

GOVERNMENT OF WEST BENGAL
DIRECTORATE OF FORESTS
Office of the Principal Chief Conservator of Forests
(Head of Forest Force), West Bengal
AranyaBhaban, Block-LA-10A, Salt Lake City, Sector-III,
Kolkata-700106.

Memo No: 8679/CS/2M- 1353 /2017

Date : 20/11/2017

NOTICE INVITING TENDER No. – WBFOR/DCF/ADMN/NIT-06-(e) of / 2017-18

E-Tender for construction of Group –C- Staff Quarter at Salt Lake

1. General Guidance for e-Tendering

1.1 Instructions / Guidelines for tenderers for electronic submission of the tenders online have been shown in Web site <https://wbtenders.gov.in>

1.2 Registration of Contractors

Any contractor willing to take part in the process of e-tendering will have to be enrolled and registered with the Government e-Procurement System.

1.3 Digital Signature Certificate (DSC)

Each contractor is required to obtain a Class-II or Class-III Digital Signature Certificate (DSC) for submission of tenders

1.4 Collection of Tender Documents

The contractor can search and download NIT and tender documents electronically from computer once he logs on to the website mentioned in Clause 1.1 using the Digital Signature Certificate. This is the only mode of collection of tender documents

1.5 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 Tenderer (including his participation in partnership) shall be allowed to participate in a single work as mentioned in the List of Work(s) of this NIT.

2. Submission of Tenders:

2.1 General process of submission:

Tenders are to be submitted online through the website stated in Clause 1.1 in two folders, at a time for each work, one is Technical Proposal and the other is Financial Proposal, before the prescribed date and time mentioned in the list attached. Using the Digital Signature Certificate (DSC), the documents are to be uploaded virus scanned and digitally signed. Tenderers should specially take note of all the addendum/corrigendum related to the tender and upload the latest documents as part of the tender.

2.2 Technical Proposal

The Technical Proposal should contain scanned copies and/or a declaration in standardized formats of the following in two covers (folders).

i. **NOTICE INVITING TENDER (NIT)** (to be submitted in “NIT” Folder)

ii. **Section B (Form I, Form II Form III Form IV and AFFIDAVIT – Y)** (to be submitted in “FORMS” Folder.)

iii. Earnest Money Deposit (EMD) and the cost of Tender Documents (Tender Fees) is to be remitted by the Tenderer as mentioned in column no. 5 and 6 of the table for List of Works through **GRIP**

Portal of Finance Department, Government of West Bengal in favour of Deputy Conservator of Forests, Administration, APM Circle, W.B. A scanned copy of challan / Receipt obtained after deposition of Earnest Money Deposit (EMD) / cost of tender documents shall have to be uploaded (to be submitted in “DRAFTS” Folder).

iv. **Instructions to Bidders.** (to be submitted in “ITB” Folder)

v. **General Terms & Conditions Of Contract.** (to be submitted in “GT AND CC” Folder)

vi. **Technical Specification.** (to be submitted in “TS” Folder)

vii. **Drawing if any to (“DRAWING” Folder)**

Note: a) Copies of challans issued by Banks for remittance of EMD and Cost of Tender Documents should be submitted physically to the office the Deputy Conservator of Forests, Administration, West Bengal ,AranyaBhaban, LA-10A,SaltLake,Sector-III,Kolkata-700106 as per the 'Date & Time Schedule' stated in Sl. No.11 of this N.I.T. **at least 24hours before the opening of technical bid.** Technical Bid & Financial bid both will be submitted concurrently duly digitally signed in the Website <https://wbtenders.gov.in>. Tenderdocument may be downloaded from website & submission of Technical Bid/Financial Bid as per Tender Schedule

b) Addenda/Corrigenda: if published. Contractors are to keep track of all the Addendum/Corrigendum issued with a particular tender and upload all the above digitally signed along with the NIT. Tenders submitted without the Addendum/Corrigendum will be treated as informal and liable to be rejected.

My Document (Non Statutory Cover)

Sl.	Category Name	No.	Documents to be uploaded/submitted
A	Certificates	1	GST Registration Certificate along with registration number
		2	P.T. Deposit receipt/challan (if any)
		3	I.T.PAN CARD
		4	Voter Card
		5	I.T.Return acknowledgement Receipt (current & last two years)
B	Company details	1	Proprietorship Firm--- Trade Licence
		2	Partnership firm—Registered Certificate under Company's Act. MOA & AOA, Registered Power of Attorney. Trade Licence
C	CREDENTIAL	1	Experience Profile – List of completed projects of similar nature of jobs undertaken & completed.
		2	Completion Certificate from concerned authorities
D	FINANCIAL (Information)	1	Works in hand if any (Authenticated copy)
		2	Payment certificate if works issued by appropriate authority and not the TDS Certificates only.
E	DECLARATION	1	Details of structure of Organisation in Form-III
		2	An affidavit made in stamp paper that no adverse report against bidder (to be submitted as per format in Form-Y) Affidavit to notarised from Public Notary.

2.3. Financial Proposal

- i) The financial proposal should contain the Bill of Quantities (B.O.Q.) in one cover (folder). The contractor is to quote the percentage rate (Presenting Excess / Less / Excess or Less, 0.00% to indicate at par) online through computer in the space marked for quoting rate in the B.O.Q.
- ii) Only downloaded copy of the B.O.Q. are to be uploaded quoting the rate, virus scanned & digitally signed by the contractor.

3. Eligibility Criteria for participation in tender:

- (a) All categories of intending Tenderers shall have satisfactorily completed as a prime agency during the last 3 (three) years prior to the date of issue of this Tender Notice either of the following :
 - (i) At least one work of similar nature with an estimated cost equal to or more than the estimated cost put to this notice ; or
 - (ii) At least two works of similar nature with an estimated cost of each of the works equal to at least 50% of the estimated cost put to this notice in any one year ; or
 - (iii) At least three works of similar nature with an estimated cost of each of the works equal to at least 33% of the estimated cost put to this notice in any one year,
- (b) Provided that such similar works should have been implemented in Government Department, Zilla Parishad, Government undertaking / Statutory Bodies constituted under the statute of the Government. Completion Certificate indicating Estimated Amount, Value of work-done, date of completion of the work and detail communicational address along with contact number of the Client

should be submitted. In the case of works undertaken for P.W.D./ C.P.W.D./ M.E.S./ Railways, a Completion Certificate from the concerned Executive Engineer will be treated as valid credential. [Non-statutory Documents]

(c) For the purpose of this project 'similar works' would mean construction of buildings of at least 1,000 Sft. built up area.

(d) All categories of prospective Tenderers shall have to submit valid and up to date Professional Tax receipt Challan, GST Registration Certificate, Income Tax Return Acknowledgement Receipt, PAN Card issued by Income Tax Department, Voter ID Card and Trade Licence in respect of the prospective Tenderer. [Non-statutory Documents]

(e) Where an individual person holds a Certificate in his own name duly issued to him against the company or the firm of which he happens to be a director or partner, such individual person shall, while submitting any tender for and on behalf of such company or firm, invariably submit a copy of registered power of attorney showing clear authorization in his favour, by the rest of the directors of such company or the partners of such firm, to submit such tender. The Power of Attorney shall have to be registered in accordance with the provisions of the Registration Act, 1908. [Non-statutory Documents]

(f). Neither prospective Tenderer nor any of the constituent partners had been debarred to participate in any Tender by the P.W.D., P.W.(R)D & P.W.(C.B.)D, Housing Department, W.B. or C.P.W.D. or M.E.S or Railways; during the last 5 (five) years prior to the date of this NIT. Such debarment will be considered as disqualification towards eligibility. (A declaration in this respect has to be furnished by the prospective bidders as per prescribed format). [Non-statutory Documents]

(g).The partnership firm shall furnish the Registered Partnership Deed and the Company shall furnish the Memorandum of Association (MOA) and Article of Association (AOA.) [Non-statutory Documents]

(h).The prospective Tenderers or any of their constituent partner shall neither have abandoned any work nor any of their contract have been rescinded during the last 5 (five) years. Such abandonment or rescission will be considered as disqualification towards eligibility.

(i).Joint Ventures will not be allowed.

(j).A prospective Tenderer shall be allowed to participate in the job either in the capacity of individual or as a partner of a firm. If the prospective Tenderer is found to have applied severally in a single job, all his applications will be rejected for that job.

(kl). A prospective Tenderer (including his participation in partnership) shall be allowed to participate in only one work as mentioned above in the List of Work(s) conforming to and limited to this N.I.T.

(l).No conditional / Incomplete Tender will be accepted under any circumstances.

4. Opening of Technical Proposal

Technical proposals will be opened by the authorized representatives electronically from the website stated in Clause 2.1, using their Digital Signature Certificate. Intending tenderers may remain present, if they so desire. Cover (Folder) for Statutory Documents should be opened first, if found in order, Cover (Folder) for Non-statutory Documents will be opened. If there is any deficiency in the Statutory Documents, the tender will summarily be rejected.

Decrypted (transformed into readable formats) documents of the Non statutory Cover will be downloaded, and handed over to the Tender Evaluation Committee (constituted for evaluation of tenders).

5. Uploading of summary list of technically qualified tenderers :

Pursuant to scrutiny and decision of the Tender Evaluation Committee (TEC), the summary list of eligible tenderers with the serial number of work(s) for which their Financial Proposals will be considered will be uploaded in the web portals.

While evaluation, the Committee may summon the tenderers and seek clarification / information or additional documents or original hard copy of any of the documents already submitted and if these cannot be produced within the stipulated time frame, their proposals will be liable for rejection.

6. Final publication of summary list of technically qualified tenderers :

Date of opening of financial bid will to be intimated in the final summary list

7. Opening and Evaluation of Financial Proposal

Financial proposals of the tenderers declared technically eligible by the Tender Evaluation Committee will be opened electronically from the web portal stated on the prescribed date, normally after 2(two) working days of date of publication of final summary list of the tenderers.

The encrypted copies will be decrypted and the rates will be read out to the contractors remaining present at that time.

After evaluation of Financial Proposal, by the appropriate Authority of WBFOR, may upload the final summary result containing inter-alia, name of contractors and the rates quoted by them against each work provided Tender evaluation committee is satisfied that the rate obtained is fair and reasonable and there is no scope of further lowering down of rate.

8. Procedures to be followed when one / two technically qualified tenderers participated in any tender :

When one or two bidders are found be technically qualified, Financial bids submitted & uploaded by those bidders will not be opened. The tender will be rejected and afresh tender will be called for.

9. Acceptance of Tender (Technically eligible/qualified)

Lowest valid rate should normally be accepted. However, the Tender Accepting Authority does not bind himself to do so and reserves the right to reject any or all the tenders, for valid reasons and also reserves the right to distribute the work amongst more than one tenderer.

10. Penalty for suppression / distortion of facts :

If any tenderer fails to produce the original hard copies of the documents (especially completion certificates and audited balance sheets), or any other documents on demand of the Tender Evaluation Committee within a specified time frame or if any deviation is deleted in the hard copies from the uploaded soft copies or if there is any suppression, the tenderer will be suspended from participating in the tenders on e-Tender platform for a 3 (Three) years. In addition, his user ID will be deactivated and Earnest Money Deposit will stand forfeited. Besides, the WBFOR may take appropriate legal action against such defaulting tenderer.

11. Schedule of Dates:

Sl.No.	Particulars	Date & Time
1	Date of uploading N.I.T.Documents—Online (Publishing Date)	21.11.2017
2	Documents download start date	22.11.2017 (10.00 a.m.)
3	Bid submission start date	23.11.2017 (10.00 a.m.)
4	Bid submission closing date	28.11.2017 (11.00 a.m.)
5	Date of submission of Earnest Money Deposit & Cost of Tender Documents (Offline)	27.11.2017 (up to 4.30 p.m.)
6	Bid opening date for Technical Proposal	30.11.2017 12.30 pm
7	Date of uploading technically qualified bidders	To be notified in due course
8	Date of opening Financial Bids	To be notified during uploading of Technical Evaluation Sheet of bidders
9	Date of uploading of list of bidders along with final rate, after negotiation with all tenderers if necessary (Offline)	To be notified in due course.

Last date & time of submission of bids online is :- 28.11.2017 at 11.00 a.m..

Receipted Challans of remittance for cost of Tender doc. & EMD Physically to be submitted Offline in office on : 27/11/2017 up to 4.30 p.m.

Note:

1). In case of any unscheduled holiday or on days of Bandh or natural calamity on the aforesaid dates, the next working day will be treated as scheduled / prescribed date for the same purpose.

2). The Tender Inviting Authority may change the venue of opening the Technical or Financial Bids in case of exigent circumstances like breakdown of communications link or conditions of force majeure.

3). The Tender Inviting Authority reserves the right to defer the date of opening of either Technical or Financial Proposal or both, if required.

Memo No: **8679/CS/2M- 1353 /2017**

Date : **20/11/2017**

Notice Inviting Tender: - WBFOR DCF/ADMN/NIT/ -06(e) of / 2017-18

The Deputy Conservator of Forests, Administration, West Bengal, invites e-tenders for the following work from the eligible Contractors as detailed in the table below. [Collection (downloading) and Submission (uploading) of Tender can be made online through the website <http://wbtenders.gov.in>only].

