendered of inspection if after the inspection of such portion as he may, in his discretion think fit, he is satisfied that the same is unsatisfactory.
- iv) Mark the rejected equipment with a rejection mark so that the same may be easily identified.
- v) Re-inspect at the time of erection at site any equipment both previously inspected and approved by the Inspecting Engineer at the Contractor or Subcontractor's premises. Notwithstanding any approval given earlier, the Contractor shall make good such rejections made based on such re-inspection at site to the satisfaction of the Engineer.
- vi) The decision of the Inspecting Engineer as regards to the acceptance or rejection of equipment / work shall be final and binding to the Contractor.

Consequence of Rejection

On the equipment / assemblies being rejected by the Inspecting Officer of the Employer at destination the Contractor shall replace such rejected equipment / assemblies of the work forthwith but in any event not later than a period of 2(two) weeks in the case of minor equipment and 4(four) weeks in the case of major equipment from the date of rejection. The Contractor shall bear all the costs replacement including freight, etc. but without being entitled to any extra time on this account. The decision as to whether the equipment is to be classified as Minor or Major for the purpose of this clause shall be that of the Engineer and it is not questionable.

Installation

All works connected with and inclusive of installation and erection under this contract shall be done in accordance with the standard and established methods of installation and erection of electrical equipment and shall comply with relevant Indian Electricity Rules, National Electrical Code, BIS Codes of Specifications and Standards. The work shall also be strictly in accordance with the instructions / recommendations of the manufacturers. The equipment shall be levelled carefully before being fixed finally in position. All fragile and sensitive equipment shall be protected adequately and handled carefully during installation and erection.

Commissioning Tests

As soon as the installations are ready for commissioning / sub-station, the Contractor shall arrange for all the tests / inspection as required by the relevant ISS and / or IE Rules and advise the Employer and others concerned. Employer shall depute their Inspecting Officer for witnessing the tests and to carry out inspection independently and also jointly with other concerned agencies wherever necessary and only after the installation passes the required tests and inspection, it should be commissioned / energized.

The Contractor shall take full responsibility for these tests. For site sites the Employer where possible, may permit the Contractor for the purpose of testing, the use of any instruments / apparatus and electric power which the Employer can conveniently work not complying with the specifications, the Employer at their discretion ask the Contractor to pay the cost of providing the additional energy required. The Contractor shall provide all apparatus and energy, which may be required for drying out the equipment in a manner approved by the Employer. If, by reasons of the Contractor failing to comply with any of the provisions of this clause, any of the said tests are to be repeated the Contractor shall pay all fees and expenses in connection therewith.

Visual inspection, shall include checks for satisfactory workmanship, all connections, painting, plastering, cleanliness of all fittings etc. and compliance with Indian Electricity Rules.

The ammeters, voltmeters, and energy-meters shall be checked for their calibration, scale, accuracy, etc. for compliance with the specified requirement.

- i) Manufacturer's Test Certificates shall be furnished as evidence that type tests have been made in accordance with IS: 3231. Type test results together with appropriate drawings and records of any relevant alteration, which may have been made to any relay after the type test, shall be made available.
- ii) Certificates of compliance to routine test shall also be furnished.
- iii) Routine tests shall be carried out at manufacturer's premises before commissioning in compliance with IS: 3231.
- iv) Routine tests are to be carried out on presence of Engineer-in-Charge and Test Certificates are to be submitted.

All cables shall be tested at manufacturer's works in compliance with relevant standards. All cables and connections after erection shall be tested as required by the Employer for:

- i) Pressure Test.
- ii) Insulation Test.

Earth resistance shall be measured separately for each earth electrode and when they are connected together and to the equipment recorded.

Warranty

Contractor shall guarantee that all the equipment and the works executed under this contract shall be free from all defects and faults in materials, design, workmanship and manufacture and shall be of acceptable standards for the contracted work and in full conformity to the technical specifications.

The Contractor's liability in respect of any compliant defect and / or claim shall be limited to the execution, installation and erection of replacement parts free of charge, or the repair of defective parts only to the extent that such replacement or repairs are attributable to or arise from faulty workmanship or design of material in the manufacture of the equipment / stores, and or negligence in any manner and also in the event of failure of the equipment to perform as intended.

