E-TENDER DOCUMENT

for

Renovation of Kitchen Block Including Dismantling Old Window & Door, P/F of uPVC Window & Panelled Door, P/L Vitrified Tiles, Plastering of Wall, Putty and Distempering at First Floor of S.C. De Hostel, IIT (BHU) Varanasi

Tender No.: IIT(BHU)/IWD/CT/05/2019-20/525
Tender Date: 18.06.2019
Last Date of Submission of bids: 28.06.2019
Tender Opening date: 01.07.2019

Indian Institute of Technology
(Banaras Hindu University)
Varanasi-221005

E-mail: office.iwd@iitbhu.ac.in

ABSTRACT OF COST

NAME OF WORK:- Renovation of kitchen block including dismantling old window & door, P/F of uPVC window & panelled door, P/L Vitrified tiles, plastering of wall, putty and distempering at first floor of S.C. De Hostel, IIT (BHU) Varanasi

Sl. No.	Details of Sub-Head	Amount (in Rs.)
1	Civil works	**2336280.93**
	Say	**2336280.93**

This NIT containing pages 91 as per Index amounting to Rs. 2336280.93 is hereby approved.

Sd-
Superintending Engineer (IWD)
IIT (BHU) Varanasi

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It is certified that this document contains total 91 pages.

Sd-
Superintending Engineer (IWD)
IIT (BHU) Varanasi

भारतीय प्रौद्योगिकी संस्थान
काशी हिन्दू विश्वविद्यालय
IIT INDIAN INSTITUTE OF TECHNOLOGY
BANARAS HINDU UNIVERSITY

NOTICE INVITING TENDER

(INVITATION FOR BIDS)

Online bids are invited from approved and eligible contractors of IWD, UWD(BHU) and those of appropriate list of C.P.W.D for the following:

S. No.	Tender no.	Specifications & quantity of the item	Earnest Money Deposit (EMD)
1.	**IIT(BHU)/IWD/CT/05/ 2019-20/525 dated 17.06.2019**	**Name of the Project: Renovation of kitchen block including dismantling old window & door, P/F of uPVC window & panelled door, P/L Vitrified tiles, plastering of wall, putty and distempering at first floor of S.C. De Hostel, IIT (BHU) Varanasi.** *Estimated Cost Rs.* **2336280.93** **1. Eligibility Criteria (Cover-1)** **2. Financial Bid (Cover-2)**	Rs. **59,000.00**

1. Interested eligible Bidders may obtain further information from IIT(BHU) website: www.iitbhu.ac.in/iitnotifications/purchase_enquiries/ or from Central Public Procurement Portal (CPPP) https://eprocure.gov.in/eprocure/app.

2. Intending bidders are advised to visit IIT (BHU) website www.iitbhu.ac.in/iitnotifications/purchase_enquiries/ and CPPP website https://eprocure.gov.in/eprocure/app regularly till closing date of BID submission of tender for any corrigendum / addendum/ amendment.

3. Earnest Money Deposit is to be submitted in the form of DD/FDR as per details mentioned in the critical data sheet. Bidders are required to submit the scan copy of payment receipt details of Tender fees and EMD at the time of Bid uploading.

CRITICAL DATA SHEET

Name of Organization	**Indian Institute of Technology (BHU), Varanasi**
Tender Type (Open/Limited/EOI/Auction/Single)	Open
Tender Category (Services/Goods/Works)	Works
Type/Form of Contract (Work/Supply/ Auction/ Service/ Buy/ Empanelment/	Construction
Product Category (Civil Works/Electrical Works/Fleet Management/ Computer	Civil works

Date of Issue/Publishing Original Tender	18.06.2019 (17:00 Hrs)
Document Download Start Date	18.06.2019 (17:00 Hrs)
Document Download End Date	28.06.2019 (17:00 Hrs)
Last Date and Time for Uploading of Bids	28.06.2019 (17:00 Hrs)
Date and Time of Opening of Bids	01.07.2019 (11:30 Hrs)
Tender Fee	Rs. 1000.00 + Rs. 180.00 (GST @ 18%) = Rs. **1180.00** (To be paid through RTGS/NEFT) as per the following details: Name of Account - Registrar, IIT(BHU) Name of the Bank - State Bank of India Name of Branch - IT, BHU, Varanasi Account No. - 32778803937 IFSC Code - SBIN0011445 **(The proof of payment must be uploaded in cover-1)**
EMD	Rs. **59,000.00** to be paid in the form of DD/FDR in the name of Registrar, IIT(BHU), Varanasi, payable at VARANASI. (**Scanned copy of DD/FDR to be uploaded in cover-1**) (Original to be submitted in cover-1 alongwith eligibility criteria documents)
No. of Covers (1/2/3/4)	02
Bid Validity days (180/120/90/60/30)	**180 days** (From last date of opening of tender)
Address for Communication	**The Chairman (IWC), Institute Works Department, IIT(BHU), Varanasi – 221005, U.P.**
Email Address	office.iwd@iitbhu.ac.in & aecivil.iwd@iitbhu.ac.in

INSTRUCTIONS FOR ONLINE BID SUBMISSION

As per the directives of Department of Expenditure, this tender document has been published on the Central Public Procurement Portal (URL:http://eprocure.gov.in/eprocure/app). The bidders are required to submit soft copies of their bids electronically on the CPP Portal, using valid Digital Signature Certificates. The instructions given below are meant to assist the bidders in registering on the CPP Portal, prepare their bids in accordance with the requirements and submitting their bids online on the CPP Portal.
More information useful for submitting online bids on the CPP Portal may be obtained at: http://eprocure.gov.in/eprocure/app.

1. Registration

1. Bidders are required to enroll on the e-Procurement module of the Central Public Procurement Portal (URL:http://eprocure.gov.in/eprocure/app) by clicking on the link "Click here to Enroll". Enrolment on the CPP Portal is free of charge.
2. As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.
3. Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the CPP Portal.
4. Upon enrolment, the bidders will be required to register their valid Digital Signature Certificate (Class II or Class III Certificates with signing key usage) issued by any Certifying Authority recognized by CCA India (e.g. Sify/TCS/nCode/eMudhra etc.), with their profile.
5. Only one valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSCs to others which may lead to misuse.
6. Bidder then logs in to the site through the secured log-in by entering their user ID/password and the password of the DSC/eToken.

2. Searching for Tender Documents

1. There are various search options built in the CPP Portal, to facilitate bidders to search active tenders by several parameters. These parameters could include Tender ID, organization name, location, date, value, etc. There is also an option of advanced search for tenders, wherein the bidders may combine a number of search parameters such as organization name, form of contract, location, date, other keywords etc. to search for a tender published on the CPP Portal.
2. Once the bidders have selected the tenders they are interested in, they may download the required documents / tender schedules. These tenders can be moved to the respective 'My Tenders' folder. This would enable the CPP Portal to intimate the bidders through SMS / e-mail in case there is any corrigendum issued to the tender document.
3. The bidder should make a note of the unique Tender ID assigned to each tender; in case they want to obtain any clarification / help from the Helpdesk.

3. Preparation of Bids

1. Bidder should take into account any corrigendum published on the tender document before submitting their bids.
2. Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid. Please note the number of covers in which the bid documents have to be submitted, the number of

documents - including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.

3. Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document / schedule and generally, they can be in PDF / XLS / RAR / DWF formats. Bid documents may be scanned with 100 dpi with black and white option.
4. To avoid the time and effort required in uploading the same set of standard documents which are required to be submitted as a part of every bid, a provision of uploading such standard documents (e.g. PAN card copy, annual reports, auditor certificates etc.) has been provided to the bidders. Bidders can use "My Space" area available to them to upload such documents. These documents may be directly submitted from the "My Space" area while submitting a bid, and need not be uploaded again and again. This will lead to a reduction in the time required for bid submission process.

4. Submission of Bids

1. Bidder should log into the site well in advance for bid submission so that he/she upload the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.
2. The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.
3. Bidder has to select the payment option as "on-line" to pay the tender fee / EMD as applicable and enter details of the instrument. Whenever, EMD/Tender fees is sought, bidders need to pay the tender fee and EMD separately on-line through RTGS.
4. A standard BoQ format has been provided with the tender document to be filled by all the bidders.

   Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. Bidders are required to download the BoQ file, open it and complete the white coloured (unprotected) cells with their respective financial quotes and other details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the filename. If the BoQ file is found to be modified by the bidder, the bid will be rejected.
5. The server time (which is displayed on the bidders' dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.
6. All the documents being submitted by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. The confidentiality of the bids is maintained using the secured Socket Layer 128-bit encryption technology. Data storage encryption of sensitive fields is done.
7. The uploaded tender documents become readable only after the tender opening by the authorized bid openers.
8. Upon the successful and timely submission of bids, the portal will give a successful bid submission message & a bid summary will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.
9. Kindly add scanned PDF of all relevant documents in a single PDF file of compliance sheet.

5. Assistance to Bidders

1. Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the relevant contact person indicated in the tender.
2. Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24x7 CPP Portal Helpdesk. The contact number for the helpdesk is 1800 233 7315

6. General Instructions to the Bidders

1. The tenders will be received online through portal http://eprocure.gov.in/eprocure/app . In the Technical Bids, the bidders are required to upload all the eligibility criteria documents in **.pdf format**.
2. Possession of a Valid Class II/III Digital Signature Certificate (DSC) in the form of smart card/e-token in the company's name is a prerequisite for registration and participating in the bid submission activities through https://eprocure.gov.in/eprocure/app. Digital Signature Certificates can be obtained from the authorized certifying agencies, details of which are available in the web site https://eprocure.gov.in/eprocure/app under the link "Information about DSC".
3. Tenderer are advised to follow the instructions provided in the 'Instructions to the Tenderer for the e-submission of the bids online through the Central Public Procurement Portal for e Procurement at https://eprocure.gov.in/eprocure/app.

INFORMATION AND INSTRUCTIONS TO BIDDERS FOR TENDERING FORMING PART OF BID DOCUMENT AND TO BE POSTED ON WEBSITE

INSTITUTE WORKS DEPARTMENT, NIT

1. IWC, IIT(BHU) invites the online percentage rate/Item rate Bids from approved and eligible contractors of IWD, UWD(BHU) and those of appropriate list of C.P.W.D. for the following works:

Renovation of kitchen block including dismantling old window & door, P/F of uPVC window & panelled door, P/L Vitrified tiles, plastering of wall, putty and distempering at first floor of S.C. De Hostel, IIT (BHU) Varanasi.

The enlistment of the contractors should be valid on the last date of submission of bids. (Self-Certified copy of currently valid enlistment certificate to be uploaded as proof along with other eligibility criteria)

1.1 The work is estimated to cost Rs. **2336280.93** The estimate, however, is given merely as a rough guide).

1.2 Intending bidder is eligible to submit the bid provided, if he has definite proof from the appropriate authority, which shall be to the satisfaction of the competent authority, of having satisfactorily completed similar works of magnitude specified below:

1.2.1 Criteria of eligibility for submission of bid documents:

(a) Intending bidder should not be a joint venture**. (Self-Certified copy of relevant documents clearly establishing the status of bidder to be uploaded)**

(b) Should have satisfactorily completed Three similar works each of value not less than **Rs 09.34** Lacs or Two similar works each of value not less than **Rs 14.01** Lacs or One similar work of value not less than **Rs 18.69** Lacs during last seven years ending 31st March 2018. **(Self-Certified photocopy of work order alongwith work completion certificate to be uploaded as proof of eligibility criteria)**

Explanation:

The value of executed works shall be brought to current costing level by enhancing the actual value of work at simple rate of 7% per annum; calculated from the date of completion to last date of receipt of applications for this tender.

Similar work means **"Construction work"**

(c) Should have had average annual financial turnover of **Rs 11.68** Lacs on account of construction works executed during the last three preceding financial years ending 31st March, 2018, duly audited by a Chartered Accountant **(Self Certified photocopy of certificate from CA to be uploaded).** The year in which no turnover is shown would also be considered for working out the average.

(d) Should not have incurred any loss **(profit after tax should be positive)** in more than three years during the last five years ending 31st March, 2018. **(Self-Certified photocopy of certificate from CA to be uploaded alongwith certified copy of last five years Profit & Loss Account)**

(e) Should have a solvency certificate of **Rs 09.34 Lacs** issued by Bank during the last six months.

(Certified copy of original solvency certificate to be uploaded in cover-1).

1.2.2 To become eligible for tender, the contractor shall have to furnish an affidavit on a non-judicial stamp paper of Rs. 10.00 as under:

I/We undertake and confirm that eligible similar works(s) has/have not been got executed through another bidder on back to back basis. Further that, if such a violation comes to the

notice of Indian Institute of Technology (BHU), then I/we shall be debarred for tendering in IWC, IIT(BHU) in future forever. Also, if such a violation comes to the notice of Indian Institute of Technology (BHU) before the date of start of work, the SUPERINTENDING ENGINEER-IWC, IIT(BHU) shall be free to forfeit the entire amount of Earnest Money Deposit/Performance Guarantee. **(Scanned copy of affidavit to be uploaded in cover-1)**

2. Agreement shall be drawn with the successful bidder on prescribed Format.

3. The time allowed for carrying out the work will be **05 Months (150 Days)** from the date of start as defined in schedule 'F' or from the first date of handing over of the site, whichever is later, in accordance with the phasing, if any, indicated in the Published documents.

4. The site for the work is available for start of the work.

5. The Published document consisting of plans, specifications, the schedule of quantities of various types of items to be executed and the set of terms and conditions of the contract to be complied with and other necessary documents except Standard General Conditions of Contract Form can be seen/downloaded from website **www.eprocure.gov.in** or **www.iitbhu.ac.in**

6. While submitting the bids, bidder can revise the rate, but before last date and time of submission of bids as notified. In this case, the last submitted bid before the last date and time will only be considered.

7. **a) Earnest Money** of **Rs. 59,000.00** shall be paid in the form of Banker's cheque/ Demand Draft / Fixed Deposit Receipt (**drawn in favor of Registrar, IIT(BHU), Varanasi, payable at Varanasi)** of any Scheduled Bank. The same shall be submitted along with technical bid in Cover-1 and scanned copy uploaded with cover-1.

   b) Tender processing fees Rs. 1000.00 + Rs. 180.00 (GST @ 18%) = Rs. 1180.00 shall be paid online as per details given in critical data sheet and details of online transaction ID i.e. UTR number to be uploaded with cover-1**.**

Proof of online submission of tender processing fees, EMD & Eligibility criteria document like work experience, financial turn over certificate, Affidavit in original, Solvency certificate in original and any other documents mentioned in relevant clauses above, shall be placed in single sealed envelope superscripted as **(Cover-1 "Cost of Tender Document, E.M.D. & Eligibility criteria documents")** with name of work and due date of opening of the Tenders mentioned thereon and submitted in office of IWD before the last date & time of submission of bid. **The scanned copies of above-mentioned documents shall be uploaded under cover-1 on the e-tendering website.**

All the documents for cover-1 shall be placed in an envelope with due mention of Name of work, date & time of opening of Tenders and is to be submitted in the office of SUPERINTENDING ENGINEER, IWD, IIT(BHU), Varanasi on or before 5:00 PM 28.06.2019. The documents submitted shall be opened at 11:30 AM on 01.07.2019. Kindly note that in case of any discrepancy regarding uploaded documents in cover-1 and physically submitted documents in the office, the uploaded documents shall be considered as final.
Kindly note that no financial bid in physical format is to be submitted with cover-1 in the office of IWD, IIT(BHU). Financial bid is to be uploaded under cover-2 only on the e-tendering website.
Online Financial Bids submitted by intending bidders shall be opened only of those bidders, whose Earnest Money deposit, tenders processing fees and other documents placed in the envelop (Cover-1) and uploaded on e-tendering website under cover-1 are found in order and are found eligible.

11. The bid submitted shall become invalid and cost of bid & tender processing fee shall not be refunded if:

(i) The bidder is found ineligible.

(ii) The bidder does not provide all the documents (including PAN No., GST registration etc.) as stipulated in the bid document.

12. The bidder whose bid is accepted will be required to furnish performance bank guarantee of 5% (Five Percent) of the tender amount within the 15 days of issue of letter of acceptance. This guarantee shall be in the form of Demand Draft of any scheduled bank or Fixed Deposit Receipts or Guarantee Bonds of any Scheduled Bank or the State Bank of India in accordance with the prescribed form. In case the bidder fails to deposit the said performance guarantee within the period as indicated, the Earnest Money deposited by the bidder shall be forfeited automatically without any notice to the bidder.

13. Intending bidders are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their bids as to the nature of the ground and sub-soil (so far as is practicable), the form and nature of the site, the means of access to the site, the accommodation they may require and in general shall themselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their Tender. A bidder shall be deemed to have full knowledge of the site whether he inspects it or not and no extra charge consequent upon any misunderstanding or otherwise shall be allowed. The bidder shall be responsible for arranging and maintaining at his own cost all materials, tools & plants, water, electricity access, facilities for workers and all other services required for executing the work unless otherwise specifically provided for in the contract documents. Submission of a tender by a bidder implies that he has read this notice and all other contract documents and has made himself aware of the scope and specifications of the work to be done and of conditions and rates at which stores, tools and plant, etc. will be issued to him by the Institute and local conditions and other factors having a bearing on the execution of the work. Cost of site visit shall be borne by the bidder.

14. The competent authority on behalf of the Institute does not bind itself to accept the lowest or any other Tenders and reserves to itself the authority to reject any or all the Tenders received without the assignment of any reason. All Tenders in which any of the prescribed condition is not fulfilled or any condition including that of conditional rebate is put forth by the bidder shall be summarily rejected.

15. Canvassing whether directly or indirectly, in connection with bidders is strictly prohibited and the Tenders submitted by the bidders who resort to canvassing will be liable to rejection.

16. The competent authority on behalf of Institute reserves to himself the right of accepting the whole or any part of the bid and the bidders shall be bound to perform the same at the rate quoted.

17. The bidder shall not be permitted to tender for works in the IWC, if his near relative is posted as an officer in any capacity between the grades of Chairman (IWC) and Junior Engineer (both inclusive). Any breach of this condition by the bidder would render him liable to be removed from the Tendering process.

18. No Engineer of gazetted rank or other Gazetted Officer employed in Engineering or Administrative duties in an Engineering Department of the Government of India is allowed to act as a bidder within a period of one year after his retirement from Government service, without the previous permission of the Government of India in writing. This contract is liable to be cancelled if either the bidder or any of his employees is found any time to be such a person who had not obtained the permission of the Government of India as aforesaid before submission of the tender or engagement in the bidder's service.

19. The bid for the works shall remain open for acceptance for a period of 180 days from the date of opening of financial bids. If any bidder withdraws his bid before the said period or issue of letter of acceptance, whichever is earlier, or makes any modifications in the terms and

conditions of the bid which are not acceptable to the Indian Institute of Technology(BHU), then the Indian Institute of Technology(BHU), without prejudice to any other right or remedy, be at liberty to forfeit of the said earnest money as aforesaid. Further the bidders shall not be allowed to participate in the re-bidding process of the work.

20. The notice inviting bid shall form part of the contract document. The successful bidder, on acceptance of his bid by the Accepting Authority, have to sign the contract consisting of "The Notice Inviting bid, all the documents including Special Conditions, General Specifications/ Particular Specifications and drawings, if any, forming part of the bid as submitted at the time of invitation of bid and the rates quoted online at the time of submission of bid and acceptance thereof together with any correspondence leading thereto. Within 15 days from the stipulated date of start of the work.

21. Composite Tender

21.1.1 The SUPERINTENDING ENGINEER is calling this bid for the composite work. The Earnest money is fixed with respect to the combined estimated cost put to Tender for the composite tender.

21.1.2 The bid document is including following components:

Part A: **IWD FORM-1** including schedule A to F for the major component of the work, Standard General Conditions of Contract.

Part B:- General / specific conditions, general technical specifications along with list of Makes. If there is any material not available as per list of makes, bidder has to inform in priority to Architects/owner for approval.

Part C: Schedule A to F for minor component of the work. (SUPERINTENDING ENGINEER of major component shall also be competent authority under clause 2 and clause 5 as mentioned in schedule A to F for major components)

Part D:- Schedule of quantities applicable..

Part E:- Design and Drawings.

Part F:- Composite bill of quantities.

21.1.3 The eligible bidders have to quote rates for all items given in the bill of quantity.

21.1.4 After acceptance of the bid by competent authority, the SUPERINTENDING ENGINEER shall issue letter of award on behalf of the Institute. After the work is awarded, the bidder will have to enter into one agreement with SUPERINTENDING ENGINEER.

21.1.5 Entire work under the scope of composite tender including major and all minor components shall be executed under one agreement.

21.1.6 Security Deposit will be worked out separately for each component corresponding to the quoted/accepted cost of the respective component of works. The Earnest Money will become part of the security deposit of the respective projects under the head Mega projects in ratio of the corresponding estimated value of these projects.

21.1.7 The bidder may associate agency(s) for minor component(s) conforming to eligibility criteria as defined in the tender document and has to submit detail of such agency(s) to SUPERINTENDING ENGINEER. Name of the agency(s) to be associated shall be approved by SUPERINTENDING ENGINEER. Before engaging such associate agencies, bidder has to inform to SUPERINTENDING ENGINEER along with his past experience and all credential's and got the approval of the same from the SUPERINTENDING ENGINEER.

21.1.8 In case the bidder intends to change any of the above agency/ agencies during the operation of the contract, he shall obtain prior approval of respective SUPERINTENDING ENGINEER. The new agency/ agencies shall also have to satisfy the laid down eligibility criteria. In case SUPERINTENDING ENGINEER is not satisfied with the performance of any agency, he can direct the bidder to change the agency and this shall be binding on the bidder.