12. List of Work(s):

Sl.No.	Name of work	Tender Fees And EMD Payable to	Estimated Amount Put to tender (Rs.)	Amount of Earnest Money to be deposited 1%(Rs.)	Cost of tender documents (Tender Fees, in Rs.)	Period of Completion of the work
Col.(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Construction Group- C Staff Quarter at , Baishakhi, Salt Lake, Kolkata	Deputy Conservator of Forests, Administration, W.B. Payable at: Kolkata	Rs. 864661.00	In the Challan generated through GRIP Portal of Finance Dept.W.B. Rs.17293/-	Rs.1000/-	120 Days

Cost of tender documents & Earnest Money Deposit should be deposited through GRIP Portal of Finance Department ,Govt. of West Bengal in favour of Deputy Conservator of Forests, Administration , APM Circle, W.B. and copy of challan (original) to be submitted in office as per date .

There is no exemption of any kind for any of the eligible contractors towards. cost of tender document fee or EMD

13. Brief details on the nature of work:

2.a)	Name of the project work	:	Construction OF Staff Quarter at Salt Lake, Kolkata
2.b)	Project ID	:	DCF/ADMN/Qr-C/17
2.c)	Job ID	:	DCF/ADMN/Qr/17
2.d)	Nature of Work	:	Construction of Group-C Staff Quarter at Salt Lake, Kolkata
2.e)	Contractors eligible to submit the tender	:	Contractors of P.W.D (R&B),W.B.; C.P.W.D.; M.E.S.; Railways and other bona fide contractors having entitlement for building works and having sufficient and adequate credentials for similar type of works to tender of similar nature of works within the last 3 (three) years. At least one work of similar nature with an estimated cost equal to or more than the estimated cost put to this notice ; or At least two works of similar nature with an estimated cost of each of the works equal to at least 50% of the estimated cost put to this notice in any one year ; or At least three works of similar nature with an estimated cost of each of the works equal to at least 33% of the estimated cost put to this notice in any one year,

(I) **Refund of EMD:** The EMD of the unsuccessful Tenderers deposited in favour of “Deputy Conservator of Forests, Administration,W.B.,” **will be refunded without any interest** on receipt of application addressed to the Deputy Chief Conservator of Forests, Administration, as per relevant Govt. Rules.The refund will be made within 30 days from the receipt of application.

Intending Tenderers should download the Tender Documents from the website

<http://wbtenders.gov.in> indirectly with the help of Digital Signature Certificate.

(II) *The original instrument (Challans received /issued by Banks) towards the cost of Tender Documents (Tender Fees) and Earnest Money Deposit (EMD) should be submitted physically by the Tenderer to the office of the Deputy Conservator of Forests, Administration, AranyaBhaban, LA-10A,SaltLake,Sector-III,Kolkata-700098 as per the 'Date & Time Schedule' stated in Sl. No.11. of this N.I.T.*

(III) In case of partnership firm(s), the pledged instrument(s) must reflect the name(s) of the firm as well as the name(s) and address(es) of the partner / partners who is/are authorized to pledge the same as per valid partnership deed(s).

Both Technical Bid and Financial Bid should be submitted duly digitally signed by the Tenderer through the website <http://wbtenders.gov.in> as per the 'Date & Time Schedule' stated in Sl. No.11. of this N.I.T. (Details of which has been narrated in 'Instruction to Bidders')

14. Opening of Tender:

(a) The Technical Bid shall be publicly opened by the authority receiving tender or by his authorized representative, as per the Date & time Schedule mentioned in NIT.

Prospective Tenderers or their authorized representatives may be present during the opening process. Financial Bids of only those tenderers who would qualify in the Technical Bid evaluation will be opened.

The Deputy Conservator of Forests, Administration, W.B. or his authorized representative opening the Financial Proposal may call for Open Bid/Seal Bid after opening of the said tender to obtain the suitable rate further, if required. If any of the Tenderers or their representatives fails to attend during this process no subsequent objection would be entertained under any circumstances at any later date or time.

The intending Tenderers shall clearly understand that whatever may be the outcome of the present Invitation of Tender, no cost of Tendering shall be reimbursable by the Government. The Deputy Chief Conservator of Forests Administration, W.B. reserves the right to reject any tender or all Tenders without assigning any reason whatsoever and is not liable for any cost that might have incurred by any Tenderer at any stage of Tendering. The acceptance of the tender rests with the Deputy Conservator of Forests, Administration, W.B. who does not bind himself to accept the lowest tender and reserves right to reject any or all the tenders received without assigning any reason thereof. Intending Tenderers at their own cost and risk are encouraged to inspect the site of work and get themselves thoroughly acquainted with the local condition and all factors which may affect their rates. Prior to the site visit the intending Tenderers must inform the Deputy Conservator of Forests, Administration, W.B. (033-2335-7751/8581/8755;Extn.- 413) or email (pccfwb@vsnl.net) about the time and date of the visit.

15. The selected Contractor must arrange to procure all materials required for the proper completion of the work including cement and steel (as per the Technical Specifications of the tender document). The Employer will not on any account be responsible for procuring the same.
16. Cement materials of reputed brand like ACC, Lafarge, Ambuja, Ultratech / equivalent or as approved by Architect / engineer and Steel materials of reputed brand like TATA, SAIL, VIZAG STEEL, SRMB / equivalent or as approved by Architect / engineer only shall be allowed to be used in the work. No Brand of Cement and Steel materials other than the one shall be allowed to be used in the work.
17. The selected contractor shall apply to the Deputy Conservator of Forests, Administration, W.B. for seeking permission for utilization of land at the close proximity of the site for arranging required plant & machineries, store of materials, labour shed, laboratory etc. at his own cost and responsibility. All such temporary shed etc. shall have to be dismantled and all debris etc. cleared from site post completion of the work or as directed by the Deputy Conservator of Forests, Administration, W.B. . Once an order to the effect is issued from the Deputy Conservator of Forests, Administration, W.B. in this regard, it shall be brought to effect by the contractor without contest.

18. VALIDITY OF BIDS:

Bid shall remain valid for a period not less than 120 (One Hundred And Twenty) Days after the dead line date for Financial Bid/Sealed Bid Submission. Bid validity for a shorter period shall be rejected by Tender Accepting Authority as non-responsive.

If any Tenderer withdraws his offer before Bid validity period without giving any satisfactory explanation for such withdrawals, he may be disqualified for submitted tender to this Office and Directorate of Forests, Government of West Bengal for a minimum period of 1 (one) year and legal action will be taken against him.

19. VERIFICATION OF CREDENTIALS/ONSITE PROJECTS :

Before issuance of the work order, the Tender Accepting Authority may verify the credential and other documents of the lowest Tenderer if found necessary. After verification, if it is found that such documents submitted by the lowest Tenderer is either manufactured or false in that case, work order will not be issued in favour of the Tenderer under any circumstances and legal action will be taken against him.

20. CANCELLATION OF TENDER :

The Deputy Conservator of Forests, Administration, W.B. reserves the right to cancel this N.I.T. due to unavoidable circumstances and no claim in this respect will be entertained.

21. SECURITY DEPOSIT :

The successful Tenderer to whom a Letter of Acceptance has been issued shall deposit within 10(ten) days from the date of issuing Letter of Acceptance, a Security Deposit which is 10 % of accepted bid amount, in the shape of Challan to be obtained through **GRIP Portal of Finance Department, W.B.** and remitted in Bank in favour of “ **Deputy Conservator of Forests, Administration, APM Circle, W.B.** **The EMD deposited earlier will be refunded on receipt of application.** The selected tenderer shall have to sign an agreement in a stamp paper as per format to be given from office. Signed agreement shall have to be notarised . Cost of stamp paper and notarisation shall have to be borne by the contractor. Failure in depositing Security Deposit and signing agreement within the specified time shall render the contract liable to termination without reference to the contractor and in such case; the deposited earnest money shall stand forfeited to the government.

22. TECHNICAL SPECIFICATION AND QUALITY OF WORKS:

Unless otherwise stipulated all the works are to be done as per the Technical Specifications of the tender document. Contractor may refer to the relevant PWD (W.B.) Schedule of Rates for the working area including up to date addenda and corrigenda, if any, published by Public Works Department, Government of West Bengal. The project should be executed as per IS CODE /IRC/MOST/MORTH standards or higher regarding the quality of materials and various items of works.

23. WORK ORDER :

Work order to the selected bidder will be issued after completion of all required formalities such as signing of agreement in a stamp paper as per format (agreement to be notarised & cost of stamp paper to be borne by bidder) and on receipt fund allocation from Finance Department Govt. of West Bengal.

24. DEDUCTION OF TAXES ETC:

Deduction of Income Tax from the Contractor's Bill will be made as per Govt. rules.

Labour Welfare Cess @ 1 %(one percent) of the cost of construction works will be deducted from every Bill of the selected agency. **Rates in the BOQ are without GST . Bidders should add applicable GST on the works done by them while submitting bills for payment..** GST will be imposed as per current Govt. order and rate notified in this respect .Any other statutory levy/ Cess will have to be borne by the contractor as per Govt. Rules . **Applicable GST SHOULD BE CHARGED BY BIDDER IN EVERY BILL** in addition to value of works done by them . DCF /Administration will deduct GST from submitted bill as per Govt. notification in this regard with up to date amendments.

25. MAINTENANCE PERIOD.

The Agency will be liable to maintain the work at working portion at the appropriate service level to the satisfaction of the Deputy Conservator of Forests, Administration, General Direction Division, W.B. at his own cost for a period of Security Period/Maintenance period which is **six months from the date of completion of the work** . If any defect/damage is found during the period as mentioned above, the Agency shall make the same good at his own cost. Failure to do so, penal action against the Agency will be imposed by the Government as deem fit. The Agency will have to quote his rate considering the above aspect. Also the Prospective Tenderers shall have to execute the work in such a manner so that appropriate service level of the work is kept during progress of work and the period of Security Period from the date of successful completion of the work to the entire satisfaction of the Deputy Conservator of Forests, Administration, West Bengal; may be considered towards release of “Security Deposit”.

In case of ascertaining Authority at any stage of application or execution of work necessary registered power of attorney is to be produced.

26. REMOVAL OF DISCREPANCY :

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

Form of Agreement

Tender Form

Technical Specifications

General Terms and Conditions

Relevant PWD(W.B.) Schedule of Rates

Instructions to Bidders

N.I.T.

27. MOBILISATION ADVANCE/ COST OVER RUN :

No Mobilisation Advance and Secured Advance will be allowed. Time / cost overrun and consequent cost of escalation for any materials, labour, P.O.L. etc. will not be allowed.

28. Canvassing in connection with the tender is strictly prohibited in the Tender submitted by the Contractor.
29. Site of work and necessary drawings may be handed over to the successful Tenderer along with the work order or in a phase wise manner as deemed fit by the Deputy Conservator of Forests, Administration, W.B.. No claim in this regard will be entertained.
30. The successful Tenderer will have to submit four sets of all the Tender Documents along with BOQ in connection with this Tender in hard copy within 7 (Seven) days from the date of receipt of Letter of Acceptance of the Tender. Failure to do so will be liable to termination/rejection of Tender with forfeiture of Earnest Money without any reference to the Contractor.
31. The successful Tenderer will have to start the work as per the work order to commence the work.
32. The Successful Tenderer shall have to comply with the provision of (a) the Contract Labour (Regulation & Abolition) Act, 1970 (b) the Apprentice Act, 1961 and (c) the Minimum Wages Act, 1948 (d) the West Bengal Building & other Construction Works' Act, 1996 and the Notifications thereof or other laws relating thereto and the rules made and orders issued there under from time to time, failure to do so will be treated as breach of contract and the Dy. Conservator of Forests, Administration, W.B. may in his discretion cancel the contract. The contractor shall also be liable for any liability arising on account of any violation by him of the provisions of the Act and rules made there under time to time.
33. The contractor shall not be entitled for any compensation for any loss suffered by him due to delay arising out of modification of the work, due to non-delivery of the possession of site and / or modification of drawing and design.
34. Prevailing safety norms has to be followed by the successful Tenderer during execution of the work so that LTI (Loss of time due to injury) is zero.
35. Guiding schedule of rates: For Building Works: Schedule of rates of P.W.D., W.B. latest edition for Building, Sanitary & Plumbing works, materials and labour along with corrigenda and addenda updated till date of issue of NIT.
36. No tender shall be deemed to be fit for consideration unless the tender documents are fully And Completely filled in. All information that may be asked from the Tenderer must be unequivocally Furnished. The eligibility of a Tenderer will be ascertained on the basis of the documents submitted by a Tenderer in support of eligibility criteria. If any document submitted by a Tenderer is found to be incomplete/incorrect/ manufactured / fabricated or false, his Tender will be out rightly rejected at any stage and legal action will be taken against him.
37. A Tenderer is to quote in figures as well as in words, his rates in the following forms as applicable in his cases against the estimated value put to tender of the tender form.
The rate shall be clearly and legibly written and the whole writing must be by the hand of the person signing the tender and the same pen and ink. Erasing and over writing SHALL NOT BE ALLOWED. Correction in the rate should be avoided but if this becomes unavoidable, the entire rate and not a portion only shall be scored out and signed (not simply initialled) by the Tenderer in token of such cancellation. A fresh rate in one of the specific form and in the specified manner shall then be correctly written.
38. In the event of a tender being submitted by a firm, it must be signed by a member or members of the firm having legal authority to do so and if called for, legal documentations in support thereon must be produced for inspection and in the case of a firm carried out by one member or a joint family it must disclose that the firm is duly registered under the Indian Partnership Act.
39. The Tenderer must sign at the bottom of each page of the tender documents as a proof of acceptance of terms and conditions of the Tender. Over writing shall not be allowed. All corrections, alternations etc. must be duly signed.