The Contractor shall, if required, replace, repair, execute and / or install the goods or such portion thereof as is rejected by the Employer free of cost at site or at the option of the Employer the Contractor shall pay to the Employer the value thereof and such other expenditure and damage as may arise by reason of the breach of the conditions therein specified.

If, any defect is not rectified satisfactorily within the above mentioned one month, the Employer may proceed to do the work at Contractor's risk and cost and without prejudice to any other rights of the Contractor under this contract.

If the Contractor so desires, the replaced parts can be taken over by him or his representative for disposal as he deems fit within a period of one month from the date of replacement of goods / parts. At the expiry of this period, no claim whatsoever shall lie on the Employer.

The Employer may, at their discretion recover the ground rent for the goods / parts which have been rejected during the warranty period for the specified period of one month, if the rejected materials are not taken over within that period one month, by the Contractor or his representative.

The warranty herein contained shall not apply to any material which have been repaired or altered by the Employer, or on their behalf in any without the consent of the Contractor so as to affect its strength, performance and reliability or to any defects to any part due to misuse negligence or accidents and to items of normal wear and tear to be specifically mentioned by the Contractor in his offer and got accepted by the Employer. The decision of the Employer concerning Contractor's liability and the amount if any payable, under this warranty, shall be final and conclusive.

Indemnity Bond

The Contractor shall sign an Indemnity Bond before starting the work from any damages, prosecution, other legal suits and claims arising out of any mishaps occurring at site due to negligence, wrong practice, bad workmanship, faulty work, violation of safety rules and regulations etc., for which the Contractor shall be solely responsible. The Indemnity Bond shall be executed in the form prescribed by the Employer.

Taxes, Duties, etc.

Income Tax applicable to this work as per extant rules shall be deducted from the Contractor's bills by the Employer and remitted to the Reserve Bank of India and a certificate to that effect issued to the Contractor. The Contractor shall submit current valid I.T.C.C. and S.T.C.C. at the time of receiving payment.

Supervision of Electrical works

The said works will be supervised by the concerned Officers/Engineers of the Electrical Wing of NBU and a certificate in this regard should be submitted to the Chief Engineer, NBU along with the Measurement Book.

Mode of Payment

Measurement of Electrical works should be done by the competent officers/engineers of the Electrical Wing of NBU. Measurement Book according to Priced Schedule and Agreement and the said measurements as authenticated by the Engineers of Electrical Wing, NBU shall be forwarded to the Chief Engineer, NBU for making necessary payment.

SPECIFICATION FOR 11 KV GRADE PVCA CABLES, 650V GRADE PVC INSULATED AND SHEATHED WIRING CABLE AND TERMINATION OF POWER CABLES:

All power cable shall be procured from reputed manufacturer. The cables must be manufactured under IS:1554(Part-II) 1976 and latest amendments thereafter. The supplier also obtains manufacturer's test certificate. The cables even in a smaller length should be supplied in a coil formation either in cable drums or duly protected with proper packing so that the same is not damaged during rough handling in transport or at site on work. The both ends should be properly sealed with PVC caps and adhesive so that no moisture can penetrate in side cables.

Termination of above cables, including supply of suitable brass compression cable glands for respective size of heavy duty type including solderless copper cable sockets (Dowell's make) and necessary anti oxide pest (Dowell's make)

required during cramping sockets by suitable section of cramping dice and tools etc. mention may be made that beyond 120 sq. mm size hydraulic type machine to be used for proper crimping of cable sockets. The sockets must be tinned properly and should be cleaned before insulating the conductors applying anti-oxide pest for proper surface bondage.

Wiring cable shall be manufactured under IS:694/1900 or BS:2004 for PVC insulated sheathed/unsheathed with copper conductor stranded of 1.1 KV or 650 volts grade having colour code as required for electrical use.

POWER CABLES - LAYING:

Sizes of cables required are given in the bill of quantities. Only armoured and unarmoured cables shall be stranded Aluminium conductors, PVC sheathed, 1100V grade conforming to IS:1554 & 694.