21.1.9 The main bidder has to enter into agreement with bidder(s) associated by him for execution of minor component(s). Copy of such agreement shall be submitted to Engineer-in-charge In case of change of associate bidder, the main bidder has to enter into agreement with the new bidder associated by him.

21.1.10A. The composite work shall be treated as complete when all the components of the work are complete. The completion certificate of the composite work shall be recorded by Engineer-in-charge of major component after record of completion certificate of all other components.

21.1.10B. Final bill of whole work shall be finalized by IWC.

21.1.11 It will be obligatory on the part of the bidder to sign the tender documents for all components before the first payment is released.

Sd-
SUPERINTENDING ENGINEER
INSTITUTE WORKS DEPARTMENT
INDIAN INSTITUTE OF TECHNOLOGY(BHU)

List of Documents to be scanned and uploaded under cover-1 on e-tendering website and submitted up to the last date and time mentioned above in sealed cover-1 in office of IWD, IIT(BHU):

a) Documents clearly stating the registration status of bidder with CPWD or UWD.

b) Documents regarding legal status of firm and written power of attorney of the signatory.

c) Self certified copy of work orders alongwith work completion certificate as per eligibility criteria.

d) Qualifications and experiences of key site management, technical personnel proposed for the contract.

e) Solvency certificate from bank and scanned copy of DD/FDR for EMD.

f) Affidavit as per 1.2.2 and proof of submission of tender processing fee.

g) No loss certificate, turnover from CA, GST registration certificate, PAN card ESI, EPF etc.

List of documents to be uploaded upto the last date & time mentioned above in cover-2 (Financial Bid):

a) Duly filled in priced BoQ.

b) Duly signed and scanned copy of priced BoQ in PDF format.

(Kindly note that no physical submission of duly filled in BoQ is required and it is to be uploaded only on e-tendering website).

Sd-
SUPERINTENDING ENGINEER
INSTITUTE WORKS DEPARTMENT
INDIAN INSTITUTE OF TECHNOLOGY(BHU)
VARANASI

A: GENERAL INSTRUCTIONS

1.0 Scope of Tender.

1.1 Indian Institute of Technology (BHU) (referred to as Owner in these documents) invites Tenders for **Renovation of kitchen block including dismantling old window & door, P/F of uPVC window & panelled door, P/L Vitrified tiles, plastering of wall, putty and distempering at first floor of S.C. De Hostel, IIT (BHU) Varanasi.**
(As defined in these documents and referred to as "the works") detailed in the table given in the Notice Inviting Tenders (NIT).

1.2 The successful Bidder shall complete the works within the completion date specified in the Notice Inviting Tenders (NIT).

2.0 Non-Association / Relation

2.1 All Bidders shall provide in the bid tender and Qualification Information, a statement that the Bidder is not associated, nor has been associated in the past, directly or indirectly, with the IIT(BHU) or any other entity that has prepared the design, specifications, and other documents for the Project.

3.0 Qualification of the Bidder

3.1 All Bidders shall provide tender qualification information.

3.2 All Bidders shall include the following information by submitting relevant documents and certificate with their tenders:

The Bidder must be registered with the GST Department and should submit the registration certificate of GST, ESI, PF, labour license etc.

4.0 Cost of tendering

4.1 The Bidder shall bear all costs associated with the preparation and submission of his tender, and the Owner will in no case be responsible and liable for those costs.

4.2 The Bidder, at its own responsibility and risk is encouraged to visit and examine the Site of Work and its surroundings and obtain all information that may be necessary for preparing the tender. The costs of visiting the Site shall be at the Bidder's own expense.

B: DOCUMENTS INVITING TENDERS

5.0 Invitation

5.1 Tenders are hereby invited on behalf of Indian Institute of Technology (BHU).

6.0 Contents of documents as mentioned in the relevant clauses mentioned.

The Bidder shall be deemed to have examined all instructions, forms, terms, and specifications in the Documents. Failure to furnish the information required in the Tender Document or submission of a Bid not substantially responsive to the Tender Documents in every respect will be at the Bidder's risk and may result in the rejection of the bid.

The several documents forming the contract are to be taken as mutually explanatory of one another, detailed drawings being followed in preference to small scale drawing and figured dimensions in preference to scale and Special Conditions in preference to General Conditions.

In case of any discrepancy between the Schedule of Quantities, the specifications and/ or the drawings, given in the tender document the following order of preference shall be observed:

Description of Schedule of Quantities.
Particular Specification and Special condition, if any.
Drawings. C. P. W. D. specifications/ IWC specification.
Latest edition Indian Standard Specifications of B. I. S.

7. Amendment of Tendering Documents

7.1 Before the deadline for submission of bids, the Indian Institute of Technology (BHU) may modify the Tender documents by issuing addenda/corrigendum.

7.2 Any addendum thus issued shall be part of the Tendering documents and shall be submitted on Tendering website www.eprocure.gov.in and Institute website www.iitbhu.ac.in.

7.3 To give prospective Bidders reasonable time in which to take an addendum into account in preparing their Publish s, the enlisted may extend if necessary, the deadline for submission of tenders.

C: PREPARATION OF DOCUMENT

8. Earnest Money Deposit (EMD)

EMD amounting to **Rs. 56,000.00** in the form of a bankers cheque or demand draft/F.D.R in favour Registrar, IIT(BHU) payable at Varanasi must accompany each bid. **Bids not accompanying with EMD and unconditional acceptance letter will be summarily rejected**.

The EMD of the unsuccessful Bidders will be discharged / returned within Thirty (30) days from the date of opening of the bids. The EMD of the successful Bidder shall be converted as Security deposit.

The EMD may be forfeited: if the Bidder withdraws his bid during the validity period of the bis; or in case of a successful Bidder, if the Bidder fails to sign the contract or furnish performance security.

9.0 Period of validity of bid

The bids shall remain valid for a period of 180 days after the date of opening of bid. A bid valid for a shorter period, shall be rejected by the Indian Institute of Technology (BHU) as non-responsive and the EMD paid along with it will be forfeited.

10. Language of Bid

10.1 The document shall be written in English language. The total amount should be written in the same language.

11.0 Document comprising the E-Tender

11.1 No page of this tenders document shall be removed and the set must be submitted as it is. Each page of the tenders document form is to be signed by the Bidder and must bear the Seal of the Company/Firm.

The tender submitted by the Bidder shall comprise as mentioned above in relevant sections:

12.0 Tender Prices

12.1 The contract shall be for the whole works as described in Sub-Clause 1.1 based on the priced Schedule of Quantities submitted by the Bidder.

12.2 The tender submitted on behalf of Company shall be signed by a person who has the proper legal authority on behalf of the Company to enter into the contract; otherwise, the bid is liable to be rejected. Each page of the tender document and each drawing accompanying is required to be signed by the authorized person submitting the bid, with the company seal as the token of their having examined and acquainted themselves with the General conditions of contract, drawings, specifications, special conditions of contract etc. The forms of tender are to be filled in completely. Any bid with any of the documents not signed is liable to be rejected.

12.3 The notation R.O. written against items of BOQ means 'rate only" and the bidder is to quote only unit rate in such cases.

12.4 The Bidder shall fill in the percentage rate/in rates for items of the Works described in the Schedule of Quantities along with total bidding price. **In case if the rates are not filled for any of the Items of Schedule of Quantities, in such cases the tender shall be summarily**

rejected. Failure to comply with either of these conditions will make the bid liable for rejection.

12.5 The work shall be carried out by the Bidder in a manner complying in all respect with the requirement of relevant bye-laws/orders of the Local/Municipal bodies and pay all fees and charges which may be leviable at his own cost. The completion/ occupancy certificates including clearance from fire committee or any other statutory obligation shall be arranged by the bidder. Any official fees shall be paid by the Owner. All other cost of liasoning shall be borne by the bidder.

12.6 All duties, taxes, and other levies payable by the Bidder under the contract, or for any other cause, shall be included in the rates, prices and total Bidding Price submitted by the Bidder. Bidders must include in their rates, the cost of transportation of materials to site, **GST**, Cess as per Building & other construction workers cess act, excise duty, octroi, and any other tax and duty levied by the Central / State Government. None of the above taxes & levies will be entertained by the Owner and no tax exemption forms will be issued by the Owner. Bidder should also take a Group Insurance Policy for his Workmen, Supervisors and Engineers working on site for an adequate insurance cover. BHU shall not be responsible for any accident or happening of any untoward/unforeseen event involving workmen, labour, supervisor or engineer or any person directly or indirectly associated with the execution of work. The insurance policy to be obtained by the successful Bidder must be comprehensive and shall cover all associated risks (known and unknown).

NOTE: ALL RATES QUOTED BY THE BIDDER ARE INCLUSIVE OF ALL TAXES LIKE GST CESS AS PER BUILDING & OTHER CONSTRUCTION WORKERS CESS ACT.

OR ANY STATUTORY TAX APPLICABLE AS PER STATE GOVERNMENT.

12.7 The rates quoted in the tender shall include cost of electrical power supply, water supply, cost of all materials, labour, telephone rent and call charges, water and meter rent charges, electric charges, temporary electric wiring / lighting for execution of work at site, hire for any tools and plants, shed for materials, marking out and clearing of site, transportation complete in all respects. The rates quoted in the tender shall be treated as rated for finally completing the item of work.

12.8 The quantities furnished in the schedule of quantities are only probable quantities and are liable to alterations, by omission, deductions or additions to any extent at the discretion of Indian Institute of Technology (BHU). Payments will be regulated on the actual quantities of work done at accepted rates. Any item of work may be omitted from the schedule of quantities and may be awarded to another agency at any time / stage of the work.

12.9 Errors in the Schedule of Quantities shall be dealt with in the following manner:

i In the event of a discrepancy between the rates quoted in words and the rates in figures, rate quoted in words shall be considered to be correct.

ii In the event of an error occurring on account of arithmetical calculations the same shall be corrected according to rates written in words and quantities in B.O.Q.

iii All the errors in totaling in the amount column and in carrying forward the totals shall be corrected. The tender total shall be accordingly amended.

12.10 The calculations made by the bidder should be based upon quantities of the items of work which are furnished in the Schedule of Quantities, but it must be clearly understood that the contract is not a lump sum contract. The Owners do not in any way assure, represent or guarantee that the said probable quantities are correct or that the work would correspond thereto. The items of work irrespective of the quantities which may vary shall be carried out at the same accepted bidding e-tender rates and no escalation in the rates will be entertained whatsoever. Any item of work may be omitted from the schedule of quantities and may be awarded to another agency at any time / stage of the work.

12.11 The bidders must obtain for themselves on their own responsibility and their own expenses all the information which may be necessary, including risks, contingencies and other circumstances to enable them in making a proper bid and for entering into a contract, and must examine the drawings, specifications and conditions and inspect the site of the work, nature of the work, availability of power, water, shelter for workmen and all the matters pertaining thereto before submitting the bid. They can also get any clarifications required from the Owner, before tendering, by contacting them at their office during working hours.

13.0 Format and signing of Tender document

13.1 The bid shall be typed or written in indelible ink and shall be signed by a person or persons duly authorized to sign on behalf of the Bidder. All pages of the tender where entries or amendments have been made shall be initialed by the person or persons signing the tender.

13.2 The tender shall contain no alterations or additions, except those to comply with instructions issued by the Owner, or as necessary to correct errors made by the Bidder, in which case such corrections shall be initialed by the person or persons signing the bid. **ANY CONDITIONAL BID WILL BE SUMMARILY REJECTED**.

D: MODE OF SUBMISSION OF BID DOCUMENT

14.0 Sealing and marking of bids.

14.1 All the document to be put in cover-1 should be scanned and uploaded under cover-1 on the e-tendering website.

14.2 All the envelopes/covers needed to be properly sealed by the bidder and shall indicate the name and address of the bidder.

14.3 If the envelopes/covers are not sealed and marked as above, the Owner will assume no responsibility for the misplacement of the bid document.

14.4 Financial/price bid is to be uploaded online only & no hard copy to be submitted.

15.0 Deadline for submission of bid:-

15.1 Any bid will not be received by the Indian Institute of Technology (BHU) after the deadline of submission of bids.

E: TENDER OPENING AND EVALUATION

16. Tender opening

The Owner along with Architect will open all the tenders received, on the date and the place specified in the NIT. In case of any unavoidable circumstances or unforeseen event on the specified date and time of tender opening, the bids will be opened at the appointed time and location on the next working day.

17. Clarification of Tenders

17.1 To assist in the examination, evaluation, and comparison of bids, the Owner/Architect may, at his discretion, ask any Bidder for clarification of his bid, including breakdowns of unit rates. The request for clarification and the response shall be in writing or by fax, but no change in the price or substance of the tendering shall be sought, offered, or permitted.

18. Examination of Bids and Determination of Responsiveness

18.1 Prior to the detailed evaluation of bids, the Owner will determine whether each bid (a) meets the eligibility criteria defined (b) has been properly signed and meets the requirements mentioned (c) is accompanied by the required securities and; (d) is responsive to the requirements of the tendering documents.

18.2 A responsive bid is one which conforms to all the terms, conditions, and specifications of the tendering documents, without material deviation or reservation. A material deviation or reservation is one (a) which affects in any substantial way the scope, quality, or performance of the Works; (b) which limits in any substantial way, inconsistent with the tender documents, the Indian Institute of Technology(BHU) rights or the Bidders' obligations under the contract; or (c) whose rectification would affect unfairly the competitive position of other Bidders presenting responsive bids.

18.3 If a bid is not responsive, it will be rejected by the Indian Institute of Technology (BHU), and may not subsequently be made responsive by correction or withdrawal of the nonconforming deviation or reservation.

19. Correction of Errors

19.1 Bid determined to be substantially responsive will be checked by the Owner for any arithmetic errors. Errors will be corrected by Owner as follows:

Where there is a discrepancy between the rates in figures and in words, the rate in words will govern, and where there is a discrepancy between the unit rate and the item total resulting from multiplying, the unit rate as quoted will govern.

19.2 The amount stated in the tender will be adjusted by the owner in accordance with the above procedure for the correction of errors and shall be considered as Binding upon the Bidder. If the Bidder does not accept the corrected amount the tender will be rejected, and the EMD will be forfeited.

20. Evaluation and Comparison of Bids

20.1 The Owner along with Architect will evaluate and compare only the bids determined to be substantially responsive.

20.2 In evaluating the bids, the Owner along with Architect will determine for each bid the evaluated bids Price by adjusting the bid Price as follows:

a) Making any correction for errors; or

b) Making an appropriate adjustments for any other acceptable variations, deviations; and

c) Making appropriate adjustments to reflect discounts offered.

21. The Owner reserves the right to accept or reject any variation, deviation, or alternative offer and other factors which are in excess of the requirement of the tender.

F: AWARD OF TENDER

22. Award criteria

22.1 The acceptance of bid will rest with the Owner, which does not bind itself to accept the lowest bid and reserves to itself the authority to reject completely / partially, any or all of the bid/s received without the assignment of a reason.

22.2 The owner with recommendation from the Architect reserves to itself the right of accepting the whole or any part of the Bid and the Bidder shall be bound to perform the same at the rate quoted.

22.3 The Owner reserves to itself the right of omission of any item of work from the awarded tender at any time / stage during the execution of work and award the same to another agency / bidder.

23. Notification of award

The successful Bidder will be issued a Letter of Intent (LOI) by the Owner after recommendation from the Architect. The issuance of LOI shall not constitute an award of work.

24.0 Performance security

24.1 Within seven (7) days of the receipt of notification of award of work the successful Bidder shall furnish the performance security @ 5% of value of work in the form of Performance Bank Guarantee Format provided in the tender document. The Performance security shall be returned/refunded to the bidder on completion of the work and recording of the completion certificate.

25. Signing of contract form

25.1 On the acceptance of LOI and Performance Bank Guarantee of the successful Bidder that his tender has been accepted in writing, the Indian Institute of Technology (BHU) will send the Bidder the contract form provided in the document duly signed and sent along with the bid incorporating all agreements between the parties.

G: DURING EXECUTION

26. During Execution

The Bidder shall carry out all the works strictly in accordance with the drawing, details and instructions of the Owner/Architect. If in the opinion of the Owner, changes have to be made in the design, and they desire the bidder to carry out the same, the Bidder shall be bound to comply. The Owner/Architect's decisions in such cases shall be final.

The Bidder is bound to carry out any items of work necessary for the completion of the job even though such items are not included in the schedule of quantities and rates. Schedule of instructions in respect of such additional items and their quantities with the prior consent from the Owner. Rates for such items of work will be recommended by the Owner with recommendation from the Architect for approval by the Owner on the basis of Analysis of Rates which will be derived from **actual prevailing market rates of similar item along with 15% as bidder's profit & overhead**. The rates approved by the Owner in such cases will be final.

The Owner may at any time / stage of execution demand for the Analysis of Rates for any item / items of work which in their opinion is / are abnormally high / low rates or required for the Analysis of Rates of other bid/ extra item / items. The Bidder is bound to present the

same and if the Bidder is unable to present a justified Analysis of Rates for any item / items, the rate / rates for such item may be adjusted accordingly and the decision of the Owner in such cases shall be final.

The Bidder shall get the quality of work done inspected for material and workmanship at different stages of execution as per instructions given by the Owner or their representative time to time. Any item of work done which is found not conforming to the Contract shall be rejected by the Owner. The decision of the Owner in such cases shall be final.

The Owner may instruct at any stage of execution for testing of samples of any material taken at random. The Owner will decide the testing laboratory / agency and the cost of testing including the expenses for sending the samples to the laboratory / agency and receipt of test reports shall be borne by the Bidder. The material shall be rejected in case the test reports are not within the permissible limits.

The Bidder shall have to present the invoice for purchased material from the manufacturer or from the dealer along with the certificate from the manufacturer. In case material is found to be of sub-standard quality, the same shall be rejected by the Owner. The decision of the Owner in such cases shall be final.

The Bidder shall not be entitled to any compensation for the Loss suffered by him on account of delays in commencing or executing the work whatever the cause of delay may be, including delays arising out of modifications to the work entrusted to him or in any subcontracts connected therewith or delays in awarding contracts for other trades of the project or in commencement or completion of such other works or in procuring Government controlled or other building materials for any other reasons whatsoever. The Owner/Architect shall not be liable for any sum besides the e-tender amount, subject to such variations as are provided for herein and as instructed by Owner. However, necessary time extension will be given if the delays are not attributed to the Bidder.

III. ARTICLES OF AGREEMENT

Articles of Agreement shall be as per Indian Institute of Technology (BHU), Varanasi.

FORM 'A'
FINANCIAL INFORMATION

1. Financial analysis – Details to be furnished duly supported by figures in balance sheet/ profit & loss account for the last three years duly certified by the Chartered Accountant, as submitted by the applicant to the Income Tax AUTHORITIES

YEARS			
(i) Gross Annual Turnover on construction works			
(ii) Profit/Loss			

2. Financial arrangements for carrying out the proposed work.

3. The following certificates are enclosed:

(a) Audited Balance sheet.

(b) Solvency certificate from Bankers of Applicant

Signature with Seal & Date

FORM 'B'

PROFORMA FOR LIST OF CIVIL WORKS EXECUTED BY THE BIDDER DURING THE LAST 5 YEARS AND ABOVE

Sl. No	Name of work/ project with address	Name & postal address of the owner & contact person	Contract Value	Date of Start	Date of Completion	Actual Date of Completion

Note: Bidder may furnish the above information in separate sheet if the space is not sufficient.

FORM 'C'

PROFORMA FOR LIST OF WORKS IN HAND

Sl. No	Name of work/ project with address	Name & postal address of the owner & contact person	Published Value	Date of Start	Stipulated date of completion	Present Progress

Note: Bidder may furnish the above information in separate sheet if the space is not sufficient.

FORM 'D'
DETAILS OF KEY PERSONNEL

Sl. No	Name & Designation	Qualification	Experience	Nature of Works Handled	Date from which employed in your organisation

Note: Bidder may furnish the above information in separate sheet if the space is not sufficient.

GENERAL CONDITIONS OF CONTRACT
A: GENERAL

1.0 Definitions

1.1 In this contract, the following terms shall be interpreted as indicated:

(a) "The Contract" means the agreement entered into between the Owner and the Bidder, as recorded in the contract form signed by the parties, including all the attachments and appendices thereto and all documents incorporated by reference therein.

(b) "The Contract Value" means the amount payable to the Bidder under the contract for the full and proper performance of its contractual obligations.

(c) "Contract Data" means any information provided in the tender document and agreed to by the Bidder.

(d) "The Work" means all labour, materials, tools and plant, equipment including government taxes and transport, that may be required in preparation of and for and in the full and entire execution and completion of "the Work".

(e) "Services" means services ancillary to the execution of the work such as transportation and insurance, and any other incidental services, such as installation, commissioning, provision of technical assistance, training and other obligations of the Bidder covered under the contract.

(f) "GCC" means the General Conditions of Contract contained in this section.

(g) "SCC" means the Special Conditions of Contract.

(h) "The Owner" means the Indian Institute of Technology (BHU), Varanasi.

(i) "The Owner" means the Owner/Project Management Consultant appointed by the Owner for preparing all the drawings, details and specifications of items required for the execution of the work and supervise and monitor the execution at site along with checking and verifying Bidder's bill.

The Bidder shall offer the Engineer or any representative of Owner every facility and assistance for examining the works and materials. The Engineer or any representative of the Owner shall have power to give notice to the Bidder or to his staff, of non-approval of any work or materials and such work shall be suspended or the use of such materials shall be discontinued until the decision of the Owner. Such examinations shall not in any way exonerate the bidder from the obligations to remedy any defects which may be found to exist at any stage of the work or after the same is completed.