40. It must be clearly understood that the quantities of the various items indicated in the schedule or Probable, items are approximate only and may be appreciably increased or decreased during actual execution. The contractor shall remain effected by alteration.

RATES ARE FIRM FOR THE PERIOD OF THE PROJECT. INCASE ANY ABNORMAL DEVIATION IS OBESERVED DURING THE COURSE THE TENDER ACCEPTING AUTHORITY MAY REFER TO APPROPRIATE AUTHORITY AND TAKE A DECISION IN DECIDING ON THE RATE REVISIONS (IF NEEDED).

Administration,W.B.

Deputy Conservator of Forests,

Memo No:- 8680/CS/2M- 1353 /2017

Date : 20/11/2017

Copy forwarded for kind information to:

- 1). The Principal Chief Conservator of Forests,& Head of Forest Force, West Bengal, AranyaBhaban, Salt Lake, Kolkata-700106.
- 2) The Principal Chief Conservator of Forests, General, West Bengal.)
- 3) The Chief Conservator of Forests, Hqr,W.B.
- 4.) The Conservator of Forests, APM Circle.

Deputy Conservator of Forests,
Administration, W.B.

Memo No:- 8681/CS/2M- 1353 /2017

Date : 20/11/2017

- 1). The Deputy Conservator of Forests, MIS,AranyaBhawan with request for making arrangement of publishing Abridged e-tender notice in our departmental website for wide publication.

Administration,W.B.

Deputy Conservator of Forests,

Section – B
FORM-I
APPLICATION

To,

The Deputy Conservator of Forests,
Administration, W.B.
ARANYA BHABAN,
LA-10A, SECTOR-III, SALLAKE CITY
KOLKATA-700106

Subject: (Name of the Work with Tender reference No.)

Dear Sir,

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

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.

I/We are interested in bidding for the work mentioned above
I/We understand that

- (a) Tender Inviting Authority and Accepting Authority can amend the scope and value of the contract bid under this project
- (b) Tender Inviting Authority and Accepting Authority reserve the right to reject any tender without assigning any reason.

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

Enclosure:

- (1) Technical Proposal (Envelop-1/Folder)
- (2) Financial Proposal (Envelop-2/Folder)

Date: _____

Signature of authorized officer of the firm: _____

Title & Capacity of the officer: _____

Name of the Firm with Seal: _____

Section – B

AFFIDAVIT – Y

(To be furnished in Non-judicial stamp paper of appropriate value duly notarized)

- (I) I, the undersigned do certify that all the statements made in the attached documents are true and correct. In case of any information submitted proved to be false or concealed, the application may be rejected and no objection/claim will be raised by the undersigned.
- (II) The undersigned also hereby certifies that neither our firm M/S _____ nor any of constituent partners had been debarred to participate in tender by the Directorate of Forests /Government of West Bengal or any of the Statutory Bodies or Government Organizations in favour of whom credentials are preferred by the undersigned towards eligibility criteria claim; during the last 5 (five) years prior to the date of this N.I.T.
- (III) The undersigned would authorize and request any Bank, person, Firm, or Corporation to furnish pertinent information as deemed necessary and/or as requested by the Deputy Conservator of Forests, Administration, General Direction Division, W.B. herein referred to as the Tender Inviting & Accepting Authority, to verify this statement.
- (IV) The undersigned understands that further qualifying information may be requested and agrees to furnish any such information at the request of the Tender Inviting & Accepting Authority.
- (V) Certified that I have applied in the tender in the capacity of individual/as partner of a firm & I have not applied severally for the same job.

Date: _____

Signature of authorized officer of the firm: _____

Title & Capacity of the officer: _____

Name of the Firm with Seal: _____

Section-B**FORM II
(TO BE FILLED UP BY TENDERER)**

To,
The Deputy Conservator of Forests,
Administration,W.B.,
ARANYA BHABAN, Block-LA-10A, Sector-III,
Salt Lake City, Kolkata-700098.

Dear Sir/ Madam,

Ref:- Construction of Group-C Staff Quarter at Salt Lake, Kolkata
Tender Reference No.

1.- I/We refer to the tender notice issued by you for the General Building Works with sanitary & Plumbing & Internal electrical works in connection with the above.

1. I/ We do hereby offer to perform, provide execute, complete and maintain the works in conformity with the drawings, conditions of contract, specifications, Schedule of Quantities for the sum of Rs.As quoted in Financial Bid at the respective quoted percentage above/ below the rates mentioned in the Schedule of Quantities .
2. I/ We have satisfied myself/ ourselves as to the site conditions, examined the drawings and all aspects of tender conditions, subject above, I/ We hereby agree, should this tender be accepted in whole or in part , to:
 - (a) Abide by and fulfil all the terms and provisions of the said conditions annexed hereto;
 - b) Complete the works withindays.
3. I/ We have deposited the earnest money of Rs.....(Rupees only which, I/ We note bear, will not bear any interest and is liable for forfeiture.

Or

- (i) If our offer is withdrawn within the validity period of acceptance.
 - (ii) If the contract is not executed within 15 days from the date of receipt of the letter of acceptance. Or
 - (iii) If the work is not commenced within 10 days after issue of work order/ handing over of the site which ever is later.
4. I/ We understand that you are not bound to accept the lowest or any tender you receive.

Yours faithfully,

Signature.....
Designation :
Address :

Construction of Group-C Staff Quarter at Salt Lake City, Kolkata,
Tender Reference No.

Estimate for construction works for (Name of work) : Construction of Group-C Staff Quarter at Salt Lake City, Kolkata (Tender reference No.)

GENERAL SUMMARY

Sl.No.	Description	Amount
1	Construction of Group – C staff quarter at Baishakhi, Salt Lake,	Rs. 889632.00
	TOTAL Rs.	Rs.889632.00
	(in figures) Rupees eight lakh eighty nine thousand six hundred thirty two) only	

Time of Completion: 120.days

I/ We offer to execute the work :

- (i) At per with Rs. (Quoted in Financial bid duly uploaded by us./me as per priced schedule of quantities.
- (ii)%.....(in words) above the priced schedule of quantities .
- (iii)%.....(in words) below the priced schedule of quantities.

Total: Rs.. mentioned in Financial BOQ .

.....
.....

Signature of Tenderer
Accepting
With official seal

Signature of Tender Inviting
Authority

Signature of Tender
Authority

Signature of witness :
Name of Witness :
Address :

Section – B

**FORM – III
STURCTURE AND ORGANISATION**

A.1. Name of the applicant (Tenderer):

A.2. Office Address:

Telephone No.:

Fax No.:

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 staff with Bio-data

Date:_____

Signature of authorized officer of the firm:_____

Title & Capacity of the officer:_____

Name of the Firm with Seal:_____

Note: Application covers Proprietary Firm, Partnership, Pvt. Ltd. Company or Corporation

Section-B

**FORM- IV
EXPERIENCE PROFOILE**

LIST OF PROJECTS COMPLETED THAT ARE SIMILAR IN NATURE TO THE WORKS [REFER PARA 6 (a) (i)
(ii) (iii) -ELIGIBILITY CRITERIA]

Name of the Employer	Name, Location and nature of work	Name of authorized supervisor with designation	Contract price in Indian Rupees	Percentage of participation of Company	Original date of starting work	Original date of completion of work	Actual date of starting of work	Actual date of completion of work	Reasons for delay in completion

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.

Date.....

Signature of authorized officer of the firm :

Title and capacity of the officer :

Name of the firm with seal :

INSTRUCTION TO BIDDERS (ITB)

Section – A

GENERAL GUIDANCE FOR e-TENDERING

Instructions / Guidelines for prospective Bidders for electronic submission of the tenders online may be obtained from the site, <http://wbtenders.gov.in> to participate in e-Tendering process.

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 <http://wbtenders.gov.in> ; the contractor is to click on the link for e-Tendering site as given on the web portal.

DIGITAL SIGNATURE CERTIFICATE (DSC)

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

COLLECTION OF NIT & TENDER DOCUMENTS

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.

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 repeatedly 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 a single work as mentioned in the List of Work(s) of this NIT.

SUBMISSION OF TENDER

General process of submission: Tenders are to be submitted online through the website stated in Clause 2 in two folders at a time for each work, one in Technical Proposal & the other in 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).

TECHNICAL PROPOSAL

The Technical proposal should contain scanned copies of the following Tender Documents in two covers (folders) namely Statutory Cover and Non-Statutory Cover:-

A-1) Statutory Cover containing

Application (ITB, Section B (Form I, Form II Form III Form IV))

- i) Remittance Challans obtained through GRIP portal of Finance Dept. W.B. for deposition of cost of tender documents (Tender Fees) as prescribed in the N.I.T. should be remitted against each serial of work in favour of "The Deputy Conservator of Forests, Administration" in Kolkata.
- ii) Remittance Challans obtained through GRIP portal of Finance Dept. W.B. for deposition of Earnest Money Deposit (EMD) as prescribed in the N.I.T. against each of the serial of work in favour of "The Deputy Conservator of Forests, Administration", payable in Kolkata.
- iii)NIT (properly downloaded, digitally signed and uploaded)
- iv)ITB (properly downloaded, digitally signed and uploaded)

- vi) Tender Form (properly downloaded, digitally signed on both the pages and upload the same except quoting rate, quoting rate will only be encrypted in BOQ in Financial Bid). In case any rate is quoted in Tender Form, the tender is liable to be summarily rejected.
- vii) Technical Specifications (properly downloaded, digitally signed and uploaded)

A-2) Non-Statutory Cover containing:

i) Certificates:

- a) Valid and up to date Professional Tax (P T) deposit receipt challan.
- b) GST registration Certificate.
- c) Income Tax Return Acknowledgement Receipt.
- d) Income Tax PAN Card.
- e) Voter I Card
- ii) Proprietorship Firm - Trade Licence
- iii) Partnership Firm - Registered Deed of partnership Firm, Registered Power of Attorney, Trade Licence.
- iv) Private Limited Company - Registration Certificate under Company Act, Memorandum of Association (MOA) & Articles of Association (AOA), Registered Power of Attorney, Trade Licence.
- v) Organization chart showing the structure of the company with names of Key personnel and Technical

Staff with Bio-data along with Structure & Organization. (ITB, Section – B, Form – III).

- vi) Affidavit (Ref:- format shown in "Affidavit - Y" of ITB, Section -B).
- vii) **Note:- Failure of submission of any of the above mentioned documents will render the tender liable to be summarily rejected for both Statutory & Non Statutory Cover.**
- viii) **The above stated statutory/non-statutory/technical documents should be uploaded in the following manner**
- ix) 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 Document.

Deputy Conservator of Forests,
Administration. W.B.

GENERAL TERMS & CONDITIONS OF CONTRACT

1. Drawing:

The work is to be carried out in accordance with drawings related to these contract and specification, the priced schedule of probable items with approximate quantities and directions or instructions which may be issued by the Employer or his Representative from time to time during the execution of the contract.

2. Interpretations:

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

i) The term **EMPLOYER/AUTHORITY** shall mean Deputy Conservator of Forests, Administration, West Bengal, Directorate of Forests, Govt. of West Bengal, AranyaBhaban, LA-10, Salt Lake City, Sector-III, Kolkata-700106 and include its successor and assigns or the Officers authorized to deal with any matters which those presents are concerned on its behalf.

ii) The term **REPRESENTATIVE** shall mean Authorized Official of the Dy. Conservator of Forests, Administration, W.B.

iii) **CONTRACTOR** shall mean the firm or company whose tender has been accepted by the employer and includes his (their) heirs, legal representative assigns and successors.