Cables are to be laid both inside and outside the buildings. Laying of cables shall be in accordance with IS:1255. Inside the buildings, cables shall be laid in G.I pipes /Polythene pipes of suitable sizes or open trench as required. Outside the buildings, the cables shall be laid in the ground at a depth of 1 meter from the ground level along with approved routes with necessary brick and G.I protection for vertical riser / road crossings. Laying of cable includes excavation of earth i.e. making the required trench, placing the cables in trenches, providing the necessary sand cushioning below and above the cables and brick protection at top. Identification – tags shall be provided on the cables at regular intervals where more than one cable is laid. After the laying of cables as approved by the Engineer-in-Charge, the trenches shall be filled with shifted earth and well rammed to bring the surface in level with the surroundings. Sand shall be of good quality river sand and the bricks B class burnt. Sand and bricks shall be laid continuously on the cables to cover the cables fully. Cable identification makers made of galvanized steel plates incorporating the information such as the line voltage, size of cables. Cable identification no. shall be provided at intervals of 10 metres along with entire cable route in an approved arrangement.

Wherever the cables are crossing the roads, drains, water / sewerage pipes or entering /leaving the buildings, the cables shall be laid in class B G.I. pipes of suitable size as directed by the Engineer-in-Charge.

Straights through joints are not normally permitted. In case of unusually long distances of cable, laying work straight through joints would be considered on permission only if the kits of specified make are used. No extra payment will be permitted for such joints.

SUB POWER-DISTRIBUTION BOARDS (PDB/EPDB) AND LIGHTING DISTRIBUTION BOARDS (LDB/ELDB) SERVICE / METER BOARDS AND MAIN SWITCH BOARD:

All the PDB/EPDB/LDB/ELDB, Service Meter and Main Switch Boards shall be of robust construction and suitable for flush-mounting / wall mounting type. They must be of industrial heavy duty type, compartmentalized and fabricated out of 14 SWG sheet-steel with MS angles and channels of suitable sizes wherever necessary, totally enclosed, fully gasket, dust and vermin proof, removable top and bottom plates with suitable knockouts at appropriate location for entry of 20-25 and 40 mm dia PVC/MS conduits, hinged front doors (single or two half doors depending upon the size of the board) with locking arrangements & two earthing terminals etc. to be provided.

Service Meter Boards housing front operated SFUs, terminal blocks, fuse cut-outs, kWh meters etc., shall be provided with suitable arrangements for locking and sealing front door. Suitable cut-outs and glass windows in front of kWh meters shall be provided for taking readings and for periodical watching meters working.

PDB/EPDB, LDB/ELDB service meter boards and main switch boards shall be complete with all the equipment such as MCCBs, MCBs, Isolators, SFUs, Fuse Cut-outs, kWh meters etc. as indicated in the Schedule of Quantities for the incoming and outgoing circuits, suitably rated copper bus bars, neutral link, internal wiring, phenolic phase barriers wherever necessary, clearances between phases, phases-neutral and earth maintained as per relevant IS and properly painted with anti-corrosive primers and finish paints. Finish colour should be as per client's choice.

Moulded Case Circuit Breaker (MCCB)

MCCBs are required for use in three phases, 400 Volt feeders for "On-load" closing and opening. Current rating shall be as indicated in the Schedule of Quantities. Breaking capacity at 415V and P. F. between 0.2 and 0.4 shall not be less than 25 KA for 100A, 35 KA for 200A, 35 KA for 250A, 50 KA for 400A and 50 KA for 630A rated MCCBs. The MCCBs shall have mechanisms for quick make and break operation and provided with thermal magnetic release for short circuit and over current protections. There shall be provision for setting the short circuit tripping between 300% and 800% and over-load tripping between 50% and 100% of the nominal rating in addition to continuous

current setting (IR) in 5 steps between 100% and 50% of nominal rating. All the PCCs, MCCs are to be provided with door interlocking arrangements.