(j) "The Bidder" means the individual or the firm executing the work.

(k) "The Project Site" where applicable, means the place or places named in SCC.

(l) "Day" means calendar day.

2.0 Interpretation and Application

2.1 These general conditions shall apply to the extent that provisions in other parts of the contract do not supersede them.

2.2 In interpreting these Conditions of Contract, singular also means plural, male also means female or neuter, and the other way around. Headings have no significance. Words have their normal meaning under the language of the Contract unless specifically defined. The Owner will provide instructions clarifying queries about the Conditions of Contract.

2.3 If sectional completion is specified in the Contract Data, references in the Conditions of Contract to the Works, the Completion Date, and the Intended completion date are for the whole of the Works.

3.0 Standards

3.1 The works executed by the Bidder should be carried out in most professional manner, both as regards material and otherwise, in every respect, in strict accordance with the Technical Specifications. All materials and workmanship shall so far as procurable be of the respective kinds described in the priced schedule of quantities and/ or specifications and in accordance with the Owner' instructions, and the Bidder shall upon the request of the Owner, furnish them with all invoices, accounts; receipts and other vouchers to prove that the material procured complies therewith. When no applicable standard is mentioned, the work shall be carried out as per the directions of the Owner. The Bidder shall at his own cost arrange for and/or carry out any test of materials which the Owner may require. In case of discrepancies in tender wording as regards the specifications of materials workmanship etc., written instructions will supersede the tender wording unless otherwise mentioned.

3.2 The Owner/Owner in their absolute discretion from time to time shall issue further drawings and/ or written instructions, details, directions and explanations which are hereafter collectively referred to as "the Owner's instructions" in regard to: -

a. The variation or modification of the design quality or quantity of works or the addition or omission or submission on any work.

b. Any discrepancy in the drawings or between the schedule of quantities and / or drawings and /or specifications/ dimensions etc.

c. The removal and / or re-execution of any works executed by the Bidder.

d. The removal from the site of any materials brought thereon by the Bidder and the substitution of any other materials therefore / or rejection of the material brought on site.

4.0 Use of Contract Documents and Information

4.1 The Bidder shall not, without the Owners' prior written consent, disclose the contract or any provision thereof, or any specifications, plan, drawing, pattern, sample or information furnished by or on behalf of the Owner in connection therewith, to any person other than a person employed by the Bidder in performance of the contract. Disclosure to any such employed person shall be made in confidence and shall extend only so far, as may be necessary for purposes of such performance.

4.2 The Bidder shall not, without the Owner's prior written consent make use of any document or information enumerated in Para 4.1 except for the purposes of performing the contract.

4.3 All documents included but not limited to contract agreement shall remain the property of the Owner and shall be returned (in all copies) to the Owner on completion of the Bidder's performance under the contract, if so, required by the Owner.

5.0 Owner's Decisions

5.1 Except where otherwise specifically stated, the Owner will decide contractual matters between the Owner and the Bidder, in the role of representing the Owner.

6.0 Performance Security

6.1 Within 7 days after the Bidder's receipt of notification of award of the contract, the Bidder shall furnish performance security in the form of a bank guarantee to the Owner, of the amount specified in the Special Conditions of Contract.

6.2 The proceeds of the performance security shall be payable to the Owner as compensation for any loss or dues resulting from the Bidder's failure to complete its obligations under the contract.

6.3 The performance security shall be in one of following forms:

a) A Bank Guarantee form provided in tender documents issued by a Nationalized/ Scheduled bank to the Owner.

b) The performance security shall be discharged by the Owner and returned to the Bidder on completion of the work and recording of the completion certificate.

7.0 Programme and Reporting

7.1 The bidder shall furnish to the Indian Institute of Technology (BHU) a bar chart laying down weekly financial and physical targets to complete the project within stipulated time for approval within fifteen days from the date of receipt of notification of award. Weekly progress report shall be furnished to the SUPERINTENDING ENGINEER, Indian Institute of Technology (BHU) showing the progress.

7.2 The bidder must submit every week the following information to the Owner in writing:

i. Number of men employed; trade wise;

ii. Progress achieved;

iii. Expected dates for completion of work;

iv. Any actual or potential delay in completion schedule.

8.0 Assignment and Sub-contracting

8.1 The whole of the works included in the Contract shall be executed by the bidder and the bidder shall not directly or indirectly transfer, assign or underlet the contract or any part, share or interest therein without the written consent of the Owner.

8.2 No sub-contracting shall relieve the Bidder from the full and entire responsibility of the Contract or from the active superintendence of the work during their progress.

9.0 Bidder to provide everything necessary for proper execution of work

9.1 The Bidder shall provide everything necessary for the proper execution of the works according to the intent and meaning of the drawings, priced schedule of quantities and specifications taken together whether the same may or may not be particularly shown or described therein provided that the same can reasonably be inferred there from. If the Bidder finds any discrepancy therein, he shall immediately and in writing refer the same to the Owner whose decision shall be final and binding. Further, if any sample(s) of material(s), fittings, fixtures or finished item(s), to be used in the construction work, has/have been called for from the bidder, no work related to it/these shall be executed unless the same has/ have been approved by the Owner failing which no payment shall be made to the bidder on this account. Any sample, duly approved by the Owner shall become part of the supply to be used in "the works".

9.2 The Bidder shall arrange for water & power supply at site at his cost for the entire work. The water to be used for construction shall be free from excessive salts and minerals that are harmful to the construction work. Making arrangement of water good for construction either through external supply or through treatment at site shall be entirely the responsibility of the Bidder. The Bidder shall on demand of the Owner / Owner get any random water samples tested at the approved testing laboratories. No extra payment shall be made for arranging water good for construction under any circumstances. No excuse for / of Municipal water / electric supply shall be entertained. The bidder shall ensure provision of electricity by generator and water by tanker transport if necessary. No claim shall be entertained on this account. In case the same will be provided by the Owner at any stage, then water/electricity charges shall be deducted from the Bidders running bills as per actual metered consumption.

9.3 The Bidder shall supply fix and maintain at his cost, during the execution of any works, all the necessary power supply, water supply, centering, scaffolding, watching and lighting by night as well as by day, required not only for the proper execution but also for protection of the public and the safety of any adjacent roads, streets, pavements, walls houses, building and other erections, matters or things. The Bidder shall take down and remove any or all such centering, scaffolding, staging, planking, timbering, strutting, shoring pumping, fencing, hoarding, watching and lighting by night as well as by day, required not only for the proper

execution but also for protection of the public and the safety of any adjacent roads, streets, pavements, walls houses, building and other erections matters or things. The bidder shall take down and remove any or all such centering, scaffolding, staging, planking, timbering, strutting, shoring etc. as occasion shall require or when ordered so to do so and shall fully reinstate and make good all matters and things disturbed during the execution of the works, to the satisfaction of the Owner.

9.4 Throughout the execution of the work, the Bidder or his representative duly authorized and fully responsible and technically conversant with the work under this agreement, acting on his behalf shall be available at the site for supervising the work. The Bidder shall make adequate arrangements for watchmen to guard the materials brought by them to the site and shall ensure the safety, breakage and any theft of materials fixed or unfixed by him. Any material, T & P brought to the site for bonafide use of the Project shall not be removed/ shifted from the site without the prior written permission of the Engineer/Owner.

9.5 The bidder has to provide at his cost leveling pipe, steel/ metallic tapes etc. required by the supervising staff of the Owner's/Owner' representative during execution of the work.

9.6 Whenever required by the Owner the Bidder shall provide shop drawings / details before execution of work and get them approved by the Owner.

9.7 Wherever the specifications of any item indicate the usage of approved equivalent of any material, the Bidder shall get the sample of the equivalent material approved from the Owner before execution. The approval of the equivalent material is entirely at the discretion of the Owner.

10.0 Infrastructure:

10.1 For storage of materials, bidder has to provide at his own cost sufficient fenced and covered appropriate area on site for storage of above materials with lock and key arrangement. For arranging meetings suitable sized table and chairs shall be provided by Bidder. Temporary space shall be provided to the Bidder for construction of stores for storage of materials /site office/ labour hutments for the project period.

11.0 Site Establishment

The bidder shall provide all stores, workmen and materials. All materials likely to deteriorate in the open shall be stored under suitable cover.

The security of the bidder's equipment and materials is his own responsibility. The Owner accepts no liability for loss or damage to the bidder's plant tools or materials.

The materials issued to the bidder by the Owner will remain under the custody of bidder as a trustee. However, title on the same will remain with the Owner. The bidder will be responsible for loss or damage to such materials and shall preserve them in good working conditions as required for the contract and good construction practices till such time that they are incorporated in the works and erected, aligned and fully installed in position and handed over to the Owner. In case the Owner feels that arrangements made by the bidder are not adequate he shall so advice the bidder and the bidder shall promptly take corrective action. In case the bidder fails to take corrective action, Owner shall take such corrective actions and recover the cost thereof from the bidder's bills. Accounts of such material on completion of work shall be rendered and surplus material returned to the Owner as per instructions of Owner.

The bidder shall clear away periodically or as instructed by Owner any rubbish, scrap materials, etc. and dump the same in the authorized dump sites notified by local authority/area indicated by the Owner. All construction materials shall be neatly stacked in an orderly manner as directed by the Owner and care shall be taken to allow proper access to workmen and easy movement of men, vehicles, cranes and materials.

The bidder shall maintain all the drawings carefully mounted on the board of appropriate size and well protected from the ravages of weather, termites and other insects.

The bidder shall not permit the entry to the site of any person not directly connected/concerned with the work without first having obtained the written permission of Owner.

The bidder shall submit a list of plants, equipments, tools, tackles, etc. which he will use, to perform the work. These tools, etc. shall not be removed from the site till the completion of job. A gate pass must be obtained from the Indian Institute of Technology (BHU), chief proctor office, in order to remove from site any plant equipment, tools and materials.

All items such as instructions and other pertinent data regarding erection/commissioning and maintenance should be typed and classified for transmittal in a manner approved by the Owner.

For all employees of Owner, the bidder shall conform for no misconduct from any of his workforce, failure of this will be sufficient cause for removal of such person from the site.

12.0 Messing & Accommodation

12.1 The bidder will make his own arrangements for messing and accommodation. No accommodation and messing shall be provided by the Owner.

13.0 Procurement, Consumption and Storage of Materials

13.1 The bidder shall at his own expenses, provide all materials including cement & steel required for the works. Adequate stocks of all materials required for the work are to be maintained at site. No material (unless as provided elsewhere in this document) shall be supplied by the Owner.

13.2 All materials to be provided by the bidder shall be in conformity with the detailed specifications laid down in the contract and the bidder have to prove that the materials conform to the laid down specifications, if requested by the Indian Institute of Technology (BHU).

13.3 All materials required for execution of work must be got approved by the site representative of the Owner before they are actually put to use. All facilities for prior inspection of materials and subsequent inspection of work by the Site Engineer must be made available.

13.4 The bidder shall, at his own expenses and without delay, supply to the Owner samples of materials proposed to be used in the work. The Owner shall within seven days of supply of samples, or within such further period as Owner may require and intimate the bidder in writing, whether samples are approved by Owner, or not. If samples are not approved, the bidder shall forthwith arrange to supply, for their approval, fresh samples complying with the specification laid down in the contract.

13.5 The Owner shall have full powers to require removal of any or all the materials brought to site by the bidder which are not in accordance with the contract specifications or do not conform in character or quality to the samples approved Owner. In case of default on the part of the bidder in removing rejected materials, the Owner shall be at liberty to have them removed by other means. The Owner shall have full powers to direct other proper materials to be substituted for rejected materials and in the event of the bidder refusing to comply. Owner may cause the same to be supplied by other means. All risks and costs which may attend upon such removal and/or substitution shall be borne by the bidder.

13.6 Bidder shall be responsible for procurement of all materials/equipments etc. No delay due to non-availability of any material equipment will be entertained by Owner.

14.0 Method of storing the materials

14.1 The bidder shall at his own cost, provide for all necessary storage on the site in specified areas for all materials such as steel, cement and such other materials which are likely to deteriorate by the action of sun, wind, rain, dampness or other natural causes due to exposure in the compounds or in stores in such a manner that all materials, tool etc. shall be duly protected form damage by weather or any other cause.

14.2 Materials required for the works, by the bidder be stored by the bidder only at places approved by the Owner. Storage and safe custody of materials shall be the responsibility of the bidder.

All the materials including bidder's Tools & Plants brought by the bidder to the site shall become and remain the property of the Owner and shall not be removed off the site without prior written approval of the Owner/Owner. But whenever the works are finally completed and advances, if any, in respect of such materials are fully recovered, the bidder shall at his own expenses forthwith remove from the site all surplus materials supplied by him and upon such removal, the same shall revert in and become the property of the bidder.

15.0 Shuttering and Scaffolding Materials

15.1 It shall be desirable to have adequate amount of shuttering and scaffolding materials to complete the work speedily and Owner decision so as to the quantum of these desirable/ resources of the site shall be final and binding.

16.0 Completion of Work

16.1 Before finally leaving site, all the Bidders stores, plant, tools and rubbish shall be removed and the site left clean and tidy. The space allocated by Owner shall be vacated and handed over to the Owner.

17.0 Water and Electricity for Construction work

17.1 Water & Electricity as per relevant section's mentioned above

18.0 Employment of Labour

18.1 The bidder shall comply with the requirement of statutory provisions and shall be solely responsible for fulfillment of all legal obligations under Contract Labour (R. & A) Act, Inter State Migrant Workmen (Registration of Employment and condition of Service Act, payment of Wages Act., Minimum Wages Act, Workmen's Compensation act, Factories Act, Employee's Provident Fund & Miscellaneous Provisions Act, Payment of Bonus Act, Payment of Gratuity Act, Industrial Disputes Act and all other Industrial/Labour enactments and Rules made there under as applicable from time to time. In case Owner incurs any liability towards payment of any dues, compensation, cost of any other liability of any kind whatsoever, due to non-fulfillment of statutory provisions under any industrial/labour laws by the bidder, the same shall be made good by the bidder and Owner shall have full right to recover and claim the same against the bidder form his outstanding bills or otherwise. No Labour to stay at site.

18.2 The bidder will be expected to employ on the work only his regular skilled employees with experience of this particular work. The permission of the Owner must be obtained before tradesman are recruited locally for the work. This rule does not apply to unskilled labour. No female labour shall be employed in dark hours/ i.e. hours prohibited under the applicable law. No person below the age of eighteen years shall be employed at any point of time. The bidder shall pay, to each person, the wages as per minimum Wages Act of the State Government.

18.3 All traveling expenses including provision of all necessary transport to and from site, lodging allowances and other payments to the bidder's employees are his own responsibility.

The hours of work on the site shall be decided by the Owner and bidder shall adhere to the same.

All bidders employees shall wear safety helmet and such identifications marks as may be provided by bidder on work site and duly approved by Owner.

All notices displayed on the site and any instructions issued by the Owner shall be strictly adhered to by the Bidder's and/or his sub-bidders employees.

The bidder shall be required to maintain employment records as covered in relevant Acts and produce documentary evidence to the effect that he has discharged his obligations under the

Employees Provident Fund Act 1952, and ESI Act, 1948 Group Insurance and other Acts for the workmen working at site.

19.0 Working and Safety Regulations

19.1 The bidder shall observe all statutory safety and legal requirements regulations issued by Central and State Governments applicable to the work as well as any local regulations applicable to the site issued by the Owner or any other authority.

20.0 Particular attention is drawn to the following:

In case of accident, the Owner shall be informed in writing forthwith and First-Aid, Hospitalisation shall be provided by the Bidder. The bidder shall strictly follow regulations laid down by Govt. and State authorities in this regard and all cases are to be defended by the bidder. The Owner shall not refund any insurance claims.

Bidder shall fence his plant, platforms, excavations etc.

Compliance with all electricity regulations.

Compliance with statutory requirements for inspection and test of all lifting appliances and auxiliary lifting gear.

Staircase, doors or gangways shall not be obstructed in any way that will interfere with means of access of escape.

Where it is necessary to provide and/or store petroleum products or petroleum mixtures and explosive, the bidder shall be responsible for carrying out such provision and/or storage in accordance with the rules and regulation laid down in Petroleum Act 1934. Explosive Act 1948 and Petroleum and Carbide of Calcium Manual Published by the Chief Inspector of Explosive of India. All such storage shall have prior approvals of the Owner. In case any approval or clearance from Chief Inspector of Explosive or any statutory authorities is required, the bidder shall be responsible for obtaining the same.

The bidder shall have his own Fire Fighting Extinguishers and Equipment.

The bidder shall be responsible for the provision of all safety notices safety equipments including the safety gadgets for his workmen required by both the relevant legislation and such as the Owner may deem necessary.

While working at heights, safety belts and safety helmets shall necessarily be used.

21.0 Owner's and Bidder's Risks

The Owner carries the risks, which this Contract states are The Owner risks, and the Bidder carries the risk, which this Contract states are The Bidder's risks.

21.1 Owner's Risks- The Owner is responsible for the excepted risks which are (a) insofar as they directly affect the execution of the Works. These include war, hostilities, invasion, act of foreign enemies, rebellion, revolution, insurrection of military or usurped power, civil war, riot commotion or disorder (unless restricted to the Bidder's Employees), and contamination from any nuclear fuel or nuclear waste or radioactive toxic explosive, or (b) a cause due solely to the design of the Works, other than the Bidder's design.

21.2 Bidder's Risks- All risks of loss or damage to physical property and of personal injury and death which arise during and in consequence of the performance of the Contract other than the excepted risks are the responsibility of the Bidder.

21.3 The Bidder shall be responsible for all injury to persons, animals or things, and for all damages to the structural and/or decorative part of property which may arise from the operations or neglect of himself or of any sub-bidder or of any of his or sub-bidder's employees whether such injury or damage arises from carelessness accident or any other causes whatsoever in any way connected with the carrying out to the Contract. This clause shall be held to include interalia any damage to buildings, whether immediately adjacent or otherwise and any damage to roads, footpaths, or ways as well as all damage caused to the

buildings and the work forming the subject to this Contract by frost, rain or other inclemency of the weather. The Bidder shall indemnify the Owner and hold him 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 an award of compensation or damages consequent upon such claim.

The bidder shall make good all damages of every sort mentioned in the Clause, as to deliver up the whole of the Contract works complete and perfect in every respect and so as to make good or otherwise satisfy all claims for damage to the property of third parties.

22.0 Insurance

22.1 The Bidder shall provide, in the joint names of the Owner and the Bidder, insurance cover from the Start Date to the end of the Defects Liability Period, in the amounts and deductibles stated in the Contracted Data for the following events which are due to the Bidder's risks and shall be covered under respective policies as under :

(a) Workmen Compensation Policy;

(b) Bidder's All Risk Policy;

(c) Third Party Insurance.

22.2 Policies and certificates for insurance shall be delivered by the Bidder to the Owner for the Owner' approval before the Date of Start of work i.e. date of execution of the contract. All such insurance shall provide for compensation to be payable in the types and proportions of currencies required to rectify the loss or damage incurred.

22.3 If the Bidder does not provide any of the policies and certificates required, the Owner may affect the insurance which the Bidder should have provided and recover the premiums the Owner has paid from payments otherwise due to the Bidder or if no payment is due, the payment of the premiums shall be a debt due.

22.4 Alterations to the terms of the insurance shall not be made without the approval of the Owner or Owner.

22.5 Both parties shall comply with the conditions in the insurance policy.

23.0 Setting out Works

23.1 The bidder shall set out the works and responsible for the true and perfect setting out of the same and for the correctness of the positions, levels, dimensions and alignment of all parts thereof, if at any time any error shall appear during the progress of any part of works the bidder shall at his own expenses rectify such error, if called upon to the satisfaction of the Owner.

24.0 Bidder to remove all offensive matter, non-suitable material etc. immediately.

24.1 All debris, excavated soil, filth or other matter or an offensive nature taken out of any trench, sewer, drain cesspool or other place shall not be deposited on the surface but shall be at once carted away by the bidder out of the premises/ site under intimation to concerned authorities.

24.2 Any material brought on site if found unsuitable shall be removed from site at once by the Bidder under intimation to the concerned authorities.

25.0 Inspections by Owner

25.1 The representative of the Owner at all times have free access to the works and /or to the workshops, factories or other places where materials are being prepared or constructed for the Contract and also to any place where materials are lying or from which they are being obtained. No person except the representatives of Public authorities shall be allowed on the work at any time without the written permission of the Owner. If any work is to be done at a place other than the site of the works, the Bidder shall obtain written permission of the Owner for doing so.

25.2 The Owner and their representatives shall have the right to test and/ or inspect the works to confirm their conformity to the contract, at all times, whenever in progress either on the site on the Bidder's premises wherever situated or any firm or company where work in connection with this contract may be in hand. All records, registers or documents relating to the works including materials used on works shall be kept open to the inspection of the Owner or his Authorized representative when so called for in writing.

25.3 The Bidder shall get the quality of work done inspected for material and workmanship at different stages of execution as per instructions given by the Owner or their representative time to time. Any item of work done which is found not conforming to the Contract shall be rejected by the Owner. The decision of the Owner in such cases shall be final.

25.4 The inspections and tests may be conducted on the premises of the Bidder or at the Project site. When carried out on the premises of the Bidder or its sub-Bidder(s), all reasonable facilities and assistance including access to drawings and production data shall be furnished to the inspectors at no charge to the Owner.

25.5 Should any inspected items of work fail to conform to the specifications, the Owner shall communicate them and the Bidder shall either replace them or make all alterations necessary to meet specification requirements free of cost to the Owner.