SITE shall mean the site of the contract work including any building and erections thereof and any other land adjoining thereto (inclusively as aforesaid allotted by the Employer for the contractor's use).

iv) This **CONTRACT** shall mean Articles of Agreement, these conditions, the schedule of quantities, the general instructions to the Contractor, the specifications, the drawings and correspondences by which the contract is added, amended, valued or modified in any way by mutual consent.

v) **ACT OF INSOLVENCY** shall mean any act of insolvency as desired by the Presidency Towns Insolvency Act or the Provincial Insolvency Act or any amending statutes.

vi) **THE WORKS** shall mean the work or works to be executed or done under this contract.

vii) **The DRAWINGS** shall mean the drawing or drawings mentioned in Clause (1) and any modifications of them approved by the Architects duly approved by the Employer or any further Working drawings or sketches by the Employer or any further working drawings or sketches which may be furnished or approved in writing by the Employer.

viii) **The SPECIFICATION** shall include the structural specification and general specifications forming part of this contract.

ix) The **SCHEDULE OF QUANTITIES, BILL OF QUANTITIES** shall mean the Schedule or Quantities as specified and forming part of contract.

x) **The PRICED SCHEDULE OR QUANTITIES** shall mean the schedule duly priced.

xi) **NOTICE IN WRITING** or **WRITTEN NOTICE** shall mean a notice in writing typed or printed characters sent (unless delivered personally) or otherwise proved to have been received by Registered Post to the last known private or business address as registered office of the addressee and shall be deemed to have been received when in the ordinary course of post it would have been delivered. If the employer feels that the contractor (who has signed the agreement) should himself come & personally meet to the employer for necessary discussion in connection with the work; he must contact personally. In case the contractor (not his authorized person) does not meet personally and intentionally avoids or do not reply the letter, the matter will fall under the breach of the

contract. The work progress should be in the proportionate of the time frame set forth for the completion of the works.

Signature of Bidder

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xii) The term **APPROVED DIRECTED or SELECTED** mean the approval direction or selection of the Employer and where ever the words ALLOW, INCLUDE, and PROVIDE occurs the cost of the items is as the risk of the contractor.

xiii) **COMPLETION** shall mean that the building in the opinion of the Architects fit for occupation/use

XIV) **WORDS** imputing persons include Firms and Corporation, words imputing the singular only also the plural and vice/versa where the context so requires.

3. Scope of works:

The work to be done is covered in this tender. The same has been detailed in the drawings and schedules of probable items with approximate quantities. It includes furnishing all materials, labour, tools and equipment and management necessary for and incidental to the construction and completion of the work. All work during its progress and upon completion shall conform to lines elevation and grades as shown on the drawing furnished by the employer. Should any details essential for efficient completion of the work be omitted from the drawings and specifications it shall be the responsibility of the Contractor to inform the Employer and to furnish and install such details with their concurrence, so that upon completion of the proposed work the same will be acceptable and ready for use The Bidders are to note that the scope of work as mentioned may be reduced to any extent which is absolutely at the discretion of the Employer. This reduction of the extent of work should not be a criterion for extra claim in respect of materials stored, establishment and cost incurred or any other losses occurring out of these causes. The Contractor shall carry out and complete the works in every respect in accordance with this contract and in accordance with the directions and to the satisfaction of Employer who shall be the final authority. The Employer may in their absolute discretion issue further drawings and /or written instructions, details, direction and explanations which are hereafter collectively referred to as the Employer's instructions in regard to:

- a) The variation or modification of the design, quality or quantity of works or the addition or omission or substitution of any work.
- b) Any discrepancy in the drawings or between the schedule of Quantities and /or Drawings and/or Specifications.
- c) The removal from the site of any materials brought thereon by the Contractor and the substitution of any other materials thereof.
- d)The demolition, removal and/or re-execution of any work executed by the Contractor.
- e) The dismissal from the work of any person employed thereupon.
- f) The opening up for inspection of any work covered up.
- g) The rectification and making goods of any defects under Clause hereinafter and those arising during the maintenance period (retention period).

The Contractor shall forthwith comply with and duly execute any work comprised in such Employer's instructions provided always that verbal instructions, directions and explanations given to the Contractor or his representative upon the works by the Employer shall, if involving a variation, be confirmed in writing by the contractor within seven days. No work, for which rates are not specifically mentioned in the priced schedule of quantities, shall be taken up without written permission of the Employer. Rates of items not mentioned in the Priced Schedule of Quantities shall be fixed by the Employer, as provided in Clause **VARIATION**. If complete with the Employer's instructions as aforesaid involves work and/or loss beyond that contemplated by the Contract then, unless the same were issued owing to

some breach of this contract by The Contractor, the Employer shall pay to the Contractor the price of the said work an extra to be valued as hereinafter provided and /or loss.

4. Variations:

The Contractor may when authorized and shall when directed, in writing by the Employer or one or more representative of Employer whom the Employer may for that purpose appoint, shall be bound to add or omit from or vary the works shown upon the Drawings or described in specification or included in the Schedule of Quantities but the Contractor shall make no addition, omission or variation without such authorization or direction. A verbal authority or direction by the Employer, if confirmed by the Contractor in writing within seven days, be deemed to have been given in writing.

No claim for an extra shall be allowed unless it shall have been executed by the Contractor on specific direction on the Authority of Employer as herein mentioned any variation i.e. additions, omissions or substitutions shall vitiate the Contract. The employer may order to construct 10" wall instead of 5", wherever necessary, the contractor will be bound to do such work(s) on same schedule rates. If the employer feels that the whole or part of works of any item of estimate is to be done departmentally, or nature of work is changed such conditions shall be acceptable for the contractor. The rates of items not included in the Schedule or Quantities shall be settled by the Employer in accordance with the following rules:

(a) For the rates for the additional, altered or substituted work the Contractor shall, within 7days of the date of receipt of the order to carry out the work, inform the Employer of the rates which it is his intention to charge for such class of work, supported by required documents, vouchers etc. and analysis of rates claimed and the Employer shall determine the rates on the basis of the prevalent market rates and certify for the payment accordingly. The analysis shall be prepared on the basis of actual cost of materials and labour plus 12 (twelve) and half percent to cover overhead supervision and profit etc.

However, the Employer, by notice in writing, will be at liberty to cancel their order to carry out such class or work and arrange to carry out as they may consider advisable. But under no circumstances, the Contractor shall suspend the work on the plea of non-settlement of the rates of item falling under this clause.

(b) Where extra work cannot be properly measured or valued the Contractor shall be allowed day work price as the net rates stated in the Tender or the schedule of quantities, if not so stated, then in accordance with local day work rates and wages for the district provided that in either case vouchers specifying the daily time(and if required by the Employer the workman's names) and materials used be delivered for verification to the Employer at or before the end of the work following that in which the work has been executed.

(c) As regards determination of the rates, the decision of the Employer shall be accepted as final. No supplementary items shall be taken up for execution except with prior written approval of the employer. The Employer is not bound to recognize the cost of materials furnished in vouchers and in case the market value of such materials are found to be lower than the depicted in the vouchers the Employer at their discretion will fix the price of such materials based upon market value. The contractor may be asked to produce original bills and /or Cash Memos in respect of purchases of

such materials from in market. Bills and Cash Memos in this regards shall not be entertained unless purchases are affected from registered regular merchants engaged in the trade of such items.

5. Deviations:

No deviation from the contract will on any account be allowed unless an order in writing is obtained from the Employer.

Signature of Bidder

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6. Site Conditions:

The contractor shall inspect the work site where the work under this contract are to be carried out, and note carefully the area restrictions and obtain for themselves at their own responsibility all the information which may be necessary for the purpose of the successful execution of the contracted work. They must also make themselves conversant with all the local conditions, means of access to the site of work, transport facilities and character of the work, the supply of materials, conditions affecting labour and other matter that may affect their tender. Employer does not undertake any responsibility, to obtain any concessions, permission from the owner of the adjoining plot or from other party in respect of any allowance, access, encroachments etc. whether for the facility of the works or otherwise. No claim therefore will be entertained should Contractors have failed to comply with this condition. All furniture, equipment are required to be maintained are to be kept free from damages due to operation connection with the work. The site shall be made available to the Contractors in the present condition. Site organization within this site boundary shall be the responsibility of the Contractors.

7. Persons Tendering shall visit SITE Etc.

Persons tendering shall visit the site and make themselves thoroughly acquainted with the nature and requirements of the case, facilities of transport, conditions affecting labour and materials and removal of rubbish, cost of carriage freight and other charges and shall allow for in their tenders for any special difficulty in carrying out the work and including police restrictions for transport although these may not be mentioned in this specifications.

8. Contractor to provide everything necessary:

The Contractor shall provide everything necessary (all inclusive and fixed rates for the proper execution of the work according to the intent and meaning of the drawings, schedule of probable items with approximate quantities, specifications taken together whether the same may or may not be particularly shown or described there in provided that the same can reasonably be inferred therefore and if the Contractor finds any discrepancy therein, he will immediately refer the case in writing to the Employer whose decision shall be final and binding on the parties. Figures dimensions shall be followed in; preference to scale. The Employer shall on no account be responsible for the expense incurred by the Contractor for hired ground or water obtained from elsewhere. The quantities given in the schedule of quantities are only indicative being based on preliminary design and are liable to modification in the final design. The schedule of items and quantities include so far as can at present be determined, every class pre-operation of construction or materials which the Contractor is likely to be called upon to perform or supply. The rate quoted against individual item will be inclusive of everything necessary to complete the said items of the work within the contemplation of the contract and beyond the unit prices no extra payment will be allowed for individual or contingent work, labour and /or materials inclusive of all taxes and duties whatsoever except for specific items, if any, stipulated in the tender documents. The Contractor shall supply, fix and maintain at his own cost during the execution of any work all the necessary centring scaffolding staging, timbering, strutting, watching and lighting by night as well as by day, required not only for the proper execution and protection of the said work, but also for the protection of the public and the safety or any adjacent roads, cellars, vaults, ovens, pavements walls houses, buildings and all other creations, matters and things, and the Contractor shall take down and remove any or all such

centring scaffolding, staging, planking timbering when ordered so to do, and shall fully reinstate and make good all matters and things disturbed during the execution of work to the satisfaction of the Employer. The Contractor, shall at all times give access to workers employed by the Employer or any man employed on the buildings and to provide such parties with proper,

Signature of Bidder

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sufficient and if required, special scaffolding, hoists and ladders and provide them with water and lighting and leave or make and holes, groves etc. in any work, where directed by the Employer as may be required to enable such workmen to lay or fix pipes, etc. electric wiring, special fittings etc. The quoted rates for the Bidders shall be quoted accordingly to include for all these above mentioned contingent works. The Contractor will provide adequate watching and protection of materials against theft or damage with night lighting and watching. The Contractor shall not affix or place any placards or advertisement of any description or permit the same to be affixed or placed in or upon any boarding gantry building structure other than that approved by the Employer.

9. PROTECTIVE MEASURES:

The Contractor from the time of being placed in possession of the site must include for watching, lighting and protecting the work, the site and surrounding property by day, by night, on Sundays and other holidays. The Contractor shall indemnify the Employer against any possible damage to the buildings, roads, or members of the public in course of execution of the works.

10. Access:

The Employers/Representatives of the manufacturer of the materials (used for the work) shall at all reasonable times have free access to the work/and or other places where materials are being prepared for the contract and also to any place the materials are lying or from who they are being obtained and the Contractor shall give every facility to the all of them and their representatives necessary for inspection and examination and test of the materials and workmanship. Except the representatives of Public Authorities no person shall be allowed on the work at any time without the written permission of the Employer. If any, work is to be done at a place other then the site of the work, the Contractor shall obtain the written permission of the Employer for doing so.

11. Quality of Materials & Workmanship:

All the works specified and provided for in the specification or which may be required to be done in order to perform and complete and part thereof shall be executed in the best and most workmanlike manner with materials to the best and approved quality of the respective kinds in accordance with the particulars contained in and implied by the specification and as represented by ;the drawings or according to such other additional particulars and instructions as may from time to time be given by the Employer during the execution of the work and to their entire satisfaction. If required by the Employer of the Contractor shall have to carry out tests on materials and workmanship in approved materials testing laboratories or as prescribed by the Employer at his own cost to prove that the materials etc. under test conform to the relevant I.S. Standards or as specified in the Specification. No extra payment on this account should in any case be entertained. The Contractor shall upon the request of the Employer, furnish them with all invoices, accounts, receipts and other vouchers to prove that the materials, comply therewith. A list showing the name of the firm from whom it is proposed to obtain the various materials must be submitted and approved by the Employer in writing before procuring the required materials. All the materials (except where otherwise described) stores and equipment required for the full performance of the contract must be provided through normal channels and must include for import duties Octroi, sale tax other charges and must be the best of their kind available at the time and the contractor must be entirely responsible for the proper and efficient carrying out of the work. The work must be done in the best workmanlike manner. Samples of all materials to be used must be submitted to the Employer when so directed by the Employer and written approval from Employer must be obtained prior to placement of orders. During inclement weather the Contract shall suspend plastering and outside painting work for such time as the Employer may direct and shall protect from injury all work

done in course of execution. Should the work be suspended by reason of rain, strike, lockouts or any other cause the Contractor shall take all precautions necessary for the protection of work and at his own expenses shall make good any damage arising from any of these cause. The Contractor shall

cover up; and protect from damage from any cause, all new work and supply all temporary doors, protection to windows and any other requisites protection for the whole execution of the work whether by himself for special trade man or sub-contractor and any damage caused must be made good by the Contractor at his own expenses.

12. Removal of Improper Work:

The Employer shall during the progress of the work have power to order in writing from time to time the removal from the work within such reasonable time to times as may be specified in the order of any materials which in the opinion of the Employer are not in accordance with the specifications or their instructions, the substitutions of proper materials or workmanship not in accordance with the drawings and specifications or instructions and the Contractor shall forthwith carry out such an order. The Employer shall have the power to employ and pay other persons to carry out the same and all expenses consequent thereon or incidental there to as certified by the Employer shall be borne by the Contractor or may be deducted by the Employer from any money due or that may become due to the Contractor. No certificates which may be given by the Employer in these respects shall relieve the Contractor from his liability in respect of unsound work of bad materials.