SPECIFICATION OF SUB-MAIN AND POINT WIRING

A power circuit shall always be originated from a distribution fuse boards and the same shall run in a separate PVC conduit/ cable as considered in general scheme.

Insulated or covered earthing conductors where used, shall have green insulation braiding or covering as appropriate. Under as circumstance shall the colour green be used for other than earthing conductor. In addition, where it is required that cables of different colours be used for-identification purposes; the following system shall be employed. Red, Yellow and Blue colour for phases and black for neutral only.

The electric load of all lights, power outlets etc. shall be balanced across the three phases. Unless otherwise mentioned in the schedule of quantities single way porcelain/Bakelite terminal connector with nickel-plated brass pin and screws to suit the conductor. Size shall be used for intermediate wiring joints in junction boxes and switch-boards.

Distribution wiring in PVC conduit casing capping to light, fan, socket outlets, exhaust fan points etc. shall be done in looping in system. In this system except at stopping points such as at terminals of switches, ceiling-roses, etc, and in case of socket outlets at the socket terminals. Intermediate wiring joint in junction boxes will not be permitted. The maximum number of wires drawn in one PVC conduit shall not be greater than the recommended number given in the table of IS. 732-1963, contractor must consult the specification given above.

Sub-mains are considered for the wiring from PDB to power outlets LDBs and point control switch boards. These may be by two-core PVCA cable/PVC insulated sheathed copper conductor wires as considered in bill of quantities.

POINT WIRING IN BUILDINGS

Wiring in the buildings shall be concealed/surface drawn. PVC conduits accessories, PVC casing capping cables, ceiling-rose, switches etc. used in the wiring shall be of approved makes. All wiring to be done by stranded single core copper PVC cable of size 1.5 sq.mm for phase and neutral and one sq.mm copper PVC cables for earth wire (Green colour). In case of rewiring partially, the similar cables are to be used as existing.

Laying of conduits, conduit accessories and wiring in concealed and surface system shall meet the requirements of IS-732; National Electrical Code and national Building Code.

The PVC and MS conduits shall conform to IS:9537 (part 1 and 3) and IS: 1653 respectively. Metal junction boxes/PVC junction boxes shall be used with PVC/MS conduits as the case may be conduit accessories such as junction boxes/pull boxes, outlet boxes, bends. Sleeves etc shall conform to IS: 5133 Necessary GI pull wire of 14 SWG shall be provided in the conduits from an end to the other as required for drawing electrical wires.

PVC conduits/Alkathene pipes shall be laid as far possible in straight runs tied to the reinforcement bars to prevent the getting dislocated during concreting. Where conduits are required to be embedded in the walls, the walls shall be chased to the required depth and conduits fixed in position by means or suitable pipe hoods at every 600mm distance in an approved manner. The walls chased for conduit embedding shall be covered suitably by the Electrical Contractor.

Preparing switch board covers, control switches for all lights, fans, call bells, exhaust fans, ceiling roses, PVC insulated electrical wires bond wire etc. are parts of Schedules for point wiring. Similarly, conduits laying covered under a separate schedule item include providing and embedding Alkathene pipe/MS conduits in RCC roof slabs/beams, walls, MS junction boxes, bends, outlet switch boxes with 3mm thick Phylum sheet, fixing brass screws and cup washer etc. in running meter measurement. Switch-boards may be of double teak-wood board with Phylum cover or MS with Phylum cover as the case may be.

Terminal/outlet/switch boxes shall be of MS sheet of not less than 1.5mm thick and provided with 4/6/8 threaded holes depending upon the size of the box. The depth of the boxes shall not be less than 75mm and the centre cross sectional area in between from 100 to 750 Sq. cms. The boxes shall be provided with two coats of anti-corrosive paint and the inside surface finished with suitable white paint. The front cover should be 3mm thick coloured or white Phylum sheet and over size by 1 cm, all round shall be provided with suitable brass screws & cup-washer for MS Board only.