25.6 The Bidder shall permit the Owner/Architect to inspect the Bidder's accounts and records relating to the performance of the Bidder and to have them audited by auditors appointed by the Owner, if so required.

26.0 Covering Up/Uncovering of Works

26.1 No part of the works shall be covered up without the approval of Owner/Architect and the Bidder shall afford full opportunity for examination and inspection by the Owner/Architect. The bidder shall give due notice to the Engineers of Institute about the work to be covered up for its measurements and examination. The Engineer shall within a reasonable time attend for the purpose of examining such work, unless the Engineer specifically advises the Bidder in writing of his unwillingness not to attend for such examination in which case the Bidder may proceed further with the Contract work.

26.2 Should the Owner consider it necessary in order to satisfy himself as to the quality of the work, the Bidder shall at any time during the continuance of the contract pull down or cut into any part of the work and make such opening into and to such an extent through the same, as the Engineer may direct and the Bidder shall make good the whole to the satisfaction of the Engineer, should the work prove to be faulty or in any respect not in accordance with the terms of the contract documents, the Engineer shall be at liberty to order such further removal as he may consider necessary and the whole of the expenses incurred shall be borne by the bidder. If, however, the work proves to be sound and in accordance with the contract document, the actual expenses incurred in such examination will be borne by the Owner.

26.3 Rates charged by the Bidder for works performed under the contract shall not vary from the rates quoted by the Bidder in its Publish, with the exception of any price adjustments authorized in SCC or in the Owner's request for Publish validity extension, as the case may be.

26.4 If requested by the Owner, the Bidder shall provide the Owner with a detailed cost breakdown of any rate in the Schedule of Quantities.

26.5 The Owner may at any time / stage of execution demand for the Analysis of Rates for any item / items of work which in their opinion is / are abnormally high / low rates or required for the Analysis of Rates of other Publish / extra item / items. The Bidder is bound to present the same and if the Bidder is unable to present a justified Analysis of Rates for any item / items, the rate / rates for such item may be adjusted accordingly and the decision of the Owner in such cases shall be final.

27.0 Change in the order/ Extra items of work

27.1 The Owner may at any time, by written order given to the Bidder, make alterations in, omissions from, additions to, or substitutions for, in drawings, designs or specifications or quantities of the items of work

27.2 IIT(BHU) reserves to itself the right of omission of any item of work from the awarded Publish at any time / stage during the execution of work and award the same to another agency / bidder.

27.3 The Owner may at any time, by written order given to the Bidder, increase the scope of work or include any new item of work. The Bidder shall be bound to carry out such works, the rates for which shall be arrived at on the basis of the CPWD Schedule of Rates or if the Schedule is silent by standard methods of rate analysis as derived by the Owner/Architect.

27.4 If any such changes cause an increase or decrease in the cost of, or the time required for the Bidder's performance of any part of the work under the contract, whether changed or not changed by the order, an equitable adjustment shall be made in the contract value or work schedule, or both, and the contract shall accordingly be amended. Any claims by the Bidder for adjustment under this clause must be asserted within seven (7) days from the date of the Bidder's receipt of the Owner's change order. Escalation shall be payable as per Clause 10 CC of CPWD Works Manual.

28.0 Payment

28.1 The method and conditions of payment to be made to the Bidder under the contract shall be specified in SCC.

28.2 Payment shall be made promptly by the Owner within fifteen (15) days of certification of the bill by the Owner A retention amount of 10% of Gross value of each running bill shall be deducted from each running payment as Security Deposit subject to maximum of 5% of the total contract value.

28.3 All intermediate running payments to the bidder shall be regarded as payments by way of advance against the final payment and shall not preclude the requiring of bad, unsound and imperfect or unskillful work to the removed, taken away and reconstructed or re-erected.

29.0 Variations and Provisional Cost:

29.1 Where work cannot be measured and valued properly, the Bidder shall be allowed day work rates on the prices prevailing when such work is carried out (unless otherwise provided in the contract):

a. At the rates if any inserted by the Bidder in the priced Schedule of Quantities or

b. If no such rates have been inserted then at the rates prevailing in the market for material and labour and at the control rates for the controlled materials including in all cases the rate for delivery of the material at the work.

29.2 Provided that in any case voucher specifying the time daily spent upon the work (and if required by the Owner the workman's names) and the materials used shall be delivered for verification to the Owner, or his authorised representative not later than the end of the week following that in which the work has been executed. Effect shall be given to the measurement and valuation of variations in interim Certificates and by adjustment of the total Contract Value.

30.0 Material Advances on Unfixed Material

75 percent of the assessed rate of materials at 90% of the assessed quantity of material brought to site for incorporation except for perishable materials like glass and chinaware. This advance shall be adjusted in the subsequent running bill.

31.0 Claims for Extra or for Deductions

31.1 The Owner shall not be responsible for the payment of any claim for extra work not included in the contract nor the Bidder shall be entitled to claim any addition to the contract sum in

respect of any changes or alterations in the materials used unless the same shall have been ordered or sanctioned, as the case may be, in writing by the Owner.

31.2 The Bidder has to submit a monthly return by 10th of the ensuing month for any extra work which in his opinion is not covered by the contract agreement through the Owner's/ Owner's representatives and obtain a receipt from the authorized signatory of the Owner. Failing this, he shall have no right to any such claim, whatsoever may be the circumstances, later on.

31.3 In the event of any dispute arising either as to validity of the claim or as to the account to be paid or allowed in respect thereof, the decision of the Owner shall be final and binding on the bidder. In the meantime, the Bidder may either proceed with the work in question or suspend the same as may be determined by the Owner.

31.4 All extra works (those permitted by Owner) of every description shall be executed by bidder on site of work in pursuance of any of the provision of the contract, shall be measured up, and shall be paid according to actual quantities ascertained by such measurements and the prices as finalized by the Owner based on the priced schedule of quantities so that such priced schedule of quantities shall include all such operations and accessories as appear in the said schedule of prices or specification to be or shall in the opinion of the Owner the contingencies upon the works mentioned in such schedule of prices or required to make such works perfect and fit for use.

31.5 Provided also that if any work shall be ordered by the Owner and executed by the Bidder for the payment of which no provision in the opinion of the Owner have been made in the priced schedule of quantities or the specifications, the Owner shall fix and determine such prices for the same based on the prices appearing in the priced schedule of quantities, such allowance being made as may seem to the Owner sufficient for any difference in the character of conditions of the work. However, rates for extra items shall be fixed on the basis of actual rate analysis.

31.6 The Owner may at any time / stage of execution demand for the analysis of rates for any item / items of work which in their opinion is / are with abnormally high / low rates or required for the analysis of rates of other Publish / extra item / items. The Bidder is bound to present the same and if the Bidder is unable to present a justified analysis of rates for any item / items, the rate / rates for such item may be adjusted accordingly and the decision of the Owner in such cases shall be final and binding.

Removal of Imperfect Work.

31.7 If, it shall appear that the work has been executed with unsound, imperfect or unskilled workmanship, or with material of any imperfect or any inferior quantity or otherwise not in accordance with the contract documents the Bidder shall at his own cost rectify, reform, remove, or reconstruct the same, wither in the whole or in part, as may be directed by the Institute Engineer, whether or not the value of any such work or materials shall have been included in any payment made to the Bidder.

31.8 The Bidder shall remove all malba etc., wash and clean the floors and hand over the site quite clean on the completion of the work.

32.0 Delay in the Bidder's performance

33.1 Execution of the work and performance of the services shall be done by the Bidder in accordance with the time schedule specified by the Owner in the Notice for Invitation of Publish s.

33.2 If, at any time during performance of the contract, the Bidder should encounter conditions impending timely execution of the works and performance of services, the Bidder shall promptly notify the Owner in writing of the fact of the delay, its likely duration and its cause(s). As soon as possible, after receipt of the Bidder's notice, the Owner shall evaluate the situation and may, entirely at its discretion, extend the Bidder's time for performance with or without liquidated damages.

34.0 Liquidated Damages.

If the Bidder fails to execute any or all of the works or to perform the services within the period(s) specified in the contract, the Owner shall deduct from the contract value, as liquidated damages, a sum specified in the SCC for each week or part thereof delay until actual completion or performance, up to a maximum deduction of the percentage specified in SCC. Once the maximum is reached, the Owner may consider termination of the contract. The prorata progress envisaged and expected from the bidder shall maintained, time being the essence of the contract.

35.0 Termination by Default

35.1 The Owner may without prejudice to any other right or remedy, by written notice (of fifteen days) of default sent to the Bidder, terminate the contract in whole or part:

a) if the Bidder fails to complete any or all of the works within the period(s) specified in the NIT or any amendment thereof, or within any extension thereof granted by the Owner,

or

b) if the Bidder fails to perform any other obligation(s) under the contract,

35.2 In the event, the Owner terminates the contract in whole or in part, the Owner may procure, upon such terms and in such manner as it deems appropriate, works or services similar to those unexecuted and the Bidder shall be liable to the Owner for any excess costs for such similar work or services. However, the Bidder shall continue the performance of the contract to the extent not terminated.

36.0 Force Majeure

36.1 The Bidder shall not be liable for forfeiture of its performance security, liquidated damages or termination by default, if and to the extent that, its delay in performance or other failure to perform its obligations under the contract is the result of an event of Force Majeure.

36.2 For purposes of this clause, "Force Majeure" means an unforeseeable event beyond the control of the Bidder and is not because of the Bidder's fault or negligence. Such events may include acts of the Owner either in its sovereign or contractual capacity, wars or revolutions, fires, floods, epidemics.

36.3 If a Force Majeure situation arises, the Bidder shall promptly notify the Owner in writing of such conditions and the cause thereof. Unless otherwise directed by the Owner in writing, the Bidder shall continue to perform its obligations under the contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

37.0 Termination for Insolvency

37.1 The Owner may at any time terminate the contract by giving written notice to the Bidder, if the Bidder becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the Bidder, provided such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the Owner.

38.0 Termination for Convenience

The Owner, by written 30 days prior notice sent to the Bidder, may terminate the contract, in whole or in part, at any time for its convenience. The notice shall specify that the termination is for Owner's convenience, the extent to which performance of the Bidder under the contract is terminated, and the date upon which such termination becomes effective.

The items of work that are complete and ready within (1) month after the Bidder's receipt of notice of termination shall be accepted by the Owner at the contract terms and values. For the remaining works, the Owner may elect;

a) to have any portion completed at the contract terms and value and/or

b) to cancel the remainder and pay to the Bidder an amount, finalized by the Owner, for partially competed works and for materials and parts previously procured by the Bidder.

39.0 Resolution of Disputes

39.1 The Owner and the Bidder shall make every effort to resolve amicably by direct informal negotiations any disagreement or dispute arising between them under or in connection with the contract.

If, after thirty (30) days from the commencement of such informal negotiations, the Owner and the Bidder have been unable to resolve amicably a contract dispute, either party may require that the dispute be referred for resolutions to the formal mechanisms specified in the SCC. These mechanisms may include but are not limited to, Arbitration in accordance with rules of Arbitration Act and award made in pursuance thereof shall be binding on both the parties.

39.2 All disputes should be under the Jurisdiction of civil court Varanasi.

40.0 Governing language

40.1 The contract shall be written in English language. All correspondence and other documents pertaining to the contract that are exchanged by the parties shall be written in the same language.

41.0 Governing law

41.1 The contract shall be governed by the laws of The Union of India for the time being in force. All disputes arising out of or in any way connected with this agreement shall be deemed to have arisen in New Delhi and only the courts in New Delhi alone shall have exclusive jurisdiction to determine the same.

42.0 Notices

42.1 Any notice given by one party to the other pursuant to this contract shall be sent to other party in writing or by cable, telex, or facsimile and confirmed in writing to the other party's address specified in SCC.

A notice shall be effective on the date on which it is delivered, or on the notice's effective date, whichever is later.

43.0 Discoveries

43.1 Anything of historical or other interest or of significant value unexpectedly discovered on the Site is the property of the Owner. The Bidder is to notify the Owner of such discoveries and carry out the Owner' instructions for dealing with them.

44.0 Dismissal of workmen:

44.1 The bidder on request from the Owner, immediately dismiss from the works any person employed by him who may be found in the opinion of the client to be unsuitable or incompetent or who has shown misconduct.

45.0 Working Hours:

45.1 Normal working hours shall be from 9.00 a.m. to 6.00 p.m. No construction work of important structural nature shall be carried out on Sundays, Holidays and during nights. However, permission to work beyond normal working hours can be granted by the Owner/ Owner in exceptional circumstances to achieve the target schedule of completion.

B. TIME CONTROL

46.0 Programme

46.1 Within the time stated in the Contract Data the Bidder shall submit to the Owner for approval a Program showing the general methods, arrangements, order, and timing for all the activities in the works, along with weekly cash flow forecast.

An update of the Program shall be a programme showing the actual progress achieved on each activity and the effect of the progress achieved on the timing of the remaining work including any changes to the sequence of the activities.

The Bidder shall submit to the Owner, for approval, an updated Program at intervals no longer than the period as stated in the clause no. 7.1. If the Bidder does not submit an updated Program within this period, the Owner may withhold the amount stated in the Contract Data from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue program has been submitted.

The Owner's/Owner's approval of the Program shall not alter the Bidder's obligations. The Bidder may revise the Program and submit it to the Owner again at any time. A revised Program is to show the effect of Variations.

At any stage of work, Owner award any item/part of item of work to bidder's workman/ external agency, if in their opinion, the progress of work is suffering because of that. The work done will be added to the Bidder's bill and the amount paid for the job will be deducted from the Bidder's account.

47.0 Delay and Extension of time

If in the opinion of the Owner the work be delayed (a) by force majeure or (b) by reason of any exceptionally inclement weather or (c) by reason of proceedings taken or threatened by or disputes with adjoining or neighboring owners or public authorities or (d) by delays of other bidder or Tradesmen engaged by the Owner or the Owner and the works not referred to in the Schedule of Quantities and/or specification or (e) by reasons of Owner's instruction as per Clause No. 2 or (f) by reason of civil commotion, local combination of workmen or strike or lockout affecting any of the building trades or (g) in consequence of the bidder not having received in due time necessary instructions from the Owner for which he shall have specially applied in writing or (h) from other cause which the Owner may certify as beyond the control of the bidder or (i) by reason of non-payment of interim certificate at specified time, the Owner shall recommend for approval by the Owner a fair and reasonable extension of time for completion of the Contract works. In case of strike or lockout the bidder shall as soon as may be given written notice thereof to the Owner, but the bidder shall nevertheless constantly use his endeavours to prevent delay and shall do all that may reasonably be required to the satisfaction of Owner to proceed with the work.

C. QUALITY CONTROL

48.0 Identifying Defects

48.1 The Owner/Architect shall check the Bidder's work and notify the Bidder of any Defects that are found. Such checking shall not affect the Bidder's responsibilities. The Owner may instruct the Bidder to search for a Defect and to uncover and test any work that the Owner/Architect consider may have a Defect.

49.0 Correction of Defects

49.1 The Owner shall give notice to the Bidder of any Defects before the end of Defects Liability Period, which begins at Completion and is defined in the Contract Data. The Defects Liability period shall be extended for as long as Defects remain to be corrected.

49.2 Every time notice of Defect is given; the Bidder shall correct the notified Defect within the length of time specified by the Owner' notice.

50.0 Uncorrected Defects

50.1 If the Bidder has not corrected a Defect within the time specified in the Owner' notice, the Owner will assess the cost of having the Defect corrected, and the Bidder will pay this amount.

D. COST CONTROL

51.0 Schedule of Quantities

51.1 The Schedule of Quantities shall contain items for the construction work, installation, testing, and commissioning work to be done by the Bidder.

51.2 The Schedule of Quantities is used to calculate the Contract Price. The Bidder is paid for the quantity of the work done at the rate in the priced Schedule of Quantities for each item.

52.0 Variations

52.1 All variations in the programme pursuant to clause no. 7.0 of GCC shall be included in the updated programmes produced by the Bidder.

53.0 Payments for Variations

53.1 The Bidder shall provide the Owner with a quotation (with breakdown of unit rates) for carrying out the Variation when requested to do so by the Owner. The Owner with recommendations from Architect shall assess and finalise the quotation, which shall be given within seven days of the request or within any longer period stated by the Owner and before the Variation is ordered.

53.2 If the Bidder's quotation is unreasonable, the Owner/Architect may order the Variation and make a change to the Contract Price which shall be based on Owner' own forecast of the effects of the Variation on the Bidder's costs.

53.3 If the Owner decides that the urgency of varying the work would prevent a quotation being given and considered without delaying the work, no quotation shall be given and shall be treated as a Variation.

53.4 The Bidder shall not be entitled to additional payment for costs, which could have been avoided by giving early warning.

53.5 Escalation shall be payable as per Clause 10 CC of CPWD Works Manual.

E: FINISHING THE CONTRACT

54.0 Completion Certificate

54.1 The Bidder shall request the Owner to issue a Certificate of Completion of the Works and the Architect will do so upon deciding that the Work is completed.

55.0 Taking Over

55.1 The Owner shall take over the Site and the Works within seven days of the Owner issuing a certificate of Completion. Before handing over the site, the bidder must obtain a site clearance certificate from the Owner/Architect.

56.0 Final Account

56.1 The Bidder shall supply to the Owner a detailed account of the total amount that the Bidder considers payable under the Contract before the end of the Defects Liability Period. The Architect shall issue a Defect Liability Certificate and certify any final payment that is due to the Bidder within 5-6 days of receiving the Bidder's account if it is correct and complete. If it is not, the Owner shall issue within 5-6 days a schedule that states the scope of the corrections or additions that are necessary. If the Final Account is still unsatisfactory after it has been resubmitted, the Owner shall decide on the amount payable to the Bidder and issue a payment certificate within 5-6 days of receiving the Bidder's revised account.

SPECIAL CONDITIONS OF CONTRACT

The following Special Conditions of Contract are supplementary, to the General Conditions of Contract. Whenever there is a conflict, the provisions herein shall prevail over those in the General Conditions of Contract. The corresponding clause number of the General Conditions of Contract is indicated in parentheses.

1.0 Definition (GCC clause 1.0)

(A) Owner means
The Superintending Engineer
INSTITUTE WORKS DEPARTMENT
Indian Institute of Technology (BHU)
Varanasi

(B) Site means the project site situated at BHU, Main campus

2.0 (i) Total Security Deposit

The (Earnest Money Deposit) EMD of the successful Bidder shall form a part of the Total Security Deposit.

A retention amount of @ 10% of the gross amount of the bill shall be deducted from each running bill of the bidder till the sum along with sum already deposited as earnest money, will amount to Security Deposit of 5% of the tender value of the work.

Release of Security Deposit: Security Deposit will be refunded by the Owner after completion of Defect Liability Period i.e. 12 months from date of virtual completion.

(ii) Performance Security

Within seven days (7) after the Bidder's receipt of Notification of Award, the Bidder shall furnish Performance Security to the Owner for an amount of 5% of the accepted bid Value in the form of Cash or Bank Guarantee from Nationalised/Scheduled Bank to the Owner. The Performance security shall be refunded/returned to the bidder on completion of work and recording of the completion certificate.

3.0 Payments

Following terms of payment shall be applicable –

3.1 Mobilization Advance

Mobilization advance shall be payable to the bidder equivalent to 10% of contract value. The mobilization advance shall be against a Bank Guarantee for the equivalent amount from any Nationalized / Scheduled Bank in the prescribed proforma.

Recovery of this advance shall be made @ 15% from each bill so that full mobilization advance is recovered by the time 67% of work is done. Mobilization Advance shall be paid only on signing of agreement and establishment of site office by bidder. The guarantee shall remain valid till the entire advance is recovered or repaid by the Bidder.

3.2 Payment against Running Bills

The Bidder shall be paid for the work done against running bills to be raised not more than fortnightly.

75% of the Bill amount will be paid as on account payment within 15 working days from the date of Interim certificate issued by the Owner with recommendation from Architect and balance will be paid within 15 days from the date of final certificate issued by the Owner with recommendation from Architect. The Final bill will be certified within 60 days from the date of submission. The following payment will be recovered from the bills:

Value of chargeable materials issued by the Owner/Architect.

Mobilization advance as indicated above.

Retention money @ 10% of gross value of the bill

Statutory deductions like income Tax, Cess under Building and Other Construction Workers Welfare Cess Act, 1996 etc. as applicable.

Any other recovery if becomes due.

Payment shall not be released against 1st R/A bill until submission of following documents by bidder to the Owner.

- Financial Guarantee for Performance
- Labour License (as per statutory requirements)
- EPF Code Registration number with RPFC.
- Insurance – Bidder's All Risk (CAR) Policy
- Workmen compensation policy
- Third Party Liability Insurance.
- GST registration number.

Registration under Building and Other Construction Workers Welfare Cess Act, 1996.

Undertaking for compliance of all labour laws

3.3 Basis of Payment in RA bills

Payment in RA bills shall be based on quantity of work executed at site (as per the item of work) & verified by Owner and certified by the Architect as per the item rate in work orders. Owner is authorized to allow part rate/reduced rate for any item of work. The Owner shall specify the reason for the part rate payment in the RA bill.

3.4 Disallowance of payment

If payment has been made in RA bill for any item of work but later on some defect is noticed, Owner/Architect is authorized to disallow the payment in the subsequent bills till rectification of the work.

3.5 Final bill

The final bill complete in all respect shall be submitted by the bidder within 60 days from the date of completion of work. The total quantity may vary as per actual work execution/site requirement/and user suggested changes during execution but the final bill value shall not exceed more than 5% of agreement value. The bill should be accompanied with the following documents.