13. Contractor's Employees:

The Contractor shall keep for the full time a qualified and competent Engineer approved by the Employer, assisted with adequate staff constantly on the work, who will be responsible for the carrying out of the work to the true meaning of the drawings, specifications and schedule and quantities and instructions and directions given to him by the Employer. Any directions or instructions given to him in writing shall be held to have been to the Contractor officially. The Employer will have at all times access to the workshop and at site for inspection and examination of the work and materials proposed to be used. Authorised representatives of the Contractor shall have power of Attorney for receiving materials, cheque, signing measurement book etc. Any Supervisor, foreman, labour or other persons employed on the work by the contractor who fails or refuses to perform the work in the manner specified herein shall be discharged immediately, and such persons shall not again be employed on the work. When required in writing by the Employer the Contractor shall discharge any person(s) who is, in their opinion, incompetent, disorderly or otherwise unsatisfactory. Such Discharge shall not be the basis of any claim for compensation or damages against the Employer or any of its officers or employees. The Contractor shall employ local labourers on the work as far as possible. No labour shall be employed on the work who is below the age of sixteen years and who is not an Indian National. If female labour is engaged the Contractor shall make necessary provision for safeguarding small children and keeping them clear of the site of operations. The Contractor shall at his own expenses provide or arrange for provision of foot-wear for any labour doing cement mixing work. Any labourer supplied by the Contractor to be engaged on the work on daily work basis either wholly or partly under the direct order or control of the Employer or their representative shall be deemed to be a person employed by the Contractor. The Contractor shall comply with the provisions of all labour legislation including the requirements of payment of wages Act. 1936, minimum wages Act, 1948 and Workman's Compensation Act the rules framed there under and modifications thereof in respect of men employed by him in carrying out the contract. It shall be the responsibility of the Contractor to see that any sub-contract under him, similarly complies with the above requirements. (The Employer shall not however recognize any sub-contract or sub-contractor). The Contractors shall keep the Employer saved, harmless and indemnified against claims if any of the workmen and all costs and expenses as may be incurred by the Employer in connection with any claim that may be made by any

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

Signature of Bidder

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14. Working Hours:

Each shift shall be at least of eight hours duration and that the work must be completed within the specified in the tender document. The Contractor for the purpose may have to work round the clock without any extra payment. Work shall also be done on Sundays and Holidays with prior permission of the respective authority.

15. Temporary Water Supply:

The Contractor shall make suitable arrangement for supply of water for the work. The Employer may, however, provide source of water at the premises if available in site location and the Contractor shall have to make their own arrangement for carrying water at the work site.

16. Power/Water Supply etc.:

The Electrical Power will not be available at the Premises on chargeable basis as per actual consumption of the Contractor at the rate of suppliers bill and water for the construction purpose will be supplied free of cost at single point. The network for Electrical and Water supply for the same will be installed by the Contractor at isown cost.

17. Clearing Away:

All rubbish and superfluous materials either from Contractor's own work or from works of other agencies shall be removed from the premises as these accumulate and the whole left clean and perfect on completion to the satisfaction of the Employer.

18. Contractor Not To Sublet:

The Contractor shall not without the written consent and approval of the Employer assign the agreement or sublet any portion of the work.

19. Agreement:

The successful Bidder shall have to enter into an agreement with the Employer. Stamp duty and all other costs connected with execution of such agreement shall be borne by the successful Bidders.

20. Maintenance Period and Defects after Completion:

The Contractor shall make good at his own cost and to the satisfaction of Employer all defects, shrinkages or other faults arising in the option of the Employer from workmanship or materials not being in accordance with the drawings or specification of schedule of quantities or the instruction of Employer which may appear within the maintenance period. The maintenance period shall mean a period of maintenance to be calculated from the date of completion of work. The maintenance period shall be six months after completion of work .

The defect, shrinkage settlements or other faults which may appear within six months after the virtual completion of the work (hereinafter called as the defects liability period) arising in the opinion of the Representative who shall be final authority for materials and workmanship not in accordance with the contract, shall upon the directions in writing of the Representative and within such responsible time specified therein, be amended and made good by the Contractor at his own cost unless the Representative shall decide that he ought to be paid for such amendment and for making good and in case of default the Employer may employ and pay other persons to amend and make good such defects, shrinkage, settlement or other faults and all damages loss and expenses shall be recoverable from him by the Employer or may be deducted by the Employer from any money due or that may become due to the Contractor.

21. Materials:

The selected Contractor must arrange to procure all materials required for the proper completion of the work including cement and steel. The Employer will not on any account be responsible for procuring the same. The non-availability of the above materials shall not in any way be considered to be an excuse for the extension of time.

Signature of Bidder

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22. Method of Measurement:

Unless otherwise mentioned in the schedule of quantities the measurement will be net quantities of the work produced in accordance with the up-to-date rules laid down by the Indian Standard Institution. In the event of any disputes with regard to the measurement of work executed the decision of the Employer shall be final and binding.

23. Earnest Money & Security Deposit:

A) EARNEST MONEY:

Earnest money as in tender notice is to be deposited along with the tender. No tender will be considered without the above deposit. Deposited Earnest money will be released on receipt application from the tenderers after signing of agreement with selected bidder and after issuance of work order.

B) SECURITY DEPOSIT:

The successful Bidder to whom a Letter of Acceptance has been issued shall submit within 10 (ten) days from the date of Letter of Acceptance, Security Deposit which is 10% of accepted bid amount . Security Deposit shall have to be deposited through challan to be procured **through GRIP Portal of Finance Dept.W.B.** Remittance of Security Deposit through challan should be in favour of Deputy Conservator of Forests, Administration, W.B. Failure to deposit the Security Deposit as aforesaid within the specified time will constitute a breach of the contract rendering the contract liable to termination with forfeiture of the initial Earnest money deposited with the tender without any reference to the Bidder. After deposition of Security Deposit the contractor shall have to sign an agreement (as per given format) in a stamp paper (cost of stamp paper shall be born by contractor). The entire security deposit shall be held till the work is completed in all respects with full satisfaction of the Employer and till the expiration of the maintenance period. **Employer shall not pay interest on the Earnest Money and Security Deposit.**

24. PAYMENT:

Payment shall be made to the Contractor by the Employer on the certified bills of the Representative of the Employer after full completion of work after statutory deductions like, I.Tax, Labour Welfare Cess, etc. Applicable GST should be added in bills of measured items of works done by contractor . Payment on materials stocked at site shall not be made. Payment of supplementary items shall only be made after those one entered properly in the site instruction book, approved and sanctioned by the Employer. Payment of entire work will be made AFTER COMPLETION OF TOTAL WORK. However if contractor desires for a part payment, it may be made on measurement of works done by the contractor . But it will be on the basis of performance and progress of work.

25. Release of Security Deposit:

The security money will be released only after completion of maintenance period. Partial security money will not be released during the maintenance period.No interest will paid on Security Deposit.

26. Substitution:

Should be Contractor desire to substitute any materials and workmanship, he must obtain the approval of the Employer, in writing for any such substitution well in advance. Materials designated in this specification indefinitely by such terms and 'Equal' or other Approved etc. shall be considered

as coming under the provisions of this clause as substitutions and no such materials shall be used until specific approved by the Employer has been obtained in writing.

27. Commencement and Completion of Work:

EXTENSION OF TIME AND LIQUIDATED DAMAGES FOR DELAY:

The entire work is to be completed in all respects in stipulated times as mentioned in the Tender Notice from the date of issue of work order. Time is essence of contract and shall be strictly observed; by the Contractor.

Signature of Bidder

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The date of commencement of the work shall be the date on which the work order is issued to the Contractor or the date when the Contractor take possession of the site officially whichever is later. The Contractor shall complete the work in all respects to the satisfaction of Employer within the stipulated time. failing which the Contractor shall be bound to pay compensation at the rate of ½ per cent (half per cent) over the total tendered value of work for delay of every week or part of a week by way of liquidated damages and not as a penalty. Provided always that the entire amount of compensation to be paid under the provision of; this clause shall not exceed 10 per cent of the contract price. The payment or deduction of such damages shall not relieve the Contractor of his obligation to complete the work or from any other obligation and liability under the contract.

The work shall not be considered as completed until the Employer has certified in writing that they have been completed and the maintenance period shall commence from the date of such certificate.

28. Escalation of Prices:

The rates quoted by the Contractor shall be firm throughout the tenure of the contract (including extension of time, if any granted) and will not be subject to any fluctuation due to increase in cost of materials, labour, Octroi etc.

29. Possession Prior to Completion:

The Employer shall have the right to take possession of or use any completed or partly completed part of the work. Such possession or use shall not be deemed to be an acceptance of any work not completed in accordance with the contract agreement.

30. Damage to Persons and Property/Insurance in respect of:

The Contractor shall be responsible for all injury to persons, animals or things, and for all damage to the structural and /or decorative part of property which may arise from the operations or neglect of himself or of any sub-contractor or of any of his sub-contractor's employees, whether such injury or damage arises from carelessness, accident or any other cause whatever in any way connected with the carrying out of his contract. This causes shall be held to include, internals, any damage to building, whether immediately adjacent or otherwise and any damage to roads, streets, footpaths, bridges or ways forming the subject of this contract by frost, rain, wind or other inclemency of the weather. The contractor shall indemnify the employer and held them harmless in respect of all and any expenses arising from any such injury or damage to persons or property as aforesaid and also in respect of any claim made in respect of injury or damage under any acts of Government or otherwise and also in respect of any award or compensation or the Contractor shall restore and repair all damage of every sort mentioned in this clause so as to deliver up to the whole of contract works complete and perfect in every respect so as to make good or otherwise satisfy all claims for damage to the property of the third parties. The contractor shall indemnify the Employer against all claims which may made against the Employer by any member of the public or other third party in respect of anything which may arise in respect of the works or in consequence thereof and shall at his own expense arrange to effect and maintain, until the completion of the contractor with any approved Insurance Company, a policy of insurance in the joint policy or policies with the Employer from time to time during the currency of this contract, and shall duly and punctually pay the premium payable thereof and if so required produce receipts for such payments, for the inspection of the Employer. The Contractor shall also indemnify the Employer against all claims which may be made upon the Employer, whether under the workman's Compensation Act or any other Stature in

force during the currency of this contract or common law in respect of any injury to any of the contractor's or /and sub-contractor workmen or labour and shall at his own expense effect and maintain until the completion of the contract, with the approved Insurance Company a policy of Insurance in the joint names of the Employer and the Contractor against sub-risks and deposit such policy or policies with the Employer from time to time during the currency of this contract.

Signature of Bidder

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The Contractor shall be responsible for anything which may be excluded from the Insurance Policies above referred to and also for all other damage to any property arising out of an incidental to the negligent or defective carrying out of this contract.

The Contractor shall also indemnify the Employer in respect of any costs, charges or expenses arising out of any claims or proceeding and also in respect of any award of compensation of damages arising therefore the Employer shall be at liberty and have the power to deduct the amount of any damages, compensation costs, charges and expenses arising or to become due or to become due to the Contractor. The Contractor shall on signing the contract, issue the works and keep them insured (the works and keep them insured) until the Completion of the contract against loss or damage by the fire and /or earthquake with any approved Insurance Company in the joint name of the Employer and the Contractor for the full amount of the contract and for any further sum if called upon to be so by the Employer the premium of such further sum being allowed to the Contractor as an authorized extra. Such policy shall cover the property of the Contractor or of any sub-contractor or Employees. The Contractor shall deposit the policy and receipts for the premium with the Employer within 21 days from the date of signing the contract unless otherwise instructed by the Employer.

In default of the Contractor insuring as provide above, the Employer on his behalf may so insure and may deduct the premium paid from any money due or which may become due to the Contractor. The Contractor shall as soon as the claim under the policy is settled or the work reinstated by the Insurance Company should they elect to do so, proceed with all due diligence with the completion of the work in the same manner as through the fire had not occurred and in all respect under the same conditions of contract. The contract shall in case of rebuilding or reinstatement after fire shall be entitled to such extension of time for completion as the Employer may deem fit.