Sheet Metal Connector Box (16 SWH) of the following sizes with 3mm white Phylum sheet cover is to be used:

- a) 6" x 4" x 2.1/2"
- b) 7" x 4" x 2.1/r
- c) 8" x 6" x 2.1/2"
- d) 4" x 4" x 2.1/2"

In case of surface wiring by casing capping, the double T.W. Switch Board and Junction Box of the following sizes (with 3mm thick white Phylum sheet cover fixing by four Nos. brass wooden screw with Cup-washer) are permitted:

i) Double T.W. Switch Board:

T- x 4" x 2" / 8" x 6" x 2" / 8" x 10" x 2" / 8" x 12" x 2"

ii) Junction Box: 7" x 4" x 2" / 4" x 4" x 2".

T.W. Round Block (75" mm dia)

There shall be 3mm wide and 3 mm deep-groove cut all round the surface against which the bottom of cover will rest and approved plastic compound shall be filled before fixing it finally.

Installation of Switch Board:

These shall be installed at a height of 1.3 meters (4'-3") above the floor level. Various sizes of wires viz. 1, 1.5, 2.5, 4 and 6 sq. mm which required to be used in the wiring of building shall be of stranded flat twin/single core copper conductors, PVC insulated & sheathed 1100-volt grade conforming to relevant IS-specification.

The number of cables/wires drawn in various sizes of conduits shall not exceed the following limit.

Cables sizes	Conduit diameters		
	20mm.	25mm.	40mm.
1.5 Sq.mm	6	10	-
2.5 Sq.mm	4	18	-
4.0 Sq.mm	3	6	-
6.0 Sq.mm	2	14	8

Brief details of use of specific wire-sizes/switches/sockets are given below:

- a) For light, fan, call bell and 6A plug point
Stranded 1.5 Sq.mm single core
PVC Unsheathed copper
- b) For connecting air-conditions
Board with 20-amp capacity industrial
type socket (Crompton/ Standard/ Havells)
with MK-I starter (L&T) with 20 ampere
MCB
- c) All main and sub-main power cables will be of Aluminium armoured.
- d) For air-conditioners, in-coming power supply cable will be of 7/0.36mm stranded size (phase and neutral) and of earth 2.5 sq.mm (3/0.036 mm) stranded single core copper cable from separate way of PDB.
- e) Composite 6 in 1 plug-socket board (with following provisions) should be provided in selective areas:
 - i) 16 Amp Socket flush type
 - ii) 6 Amp Socket flush type
 - iii) One switch 16 Amp Socket flush type
 - iv) One fuse flush type
 - v) One indicating lamp flush type
 - vi) 6 Amp one-way flush type switchSuch composite 6 in 1 plug-sockets should be provided in different places as per Guide line.
- f) All vertical-drops (wiring) should be concealed for horizontal portion only.
- g) In horizontal cases, PVC casing and capping permits surface-drawn wiring. But in new OT- both horizontal and vertical wiring should be concealed.
- h) OT switch boards should be water protected as design to be approved by site-in-charge.
- i) For lights/fans/call bells/engaged sign etc. circuit wiring is a part of point wiring. Maximum load per circuit will be 800 watts but number of points should not exceed eight (8) leaving behind two (2) points for future loads.

EQUIPMENT AND FITTINGS

The type, rating the required features, location of fixing etc. are indicated in the Schedules. The schedule includes all other required accessories, fasteners, small wiring etc. fixing, aligning, connecting, testing and commissioning. The materials shall be of good quality acceptable to Engineer-in-Charge and to be fixed in position as directed by him.

Box/Rail Type Fluorescent Light Fittings

Both single and twin tube assemblies shall be of standard fittings made out of cold-drawn sheet steel stove enamelled, the box finished in grey colour and its cover plates in white colour, complete with copper chokes, starter holder, tube holders, lamps and earth terminal etc. Decorative Type Fluorescent Light Fittings Similar to Box/Rail Type with Fluorescent Light Fittings with Opal acrylic diffuser.

Mirror Optics Type Fluorescent Light Fittings

Both single and twin tube assemblies shall be of standard fittings made out of cold-drawn sheet steel, stove enameled, the box finished in grey colour and its cover plates in white colour, complete with copper chokes, starters, starter holder, tube holders, lamps and earth terminal etc. with mirror reflector.