Job completion certificate.

No claim certificate on Owner/s prescribed proforma

Site clearance certificate.

Performance guarantee duly amended to cover certified maintenance period.

Indemnity certificate towards labour payment and all statutory payments.

The final bill should be accompanied with the following documents:

Certificate of test on materials etc.

Statement of accounts showing the advances taxes, deductions, security deposit at a latest position duly attested by Owner.

Certificate of measurement sheets.

Copy of the insurance policy. (Workmen compensation act and bidders all risk policy).

Original quality control record, measurement records and any other joint site records maintain at site. No claim shall be entertained after receipt of final bill.

Settlement of final bill shall be made subject to deduction of all dues payable by bidder, settlement of all disputes and furnishing of all required documents/clarifications and grant of extension of time, if any, by Owner's competent authority.

3.6 Secured Advance

Payment of secured advance against materials brought at site shall be considered to the extent of 75% of the assessed rate of materials at 90% of the assessed quantity of material brought to site for incorporation except for perishable materials like glass and chinaware etc. This advance shall be adjusted in subsequent running bill. The bidder shall be required to submit the bill for secured advance payment along with photocopies of vouchers of cost of materials and proof of bringing the materials at site (if applicable). Bidder shall also be required to submit indemnity bond on Non-judicial stamp paper of appropriate value. Recovery of the secured advance shall be effected from running account bill, on consumption basis of that material in works.

3.7 Escalation

Escalation shall be payable as per Clause 10 CC of CPWD Works Manual.

4.0 Liquidated Damages

0.5% per week upto a maximum of 5% (Five percent) of the Contract value from the stipulated date of completion.

5.0 Resolution of Disputes

In case the parties cannot agree to the advice of IIT(BHU)**,** then the Director, INDIAN INSTITUTE OF TECHNOLOGY(BHU) shall appoint a sole arbitrator within 30 days of receipt of request forthwith. The arbitration shall be governed by Arbitration and Reconciliation Act 1956.

6.0 Notices

For the purpose of all notices, the following shall be the address of the Owner and the Bidder.

Owner: **The Superintending Engineer**
INSTITUTE WORKS DEPARTMENT
Indian Institute of Technology (BHU)
Varanasi

Bidder: _____

(To be filled in at the time of Signing of the Contract)

_____

7.0 Resolution of Disputes & Arbitration

Except where otherwise provided in the contract all questions and disputes relating to the meaning of the specifications, design, drawings and instructions here in before mentioned and as to the quality of workmanship or materials used on the work or as to any other question, claim, right, matter or thing whatsoever in any way arising out of or relating to the contract, designs, drawings, specifications, estimates, instructions, orders or these conditions or otherwise concerning the works or the execution or failure to execute the same whether arising during the progress of the work or after the cancellation, terminations, completion or abandonment thereof shall be dealt with as mentioned hereinafter.

If the bidder considers any work demanded of him to be outside the requirements of the contract or disputes any drawings, record or decision given in writing in connection with or arising out of the contract or carrying out of the work, he shall promptly within 15 days request the Owner in writing for written instruction or decision.

If the Bidder is dissatisfied with this decision, the Bidder shall within a period of 30 days from receipt of the decision, give written notice to the Indian Institute of Technology (BHU) for appointment of Arbitrator failing which the said decision shall be final binding and conclusive and not referable to adjudication by the Arbitrator.

Except where the decision has become final, binding and conclusive in terms of Sub Para (i) above disputes or difference shall be referred for adjudication through arbitration by a sole arbitrator appointed by The Director, Indian Institute of Technology (BHU). If the arbitrator so appointed is unable or unwilling to act or resign his appointment or vacates his office due to any reason

whatsoever another sole arbitrator shall be appointed in the manner aforesaid. Such person shall be entitled to proceed with the reference from the stage at which it was left by his predecessor.

It is a term of this contract that the party invoking arbitration shall give a list of disputes with amounts claimed in respect of each dispute along with the notice for appointment of arbitrator.

It is also a term of this contract that no person other than a person appointed by such Indian Institute of Technology (BHU) as aforesaid should act as arbitrator and if for any reason that is not possible, the matter shall not be referred to arbitration at all.

It is also a term of this contract that if the contactor does not make any demand for appointment of arbitrator in respect of any claims in writing as aforesaid within 30 days of receiving the intimation from the Owner that the final bill is ready for payment, the claim of the bidder shall be deemed to have been waived and absolutely barred and IIT(BHU) shall be discharged and released of all liabilities under the contract in respect of these claims.

The arbitration shall be conducted in accordance with the provisions of the Arbitration and Conciliation Act, 1996 (26 of 1996) or any statutory modifications or reenactment thereof and the rules made there under and for the time being in force shall apply to the arbitration proceedings under this clause.

8.0 Protection of environment

8.1 The Bidder shall take all reasonable steps to protect the environment on and off the Site and to avoid damage or nuisance to persons or to property of the public or others resulting from pollution, noise or other causes arising as a consequence of his methods of operation.

8.2 During continuance of the contract, the Bidder and his sub-bidders shall at all times abide by all existing enactment on environmental protection and rules made there under, regulations, notifications and bye-law of the State or Central Government, or local authorities and any other law, by-law, regulations that may be passed or notification that may be issued in this respect in future by the State or Central Government or the local authority.

8.3 Salient features of some of the major laws that are applicable are given below:

The Water (Prevention and Control of Pollution) Act, 1974 This provides for the prevention and control of water pollution and the maintaining and restoring of wholesomeness of water. 'Pollution' means such contamination of water or such alteration of the physical, chemical or biological properties of water or such discharge of any sewage or trade effluent or of any other liquid, gaseous or solid substance into water (whether directly or indirectly) as may, or is likely to create a nuisance or render such water harmful or injurious to public health or safety, or to domestic, commercial, industrial agricultural or other legitimate uses, or to the life and health of animals or plants or of aquatic organisms.

The Air (Prevention and Control of Pollution) Act, 1981, This provides for prevention, control and abatement of air pollution, 'Air Pollution' means the presence in the atmosphere of any air pollutant', which means any solid, liquid or gaseous substance (including noise) present in the atmosphere in such concentration as may be or tend to be injurious to human beings or other living creatures or plants or property or environment.

The Environment (Prevention and Control of Pollution) Act, 1986 This provides for the protection and improvement of environment and for matters connected to herewith, and the prevention of hazards to human beings. Other living creatures, plants and property, 'Environment' includes water, air and land and the interrelationship which exists among and between water, air and land, and human beings, other living creatures, plants, micro-organism and property.

The Public Liability Insurance ACT 1991. This provides for public liability insurance for the purpose of providing immediate relief to the persons affected by accident occurring while handling hazardous substance means any substance or preparation which is defined as hazardous substance under the Environment (Protection) Act 1986, and exceeding such quantity as may be specified by notification by the Central Government.

INDIAN INSTITUTE OF TECHNOLOGY(BHU)
INSTITUTE WORKS DEPARTMENT
(IWD) FORM-1

TENDER FOR WORKS

Tender for the work of: **Renovation of kitchen block including dismantling old window & door, P/F of uPVC window & panelled door, P/L Vitrified tiles, plastering of wall, putty and distempering at first floor of S.C. De Hostel, IIT (BHU) Varanasi.**

(i) To be submitted by **5:00 P.M. on 28.06.2019** to the SUPERINTENDING ENGINEER, INSTITUTE WORKS DEPARTMENT, IIT(BHU), Varanasi.

(ii) To be opened in presence of bidders who may be present at **11:30 A.M hours on 01.07.2019** in the office of the SUPERINTENDING ENGINEER, INSTITUTE WORKS DEPARTMENT, IIT(BHU), Varanasi

BID

I/We have read and examined the notice inviting Tender , schedule, A, B, C, D, E & F Specifications applicable, Drawings & Designs, General Rules and Directions, Conditions of Contract, clauses of contract, Special conditions, Schedule of Rate & other documents and Rules referred to in the conditions of contract and all other contents in the Tender document for the work.

I/We hereby submit bid for the execution of the work specified for the Institute within the time specified in Schedule 'F' viz., schedule of quantities and in accordance in all respect with the specifications, designs, drawing and instructions in writing referred to in Rule-1 of General Rules and Directions and in Clause 11 of the Conditions of contract and with such materials as are provided for, by, and in respect of accordance with, such conditions so far as applicable.

We agree to keep the Bid open for Thirty/Forty five/Sixty/ninety/one eighty (30/45/60/90/180) days from the due date of its opening and not to make any modification in its terms and conditions.

A sum of **Rs. 70,000.00** is hereby forwarded in fixed deposit receipt of scheduled bank/demand draft of a scheduled bank as earnest money. If I/We, fail to furnish the prescribed performance guarantee within prescribed period. I/We agree that the Institute has to right to forfeit the said earnest money absolutely. Further, if I/We fail to commence work as specified, I/We agree that the Institute has to right to forfeit the said performance guarantee absolutely. The said performance guarantee shall be a guarantee to execute all the works referred to in the Tender documents upon the terms and conditions contained or referred to those in excess of that limit at the rates to be determined in accordance with the provision contained in Clause 12.2 and 12.3 of the Tender form. Further, I/We agree that in case of forfeiture of Earnest Money or Performance Guarantee as aforesaid, I/We shall be debarred for participation in the re-Tendering process of the work.

I/We undertake and confirm that eligible similar work(s) has/have not been got executed through another bidder on back to back basis. Further that, if such a violation comes to the notice of COMMITTEE, then I/We shall be debarred for tendering in IWC in future forever. Also, if such a violation comes to the notice of COMMITTEE before date of start of work, the Engineer-in-Charge shall be free to forfeit the entire amount of Earnest Money Deposit/Performance Guarantee.

I/We hereby declare that I/We shall treat the tender documents drawings and other records connected with the work as secret/confidential documents and shall not communicate information/derived there from to any person other than a person to whom I/We am/are authorized to communicate the same or use the information in any manner prejudicial to the safety of the State.

Dated: Signature of Bidder

Witness: Postal Address

Occupation:

ACCEPTANCE

The above Tender (as modified by you as provided in the letters mentioned hereunder) is accepted by me for an on behalf of the Indian Institute of Technology(BHU) for a sum of ……..……..(Rupees……
……)

The letters referred to below shall form part of this contract agreement: (a)

(b)

(c)

For & on behalf of Indian Institute of Technology (BHU)……..

Dated: Designation …….

PROFORMA OF SCHEDULES

SCHEDULE 'A'

Schedule of quantities

SCHEDULE 'B'

Schedule of materials to be issued to the bidder if available in the IWD store, if not available the same may be arranged by the bidder.

SCHEDULE 'C'

Tools and plants to be hired to the bidder

S. No.	Description	Hire charges per day	Place of Issue
1	2	3	4
As mentioned in relevant sections			

SCHEDULE 'D'

Extra schedule for specific requirements/document for the work, if any.

As attached in e-tender form

SCHEDULE 'E'

Reference to General Conditions of contract.

SCHEDULE 'F'

GENERAL RULES & DIRECTIONS:

Officer inviting tender	SUPERINTENDING ENGINEER INSTITUTE WORKS DEPARTMENT Indian Institute of Technology (BHU) Varanasi
Maximum percentage of quantity of items of work to be executed beyond which rates are to be determined in accordance with Clause 12.2.& 12.3	See below

Definitions:

2(I) Engineer-in-Charge

For Civil items of work Chairman, IWC/SE(IWD)
I W C , IIT(BHU), Varanasi.

2(II) Accepting Authority Chairman,IWC/SE(IWD),
IIT(BHU), Varanasi.

2(III) Percentage on cost of materials and labour to cover all overheads and profits 15%

2(IV) Standard Schedule of Rates: D.S.R 2016

Time allowed for execution of work **05 Months (150 Days)**

Authority to decide
Extension of time — Engineer-in-Charge

Rescheduling of mile stone — Engineer-in-Charge

Shifting of date of start in case of delay in handing over of site — Engineer-in-Charge

Clause 11 Specification to be followed for execution of work to be as per :

For Civil items of work CPWD Specifications 2009 Vol. 1 and Vol. 2 with up to date correction slips. (Hereinafter called CPWD specifications also) and Specification mentioned in This Publish document for Each project

For Electrical items of work CPWD Specifications for electrical works 2005 (Internal) and CPWD Specifications for electrical works 1995 (External) and Specification mentioned in This Publish document for Each project

For Other Items Specification mentioned in this Tender document for Each project.

Clause 12		
12.2 & 12.3	Deviation limit beyond which clause 12.2 & 12.3 shall apply for building work	30%
12.5	(i) Deviation limit beyond which clause 12.2 & 12.3 shall apply for foundation work (except earth work)	30%
	(ii) Deviation limit for items in earth work subhead of DSR or related items	100%

Clause 16	Competent Authority for Deciding reduced rates:	
	For Civil items of work	Chairman IWC / SE (IWD), IIT(BHU), Varanasi.
	For Electrical items of work	Chairman IWC / SE (IWD), IIT(BHU), Varanasi.

Clause 25

Constitution of Dispute Redressal Committee (DRC)	Competent Authority to appoint DRC
DRC shall constitute one SUPERINTENDING ENGINEER and two members	Chairman, IWC/ SE (IWD)

Clause 36(i) Requirement of Technical Representative(s) and Recovery Rate for the entire duration of the projects

Sl. No.	Minimum Qualification of Technical Representative	Designation (Principal Technical/ Technical representative	experience	Each Individual Projects	Rate at which recovery shall be made from the bidder in the event of not fulfilling provision of Clause 36(i)	
					Figures	
~~1~~	i)Project Manager with degree in corresponding discipline of Engineering	Principal Technical Representative				
	ii)Graduate Engineer	Technical Representative				
	iii)Graduate Engineer or Diploma Engineer	Technical Representative	5	1	10000.00	

Assistant Engineers retired from Government services that are holding Diploma will be treated at par with Graduate Engineers.
Diploma holder with minimum 10-year relevant experience with a reputed construction co. can be treated at par with Graduate Engineers for the purpose of such deployment subject to the condition that such diploma holders should not exceed 50% of requirement of degree engineers.

Clause 42

i) a) Schedule/ statement for determining theoretical quantity of cement & bitumen on the basis of Delhi Schedule of Rates 2016 printed by CPWD. D.S.R. 2016 with Correction slips

ii) Variations permissible on theoretical quantities

a) Cement for works with estimated cost put to Publish not more than 5 lakhs. 3% plus/minus

For works with estimated cost put to Publish is more than 5 lakhs 2% plus/minus

b)	Bitumen all works	2.5% plus & only &
		nil on minus side.
c)	Steel reinforcement and structural steel Sections for diameter, section and category.	2% plus/minus.

d) All other materials Nil

RECOVERY RATES FOR QUANTITIES BEYOND PERMISSIBLE VARIATION

S. No.	Description of Item	Rates in figures and words at which recovery shall be made from the	
		Excess beyond permissible variation	Less use beyond permissible variation
1	Cement		Rs. 5920.00 per MT
2	Steel Reinforcement		Rs. 50000 per MT

SALIENT / MANDATORY REQUIREMENTS FOR THE TENDER

NAME OF WORK: Renovation of kitchen block including dismantling old window & door, P/F of uPVC window & panelled door, P/L Vitrified tiles, plastering of wall, putty and distempering at first floor of S.C. De Hostel, IIT (BHU) Varanasi

The bidder is advised to read and examine the Tender documents for the work and the set of drawings available with Engineer-in-charge and on www.itbhu.ac.in . He should inspect and examine the site and its surroundings by himself before submitting his Publish.

1 Schedule of quantity is included in this Tender is for components of work. If the bidder wants to offer any unconditional rebates on their rates that should be clearly mentioned.

2 Time allowed for the execution of work is **05 Months (150 Days)**.

3 The bidder(s) shall submit a detailed program of execution in accordance with the master programme/milestone within 7 days from the date of issue of award letter.

4 ~~Bidder has to arrange and install ……during~~

the currency of work and nothing extra will be paid on this account.

5 Quality of the project is of utmost importance. This shall be adhered to in accordance with the provisions of Tender specifications and guidelines given in the relevant para's.

6 Cement if available may be issued by the IIT(BHU), otherwise have to be arranged by the bidder, SteelReinforcementshallbearrangedbythebidderhimself.

7. Bidder has to deploy required Plant and machinery in sufficient number on the project.

8. The bidder shall submit the running bills in the shape of the computerized MB in pages of A-4 size as per the standard format of COMMITTEE.

9. The bidder shall comply with the provisions of the Apprentices Act 1961, and the rules and orders issued there under from time to time. If he fails to do so, his failure will be a breach of the contract and the SUPERINTENDING ENGINEER/Executive Engineer may in his discretion, without prejudice to any other right or remedy available in law, cancel the contract. The bidder shall also be liable for any pecuniary liability arising on account of any violation by him of the provisions of the said Act.

ADDITIONAL TERMS AND CONDITIONS

1 Till the work is almost completed to the satisfaction of Engineer-in-Charge-

(i) Bidder shall not divert any advance payments or part thereof for any purpose other than needed for completion of the contracted work. All advance payments received as per terms of the contract (i.e. mobilization, secured against materials brought at site, secured against plant & machinery and/required to be re-invested in the contracted work to ensure advance availability resources in terms of materials, labour, plant & machinery needed for required pace of progress for timely completion of work.

(ii) All running account bills preferred by the bidder for advance payments shall be processed only if Engineer-in-charge is satisfied that upto date investments (excluding security deposit & performance guarantee, which are not considered as investments) made by the bidder against contracted work are more than the payments received. Accordingly, all running account bills shall be supported with an account of upto date payments received vis-à-vis upto date investments made on the work to enable Engineer-in-charge to check to his satisfaction that the payments made by Engineer-in-charge are properly utilized only on the work and nowhere else.

2 Unless otherwise provided in the Schedule of Quantities/Specifications, the rates submitted by the bidder shall be all inclusive and shall apply to all heights, lifts, leads and depths of the work and nothing extra shall be payable to him on account of the same. Extra payment for centering/shuttering, if required to be done for heights greater than 3.5 m shall however be admissible at the rates arrived at in accordance with clause 12 of the agreement, if not already specified.

3 Other agencies doing works related with this project may also simultaneously execute their works and the bidder shall afford necessary facilities for the same. The bidder shall leave such necessary holes, openings etc. for laying/burying in the work, pipes cables, conduits, clamps, boxes and hooks for fan clamps etc. as may be required for the other agencies. Nothing extra over the Agreement rates shall be paid for doing these.

4 Some restrictions may be imposed by the security staff etc. on the working and for movement of labour, materials etc. The bidder shall be bound to follow all such restrictions/instructions and nothing extra shall be payable on account of the same.

5 The bidder shall fully comply with all legal orders and directions of the Public or local authorities or municipality by their rules and regulations and pay all fees and charges for which he may be liable in this regard. Nothing extra shall be paid/reimbursed for the same.

6.1 The building work shall be carried out in the manner complying in all respects with the requirements of the relevant bylaws and regulations of the local body under the jurisdiction of which the work is to be executed or as directed by the Engineer-in-charge and nothing extra shall be paid on this account.

6.2 The work of water supply, internal sanitary installations and drainage etc. shall be carried out as per the bylaws of the Municipal Corporation or any other local body and the bidder shall produce necessary completion certificates from such authority after completion of work.

6.3 All water tanks, taps, sanitary, water supply and drainage pipes fittings and accessories etc. shall conform to the bylaws and specifications of the Municipal Body/Corporation where IWC specifications are not available.

6.4 The bidder shall engage licensed plumbers for the work and the materials (fixtures/fittings) tested by the local Municipal Body/Corporation wherever required at his own cost. Nothing extra shall be paid/reimbursed for the same.

7 The bidder shall give a performance test of the entire installation(s) as per standing specifications before the work is finally accepted by making his own arrangements for water supply, electricity etc. and nothing extra whatsoever shall be payable for the same.

8 If as per local Municipal regulations, huts for labour are not to be erected at the site of work, the bidder shall be required to provide such accommodation at a place as is

acceptable to the local body and nothing extra shall be paid on this account.

9 The structural and architectural drawings shall at all times be properly co-related before executing any work. However, in case of any discrepancy in the item given in the schedule of quantities appended with the Tender and Architectural drawings relating to the relevant item, the former shall prevail unless otherwise given in writing by the Engineer-in-charge.

10.1 For the purpose of recording measurements and preparing running account bills, the abbreviated nomenclature indicated in the publications Abbreviated Nomenclature of Items of DSR 2014 shall be accepted. The abbreviated nomenclature shall be taken to cover all the materials and operations as per the complete nomenclature of the relevant items in the agreement and relevant specifications.

10.2 In case of items for which abbreviated nomenclature is not available in the aforesaid publication and also in case of extra and substituted items for which abbreviated nomenclature are not provided for in the agreement, full nomenclature of item shall be reproduced in the measurement books and bill forms for running account bills.

10.3 For the final bill, however, full nomenclature of all the items shall be adopted in preparing abstract in the measurement books and in the bill forms.

11 The bidder shall take instructions from the Engineer-in-charge for stacking of materials. No excavated earth or building materials etc. Shall be stacked/ collected in areas where other buildings, roads, services, compound walls etc. are to be constructed.

12 Any trenching and digging for laying sewer lines/water lines/cables etc. shall be commenced by the bidder only when all men, machinery's and materials have been arranged and closing of the trench(s) thereafter shall be ensured within the least possible time.

13 It shall be ensured by the bidder that no electric live wire is left exposed or unattended to avoid any accidents in this regard.

14 In case the supply of timber/steel frames/shutters for doors, windows etc. is made by some other agency, the bidder shall make necessary arrangements for their safe custody on the direction of the Engineer-in-charge till the same are fixed in position by him & nothing extra shall be paid on this account.