31. Termination of Contract by Employer:

If the Contractor (being an individual or a firm) commit any Act of Insolvency or shall be adjusted an insolvent or shall make and assignment or composition of the greater part in number or amount of his creditors or shall enter into a deed of assignment with his creditors, or (being incorporated company, shall have an order made against him or pass an affective Resolution for winding up either compulsorily or subject to the supervision at the Court of voluntarily, or if the official Assignee of the Contractor shall repudiate the contract, or if the official Assignee or the Liquidator in any such winding up shall be unable within 7 days after notice to him requiring him to do so, to show to the responsible satisfaction of the Employer that he is able to carry out and fulfil the contract and if required by the Employer to give security or if the Contractor (whether an individual firm or incorporated company) shall suffer any payment under this contract to be attached by or on behalf of any of the creditors of the creditors of the Contractor or if the Contractors shall assign or sublet the contract without the consent in writing of the Employer first obtained or if the Contractor shall charge or encumber this contract or any payment due to which may become due to the Contractor there under, or if the Employer shall certify in writing of that in his opinion the Contractor:

- a) has abandoned the contract, or
- b) has failed to commence the work, or has without any lawful excuse under these conditions suspended the progress of the work for 14 days after receiving from the Employer written notice to proceed, or

c) has failed to proceed with the work such due diligence and failed to make such due progress as would enable the work to be completed within the time agreed upon, after receiving from Employer to employ more men, or,

d) has failed to remove materials from site or to pull down and retained work within 7 days after receiving from the Employer as written notice that the said materials or work were condemned or rejected by the Employer under those conditions, or,

Signature of Bidder

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e) has neglected or failed persistently to observe and perform all or any of the acts, matter or things by this contract to be observed and performed by the Contractor for 7 days after written notice shall have been given to the contract requiring the Contractor to observe or perform he same, or

f) has to the detriment of good workmanship or define of the Employers instruction to the contrary sub-let any part of the contract.

Then and in any of the said causes the Employer notwithstanding any previous order after giving 7 days notice in writing to the Contractors, determine the contract, but without thereby affecting the powers of the Employer of the obligations and liabilities of the Contractor, the whole of which shall continue to be in force as fully as if the Contractor has not been so determined and as if the works subsequently executed has been executed by or on behalf of the Contractor, and further the Employer his agents, or servants, may enter upon and take possession of the works and all plants, tools, scaffolding, sheds, machinery steam and other power, utensils and materials, lying upon the premises or the adjoining lands or roads and use the same as his own property or may employ the by means of his own servants and workman in carrying on and completing the work or by employing any other Contractors or other persons or person to complete the work, and the Contractor shall not in any way interrupt, or do any etc., matter, or thing to prevent or hinder such other Contractor or other person or persons employed for completing and finishing or using the materials and plant for the work When the works shall be completed or as soon thereafter as convenient the Employer shall give a notice in writing to the Contractor to removed his surplus materials and plant and should the Contractor fail to do so within a period of 14 days after receipt thereof by him, the Employer may sell the same by public auction and hall give credit to the Contractor or for the amount so realized.

The employer shall thereafter ascertain and certify in writing under his hand that (if anything) shall be due or payable to or by the Employer, for the value of the said plant and materials so taken possession of by the Employer and the expense or loss which the Employer shall have been put to in getting the work to be so completed and the amount if any owing to the Contractor and the amount which shall be certified shall thereupon be paid by the Employer, as the case may be and the certificate shall thereupon be paid by the Employer, as the case may be and the certificate of the Employer shall be final and conclusive between the parties.

32. Settlement of Dispute, Arbitration:

Except where otherwise provided in the Contract, all questions and disputes relating to the meaning of the specifications, designs, drawings and instruction herein before mentioned and as to the quality of workmanship or materials used on the work, or as to any other question, claim, rights, matter, or things whatsoever, in any way arising out of or relating to the contract, design, drawings, specifications estimates, instructions, orders or these conditions or otherwise concerning the works or the execution or failure or execute the same, whether arising during the progress of the work or after the completion or abandonment thereof shall be referred to the sole arbitration of the Chief Conservator of Forests, Headquarters, Directorate of Forests, Govt. of West Bengal. Should the Chief Conservator of Forests, Headquarters, West Bengal, be for any reason unwilling or unable to act as such arbitrator, such questions and disputes shall be referred to an arbitrator to be

appointed by the DIRECTORATE OF FORESTS, GOVT OF WEST BENGAL, Kolkata. The award of the arbitrator shall be final, conclusive and binding to both parties to this contract and no suit shall lie in Civil Court in respect of the award by the Arbitrator.

“ARANYA BHABAN”,
LA-10A, SECTOR-III , SALLAKECITY,
KOLKATA-700106
WEST BENGAL
Deputy Conservator of Forests,

Administration ,W.B.

TECHNICAL SPECIFICATION FOR BUILDING WORKS

CIVIL WORKS

MATERIALS : GENERAL :

All materials to be used in works shall conform to Indian Standards specifications as published by I.S.I. from time to time (and in the absence thereof as approved by employer).

A-1) BRICKS :

All bricks shall be approved quality of standard specifications, made of good brick earth, uniform deep red, cherry colour, thoroughly burnt in kiln (machine made) without being vitrified, regular in shape and size, sound, hard, homogeneous in texture, true to shape and of standard dimensions and shall be free from cracks, chips, flaws, stones or humps of any kind and shall not show appreciable signs of efflorescence either dry or subsequent to soaking in water. The bricks shall emit a clear ringing sound on being struck and have a minimum crushing strength of 70kg / sq.cm. All the bricks which absorb water more than 20% of their own dry weight after 24 hours immersion in cold water shall be rejected.

The bricks shall be locally available kiln burnt bricks of generally regular and uniform size, shape & colour uniformly well burnt but not over burnt. The bricks shall be free from cracks, chips, flaws, stones or lumps of any kind and the rating of efflorescence shall not be more than "moderate" when tested as per I.S. 3495 of latest edition. They shall not have any part unburnt. They shall not break even after being dropped on the ground on their flat face in a standard condition from a height of 60 cm.

The size of brick shall normally 250 mm x 125 mm x 75 mm or 230 mm x 115 x 65 mm. Bricks of one standard size shall be used on one work unless specially permitted by the Owner / Architects.

After immersion in water, absorption by weight shall not be exceed 20% of dry weight of the brick when tested according to IS 1077 of latest edition shall be less than 75 kg./Sq.cm.

Prior approval of owner / Architects shall be obtained for the brands of bricks to be used in the work after compliance with the above specifications tests.

A-2) COARSE AGGREGATES FOR CEMENT CONCRETE WORKS :

Stone chips or stone ballast for cement concrete (plain or reinforced) shall be hard, of uniform and fine texture, free from faults or planes of weakness and free from weathered faces and coatings. The ballast or chips must be free from loam, clay, or any surface coating, free from organic matter or other impurities and screened, free of dust. Trap stone of black and hard variety as is generally available from quarries in Pakur or Chandil areas will be normally used. Stone aggregates from other sources may also be used provided the same is a trap stone with high density, linear cleavage, low absorption of water and finally found suitable in the opinion of Employer. The opinion of employer must be recorded in writing. The ballast or chips shall be obtained by breaking from large blocks and must be more or less cubicle in shape. Stone aggregate with flakiness index more than 25% is not allowed.

A – 3) JHAMA : Chips, not to be used in structural concrete whether plain or R.C. for cement concrete work shall be obtained by breaking good quality over burn bricks or jhama bats, must not be spongy or with any coating of foreign materials and should be homogeneous in texture. The chips shall be more or less cubicle in shape and to be screened to make removal of dust. No under-burnt brick aggregates should remain present. All coarse aggregates for concrete works must be well-graded. These shall be screened for removal of dust and if so necessary in the opinion of employer shall be washed at the cost and expense of the contractor.

A – 4) SAND :

All sand shall be clean sharp and free from clay, loam, organic or any other foreign matter shall be obtained from approved source. The silt content should be as minimum as possible and in no case it should exceed 0.10% by wt. of fine aggregate. The contractor shall get the sample of sand to be used in different kinds of work approved by the Employer before using the same in work. Sand, which in the opinion of the Employer or his representative is dirty, must be washed to his satisfaction at the cost and expenses of the Contractor.

- 1) . Sand for all cement concrete work must be coarse. The sand shall pass through a mesh 4.75mm. square measured in the clear. Sand shall not be used for concrete works if contains more than 10% of fine grains through a 76 mesh sieve as used for cement test nor should fineness modulus be less than 2.00
- 2) Medium course sand may be used for cement mortar, for masonry plaster etc. Fineness modulus shall be between 2 to 1.8.
- 3) Sand filling in plinth or foundation where specified may be done with fine sand or silver sand but should be free from clay or loam.

A- 5) CEMENT :

Unless otherwise specified, cement shall be ordinary Portland cement / Slag cement of grade 43 or 53 conforming to IS : 8112 & IS : 12269 of approved make and brand and to be tested at an approved laboratory.

It shall be stored in a dry place in regular piles not exceeding 10 bags high and in such a manner that it is adequately protected from moisture and contamination.

Different consignments shall be stacked separately so that they can be used in the order in which they are received.

A – 6) STEEL REINFORCEMENT

1) MATERIALS :

Mild steel reinforcement shall be cold rolled mild steel bars conforming to IS : 432 – Grade – 1 or IS : 226 – 1962 – “ Standard Quality “. Other qualities of Steel shall not be acceptable.

Strength of cold rolled mild steel deformed bars shall conform to IS : 1139 and cold twisted deformed bars should conforming to IS : 1786.

Each consignment shall be of approved make and if necessary certificates of test performed by a recognized testing laboratory or the manufacturer shall be produced. These test certificates shall give the ultimate stress, yield stress, elongations and results of cold bend test. If further required steel shall be tested at an approved laboratory.

Reinforcing steel of different varieties and sizes and types shall be stacked separately.

Reinforcement bars shall be stored at the site in such a manner as to prevent rusting and contamination of the surface by deleterious materials like dirt, oil, grease, paint, etc.

When placed in the work, reinforcement shall be free of loose mill scale, rust, dirt, oil, grease, paint, etc.

Steel reinforcement shall always be protected from damages due to impact and rough handling.

2) FABRICATION, BENDING & SPLICING :

Bars shall be cut to size and bent to shape in accordance with the appropriate dimensions shown in the drawings. When an overall or an internal dimension of bent bar is specified, the tolerance unless otherwise specified, shall be as in Table 11 of IS : 2502.

Bars shall be bent cold gradually by machine or any other means approved by employer except in case of mild steel bars larger than 28mm. If approved by employer, mild steel bars greater, than 28mm. dia and conforming to IS : 433 only may be bent hot at cherry rod heat (not exceeding 850 C). Bars bent hot shall be allowed to cool gradually in air and shall not be cooled by quenching. High yield strength deformed steel bars shall not be hot bent.

Bars having cracks or splits shall be rejected.

All bars shall be properly tagged for easy identification.

All reinforcement shall be furnished in full length indicated in the drawing. Splicing of bars, except those shown on the drawings, will not be permitted without the written authority of employer.

At a tension splice, the minimum clear distance between bars shall be maintained. Splices in adjacent tension bars shall be staggered. At a compression splice, each side of lapped bar may be contacted but the minimum clear spacing between the splice and an adjacent splice shall be that specified for adjacent unspliced bars.

In no case shall the clear distance between two adjacent bars be less than the diameter of the bar (larger of the diameters to be considered if the adjacent bars of different diameters) or 6mm more than the maximum size of coarse aggregate used in the concrete Guidance as per I.S.I code 456.

Unless otherwise stated in the working drawing provisions of clause No. 25.4 of IS : 456 regarding cover to the reinforcement shall be followed.

3) PLACING AND FASTENING :

All steel reinforcement shall be accurately placed in position shown on the drawing and firmly held during the placing and setting of concrete. Bars shall be tied together with mild steel wire (annealed) not less than 0.9mm dia. (conforming to IS : 280) or secured with clips at all intersections. Where the spacing of intersection is less than 30cms. In each direction alternative intersections shall be tied. Binders shall tightly embrace and shall be securely held. Placing of bars on layers of fresh concrete as the work progress shall not be permitted. Adjusting bar spacing in concrete already poured shall not be permitted.

Distance of the bars from the form work shall be maintained by approved concrete spacer blocks, ties, hangers and other approved supports. Metal chairs which are in contact with the exterior surfaces of concrete where specially allowed shall be galvanized or painted with epoxy. Layers of bars shall be supported at correct spacing by precast mortar blocks or other equally suitable devices approved by the Engineer – In – Charge.

DIRECTORATE OF FORESTS, W.B.

The mortar for the precast blocks shall have the same composition as the concrete in which it is embedded and shall have been cured for at least 28 days before being placed in position. The use of pebbles, pieces of broken stone of bricks, metal pipe or wooden blocks will not be permitted for use as spacers.

No reinforcement shall be bent when in position in the work without the approval of employer whether or not it is partially embedded in concrete. Workmen will not be permitted to climb on bar extensions until the concrete has sufficient strength so as not to be damaged and no movement of the bar is possible.

A – 7) TIMBER :

All timber shall be of specified type best quality well – seasoned and / or well – treated for preservation and protection against decay etc. It shall be uniform in substance, straight in fibre free from large or dead knots, sap, flaws, sun-cracks, shakes or blemishes of any kind. Any insect damage or splits across the grain shall not be permissible. The colour of the timber shall be uniform throughout, firm and shining with a silky lustre when planed and shall not emit dull sound when struck.

A – 8) GLASS :

All glasses shall be of the specified type, colour , clear visibility and sound and shall be free from cracks, flaws spick bubbles and blemishes and shall not weigh less than 7.4 Kg. / Sq.m. unless otherwise specified.