Compact Fluorescent Type Light Fittings

Compact fluorescent fitting with 2 x 11 Watts lamps, holders, stainless steel reflector with housing and OPEC acrylic diffuses etc. of SIGMA' search light make.

Street Light (TFL) Fittings

The fittings shall be SON/70W/150W or weather proof type fluorescent street light fittings. The fittings shall be made of Aluminium sheet and finished outside in hammer tone grey colour, stove Enameled and white inside complete with copper wire chokes, starters condensers, suitable lamp.

Control switches for lights, fans, call bells, exhaust fans etc. shall be of rating 6 Amps, 230 Volt, Piano-type flush mounted, cream colour conforming to relevant Indian Standards. Ceiling roses also shall be of 6 Amps, rating 230 V. cream colour deluxe conforming to the relevant IS – Specification Switches of 16 Amps capacity and associated 16A socket would also require to provide facility of connection of power load upto 1 KW. Alternatively, Industrial type plug-socket board may be used in specific cases. Cable used for power load should be of suitable capacity.

After successful completion of the work., the final drawings/Blue Print Plan showing the details circuit diagrams and fittings, fixtures are to be submitted along with the final bill.

EARTHING

All non-current carrying metal parts of the electrical installations such as switch gears, LT panel, distribution boards, power plugs exhaust fans, air conditions, cable glands, MS conduits, switch boxes etc. shall be bounded together suitably and connected to earth stations in accordance with the requirements of Indian Electricity Rules and IS: 3043.

All earth stations shall be of the same type similar to one illustrated in IS: 3403, using pipe electrode of galvanized steel Class B having 65mm dia and a length of 3.04 meter buried vertically in the ground and providing layers of charcoal/coke and salt as necessary. The top end of the pipe electrode shall have suitable arrangements for making connections of earth wire/flats in the manner approved by the Engineer-in-Charge. The earth stations shall be located at least 2 M away from the buildings and not less than 6M apart. Nearby earth stations (at least two) shall be interconnected with suitable size GI flat.

Earth connections shall be as follows:

- i) For building wiring the earth lead will be drawn from earth electrode to earth bus-bar by 19/10 GL stranded wire and from earth bar to PDB & SWG GI wire & from PDB to, SDB & LDB etc. by No. 10 SWG GI wire. For Power plug and 6 Amp plug, either by 1 Sq. mm stranded copper/16 SWG G.I wire as the case may be which will be mentioned in B.O.Q.
- ii) Double connections shall be made for medium voltage supply (251 to 650V).
- iii) All earth wires and flats from one end to the other shall be continuous and without any joints and so laid to protect them against mechanical damage.

If the required earth resistivity is not obtained with the earth-pits, additional pits shall be made for improving the system resistivity. The rates payable for additional pits shall be same as the rates quoted in the tender.

Earthing Schedule includes supply of all required material, digging pits, providing charcoal / coke and salt, filling up the pits (providing cement concrete chamber with cover for substation earthing only for laying of earth wires / flat making connection with proper fasteners, finishing machinery work that have been disturbed for electrical works, testing etc.

Erection of Poles:

Erection of single street tubular pole of length, as given below with or without sole plate & cap etc. in cement concrete foundation (proportion and dimension indicated below) as to G.S having 600 x 600 x 150mm thick cement concrete (4:2:1) base block below sole plate/Pole with hard Jhama metal including CC (6:3:1) muffing of 0.3 Mt (3ft) dia and 0.3 Mt (1 ft) above ground level including 3 mm (1/8") thick neat cemented finish and providing G.I earth bolt after making drilled hole etc. on pole & carriage of pole up to 1.6km from store depot to work site including filling up the excavated earth pit with shifted soil and ramming properly.