15 The bidder shall maintain in perfect condition, all portions executed till completion of the entire work allotted to him. Where however phased delivery of work is contemplated these provisions shall apply separately to each phase.

16 The entire royalty at the prevalent rates shall have to be paid by the bidder on all the boulders, metals, shingle sand etc. collected by him for execution of the work, directly to the Revenue authority or authorized agents of the State Government concerned or the Central Government, as the case may be.

17.1 The materials shall be issued to the bidder at the place of delivery as mentioned in the Schedule-B during the working hours as per the rules of IWD stores in force from time to time. If these are delivered at any other place, adjustments on accounts of the difference in cost of cartage shall be affected as per the terms of clause 12 of the contract agreement. The bidder shall however have to cart the materials to the site of work at his cost as soon as these are issued.

17.2 Materials like reinforcing bars, flats, tees, angles, sheets, CI and SCI pipes etc., if contemplated to be issued shall be issued in available sizes and lengths and the bidders shall bear the cost of cutting and shaping them according to the requirements of work. No claim for the wastage on this account shall be entertained.

17.3 The bidder shall bear all incidental charges for cartage, storage and safe custody of materials issued by the Department and shall construct suitable godowns, yards at the site of work for storing all materials as to be safe against damage by sun, rain, dampness, fire, theft etc. at his own cost and also employ necessary watch and ward establishment for the purpose, at his own cost. Materials to be charged directly to work and stipulated for issue free of cost shall also be issued to the bidder as soon as those are received at site or at the stipulated place of issue. The provision of this para shall apply equally and fully to those as well.

17.4 All materials obtained from the IWD stores or other than IWD stores but authorized on

receipt shall be got checked by the Engineer-in-charge of the work or his representations before use.

17.5 Cement bags shall be stored in separate godowns to be constructed by the bidder at his own cost as per sketch (which is only indicative and actual size will depend on the site requirements) given in IWC specifications with weather proof roofs and walls. Each godown shall be provided with a single shutter door with two locks. The key of one lock shall remain with Engineer-in-charge or his authorized representative and that of the other lock with the authorized agent of the bidder at the site of work so that the cement is issued from the godown according to the daily requirements with the knowledge of both parties and proper account for the same is maintained in the standard proforma.

PROFORMA FOR THE CEMENT REGISTER PARTICULARS OF RECEIPT

Date of receipt	Quantity received	Progressive total	Date of issue	Quantity issued	Items of work for which issued
1	2	3	4	5	6

PARTICULARS OF ISSUE

Qty. returned at the end of the day	Total issued	Daily balance in hand	Bidder's initial	JE's initial	Remarks (AE/EE's periodical check)
7	8	9	10	11	12

17.6 Separate cement registers showing the receipt of the OPC and PPC shall be maintained at site. The bidder shall construct separate godowns for storage of OPC & PPC at site and nothing extra on this account shall be payable.

17.7 Cement issued shall be for consumption at site only. No cement for factory made items and those not manufactured at site shall be issued.

18 ADDITIONAL TERMS & CONDITIONS FOR VARIATION IN CONSUMPTION OF PIG LEAD

The pig lead for caulking of joints of SCI pipes shall be used as per the theoretical consumption for SCI pipes of sizes 100mm, 75mm, 50mm at 0.98kg., 0.88kg. and 0.77kg.per joint respectively. Over and above the theoretical quantities of lead as worked out a variation of 5% shall be allowed for wastage etc. Any difference between the actual consumption of pig lead and the theoretical consumption worked out on the above basis shall be recovered at double the issue rate. Where the pig lead is arranged by the bidder, also a variation of 5% shall be allowed. In case the variation is on the lower side, the quantity of pig lead used less shall be recovered from the bidder at market rate to be determined by the Engineer-in-charge whose decision in this matter shall be final.

19 ADDITIONAL TERMS & CONDITIONS FOR WATER PROOFING TREATMENT

The bidder shall associate himself with the specialized firm, to be approved by the Engineer-in-charge in writing, for water proofing treatment for basement/lower ground floor, underground tank and on roofs. Guarantee in the prescribed proforma attached with Tender document shall be given by the specialized firm, for a period of ten years from the date after the maintenance period prescribed in the contract, which shall be counter signed by the bidder as token of overall responsibility. In addition, 10% (ten

percent) of the cost of water proofing items shall be retained as guarantee to watch the performance of the work done. However, half of this retained amount will be released after five years, if the performance of the work done is found satisfactory. If, however any defect is noticed during the guarantee period, it shall be rectified by the bidder within seven days of intimation. In case it is not attended to, the same will be got done by another agency at the risk and cost of the bidder. This guarantee deposit can however be released in full if a bank guarantee of equivalent amount for 10 years is produced and deposited with the COMMITTEE by the bidder.

20 ADDITIONAL TERMS & CONDITIONS FOR QUALITY OF BRICKS

Bricks shall confirm to C.P.W.D Specifications 2009 Vol. 1 and shall be of brick red colour, will give a ringing sound when struck and homogenous in formations, regular in shape and size.

21 ADDITIONAL TERMS & CONDITIONS FOR QUALITY & QUARRIES OF STONE AGGREGATE & SAND

The Stone aggregate/stone shall be brought from quarries as approved by the Engineer-in-charge. The materials shall, however, confirm to CPWD specifications.

22. The bidder shall provide approved type of supports for maintaining the bars in position and ensuring required spacing and correct cover of concrete to reinforcement as called for in the drawings. Spacer blocks of required shape and size, MS chairs and spacer bars shall be used in order to ensure accurate positioning of reinforcement. Spacer blocks shall be cast well in advance of high strength. Blocks of polymer shall not be used as spacer blocks unless specially approved by the Engineer-in-Charge. Rate of item of steel reinforcement is inclusive of cost of such cover blocks.

23. Final bill of whole work shall be finalized and paid by SUPERINTENDING ENGINEER. Including in the final bill for composite work.

24. The Guarantee Bond attached in the Tender should be used for the items if applicable.

PERFORMANCE GUARANTEE BOND

In consideration of the Indian Institute of Technology(BHU) having agreed under the terms and conditions of agreement No…… dated…….. made between ……. and

…….(hereinafter called "the contractor(s)")…… for the work……(hereinafter called "the said agreement") having agreed to production of a irrevocable Bank Guarantee for……. (Rupees……only) as a security/guarantee from the contractor(s) for compliance of his obligations in accordance with the terms and conditions in the said agreement,

1. We……..hereinafter referred to as "the Bank") hereby undertake to pay to IIT(BHU)

(Indicate the name of the bank)

Institute an amount not exceeding Rs…….. (……only) on demand by the Indian Institute of Technology(BHU).

2. We ……...do hereby undertake to pay the amounts due…… and payable

(Indicate the name of the Bank) under this Guarantee without any demur, merely on a demand from the Indian Institute of Technology(BHU) stating that the amount claimed is required to meet the recoveries due or likely to be due from the said contractor(s). Any such demand made on the bank shall be conclusive as regards the amount due and payable by the bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding (Rupees……only).

3. We, the said bank further undertake to pay to the Institute any money so demanded notwithstanding any dispute or disputes raised by the contractor(s) in any suit or proceeding pending before any court or tribunal relating thereto, our liability under this present being absolute and unequivocal.

The payment so made by us under this bond shall be a valid discharge of our liability for payment there under and the contractor(s) shall have no claim against us for making such payment.

4. We ……further agree that the guarantee herein contained shall (Indicate the name of the Bank) remain in full force and effect during the period that would be taken for performance of the said agreement, and it shall continue to be enforceable till all the dues of the Indian Institute of Technology(BHU) under or by virtue of the said agreement have been fully paid and its claims satisfied or discharged or till Engineer-in-charge on behalf of the Institute certified that the terms and conditions of the said agreement have been fully and properly carried out by the said contractor(s) and accordingly discharges this guarantee.

5. We …….....(indicate the name of bank) further agree

with the Indian Institute of Technology(BHU) that Indian Institute of Technology(BHU) shall have the fullest liberty without our consent and without effecting in any manner our obligations hereunder to vary any of the terms and conditions of the said agreement or to extend time of performance by the said contractor(s) from time to time or to postpone for any time or from time to time any of the powers exercisable by the Indian Institute of Technology(BHU) against the said contractor(s) and to forebear or enforce any of the terms and conditions relating to the said agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said contractor(s) or for any forbearance, act of omission on the part of the Institute or any indulgence by the Indian Institute of Technology(BHU) to the said contractor(s) or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.

6. This guarantee will not be discharged due to the change in the constitution of the Bank or the contractor(s).

7. We …… (Indicate the name of the Bank) lastly undertake not to revoke this guarantee except with the previous consent of the Indian Institute of Technology (BHU) in writing.

8. This guarantee shall be valid up to……. unless extended on demand by Indian Institute of Technology (BHU). Notwithstanding anything mentioned above, our liability against this guarantee is restricted to ……(Rupees……only)and unless a claim in writing is lodged with us within six months of the date of expiry or the extended date of expiry of this guarantee all our liabilities under this guarantee shall stand discharged. Dated the ……..……day of……...…… for ……. (Indicate the name of the Bank)

CONTRACTORS FOR REMOVAL OF DEFECTS AFTER COMPLETION IN RESPECT OF WATER PROOFING WORKS

(BASEMENT/LOWER GROUND FLOOR/UNDER GROUND TANK/ROOF)

The Agreement made this……day of ……Two thousand between And ……..……..son of ……..…… (hereinafter called the Guarantor of the one part) and the Indian Institute of Technology(BHU).

WHEREAS THIS agreement is supplementary to a contract (hereinafter called the contract) dated……..and made between the GUARANTOR OF THE ONE part and the Indian Institute of Technology(BHU) of the other Part, whereby the contractor, inter alia, undertook to render the buildings and structures in the contract recited completely water and leak-proof

AND WHEREAS THE GUARANTOR agreed to give a guarantee to the effect that the said structures will remain water and leak-proof for ten years from the date after the maintenance period prescribed in the contract.

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

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

(a) Misuse of roof shall mean any operation which will damage proofing treatment, like chopping of firewood and things of the same nature which might cause damage to the roof.

(b) Alteration shall mean construction of an additional storey or a part of the roof or construction adjoining to existing roof whereby proofing treatment is removed in parts.

(c) The decision of the Engineer-in–charge with regard to cause of leakage/seepage shall be final.

During this period of guarantee the guarantor shall make good all defects and in case of any defect being found, render the building water proof to the satisfaction of the Engineer-in–charge at his cost and shall commence the work for the rectification within seven days from the date of issue of the notice from the Engineer-in–charge calling upon him to rectify the defects failing which the work shall be done by the COMMITTEE by some other agency contractor at the GUARANTOR's risk and cost. The decision of the Engineer-in–charge as to the cost payable by the Guarantor shall be final and binding.

That if guarantor fails to make good all defects or commits breach there under then the Guarantor will indemnify the principal and his successors against all loss, damage, cost expense otherwise which may be incurred by him by reason of any default on the part of the GUARANTOR in performance and observance of this supplementary agreement. As to the amount of loss

and/or damage and/or cost incurred by the Indian Institute of Technology(BHU) the decision of the Engineer-in-Charge will be final and binding on the parties.

IN WITNESS WHEREOF these presents have been executed by the

GURANTOR ……and by …..…… and for and on behalf of the Institute on the day, month and year first above written SIGNED, SEALED AND delivered by GURANTOR in the presence of :

1. …….
2. …….

SIGNED FOR AND ON BEHALF OF, INDIAN INSTITUTE OF TECHNOLOGY(BHU) BY……..in the presence of:

1. …….
2. …….

TO BE EXECUTED BY THE CONTRACTOR FOR REMOVAL OF DEFECTS AFTERCOMPLETIONINRESPECTOFSTONEWORKS

The agreement made this…….day of……..…Two Thousand and Between …….. son of ……(hereinafter called the GUARANTOR of the one part) and the Indian Institute of Technology (BHU)

WHEREAS THIS agreement is supplementary to a contract (Hereinafter called the Contract) dated _____ and between the GUARANTOR OF THE made ONE PART AND the Indian Institute of Technology (BHU) of the other part, whereby the contractor inter alia, undertook to render the work in the said contract recited structurally stable workmanship, finishing and use of sound materials.

AND WHEREAS THE GUARANTOR agreed to give a guarantee to the affect that the said work will remain structurally stable and guaranteed against faulty workmanship, finishing and unsound materials and other related problems.

NOW THE GUARANTOR hereby guarantee that work executed by him will remain structurally stable after the expiry of maintenance period prescribed in the contract for the minimum life of five years to be reckoned from the date after expiry of maintenance period prescribed in the contract.

The decision of the Engineer-in-charge with regard to nature and cause of defect shall be final. During this period of guarantee, the guarantor shall make good all defects to the satisfaction of the Engineer-in-charge calling upon him to rectify the defects failing which the work shall be got done by the COMMITTEE by some other contractor at the Guarantor's risk and cost. The decision of the Engineer-in-Charge as to the cost payable by the Guarantor shall be final and binding.

That if the guarantor fails to make good all the defects, commits breach there under, then the guarantor will indemnify the principal and his successor against all loss, damage, cost expense or otherwise which may be incurred by him by reason of any default on the part of the GUARANTOR in performance and observance of this supplementary agreement. As to the amount of loss and/or damage and/or cost incurred by the Institute, the decision of the Engineer-in-charge will be final and binding on both the parties.

IN WITNESS WHEREOF these presents, have been executed by the GURANTOR and……by…… for and on behalf of the Institute on the day, month and year first above written.

SIGNED, sealed and delivered by GURANTOR in the presence of:

1. ……..……..……
2. ……..

SIGNED FOR AND ON BEHALF OF THE, INDIAN INSTITUTE OF TECHNOLOGY(BHU) BY ……..…in the presence of:

1. **……..**
2. **……..**

TO BE EXECUTED BY THE CONTRACTOR FOR REMOVAL OF DEFECTS AFTER COMPLETION IN RESPECT OF ALUMINIUM DOORS, WINDOWS VENTILATORS, STRUCTURAL GLAZING & PVDF COATED ALUMINIUM COMPOSITE PANEL WORKS

The agreement made this…….day of……..…Two Thousand and Between …….. son of ……(hereinafter called the GUARANTOR of the one part) and the Indian Institute of Technology (BHU)

WHEREAS THIS agreement is supplementary to a contract (Hereinafter called the Contract) dated……..and made between the GUARANTOR OF THE ONE PART AND the Indian Institute of Technology(BHU) of the other part, whereby the contractor inter alia, undertook to render the work in the said contract recited structurally stable, leak proof and sound material, workmanship, anodizing, colouring, sealing.

AND WHEREAS THE GURANTOR agreed to give a guarantee to the affect that the said work will remain structurally stable, leak proof and guaranteed against faulty material and workmanship, defective anodizing, colouring, sealing and finishing for two years to be reckoned from the date after the expiry of maintenance period prescribed in the contract.

NOW THE GUARANTOR hereby guarantee that work executed by him will remain structurally stable, leak proof and guaranteed against faulty material and workmanship, defective anodizing, colouring, sealing and finishing for two years to be reckoned from the date after the expiry of maintenance period prescribed in the contract.
The decision of the Engineer-in-charge with regard to nature and cause of defects shall be final.
During this period of guarantee, the guarantor shall make good all defects to the satisfaction of the Engineer-in-charge at his cost and shall commence the work for such rectification within seven days from the date of issue of the notice from the Engineer-in-charge calling upon him to rectify the defects failing which the work shall be got done by the COMMITTEE by some other contractor at the Guarantor's risk and cost. The decision of the Engineer-in-Charge as to the cost, payable by the Guarantor shall be final and binding.

That if the guarantor fails to make good all the defects or commits breach thereunder, then the guarantor will indemnify the principal and his successor against all loss, damage, cost expense or otherwise which may be incurred by him by reason of any default on the part of the GUARANTOR in performance and observance of this supplementary agreement. As to the amount of loss and/or damage and/or cost incurred by the Government, the decision of the Engineer-in-charge will be final and binding on both the parties.

IN WITNESS WHEREOF these presents, have been executed by the GURANTOR ……and…… by ……. for and on behalf of the Indian Institute of Technology (BHU) on the day, month and year first above written.

SIGNED, sealed and delivered by GURANTOR in the presence of:

1. ……..…….……
2. ……..

SIGNED FOR AND ON BEHALF OF THE, INDIAN INSTITUTE OF TECHNOLOGY(BHU) BY ……..…in the presence of:

1. ……..

2. ……..

TO BE EXECUTED BY THE CONTRACTOR FOR REMOVAL OF DEFECTS AFTER COMPLETION IN RESPECT OF WATER SUPPLY AND SANITARY INSTALLATIONS

The agreement……made this day of ……..Two Thousand and ……..between…… ……san of …… (hereinafter called the GUARANTOR of the one part) and the Indian Institute of Technology(BHU).

WHEREAS THIS agreement is supplementary to a contract (Hereinafter called the Contract) dated…….and made between the GUARANTOR OF THE ONE PART AND the Indian Institute of Technology(BHU) of the other part, whereby the contractor inter alia, undertook to render the work in the said contract recited structurally stable workmanship, finishing and use of sound materials.

AND WHEREAS THE GUARANTOR agreed to give a guarantee to the affect that the said work will remain structurally stable and guaranteed against faulty workmanship, finishing, manufacturing defects of materials and leakages, etc.

NOW THE GUARANTOR hereby guarantee that work executed by him will remain structurally stable after expiry of maintenance period prescribed in the contract for the minimum life of two year to be reckoned from the date after the expiry of maintenance period prescribed in the contract.

The decision of the Engineer-in-charge with regard to nature and cause of defect shall be final During this period of guarantee, the guarantor shall make good all defects to the satisfaction of the Engineer-in-charge calling upon him to rectify the defects failing which the work shall be got done by the COMMITTEE by some other contractor at the Guarantor's cost and risk. The decision of the Engineer-in-Charge as to the cost, payable by the Guarantor shall be final and binding.

That if the guarantor fails to make good all the defects commits breach there under, then the guarantor will indemnify the principal and his successor against all loss, damage, cost expense or otherwise which may be incurred by him by reason of any default on the part of the GUARANTOR in performance and observance of this supplementary agreement. As to the amount of loss and/or damage and or cost incurred by the Indian Institute of Technology (BHU), the decision of the Engineer-in-charge will be final and binding on both the parties.

IN WITNESS WHEREOF these presents, have been executed by the GURANTOR …… and ……by ……. for and on behalf of the Indian Institute of Technology (BHU) on the day, month and year first above written.

SIGNED, sealed and delivered by GURANTOR in the presence of:

1…….

2…….

SIGNED FOR AND ON BEHALF OF THE INDIAN INSTITUTE OF TECHNOLOGY(BHU) BY

…….in the presence of:

1……..

2……..

SCHEDULE TABLE OF THE CONTRACT

Sl. No.	Description of mile stone	Period for completion from date of start	Withheld amount for non-achievement of mile stone
1	NA	NA	NA
2	NA	NA	NA
3	NA	NA	NA

TECHNICAL SPECIFICATIONS

QUALITY ASSURANCE OF THE WORK

1. The contractor shall ensure quality control measures on different aspects of construction including materials, workmanship and correct construction methodologies to be adopted. He shall have to submit quality assurance programme within two weeks of the award of work. The quality assurance programme should include method statement for various items of work to be executed along with check lists to enforce quality control.

2. The contractor shall get the source of all other materials, not specified elsewhere in the document, approved from the Engineer-in-Charge. The contractor shall stick to the approved source unless it is absolutely unavoidable. Any change shall be done with the prior approval of the Engineer-in-Charge for which tests etc. shall be done by the contractor at his own cost. Similarly, the contractor shall submit brand/ make of various materials not specified in the agreement, to be used for the approval of the Engineer-in-Charge along with samples and once approved, he shall stick to it.

3. The contractor shall submit shop drawings of staging and shuttering arrangement, aluminum work, and other works as desired by Engineer in Charge for his approval before execution. The contractor shall also submit bar bending schedule for approval of Engineer –in – charge before execution.

4. Test Laboratories:

a) Laboratory at site:

The contractor shall provide at site, the testing equipment and materials for the field tests mentioned in the list of mandatory tests given in CPWD specifications 2009 Vol. 1 & 2 at his own cost. Nothing extra shall be payable to him on this account. In all cases, cost of samples and to and from carriage shall be borne by the contractor.

The representatives of the COMMITTEE shall be at liberty to inspect the testing facilities at site and conduct testing at random in consultation with Engineer in charge. The contractor shall provide all necessary facilities for the purpose. The laboratory shall be equipped, inter alia, with the following equipments:

a) Balances:

i) 7 kg to 10 kg capacity, semi-self indicating type – Accuracy 10 gm.

ii) 500 gm capacity, semi-self indicating type Accuracy 1 gm.

iii) Pan Balance- 5 kg Capacity- Accuracy 10 gm.

~~b) Ovens Electrically operated, thermostatically controlled upto 1100C Sensitivity 10C.~~

c) Sieves: as per IS: 460

~~i) IS Sieves 450 mm internal dia of sizes 100 mm, 80 mm, 63 mm, 50 mm, 40 mm, 25 mm, 20 mm, 12.5 mm, 10 mm, 6.3 mm, 4.75 mm, complete with lid and pan.~~

~~ii) IS Sieves 200 mm internal dia (brass frame) consisting of 2.36 mm, 1.18 mm, 500 microns, 425 microns, 300 microns, 212 microns, 150 microns, 90 microns, 75 microns with lid and pan.~~

~~d) Sieve shaker capable of 200 mm and 300 mm dia sieves, manually operated with timing switch assembly.~~

e) Equipment for slump test- slump cone, steel plate, taping rod, steel scale, scoop.

f) Equipment for concrete testing

i) Concrete cube moulds 15x15x15cm. 18Nos.

ii) Pruning Rods 2Kg weight length 40cm and ramming face 25mm 1 No.

iii) Extra Bottom plates for 15cm cube mould 6 Nos.