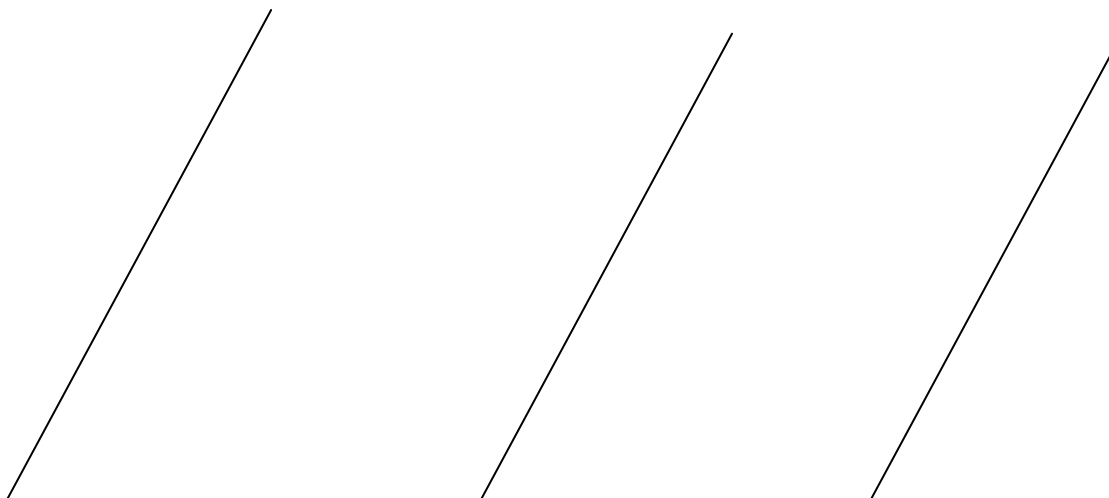
A – 9) TIMBER DOORS, WINDOWS, ETC. AND THEIR FITTINGS :

Doors and windows works shall be carried out as per detailed or as directed by the Engineer – in – Charge. Specified timber shall be used, and it shall be sawn in the direction of the grains and be straight and square.

Fittings shall be of anodized iron, brass, aluminium or as specified. These shall be well made, reasonably smooth and free from sharp edges, flaws and other defects. Screw holes shall be counter sunk to suit the head of specified wood screws. Iron fittings shall be finished bright or black enameled or copper oxidized. Brass fittings shall be finished bright, brass oxidized or chromium - plated (Electroplated) . All fittings shall be finished bright or anodized, or as specified. Fittings shall be got approved by the Employer before fixing. In case of renewal works, the new fitting shall, as far as possible, match with the existing ones. Screws shall be driven with screw driver and not hammered in.

A – 10) PAINT ETC

All paints shall be Hi – gloss Synthetic Enamel and shall be delivered in strong containers and marked with the colour of the paint, brand, volume of paint content in litres and of the best quality of approved make and brand as approved by employer. Under no circumstance shall the paint be diluted with licensed oil or otherwise. Any paint although or approved brand, which so hardens in the container that it cannot be readily broken up with a stirrer to a smooth painting consistency, shall be rejected. Any paint too thick for proper brush application shall be rejected. No paint should be used after one year of the date of manufacture.



(A-11). EXECUTION :

GENERAL :

All works shall be carried out in proper workmanlike manner. Items of works not covered by the following, shall carried out as per best practice according to the directions of the Employer and to his satisfaction. Unless otherwise specified in this section or in the description of item, the cost of all stages of works mentioned hereunder shall be deemed to have been included in the rates of items provided in the Tender.

B – 1) EXCAVATIONS OF FOUNDATION AND FILLING UP TRENCIES :

Foundation when excavated to the level shown in the drawing will be shown to employer and if on account of bad ground or for any reason whatsoever he decides to go deeper with the foundation, the Contractor shall excavate further to the depths required by employer . In no case shall the foundation soling or concrete be laid prior to receiving orders to that effect from employer or his authorized representative.

Excavating shall include throwing the excavated earth at least one meter or half the depth of excavation, whichever is more, clear of the edge.

The excavated areas around the foundation of structures are to be filled up properly to the required levels with earth obtained from excavation or other materials as directed, well rammed with water and consolidated in layers not exceeding 150mm. at a time. The quality for this item of work will be measured on the basis of the quantity of the excavation paid for less the volume occupied by the structure in foundation.

B – 2) CEMENT CONCRETE WORKS (PLAIN OR REINFORCED) :

SHUTTERING AND STAGING :

Wherever necessary, shuttering and staging must be provided. Unless otherwise stated no payment will be made for shuttering or staging and the cost thereof will be deemed to have been covered by the rate of relevant finished item of work. Where payment for shuttering has been specified, the rate shall be deemed to cover the cost of the necessary staging as well.

Payment if any, for shuttering will be on the basis of surface area of shuttering in actual contact with concrete.

Shuttering may be of approved dressed timber true to line, not less than 25mm. thick. Surface to be in contact with concrete are to be planed smooth except where otherwise stated. As an alternative, sufficiently rigid steel shuttering may be used. In every case, joints of the shuttering are to be such as to prevent the loss from concrete. In timber shuttering the joints must be perfectly covered with polythene sheets of approved quality. In case of steel shuttering also the joints are to be similarly lined.

All shuttering and framing must adequately be stayed and braced to the satisfaction of employer for properly supporting the concrete during the period of hardening. Each shall concrete is vibrated.

Before the concrete is placed those faces of the form work come in contact with the concrete shall be treated to prevent concrete adhesion to them and to reduce the risk of damage to the concrete when the form work is struck. Light diesel oil to be applied to the surface of the shuttering.

Interior of all boxes must be thoroughly washed out with a hose pipe or otherwise so as to be perfected.

B-3)STRIPPING TIME :

Forms shall not be struck until the concrete has reached a strength at least twice the stress to which the concrete may be subjected at the time of removal of form work. The strength referred to shall be that of concrete using the same cement and aggregates, with the same proportions and cure under conditions of temperature and moisture similar to those existing on the work. Where possible, the form work shall be left longer as it would assist the curing.

In normal circumstances and where ordinary Portland cement is used, forms may generally be removed after the expiry of the following periods :

Walls, Columns and vertical faces of all structural members	24 to 48 hours as may be decided by employer
Slabs (props left under)	3 days
Beam soffits (props left under)	7 days

Removal of props under slabs : Spanning upto 4.50 m. Spanning over 4.50 m.	7 days 14 days
Removal of props under beams and arches: Spanning upto 6.0 m. Spanning over 6.0 m.	14 days 21 days

The above period are minimum and may be extended for other type of cement used if necessary. Before stripping the shuttering of structural members the contractor shall take previous permission of Employer or his representatives.

B-4) SCAFFOLDING :

The scaffolding must be strong and rigid stiff end with necessary cross bracers and always decked and boarded on the sills with close boarded ceiling and swings to prevent any injury to persons. The contractor shall have to allow other traders to make reasonable use of his scaffoldings as and when directed by the Engineer – in –Charge.

If for the interest of the work contractors have to erect scaffolding in other’s properties including local bodies Corporation, the arrangement for the same including the cost of licensing fees etc. shall have to be borne by the contractor and the department should be kept free from any liability on this account

B-5) MIXING, PLACING AND COMPACTING OF CONCRETE :

a) MACHINERY AND EQUIPMENTS : Batching

Batching shall be done by weigh batchers conforming to IS : 2722. A platform scale of capacity 300Kg. With fraction up to 100gms. shall be at site.

For water supply to mixture through metering system shall be organized.

b) Mixer

Mixers used shall conform to IS. Type Capacity shall be as per size, extent and nature of work.

All structural concrete shall be mixed in mixture machine of appropriate capacity & shall have to be vibrated with suitable vibrator (needle or form vibrator). Mixing shall be continued until there is a uniform colour and consistency, but in no case shall the mixing be done for less than two minutes. Concrete mix obtained from mixture machine should be laid within 20minutes from the time water is added to the dry mix. Beyond 20minutes the mix should not be used in structural concrete. No hand mixing is permissible under any circumstances.

As the bulking of sand may vary from day to day and at different parts of the day on account of varying moisture content, frequent tests for bulking shall be carried out with the sand to be used and the amount of bulking allowed for in the field mix so as to keep the actual proportion constant throughout.

Only such quantities are as required for immediate use are to be mixed at any one time. Sufficient water is to be added to obtain proper workability so that the mixture may flow readily round the reinforcement and into every part of the moulds. The workability shall be measured by the amount of slump.

Water Cement ratios should be as follows :

- M10 : 0.60 (For 1:3:6 mix 30 liter per bag of Cement)
- M15 : 0.60 (For 1:2:4 mix 30 liter per bag of Cement)
- M20 : 0.55 (For 1:1.5:3 mix 27.5 liter per bag of Cement)
- 0.50 (For 1:1:2 mix 25 litre per bag of Cement).

B-6) PROTECTION AND CURING :

The Contractor shall adequately protect freshly laid concrete, for about 1 to 2 hours after its laying from too rapid drying due to sunshine, drying winds etc. and also from rains or surface water and shocks. About 24 hours after laying of concrete, the surface shall be cured by flooding with water of minimum 25 mm depth or by covering with wet absorbent materials.

The curing shall be done for a minimum period of 10 days. Over the foundation concrete the masonry work may be started after 48 hours of its laying, but the curing of cement concrete shall be continued along with the masonry work for a minimum period of 10 days.

In case of cement concrete used as sub – grade for flooring, the flooring may be commenced within 48 hours of the laying of sub – grade. In case it is not possible to do so due to exigencies of work, the sub – grade shall be roughened with a steel wire brush without disturbing the concrete, wetted and neat cement slurry at the rate of 1.75 kg of cement per square /metre applied to the base before laying floor. Full rate of IPS / mosaic flooring will be paid with the specific orders of the Engineer – In – Charge. The curing to be continued along with the top layer of flooring for a minimum period of 10 days.

B-7) 1st – CLASS BRICK WORKS :

Cement mortar shall be prepared by mixing sand and cement in specified proportion. Sand shall be measured on the basis of its dry volume. In case of damp sand, its quantity shall be increased suitably to allow for bulking.

Brick work shall be laid in English bond. The brick shall be laid by Larring method. A layer of mortar shall be spread on full width for suitable length of the lower courses. Each brick shall first be laid so as to project over the one below, both at the end and at the side, then pressed into the mortar and shoved into final position so as to embed the brick and to fill its inside face fully with mortar cut bricks shall not be used except where necessary.

The walls shall be taken up truly plumb with plumb bob. The thickness of brick courses shall be kept uniform and for this purpose, wooden straight edge with graduations giving thickness of each brick course including joint shall be used. All courses shall be laid truly horizontal and all vertical joints shall be truly vertical. Vertical joints in alternate course shall come directly one over the other.

A set of tools comprising wooden straight edge, masons sprit level, square, half metre rule, line and pins, string and plumb shall be kept for every 3 masons for frequent checking during progress of work. Faces of walls found not in plumb shall be dismantled.

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Both the faces of walls of thickness greater than 25 cm (10") shall be kept in proper plane. All the connected brickwork shall be carried up nearly at one level and no portion of the work shall left more than 1m. below the rest of the work. Where this is not possible, the work shall be racked according to bond (and not left) at an angle not steeper than 45 degrees.

Brick shall be so laid that all joints are quite full of mortar. The thickness of the joints shall not exceed 10mm. Bricks shall be laid with frogs upward except in the top course where from shall be placed downwards. The face joints shall be racked to a minimum depth of 15 mm. by tacking tools daily during the progress of work when the mortar is still green, so as to provide proper key for plaster or pointing to be done. Where plastering or pointing is not required to be done, the joints shall be flush and finished at the time of laying.

The face of brick work shall be cleaned the very day that brick work is laid and all mortar droppings removed.

Green work shall be kept wet for a period of at least 7 days. The top of masonry work shall be left flooded at the close of the day Scaffolding shall be sound and strong and holes left in masonry work for supporting the scaffolding shall be filled and made good before plastering.

B-4) DAMP PROOF COURSE

This shall be laid to specified thickness over walls for the full thickness of the super-structure walls. The surface shall be leveled and prepared before laying the cement concrete. Edge of damp proof course shall be straight, even and vertical. Side shuttering shall consist of wooden form and shall be strong and properly fixed so that it does not get disturbed during compaction and the mortar does not leak through. The concrete mix shall be of workable consistency and shall be tamped thoroughly to make a dense mass. When the sides are removed, the surface should come out smooth without any honey-combing. The damp proof course shall be laid continuous and the surface shall be double chequered. Damp proof course shall be cured for at least seven days, after which it shall be allowed to dry. Water proofing materials of approve quality shall be added to the concrete mixture in accordance with the manufacturer's specification. No extra payment will be made for such admixture of water proofing compound.

B-8) CEMENT PLASTER :

The proportion of mortar of exterior or interior plaster shall be as specified in the items of work.

The plaster shall be of thickness as specified and the surface shall be similarly cures as for cement concrete. The moulding shall be carried out as shown in the drawing and shall be separately measured in overall length unless otherwise specified in the items. Interior comers and edges of openings if so directed by employer shall be rounded of or chamfered with the same mortar for which no extra payment will be allowed. All cement concrete surface should be chipped off properly before taking up the plastering work.