Dimension of poles	Proportion	Dimension
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3) Upto 9 Mts	6: 3:1	0.6x0.6x1.70 Mt.
b) Above 9 Mt	6: 3:1	0.6x0.6x 1.91 Mt

Erection of H – pole (D.P.) structure with 9 Mt long steel tubular poles (0.9 Mt. to 1.5 Mt. apart) in cement concrete (6:3:1) foundations (as to similar dimension in item 1.2 (above) including 600 x 600 x 150mm (2' x 2' x 6") thick cement concrete (4:2:1) base block below sole plate / pole with hard jhama meta including cement concrete (6:3:1) muffing 300mm (1 ft.) dia and 300mm above ground level neatly cemented finish 3mm (1/8") thick and providing galvanised MS channels, cross arms and cross bracing made out of galvanised, angle, flats etc. anti-climbing devices, 'Danger' board & earth bolt etc. "as per IS code of practice".

Extension items 1 & 2 above, for providing cement concrete (6:2:1) base block (around the pole) dimension 0.60 x 0.60 x 0.76 mt. (2" x 2" x 2'.6") above ground level, neatly cemented finish (3mm thick) at the base of pole (in lieu of cement concrete muffing) including S & F looping cable box 25cm x 25cm 10cm (10" x 10" x 4") made of C.I & including providing drilled hole in pole suitable for Alkathene/polythene pipe entry as directed for street light wiring.

Painting of Steel Tubular Pole of lengths and no. of coats of paints as given below with ready mixed paint/primer of approval make brand including preparation of surface by sand paper/ emery paper, cleaning etc. for receiving fresh coat of paint.

Painting block letters or digits within a circle/square as required with "Black Japan" paint of approved make & brand the size of letters and digits.

Painting of Steel Tubular pole of lengths and no. of coats of paint as given below with ready mixed paint/primer of approved make & brand including preparation of surface by sandpaper/emery paper, cleaning etc. for receiving fresh coat of paint.

Painting of any steel /iron surface with no of coats of paints as given below with ready mixed paint/primer of approved make and brand including preparation of surface by sand paper, cleaning etc. for receiving fresh coat of paint.

Street light as described in bill of quantities. The Schedule item of street light poles include manufacture of stepped poles, excavation of pits, making concrete foundations, erection of poles, filling up of pits satisfactorily, fixing of light fixing on poles, connection with suitable weather proof insulated wires, earthing, testing and commissioning at the locations decided by the Engineer-in-Charge. The pole shall as per the sketch enclosed.

The poles shall be manufactured out of steel tubes conforming to IS: 2713 as shown in the drawing. There shall be a base plate of MS of size 220 x 200 x 6mm welded to the bottom of the pole and one MS rod of 19/20mm dia and 300mm long inserted across the and welded at a height of 600mm from the base plate and both of them coated with bituminous paint.

The cable terminal arrangement shall be built in within the MS sleeve loop box as per in the sketch. Water light 2 ram thick MS box shall have locking arrangement to house two sets of terminals for incoming and looping connections and one re-wireable fuse fitting with 6 Amps fuse on 6mm thick phylum base & properly insulated to withstand weather conditions.

The poles shall be erected properly with cement concrete foundations as per NBU (ELECT) Specification-Necessary change of the concrete shall be done as per relevant procedures. Two P.V.C pipe of not less than 30mm dis. With gland and bends shall be provided in the foundation for cables entry into terminal box. Electrical connection between the terminal box and the light fitting shall be made by means of 2.5mm single core, PVC insulated copper cable of 1100V grade.

THE FOLLOWING INDIAN STANDARD CODES ARE APPLICABLE

- i) IS: 732/1989 – Code of practice for elec. Installation.
- ii) IS: 1646-1961 – Code of practice for safety of Building (General Electrical Installation).
- iii) IS: 3646 Part – I – Code of practice Principles Part – H and Part – m for good lighting and aspects of design, schedule for values of illumination and glare level and calculation of coefficient of utilisation.
- iv) IS: 4347-Code of practice for Hospital lighting.
- v) NEC – 1985 – National Electrical Code for hospital and Operation Theatre.
- vi) IS: 3480 – Flexible Steel Conduits for Electrical Wiring
- vii) IS: 2667 – Fittings for rigid Steel Conduits for Electrical Wiring
- viii) IS: 3837 – Accessories for rigid Steel Conduits for Electrical Wiring
- ix) IS: 9537 Part-Hi- 1983-PVC Conduits for Electrical Wiring
- x) IS: 694 – 1977 – Specifications for PVC insulated Cable for working voltage upto and including 1100 Volts
- xi) IS: 8130-1984 – Specification for Conduits for insulated Electrical Cable and Flexible Cords
- xii) IS-5563 – Electrical Power Connectors
- xiii) IS: 3854-1988 – Flush type Switches