~~iv) Standard Vibration table for cubes 1 No~~

~~v) Dial gauges 25 mm travel 0.01 mm/division Least count 1 No.~~

~~vi) Compression testing machine of 100 tonne capacity. 1 No.~~

All test which can be performed in the site lab with above equipments shall be done at site except that at least 10% testing of materials shall be got done from external laboratories. However, for the tests to be carried out by the external laboratories, the contractor shall supply free of charge all the materials required for testing, including transportation. The testing charges shall be borne by the Contractor / COMMITTEE in the manner described in para B-1 below.

B) Other Laboratories:

1. The contractor shall arrange carrying out of all tests required under the agreement through the laboratory as approved by the Engineer-in-Charge and shall bear all charges in connection therewith including fee for testing. The said cost of tests shall be borne by the contractor/COMMITTEE in the manner indicated below.

i) By the contractor, if the results show that the test does not conform to relevant CPWD Specifications / BIS code or specification mentioned elsewhere in the documents

ii) By the COMMITTEE, if the results conforms to relevant CPWD Specifications/BIS code or specification mentioned elsewhere in the documents.

2. However, no testing charges will be payable by the contractor for the tests.

3. If the tests, which were to be conducted in the site laboratory are conducted in other laboratories for whatever the reasons, the cost of such tests shall be borne by the contractor.

C) Sampling of Materials:

1. Sample of building materials fittings and other articles required for execution of work shall be got approved from the Engineer-in-Charge. Articles manufactured by companies of repute and approved by the Engineer-in-Charge shall only be used. Articles bearing BIS certification mark shall be used in case the above are not available, the quality of samples brought by the contractor shall be judged by standards laid down in the relevant BIS specifications. All materials and articles brought by the contractor to the site for use shall conform to the samples approved by the Engineer-in-Charge which shall be preserved till the completion of the work.

2. The contractor shall ensure quality construction in a planned and time bound manner. Any sub-standard material/work beyond set out tolerance limit shall be summarily rejected by the Engineer-in-Charge.

3. BIS marked materials except otherwise specified shall be subjected to quality test at the discretion of the Engineer-in-Charge besides testing of other materials as per the specifications described for the item/materials. Wherever BIS marked materials are brought to the site of work, the contractor shall if required, by the Engineer-in-Charge furnish manufacturers test certificate or test certificate from approved testing laboratory to establish that the material produced by the contractor for incorporation in the work satisfies the provisions of BIS codes relevant to the material and/or the work done.

4. The contractor shall procure all the materials at least in advance so that there is sufficient time to testing and approving of the materials and clearance of the same before use in work.

5. All materials brought by the contractor for use in the work shall be got checked from the Engineer-in-Charge or his authorized representative of the work on receipt of the same at site before use.

6. The contractor shall be fully responsible for the safe custody of the materials issued to him even if the materials are in double lock and key system.

7. Maintenance of register of tests and material at site registers-

(i) All the registers of tests carried out at construction site or in outside laboratories shall be maintained by the contractor which shall be issued to the contractor by Engineer-in-Charge in the same manner as being issued to IWC field staff.

(ii) All the MAS Registers including Cement and Steel Registers shall be maintained by contractor which shall be issued to the contractor by Engineer-in-Charge in the same manner as being issued to I W C field staff.

SPECIAL CONDITION FOR MATERIAL

1. The contractor shall at his own expense procure and provide all materials including steel required for the work except cement if available in the central store.

2. The contractor shall procure all the materials in advance so that there is sufficient time to testing and approving of the materials and clearance of the same before use in work.

3. All materials brought by the contractor for use in the work shall be got checked from the Engineer-in-Charge or his authorized representative of the work on receipt of the same at site before use.

4. The contractor shall also employ necessary watch and ward establishment for the safe custody of materials at his own cost.

ADDITIONAL CONDITIONS FOR CEMENT

1. The contractor shall use Portland Pozzolana Cement (conforming to IS: 1489 -Part-I), as required in the work, if issued by IWC, otherwise procure the same from reputed manufacturers of cement, having a production capacity of one million tones or more, such as A.C.C., J.P., Birla Jute, Cement Corporation of India and Prism and Mycem etc. i.e. agencies approved by Ministry of Industry, Government of India and holding license to use ISI certification mark for their product. The Publish ers may also submit a list of names of cement manufacturers which they propose to use in the work. The Publish accepting authority reserves right to accept or reject name(s) of cement manufacturer(s) which the Publisher proposes to use in the work. No change in the Publish ed rates will be accepted if the e-tender accepting authority does not accept the list of cement manufacturers, given by the Publisher, fully or partially. Supply of cement shall be made in 50 kg. bags bearing manufacturer's name and ISI marking. Samples of cement arranged by the contractor shall be taken by the Engineer-in-Charge and got tested in accordance with provisions of the relevant BIS codes. In case the test results indicate that the cement arranged by the contractor does not confirm to the relevant BIS code the same shall stand rejected and shall be removed from the site by the contractor at his own cost within a week's time of written order from the Engineer-in-Charge to do so. The cost of tests shall be borne by the contractor/COMMITTEE in the manner indicated below:

a) By the contractor, if the results show that the test does not conform to relevant CPWD Specifications / BIS code or specification mentioned elsewhere in the documents.

b) By the committee, if the results conforms to relevant CPWD Specifications / BIS code or specification mentioned elsewhere in the documents.

2. The cement shall be brought at site in bulk supply of approximately 50 tonnes or as directed by the Engineer-in-Charge.

3. The cement godown of the capacity to store a minimum of 500 bags of cement shall be constructed by the contractor at site of work for which no extra payment shall be made. Double lock provision shall be made to lock the door of the cement godown. The keys of one lock shall remain with the Engineer-in-charge or his authorized representative and the key of the other lock shall remain with the contractor. The contractor shall facilitate the inspection of the cement godown by the Engineer-in-Charge at any time.

4. The contractor shall supply free of charge the cement required for testing.

5. The actual issue and consumption of cement on work shall be regulated and proper accounts maintained as provided in clause 10 of the contract. The theoretical consumption of cement also shall be worked out as per procedure prescribed in clause 42 of the contract and shall be governed by the conditions laid therein.

6. Wet curing period shall be enhanced to a minimum of 10 days or its equivalent. In hot & arid regions, the minimum curing period shall be 14 days or its equivalent.

7. Till the time, BIS makes it mandatory to print the %age of fly ash on each bag of cement, the certificate from the PPC manufacturer indicating the same shall be obtained and permission obtained from Engineer-in-Charge before use of such cements in works.

8. The contractor may use OPC in place of PPC only after written permission of Engineer-in-Charge. In such case, no extra payment shall be made in any form to the contractor by the committee.

ADDITIONAL CONDITIONS FOR STEEL REINFORCEMENT

1. The contractor shall procure TMT bars of Fe 500D grade from primary producers such as SAIL or TISCO or Jindal.

1.1 The TMT bars procured from primary producers shall conform to manufacture's specifications.

1.2 TMT bars procured from primary producers; the specifications shall meet the provisions of IS 1786: 2008 pertaining to Fe 500 D grade of steel.

2. The contractor shall have to obtain vouchers and furnish test certificates to the Engineer-in-charge in respect of all supplies of steel brought by him to the site of work.

3. Samples shall also be taken and got tested by the Engineer-in-charge as per the provisions in this regard in the relevant BIS codes. In case the test results indicate that the steel arranged by the contractor does not conform to the specifications as defined under para 1.1 and 1.2 above, the same shall stand rejected and it shall be removed from the site of work by the contractor at his cost within a week time of written orders from the Engineer-in-charge to do so.

4. The steel reinforcement shall be brought to the site in bulk supply of 20 tonnes or more or as directed by the Engineer-in-charge.

5. The steel reinforcement bars shall be stored by the contractor at site of work in such a way as to prevent distortion & corrosion, and nothing extra shall be paid on this account. Bars of different sizes and lengths shall be stored separately to facilitate easy counting and checking.

6. For checking nominal mass, tensile strength, bend test, re-bend test etc. specimens of sufficient length shall be cut from each size of the bar at random at frequency not less than that specified below:

Size of bar	For consignment below 100 tonnes	For consignment over 100 tonnes
Under 10 mm dia bars	One sample for each 25 tonnes or part thereof	One sample for each 40 tonnes or part thereof
10 mm to 16 mm dia bars	One sample for each 35 tonnes or part thereof	One sample for each 45 tonnes or part thereof
Over 16 mm dia bars	One sample for each 45 tonnes or part thereof	One sample for each 50 tonnes or part thereof

The contractor shall supply free of charge the steel required for testing including its transportation to testing laboratories. The cost of tests shall be borne by the contractor/COMMITTEE in the manner indicated below:

a. By the contractor, if the results show that the steel does not conform to relevant BIS codes.

b. By the COMMITTEE, if the results show that the steel conforms to relevant BIS codes.

7. The actual issue and consumption of steel on work shall be regulated and proper accounts maintained as provided in clause 10 of the contract. The theoretical consumption of steel shall be worked out as per procedure prescribed in clause 42 of the contract and shall be governed by the conditions laid therein. In case the consumption is less than theoretical consumption including permissible variations recovery at the rate so prescribed shall be made. In case of excess consumption no adjustment need to be made.

8. The steel brought to the site and the steel remaining unused shall not be removed from site without the written permission of the Engineer-in-charge.

9. Steel bars brought by the contractor for use in the work shall be got checked from the Engineer-in-Charge or his authorized representative of the work on receipt of the same at site before use.

10. If the quantity of steel actually used in the work is found to be more than the theoretical quantity of steel including authorized variation, nothing extra shall be payable to the contractor on this account. In the event of it being discovered that after the completion of the work the quantity of steel used is less than the quantity ascertained as herein before provided (allowing variation on the minus side as stipulated in clause 42). The cost of quantity of steel so less used shall be recovered from the contractor at rate as specified in schedule 'F'. Decision of the Engineer-in-Charge in regard to theoretical quantity of steel which should have been actually used and recovery of the rate specified shall be final and binding on the contractor.

11. In case the contractor brings surplus quantity of steel the same after completion of the work will be removed from the site by the contractor at his own cost after approval of the Engineer-in-Charge.

12. Reinforcement including authorized spacer bars and lappages shall be measured in length of different diameters, as actually (not more than as specified in the drawing) used in the work, nearest to a centimeter. Wastage and unauthorized overlaps shall not be measured.

13. The standard sectional weights referred to as in Table 5.4 under para 5.3.4 in CPWD specifications for works 2009 Vol. 1 will be considered for conversion of length of various sizes of MS bars, Tor steel bars and TMT bars into standard weight.

14. Records of actual sectional weight shall also be kept dia-wise & lot-wise. The average sectional weight for each diameter shall be arrived at from samples from each lot of steel received at site. The decision of the Engineer-in-Charge shall be final for the procedure to be followed for determining the average sectional weight of each lot. Quantity of each diameter of steel received at site of work each day will constitute one single lot for the purpose. The weight of steel by conversion of length of various sizes of bars based on the actual weighted average sectional weight shall be termed as derived actual weight.

15. If the derived weight as in para 14 above is lesser than the standard weight as in para 13 above, the derived actual weight shall be taken for payment.

If the derived actual weight is found more then the standard weight then the standard weight as worked out in para 13 above shall be taken for payment. In such case nothing extra shall be paid for the difference between the derived actual weight and the standard weight.

16. Mixing of different type of steel/different grades of steel shall not be allowed in the same structural members as main reinforcement to satisfy clause 26.1 of IS:456.

17. Tolerances on Nominal Mass (individual sample) shall be as under:-

Sl. No.	Nominal size mm	Tolerances on the Nominal Mass, percent
1	Upto and including 10	-8%
2	Over 10 upto & including 16	-6%
3	Over 16	-4%

ADDITIONAL CONDITIONS FOR RCC WORK

1. If the quantity of cement actually used in the work is found to be more than the theoretical quantity of cement including authorized variation, nothing extra shall be payable to the contractor on this account. In the event of it being discovered that after the completion of the work, the quantity of cement used is less than the quantity ascertained as herein before provided (allowing variation on the minus side as stipulated in clause 42, the cost of quantity of cement so less used shall be recovered from the contractor at the rate as specified in schedule 'F'. Decision of the Engineer-in-Charge in regard to the quantity of cement which should have been actually used as per the schedule and recovery at the rate specified shall be final and binding on the contractor.

2. For non-scheduled items, the decision of the SUPERINTENDING ENGINEER regarding theoretical quantity of the cement which should have been actually used shall be final and binding on the contractor.

3. Cement brought to site and cement remaining unused after completion of work shall not be removed from site without written permission of the Engineer-in- Charge.

4. In case the contractor brings surplus quantity of cement the same after completion of the work will be removed from the site by the contractor at his own cost after approval of the Engineer-in-Charge.

5. Cement register for the cement shall be maintained at site. Specimen form of register is as per Para 25.3.1 & Appendix 28 of CPWD works manual.

6. The account of daily receipts and issue of cement shall be maintained in the register by the authorized representative of the Engineer-in-Charge and signed daily by the contractor or his authorized agent.

7. The RCC work shall be done with Design Mix concrete unless otherwise specified. In the nomenclature of items wherever letter M has been indicated, the same shall imply for the design Mix concrete. For the nominal Mix in RCC, CPWD specifications shall be followed. The Design Mix Concrete will be designated based on the principles given in IS:456, 10262 & SP 23. The contractor shall design mixes for each class of concrete indicating that the concrete ingredient and proportions will result in concrete Mix meeting requirements specified. In case of use of admixture and/or white cement, the mix shall be designed with these ingredients as well. The specifications mentioned herein below shall be followed for design Mix Concrete.

8. **DESIGN MIX CONCRETE:**

The contractor shall be required to submit two separate design mix of concrete with and without using plasticizers, separately. The decision of the engineer-in- charge to specify the design mix of concrete based on above shall be final.

8.1 Coarse aggregate: As per CPWD Specifications

8.2 Fine Aggregate: As per CPWD Specifications.

8.3 Water: It shall conform to requirements laid down in IS:456 : 2000 and CPWD specifications.

8.4 Cement: Cement arranged by the contractor will be PPC (in bags) conforming to IS: 1489-Part-I. If for any reasons, cement other than that specified in this para for example OPC of grade 43 or higher grade is brought to site by contractor, the issue, payments rate as well as the quantity to be used in the design mix concrete will remain unchanged.

8.5 Slump: Design slump should be clearly specified in the mix design.

8.6 The record of white cement shall be kept in the same proforma and same manner as applicable for gray cement.

8.7 Admixture: -- Admixtures shall not be used without approval of Engineer-in- charge. Wherever required, admixtures of approved quality shall be mixed with concrete as specified. The admixtures shall conform to IS: 9103. The chlorides content in the admixture shall satisfy the requirements of BS: 5075. The total amount of chlorides admixture mixed concrete shall also satisfy the requirements of IS: 456. The contractor shall not be paid anything extra for admixture required for achieving desired workability without any change in specified water cement ratio for RCC/CC work.

8.8 Grade of Concrete : The compressive strength of various grades of concrete shall to be given as below:

	Grade designation	**Compressive strength on 15 cm cubes min. 7 days (N/mm2)**	**Specified characteristic compressive strength at 28 days (N/mm2)**	**Minimum cement quantity (Kg. per cum. Mtr.)**	**Maximum water cement ratio**
i	M 25	As per design	25	330	0.50
ii	M 30	As per design	30	340	0.45
iii	M 35	As per design	35	350	0.45
iv	M 40	As per design	40	360	0.40

Note

(i) In the designation of a concrete mix letter M refers to the mix and number to the specified characteristic compressive strength of 15 cm x 15 cm x 15 cm – cube 28 days expressed in N/mm2

(ii) It is specifically highlighted that in addition to the above requirement the maximum cement content for any grade shall be limited to 500 kg/ cum.

(iii) The minimum/maximum cement content for design mix concrete shall be maintained as

per the quantity mentioned above. In case where the quantity of cement required is higher than the minimum specified above to achieve desired strength based on an approved mix design extra shall become payable to the contractor.

(iv) Design slump has to be constantly monitored and maintained during placing of concrete through slump tests carried out as per CPWD specification 2009 Vol. 1 for Mortar, Concrete and RCC works, and records maintained accordingly.

8.9 The concrete mix design/laboratory tests with and without admixture shall be got done by contractor at his own cost and will be carried out by the contractor through one of the following laboratory/Test houses:

(i) IIT, Roorkee, Kanpur
(ii) IET, Lucknow or
(iii) NCCBM, Ballabhgarh
(iv) IIT,BHU, Varanasi
(v) Approved Lab/Govt. Engineering Institutions as directed by the Engineer-in-charge.

The various ingredients for mix design / laboratory tests shall be sent to the test houses through the Engineer-in-Charge and the samples of such aggregate & cement shall be preserved at site by the COMMITTEE

8.10 The contractor shall submit the mix design report from any of above approved laboratory for approval of Engineer-in-Charge with in 30 days from the date of issue of letter of acceptance of the Publish . No concreting shall be done until the mix design is approved by the Engineer-in-charge. In case of white portland cement and the likely use of admixtures in concrete with PPC/white portland cement the contractor shall design and test the concrete mix by using trial mixes with white cement and/or admixtures also for which nothing extra shall be payable.

8.11 In case of change of source or characteristic properties of the ingredients used in the concrete mix during the work, a revised laboratory mix design report conducted at laboratory established at site shall be submitted by the contractor as per the direction of the Engineer-in-Charge

8.12 **APPROVAL OF DESIGN MIX**

The mix design for a specified grade of concrete shall be done for a target mean compressive strength Tck=Fck+1.65 s.

Where Fck = Characteristic compressive strength of 28 days
s = Standard deviation which depends on degree of quality control

The degree of quality control for this work is "good" for which the standard deviation (s) obtained for different grades of concrete shall be as bellows:

Grade of Concrete	For "Good" quality of control
M 25	4.00
M 30	5.00
M 35	5.00
M 40	5.00

Of the six specimen of each set three shall be tested at seven days and remaining three at 28 days. The preliminary tests at seven days are intended only to indicate the strength to be attained at 28 days

8.13 All cost of mix designing and testing connected therewith including charges payable to the laboratory shall be borne by the contractor.

8.14 **BATCHING**

The batching plant shall conform to IS:4925. It shall have the facilities of presetting the quantity to be weighed with automatic cutoff when the same is achieved. Concreting at places may have to be resorted to through concrete pump for which nothing extra shall be paid.

8.15 All other operations in concreting work like Mixing, Slump, Laying Placing of concrete, compaction curing etc. not mentioned in this particular specification for Design Mix of concrete

shall be as per CPWD specification.

8.16 **WORK STRENGTH TEST SPECIMEN**

Work strength test shall be conducted in accordance with IS: 456 on random sampling. Each test shall be conducted on six specimens, three of which shall be tested at 7 days and remaining three at 28 days.

TEST RESULTS OF SAMPLE

The test result of the sample shall be the average of the strength of three specimens. The individual variation shall not be more than 15 percent of the average. If more the test results of the sample are invalid. 90% of the total test shall be done at the laboratory established at site by contractor and remaining 10% in the approved laboratory of IWC or in any other laboratory as directed by the Engineer-in-Charge.

Lot size

The minimum frequency of sampling of concrete of each grade shall be according to the following:-

Quantity of concrete in the work cubic metre per day	Number of samples.
1-5	1
6-15	2
16-30	3
31-50	4
51 & above	4 + one additional sample for additional 50 cubic metre or part thereof.

Note: At least one sample shall be taken from each shift.

8.17 **STANDARDS OF ACCEPTANCE**

(i) In case the test result of all the samples is above the characteristic compressive strength, the concrete shall be accepted.

(ii) In case the test result of one or more samples fails to meet the requirement (i) above it shall be accepted if both the following conditions are met:

a) Any individual test result is not less than (Fck - 4) N/mm2

b) The mean of test result from any grade of four consecutive samples is more than (Fck+4) N/mm2.

(iii) Concrete of each grade shall be assessed separately

(iv) Concrete is liable to be rejected if it is porous or honeycombed, its placing has been interrupted without providing a proper construction joint the reinforcement has been displaced beyond the tolerances specified, or construction tolerances have not been met. However, the hardened concrete may be accepted after carrying out suitable remedial measures to the satisfaction of the Engineer-in-Charge for which nothing extra is payable to the contractor

8.18 Only MS centering/shuttering and scaffolding material unless & otherwise specified shall be used for all RCC. Work to give an even finish of concrete surface. However marine ply shuttering in exceptional cases as per site requirement may be used on specific request from contractor on approval by the Engineer-in-Charge.

8.19 Nothing extra shall be paid for the centering and shuttering circular in shape wherever the form work is having a mean radius exceeding 6 m in plan

8.20 In order to keep the floor finish as per architectural drawings and to provide required thickness of the flooring as per specifications the level of top surface of RCC shall be accordingly adjusted at the time, of its centering shuttering and casting for which nothing extra shall be paid to the contractor.

8.21 Measurement – As per IWC specifications.

8.22 Tolerances – As per IWC specifications

8.23 Rate

8.23.1 The rate includes the cost of materials and labour involved in all the operations described above except for the cost of centering, shuttering & reinforcement which will be paid separately

8.24 In case of actual average compressive strength being less than specified strength which shall be governed by para "Standard of Acceptance" as above the rate payable shall be worked out accordingly on prorata basis.