B-9) COLOUR WASHING :

Preparation of surface :

All surface for colour washing, painting, shall thoroughly cleaned free from mortar droppings and foreign matter and prepared to the satisfaction of Engineer- in -charge, before application of the treatment.

Before white washing, all the nails etc. have to be removed from the walls and all the nails or other holes, small depressions or damages in plaster or wall surface shall be filled or repaired to original condition with lime consisting 2 parts of shell lime and 1 part of stone lime.

Treatment of oily surface to be done with soda & sajimati cleaned with fresh water.

Preparation of Colour wash : Colour washing shall have primer of white wash and shall be of shade as approved by employer. Sufficient quantity of colour wash enough for complete job shall prepared in one operation to avoid any difference in shade. Procedure and preparation of surface shall be same as in white washing.

Application of white wash and colour wash : The operation for each coat shall consist of four consecutive strokes of the brush, one horizontally from right to left and next from left to right and the third stroke bottom upward and the fourth from top downward before the previous stroke dries. Each coat shall be allowed to dry before the next coat applied. No portion of the surface shall be left out initially to be patched up later on. The brush shall be dipped in white wash or colour

wash, pressed lightly against the wall of the container and then applied by lightly pressing against the surface with the full swing of hand.

The white wash on ceiling should be done prior to that on walls.

Protective Measures : Surface of doors, windows, floors, articles of furniture, beams etc. and such other parts of the building not to be white or colour washed shall be protected from being splashed upon. Such surface shall be cleaned of white or colour wash splashed, if any Dados are to be cleared as also the windowsills.

Plaster of Paris : The material (gypsum) shall be in the form of a fine white powder of smooth texture, free from foreign matter and lumps conforming to IS : 2547.

The Plastered surface over which plaster of Paris to be applied shall be thoroughly cleaned and kept wet with water for at least 24 hrs. before application. The powder should be stirred with requisite quantity of water to form a paste shall be applied uniformly to maintain a thickness of about 1.5 mm. and the surface shall be rubbed thoroughly with wooden trowel. Finishing should be done with steel trowel to give as a shining appearance.

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B-10) PAINTING :

All surface for painting shall be properly sand papered and cleaned and where necessary good quality ready-mixed putty shall be used to hide all holes, cracks, open joints etc. The rate for painting includes such work. Paint shall be applied with approved brushes and surfaces shall be sand papered after drying of every coat. All work when completed shall present a smooth, clean solid and uniform surface, to the satisfaction of the Employer.

a) Primer : All surface for painting, if they are new, should have a coat of priming before application of the paint. Old surface where existing paints have been completely worn out and raw wooden surface is exposed owing to long use should also receive a coat of priming before application of fresh painting. The primer should be of approved quality of ready mix primer.

i) Wood Primer : Wood primer of approved brand and manufacture is to be applied on the wooden surface which would be free from moisture and loose particles.

ii) Steel Primer : For steel surface red oxide primer, zinc chromate primer of approved brand and manufacture and as per direction of the Employer is to be applied on the surface. The surface should be made free of grease, rust, moisture and loose particles. All blistered surface should be made free by hammering, filling or otherwise so as to have smooth surface after priming.

iii) Cement Primer Coat (Alkali Resisting Primer) : Cement primer coat is to be used as base coat on wall finish of cement, lime or lime cement plaster or on asbestos cement surface before application of any wall coating e.g. oil bound distemper, oil based paints, synthetic enamel, plastic emulsion etc on them. The cement primer is composed of a medium and pigment which are resistant to the alkalis present in the cement, lime or lime cement in wall finish and provides a barrier for the protection of subsequent coats of the bound distemper or paints. Priming coat shall be preferably applied by brushing and not by spraying. Hurried priming shall be avoided particularly on absorbent surface. New plaster patches in old work before applying oil bound distemper paints etc. should also be treated with cement primer. The surface shall be thoroughly cleaned of dust, all white or colour wash by washing and scrubbing. The surface shall then be allowed to dry for at least 48 hours. It shall then be sand papered to give a smooth and even surface. Any unevenness shall be made good by applying putty, made of plaster of Paris with water on the entire surface including filling up the undulation and the sand papering the same after it is dry. The cement primer shall be applied with a brush on the clean dry and smooth surface. Horizontal stroke shall be given first. Vertical strokes are to be applied after horizontal stroke is absorbed on wall / ceiling immediately afterwards. This entire operation will constitute one coat. The surface shall be finished as uniformly as possible leaving no brush mark. It shall be allowed to dry for at least 48 hours before oil bound distemper or paint is applied.

b) **Plastic (Acrylic) Emulsion Paint : Plastic (acrylic)** emulsion paints are not suitable for application on external surface and surface which are liable to have condensation and are to be used generally on internal surface. For plastered surface a cement priming coat is required before application of plastic emulsion. Plastic emulsion paint of approved brand and manufacture and of the required shade shall be used. The paint will be applied in the usual manner with the brush or the roller. The paint dries by evaporation of the water content and as soon as the water has evaporated the film get hardened the next coat can be applied.

The time for drying varies from one hour on absorbent surface to 2 to 3 hours on non- absorbent surfaces. Thinning will be particularly required for the undercoat which is applied on the absorbent surface. The quantity of thinner to be added shall be as per manufacturer's instructions. The surface on finishing shall present a flat, velvety, smooth finish. If necessary more coats will be applied till the surface present a uniform appearance.

B-11) CARPENTARY WORK :

Door, Window, Frames and Shutters : - All doors, window, frames must have plaster rabbit 12 mm. x 12mm. Rabbit for receiving shutter 12mm. deep. Wood work shall not be painted, oiled or otherwise treated before it has been approved by employer. All portion of timber abutting against or embedded in masonry or concrete shall be painted with boiling coal tar or creosote, before being placed in position. In case of door, frames without sills, the vertical members shall be buried in floor in 40 mm. deep. When sills are provided these sills shall be sunk in the floor to 40 mm. depth and shall rest on damp –

proof pores. Sills shall be provided, where so directed. The door frames without sills while being placed in position shall be provided with temporary wooden bracing or dry well wedged between the styles at the sill level. These shall be retained to keep the frames from warping during construction. The frame shall also be protected from damage during construction.

B-12)EXTERNAL DOORS :

All external doors Factory made Panel doors made of Kiln seasoned and chemically treated commercial hard wood (Hollock timber of Assam or approved variety timber) to all styles and rails accurately plained, and rounding shaped to the size rebates, and rounding as per dimensions shown in drawings, jointing or plugging to knots of any kind shall not be permitted. All panels are of 12 mm.thick water proof pressure treated plywood (conforming to IS : 4990 – 1969) of full width of panel. Panels other than 1 part are not permissible.

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B-13) Door, window Clamps or Holdfasts:

Unless otherwise specified the clamps shall be fixed to outer side of the frame with screws. For the purpose of receiving clamps a recess of at least 12 mm. deep of suitable size shall be cut into the frame. After fixing the frame true to plumb with the clamps, the exposed face of the clamps shall be covered by a thin wooden covering fixed with screws. The side of the door, window frames which remains in contact with masonry shall invariably be painted with coal tar or creosote oil.

B-14)Schedule of Fittings:

Fittings shall be of iron, aluminium or as specified.

This shall be well made, reasonable smooth and free edges, corners, flaws and other defects. Screw holes shall be counter sunk to suit the head of specified wood screws. All hinge pins shall be of steel and their riveted heads shall be well formed. Iron fittings shall be finished bright or black enameled or copper oxidized. Brass fittings shall be Bright, brass oxidized or Chromium – plated (electro plated) and all aluminium fitting shall be of extruded section and surface screwed should be used. Fittings shall be got approved by the Employer before fixing.

Screws used for fittings shall be of the same metal and finish as the fittings. However, anodized brass screws or chromium brass screws shall be used for fixing aluminium fittings.

Fittings shall be fixed in proper position as shown in the drawings or as directed by employer. These shall be truly vertical or horizontal as the case may be. Screws shall be driven home with screw driver and not hammered in. Recesses shall be cut to the exact size and depth for the counter sinking of hinge.

B-15) FALSE CEILING :

These specifications refer to the supply and installation of false ceiling per guideline of PWD Schedule .

B-16) STEEL WORKS : Mild Steel Grills :

These should be made of the best quality material and shall be of the shape, size and pattern ordered. They shall be free from dust, burrs, blisters and cracks. Welding shall be nearly done and slag chipped off, before primer coat is applied. Spot welding only will not be accepted.

Grills shall be true to shape and accurate in dimensions so that they fit exactly into the door/window frame. They shall be fitted into the frame by means of 10m. square steel lugs welded to the grill. If screws are used, the screw heads shall be welded to the grill and welding is grounded off nearly.

Rate shall include cost of materials, cutting, fabricating, transport to site, fixing etc., complete with one coat of shop paint. Rate shall be in sq.m. or kg. as specified.

B- 17)STEEL WINDOW / VENTILATIONS :

General :

(a) All steel casement windows and ventilators shall be approved make and quality and shall conform to IS : 7452. Putty for glazing shall be as specified in IS : 420. Hinges shall be of projecting type. Handles and peg-stays shall be of steel or as specified. Suitable legs to be provided for fixing.

(b) Glazing clips shall be provided at a spacing not exceeding 30cms. The holes for the same will have to be drilled during fabrications by the manufacturer and not while fixing glazing.

(c) The sections for the fixed and hinged frame shall be mitred and electrically flash butt welded to form a solid and true right angle.

(d) All windows shall be thoroughly cleaned of rust, mild scale dirt, oil etc., either by mechanical or by chemical means and be given 2 coats of primer.

(e) All steel casement windows and ventilators etc. shall be stacked vertically at site and proper care taken that they are not warped or twisted.

C-1 Bricks walls :-

The thickness of the brick wall made with one brick laid on edge (with the long side paralleled to the length of the wall) shall be measured as 75 mm. Similarly, a wall made with one brick laid flat (with the long side parallel to the length of the wall) shall be measured as 125 mm. One brick thick walls (with the length of the brick parallel to the thickness of the wall) shall be measured as 250 mm; Two bricks wall measured as 500 mm. and soon. The width of lintels etc. covering the entire thickness of the brick wall shall also be measured as equal to the corresponding wall thickness. In measuring depth of brick work in foundation two courses of brick work will be measured as 150 mm.

Net measurements of all walls will be taken after deduction of all opening etc. This applies to 125 mm. thick and 75 mm. thick walls also. Parapets (upto 106 cm. height) will be measured along with the brickwork of the floor just below the roof and will be paid for at the same rate.

No extra will be paid for curved or chamfered work even though it may necessitate cutting of bricks. For small curves or chamfers the Employer may, at the discretion allow, all measurement on the square (i.e. without deduction for the quantity removed for forming the small curve or chamfer).

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C-2 Plaster :-

For measurement of plaster (exterior or interior) deduction is to be made for door, windows or openings of similar dimensions and

allowance is to be made for jambs, sills and soffits. Payment will be made on the basis of surface measurement of such openings and without any separate measurement for jambs sills and soffits. In case of large openings, however as in the case of verandahs with columns, payment will be made on actual measurements.

C-5 White washing and colour washing :-

Payment will be made on the basis of surface measurement without any deduction for door window or opening of similar dimensions and without any separate measurement for jambs, sills and soffits of such openings.

C-6 Painting :-

a)Measurement for painting work in doors and window grills, gratings, collapsible gates corrugated roofing etc. shall be on the following basis. In all such case the ('Area' shall be measured flat (and not girthed).

For doors and windows, no separate payment shall be made for the frames (chowkhats)'Area' in such cases represent the area of the wall opening covered by the frames (including the frames).

For grills, gratings etc. the 'Area' represents the Area of the opening covered by the outer frames.

b) The 'Area' measured as above shall be multiplied by the factor given below at the work of painting be paid on the quantities thus arrived at.

Name of Surface Painted	Multiplying factor painting one side	Multiplying factor painting both sides
Timber doors, windows etc. full glazed or with Glass substitutes)	0.8	1.6
Fully panelled or flush or battened	1.3	2.6
Fully venetian of fixed-louvre	1.8	3.6
2/3 rd panelled 1/3 rd glazed	1.14	2.28
½ panelled ½ glazed	1.0	2.0
1/3 rd panelled 2/3 rd glazed	0.75	1.50
1/3 rd panelled 2/3 rd venetian (or fixed louvered)	1.33	2.66
1/3 rd glazed 2/3 rd venetian (or fixed louvered)	1.47	2.94
Neted (without painting on the net)	0.3	0.6
Neted (with painting to the net as well)	0.63	1.25
Corrugated (i.e. with leaves of C.I. Sheets)	1.25	2.5
Corrugated iron sheet roof or wall	1.14	2.20
Corrugated asbestos sheet roof or wall	1.20	2.40
Trafford asbestos sheet roof or wall	1.10	2.20
Cast iron or wooden railing (complete)	-----	1.50
Grill, gratings (normal type)	-----	1.00

Heavy type grating or grated doors (as in jails etc.)	----	1.50
Collapsible gate	----	1.50
Steel roll-top shutters (including top casing)	1.10	2.20
Glazed steel windows	0.50	1.00

Deputy Conservator of Forests

Administration, W.B.