- xiv) IS: 1293-198S – Pin Sockets
- xv) IS: 6538 – 1971 – 3 pin piano top
- xvi) IS: 371 – 1979- Ceiling Roses
- xvii) IS: 374-1979-Ceiling Fan.

Fire Detection and Public Address System:

The Bidder should submit the Original Letter of authorization from approved OEM/OEMs authorizing them to participate in the tender for Fire Detection and Public Address System.

References, information and certificates from the respective clients certifying suitability, technical knowledge or capability of the applicant should be signed by an officer not below the rank of Executive Engineer or equivalent.

The applicant may furnish any additional information which he thinks is necessary to establish his capabilities for successful completion of work. The applicants are however, advised not to furnish superfluous information. No information shall be entertained after submission of short-listing documents unless it is called for by the Client.

The contractor shall be responsible to obtain necessary approval from the respective Authorities for Fire Detection and Alarm System. Contractor shall ensure that their sub suppliers are from Purchaser's list of approved vendors only. In case of any deviation, contractor shall obtain prior approval for the same from the Purchaser and shall submit copies of such letters for approval along with inspection call.

Strict implementation of Directions for preventive measures needs to be taken to control air pollution. Vide Memo no.: 1M-21/2017/06-R/W(N) Dated: - 16.06.2017 of the Joint Secretary to the Govt. of WB (Projects & Coordination) Public Works Department.

Preventive measures to be taken: -

- a) Wrapping of construction area / buildings with geotextile fabric, installing dust barriers, or other actions, as appropriate for the location.
- b) Applying water and maintain soil in a visible damp or crusted condition for temporary stabilization.
- c) Applying water prior to levelling or any other earth moving activity to keep the soil moist throughout the process.
- d) Limiting vehicle speeds to 15 mph on the work site.
- e) Cleaning wheels and undercarriage of haul trucks prior to leaving construction site.
- f) Applying and maintaining dust suppressant on haul routes.
- g) Applying a cover or screen to stockpiles and stabilize stockpiles at completion of activity by water and maintain a dust palliative to all outer surfaces of the stockpiles.
- h) Stabilizing surface soils where loaders, support equipment and vehicles should operate by using water and maintain surface soils in a stabilized condition where loaders, support equipment and vehicles will operate.
- i) Stabilizing adjacent disturbed soils following paving activities with immediate landscaping activity pr installation of vegetative or rock cover.
- j) Maintaining dust control during working hours and clean track at the end of the work shift/ day.
- k) Stabilizing sloping surfaces using soil binders until vegetation or ground cover can effectively stabilize the slope.
- l) Disposal of debris in consultation with the local authorities following proper environmental management practice.
- m) During construction work, including cutting of marbles, ambient noise level should not exceed more than 65 Db(a).

Practices to be discarded: -

- a) Disposal of debris indiscriminately.
- b) Allowing the vehicles to run at high speed within the work site.
- c) Cutting materials without proper dust control/ noise control facility.
- d) Keeping materials without effective cover.
- e) Allowing access to the work area except workers to limit soil disturbance. Access may be prevented by fencing, ditches, vegetation, berms or other suitable barrier.
- f) Leaving the soil, sand and cement stack uncovered.
- g) Keeping materials or debris on the roads or pavements.
- h) Burning of old tyres in hot mix plant as a fuel during construction and repairing of the roads for melting coal tar.

A consolidated report regarding compliance of the directions i.e. preventive measures to be taken and practice to be discarded, may please be furnished to this office for onward submission to the Principal Secretary, Department of

Environment. Necessary instruction may be given to the Engineers under his jurisdiction for taking necessary action in this regard.

**Chief Engineer
University of North Bengal**