In case of rejection of concrete on account of unacceptable compressive strength governed by para "Standard of Acceptance" as above the work for which samples have failed shall be redone at the cost of contractors. However the Engineer-in-Charge may order for additional test (like cutting cores, ultrasonic pulse velocity test, load tests on structure or part of structure etc.) to be carried out at the cost of contractor to ascertain if the portion of structure wherein concrete represented by the sample has been used, can be retained on the basis of results of individual or combination of these tests. The contractor shall take remedial measures necessary to retain the structure as approved by the Engineer-in-Charge without any extra cost. However, for payment the basis of rate payable to contractor shall be governed by the 28 days cube test results and reduced rates shall be regulated in accordance with para 3.24.2

8.25 Necessary arrangements shall be made for field tests and all required equipment's shall be arrange by establishing field lab by the Agency for mandatory tests of the materials as specified in IWC specifications or as per direction of Engineer-in-Charge no extra shall be paid on this account.

9. RCC WORK (ORDINARY)

9.1 Water cement ratio for ordinary RCC work shall not be more than 0.50.

Contractor shall use concrete mixture of proper design and arrangement for measuring water for mixing of concrete.

9.2 In respect of all projected slabs at all levels including cantilever canopy the payment for the RCC work shall be made under the item RCC slabs. The payment for shuttering at the edges shall be made under item of centering and shuttering of RCC slabs. Nothing extra shall be paid for the side shuttering at the edge of these projected balconies and projected verandah slabs.

10. PRE-CAST RCC WORK

10.1 Pre-cast reinforced concrete units shall be of grade or mix as specified. Provision shall be made in the mould to accommodate fixing devices such as hooks, flats etc. And forming of notches and holes. Each unit shall be cast in one operation. A sample of the unit shall be got approved from Engineer-in-Charge before taking up the work.

10.2 Pre-cast units shall be clearly marked to indicate the top of member and its locations.

10.3 Pre-cast units shall be stored, transported and placed in position in such a manner that these are not damaged.

10.4 The compaction of the concrete shall be done by vibrating table or external vibrator, as approved by Engineer-in-Charge. The rate quoted for the item shall include the element for framework and mechanical vibration.

10.5 Rate for item includes cost of all materials labour and all operations involved cost of MS frames lugs including their welding, lifting hooks is also included.

11. REINFORCEMENT:

The rate of reinforcement in RCC work includes all operations including straightening cutting, welding, binding with annealed steel wire or welding and placing in position at all the floors with all leads and lift complete.

ADDITIONAL CONDITIONS FOR CIVIL WORKS

1 a) The contractor (s) shall inspect the site of work before Publishing and acquaint himself with the site conditions and no claim on this account shall be entertained by the COMMITTEE.

b) The contractor (s) shall get himself acquainted with nature and extent of the work and satisfy himself about the availability of materials from kiln or approved quarries for collection and conveyance of materials required for construction.

2. The contractor (s) shall study the soil investigation report for the site, available in the office of the Engineer-in-Charge and satisfy himself about complete characteristics of soil and other parameters of site. However, no claim on the alleged inadequacy or incorrectness of the soil data supplied by the COMMITTEE shall be entertained.

3. The Publisher shall see the approaches to the site. In case any approach from main road is required by the contractor, the same shall be provided, improved and maintained by the contractor at his own cost. No payment shall be made on this account.

4. The contractor (s) shall give to the Municipality, Police and other authorities all necessary notices etc. that may be required by law and obtain all requisite Licenses for temporary obstructions, enclosures etc. and pay all fee, taxes and charges which may be leviable on account of these operations in executing the contract. He shall make good any damage to the adjoining property whether public or private and shall supply and maintain light and other illumination on for cautioning the public at night.

5. The contractor shall take all precautions to avoid accidents by exhibiting necessary caution boards day and night speed limit boards red flags, red lights and providing barriers. He shall be responsible for all dangers and incidents caused to existing / new work due to negligence on his part. No hindrances shall be caused to traffic during the execution of the work.

6. The contractor shall provide at his own cost suitable weighing surveying and leveling and measuring arrangements as may be necessary at site for checking. All such equipments shall be got calibrated in advance from laboratory, approved by the Engineer-in-Charge. Nothing extra shall be payable on this account.

7. Contractor shall provide permanent bench marks and other reference points for the proper execution of work and these shall be preserved till the end of work. All such reference points shall be in relation to the levels and locations, given in the Architectural and plumbing drawings

8. On completion of work, the contractor shall submit at his own cost four prints of "as built" drawings to the Engineer-in-Charge with in 30 days of completion of work. These drawings shall have the following information:

a) Run of all piping and their diameters including soil waste pipes & vertical stacks.

b) Ground and invert levels of all drainage pipes together with locations of all manholes and connections upto outfall.

c) Run of all water supply lines with diameters, location of control valves, access panels etc.

If above said drawings are not submitted by the contractor with in the above specified time then final bill will not be paid and Security Deposit shall not be released.

9. Any cement slurry added over base surface for continuation of concreting for better bond is deemed to have been built in the items and nothing extra shall be payable for extra cement considered in consumption on this account.

10. The contractor shall bear all incidental charges for cartage, storage and safe custody of materials issued by COMMITTEE.

11. The contractor shall submit for the approval of Engineer-in-Charge names of specialized agencies of repute along with their technical capacity proposed to be engaged by him, who must have executed satisfactorily works of value as specified in mandatory conditions.

12. The works shall be carried out in accordance with the Architectural drawings and structural drawings, to be issued from time to time by the Engineer-in-Charge. Before commencement of any item of work, the contractor shall correlate all the relevant architectural and structural drawings issued for the work and satisfy himself that the information available there of is complete and unambiguous. The discrepancy, if any shall be brought to the notice of the Engineer-in-Charge before execution of the work. The contractor alone shall be responsible for any loss or damage executing

by the commencement of work on the basis of any erroneous and or incomplete information.

13. The contractor shall take all precautions to avoid accidents by, exhibiting caution boards day and night, speed limit boards, red flags, red light and providing necessary barriers and other measures required from time to time. The contractor shall be responsible for all damages and accidents due to negligence on his part.

14. Other agencies will also simultaneously execute and install the works of electrification, air conditioning, lifts, fire-fighting etc. for this work and the contractor shall provide necessary facilities for the same. The contractor shall leave such recesses, holes openings etc. as may be required for the electric, air- conditioning and other related works (for which inserts, sleeves, brackets, conduits base pinion, clamps etc. shall be supplied free of cost by the COMMITTEE unless otherwise specifically mentioned) and the contractor shall fix the same at time of casting of concrete, stone work & brick work, if required and nothing extra shall be payable on this account.

15. All materials obtained from Govt. stores or otherwise shall be get checked by the Engineer-in-Charge or his any authorized supervisor staff on receipt of the same at site before use.

16. The contractor shall conduct work so as not to interfere with or hinder the progress or completion of the work being performed by other contractor(s) or by the Engineer-in-Charge and shall as far as possible arrange his work and shall place and dispose of the materials being used or removed so as not to interfere with the operations of other contractor or he shall arrange his work with that of the others in an acceptable and coordinated manner and shall perform it in proper sequence to the complete satisfaction of others.

17. All Architectural drawings given in the Publish other than those indicated in nomenclature of items are only indicative of the nature of the work and materials/fixings involved unless and otherwise specifically mentioned. However, the work shall be executed in accordance with the drawings duly approved by the Engineer-in-Charge.

18. PROGRAMME CHART

i) The contractor shall prepare an integrated programme chart for the execution of work, showing clearly all activities from the start of work to completion, with details of manpower, equipment and machinery required for the fulfillment of the programme within the stipulated period or earlier as indicated in the mile stones under clause 5 of the contract and submit the same for approval to the Engineer-in-Charge within ten days of the award of the contract.

ii) The programmes chart should include the following:-

a) Descriptive note explaining sequence of various activities.
b) Net work (PERT/CPM/BAR CHART)
c) Programme for procurement of materials by the contractor
d) Programme of procurement of machinery/equipment's having adequate capacity commensurate with the quantum of work to be done within the stipulated period by the contractor.

19. If appears to the Engineer-in-Charge that the actual progress of work does not conform to the approved programme referred above the contractor shall produce a revised programme showing the modifications to the approved programme to ensure completion of the work within the stipulated time for completion .

20. The submission for approval by the Engineer-in-Charge of such programme or the furnishing of such particulars shall not relieve the contractor of any of his duties or responsibilities under the contract. This is without prejudice to the right of Engineer-in-Charge to take action against the contractor as per terms and conditions of the agreement.

21. If the work is carried out in more than one shift or during night no claim on this accounts shall be entertained.

22. Existing drains, pipes, cables, over-head wires, sewer lines, water lines and similar services encountered in the course of the execution of work shall be protected against the damage by the contractor at his own expense. The contractor shall not store materials or otherwise occupy any part of the site in a manner likely to hinder the operation of such services.

23. The contractor shall be responsible for the watch and ward/guard of the buildings,

safety of all fittings and fixtures including sanitary and water supply fittings and fixtures provided by him against pilferage and breakage during the period of installations and thereafter till the building is physically handed over to the COMMITTEE . No extra payment shall be made on this account.

24. The day to day receipt and issue accounts of different grade/brand of cement shall be maintained separately in the standard proforma by the Jr. Engineer-in- Charge of work and which shall be duly signed by the contractor or his authorized representative.

25. The contractor shall render all help and assistance in documenting the total sequence of this project by way of photography, slides, audio-video recording etc. Nothing extra shall be payable to the contractor on this account. However cost of photographs, slides, audio/videography etc shall be born by the COMMITTEE .

26. The contractor shall be fully responsible for the safe custody of materials brought by him issued to him even though the materials are under double lock key system.

27. The rate of items of flooring is inclusive of providing sunk flooring at bath room's kitchen etc. and nothing extra on this accounts is admissible.

28. No payment shall be made to the contractor for any damage caused by rain, snowfall, floods, earthquake or any other natural causes whatsoever during execution of work. The damages of the work will be made good by the contractor at his own cost and no claim on this account shall be entertained.

29. For construction works which are likely to generate malba/rubbish to the tune of more than a tempo/truck load, contractor shall dispose of malba, rubbish & other unserviceable materials and wastes at their own cost to the notified/specified dumping ground and under no circumstances these shall be stacked/dumped, even temporarily outside the construction premises.

30. The Plinth Level of Building is to be kept as per Architectural drawings. All the items of works such as PCC, RCC, Brickwork and shuttering etc. in foundation upto this plinth level with be measured and paid as the work done upto plinth level. Nothing extra due to higher plinth will be paid and contractor's rates quoted for all these items shall, therefore, the deemed to cater for extra height of plinth.

31. The Belgium glass work including its frame work shall be executed as per detailed Arch. Drawing through specialized authorized Agencies approved by Engineer-in-Charge and Guarantee bond against this work shall be furnished.

32. Publish er shall submit the detail design with calculation for structural glazing considering the wind pressure as per IS-875 Part-III. The design should satisfy the adopted aluminium sections which will support structure glazing and having sufficient strength to with stand dead load of the structural glazing as well as other stresses due to wind pressure.

33. Aluminum sections used for fixed/openable doors, windows ventilators etc shall be suitable for to meet architectural drawing and subject to approval of Engineer-in-charge. The aluminium extruded sections shall be as per IS 6477- 1983 and shall be such as not to impair the proper and smooth functioning/operation and appearance.

34. Heavy-duty aluminum extruded profile of Mahavir/Indal/Hindalco/Bhoruka or equivalent to be used.

35. Contractor shall first prepare shop drawing by using suitable sectioned based on Architectural drawings, adequate to meet the requirement/specification. The shop drawing shall show full size and sections of glazed windows ventilators, i/c details of fittings and joints. The frame work shall be aligned for entire height of each mullion and for the entire width of each transom by Laser beam equipment to ensure cent per cent X-Axis & Y-Axis alignment.

36. Powder Coating - The powder used for powder coating shall be polyester powder made by Berger or Jenson & Nicholson or equivalent.

Thickness - The thickness of finished powder coating shall not less than 50 micron at any point measured with micron meter.

37. EPDM.GASKET

EPDM (Ethyl propylene Diamine Monomer) Gasket of approved. Manufacturer shall be used for aluminium glazing. EPDM gasket shall be of size and profile as shown in drawing or as called for the render the glazing, door, window and ventilator etc to make air and water tight sample of gaskets shall be produces for approval. If required suitable silicon sealant should be used to ensure

water/air tightness between frame and glass units nothing extra shall be payable on this account. The material specification for EPDM gasket shall be meet the following requirement.

Sl. No.	Description	Standard follow	Specification
1.	Tensile strength per sqm	ATM - D/0412	70 Min
2.	Elongation at break	ASTM - D/0412	250 Min.
3.	Modulus 100% per sqm	ASTM - D/0412	22 Min.
4.	Compression set % at 70^0C	ASTM - D/0395	50 Max
5.	Ozone resistance	ASTM - D/0114	No visible cracks

38. The anchoring/bracing of glazing system to RCC beams/columns shall be done with epoxy coated brackets of approved design. One brackets shall be designed for load bearing and other for expansion characteristic of mullion i/c PVC spacers between the aluminium mullion member and bracket for bi-metal corrosion separation. Wherever there is variation in the beam level, aluminium shim of various thickness shall be provided behind the brackets or extended brackets of required as per site requirement. Nothing extra shall be payable on this account. The contractor shall submit design calculation and get it approved by Engineer in charge on the selection of suitable anchor fasteners to with stand the dead load of glazing as well as stresses due to wind pressure. All screws, nuts bolts used in structural glazing system shall be stainless steel as manufactured by Kundan/Puja/Steel or equivalent.

39. Spandrel Insulation - The spandrel area shall be insulated by providing 1mm thick G.I. sheet fabricated in tray form duly filled with 50mm thick glass wool of density not less than 48 kg per cum, as manufactured by UP Twig Fibre glass Ldt. with one side laminated with black tissue, fixed on to the glazing frame work by stainless steel P.II. screws of 8x25 and periphery gap between the G.I. sheet frame and aluminium frame work to be sealed by silicon weather sealant.
Flashing of soffit, to be done with 1mm thick aluminium sheet pure polyester powder coated 60 micron thick of approved colour. Detail drawings for spandrel insulation and soffit flushing to be submitted by contractor. The periphery gap and edges of flasing between the G.I. sheet frame work shall be sealed by silicon weather sealant.

40. Glass - Outside glass of glazing shall be of minimum 6mm thick tempered heat reflective Belgium (Clear Blue) duly tempered by Horizontal Tempering process as carried out by GSC glass, Noida or Allied glass Meerut or Gold plus glasses Sonepat. The sample shall be got approved from the Engineer-in-charge before use.

In side glass shall be min 5mm thick as manufactured by Gujarat Guardian Ltd/Float glass India Ltd. Saint Gobian or equivalent duly tempered by Horizontal tempering method.

Masking - All aluminum profile shall be provided with masking tapes of sun control or winder polymer to provide safety against external scratches at site (masking tape to be removed only at the time of handing over or as per direction of Engineer in charge)

41. The PVDF coated aluminium composite paneling work shall be executed as per detailed Arch. drawings through specialized and authorized agencies approved by Engineer in charge and guarantee bond against this work shall be furnished.

42. Publish ers shall submit the detailed design for AC paneling work and accordingly the aluminium sections supporting the panels shall be selected.

GENERAL SPECIFICATION FOR CIVIL WORKS

1. Except for the items, for which particular specifications are given or where it is specifically mentioned otherwise in the description of items in the schedule of quantities the work shall generally be carried out in accordance with the "CPWD specifications 2009 Vol. 1 and Vol. 2 (with upto date corrections slips). (Hereinafter to be referred to as CPWD specifications) and instructions of Engineer-in-Charge. Wherever CPWD specifications are silent the latest IS codes/specification shall be followed.

2. The order of preference in case of any discrepancy as indicated in condition No. 8.1 under "Conditions of Contract" give in standard IWC contract form may be read as the following:

i) Nomenclature of items as per schedule of quantities.
ii) Particular specification and special condition, if any.
iii) IWC specifications.
iv) Architectural Drawings
v) Indian standard specifications of B.I.S.
vi) Sound Engineering Practice

A reference made to any Indian Standard specification in these documents, shall imply to the latest version of that standard. Including such revision/amendments as issued by the bureau of Indian standard upto last date of receipt of Publish s. The contractor shall keep at his own cost all such publications of relevant Indian standard applicable to the work at site.

3. The proposed building is a prestigious project and quality of work is paramount importance. Contractor shall have to engage well experienced skilled labour and deploy modern T&P and other equipment to execute the work. Many items like stone masonry & stone cladding works, stone flooring, structural glazing, PVDF coating aluminium composite panel and other specialized flooring work, Wood work will specially require engagement of skilled workers having experience particularly in execution of such items.

4. Samples of all materials and fittings to be used in the work in respect of brand manufacturer and quality shall be got approved from the Engineer-in-Charge, well in advance of actual execution and shall be preserved till the completion of the work. Articles bearing BIS certifications mark shall only be used unless no manufacturer has got BIS mark for the particular material. Any material/fitting whose sample has not been approved in advance and any other unapproved material brought by the contractor shall be immediately removed as soon as directed.

5. The rates for all items of work shall unless clearly specialized otherwise include cost of all labour, material tools and plants and other inputs involved in the execution of the item.

6. The contractor (s) shall quote all inclusive rates against the items in the schedule of quantities and nothing extra shall be payable for any of the conditions and specifications mentioned. In the Publish documents unless specifically specified otherwise.

7. Unless otherwise specified in the schedule of quantities the rates for all items shall be considered as inclusive of pumping/baling out water, if necessary, for which no extra payment shall be made. Those conditions shall be considered to include water from any source such as inflow of flood, surface and sub-soil water etc. and shall apply to the execution in any season.

8. The rate for all items in which the use of cement is involved is inclusive of charges for curing.

9. The foundation trenches shall be kept free from water while works below ground level are in progress.

10. The work shall be executed and measured as per metric dimensions given in the schedule of quantities, drawings etc. (FPS units wherever indicated are for guidelines only).

11. Payment for items of "RCC work", brick work and concrete work above different floor shall be made at the rates provided for those items. For operation of these rates, the floor level shall be considered as top of the main structural slab in that floor viz. top of RCC slab in main room and not top of any sunk or depressed floor for lavatory slabs.

12. The rate of items of flooring is inclusive of providing sunk flooring in Bath- rooms, kitchen, etc. and nothing extra on this account shall be payable.

PARTICULAR SPECIFICATION AND SPECIAL CONDITION OF WORK

1. EARTHWORK

The work shall be done in accordance with CPWD specifications.

2. CONCRETE WORK

The concrete work shall be done in accordance with the CPWD specifications. All the works done upto plinth level will be measured and paid in foundation work upto plinth level. Nothing extra will be paid for higher plinth level.

3. BRICK WORK

The brick work shall be carried out with local first class bricks of crushing strength not less than 75 kg/cm^2 and conforming to class designation 75 as per CPWD specifications or as specified. The rates shall also include for leaving chases/notches for dowels/cramps for all kinds of come over brick work. All the work done upto plinth level will be measured and paid as foundation work upto plinth level. Nothing extra will be paid for higher plinth level.

4. SANITARY INSTALLATIONS, WATER SUPPLY AND DRAINAGE

4.1 The work of water supply and sanitary installations shall be got executed by the agency as approved by Engineer-in-Charge.

(ii) The entire plumbing drawing and sanitary installation drawing/ details shall be submitted by the contractor and got approved by the Engineer-in-Charge before the execution.

(iii) The entire responsibility for the quality of work will however rest with the building contractor only.

4.2 The work in general shall be carried out as per CPWD specifications. Rate includes all materials, labour and all the operations mentioned in the respective items unless and otherwise specifically mentioned.

4.3 Vitreous China sanitary fittings, procured from producer of firms Jaguar, Neycer, Hindustan, Cera, Parryware shall only be used subject to approval of samples by the Engineer-in-Charge unless otherwise specified in the items.

4.4 CP Brass pillar taps, bib cocks, flush valves angle etc. shall be of make Jaguar / hindware/ player or equivalent as per sample approved by the Engineer-in- Charge. CP Brass bib cock/stop cock shall be fixed with heavy duty CP flange.

4.5 SCI, CI Pipes and it fittings shall conform to the BIS specification wherever required and making good the same for which nothing extra shall be paid.

4.6 The Published rates shall include the cost of cutting holes in walls, floors, RCC slabs etc. Wherever required and making good the same for which nothing extra shall be paid.

4.7 The SCI pipe wherever necessary shall be fixed to RCC columns, beams etc. with rawl plugs of approved quality and nothing extra shall paid for on this account.

4.8 The contractor shall give a satisfactory performance test of the entire installation (s) before the work is finally accepted and nothing extra shall be payable to the contractor on this account.

4.9 Sensor operated flush valves shall be of make "AOS" or "ASRA" or equivalent.

4.10 P or S and floor traps (long arm upto 90 cm length or more) in WCs shall be of deep seal type of RIF make or equivalent and shall have a minimum water seal of 75 mm. Floor traps (long arm upto 90 cm length or more) shall have a minimum water seal of 50 mm.

4.11 The contractor shall be responsible for all the protection of sanitary, water supply fittings and fixtures against pilferage and breakage during the period of installation until the completion / handing over of the work.

4.12 The pig lead to be used in jointing 100 mm, 75 m , 50 mm SCI pipe joints shall not be less than 0.98 kg, 0.88 kg and 0.77 kg per joint respectively. A variation of 5% is allowed on higher side. However in case of variation on lower side, the quantity of pig lead less used shall be recovered from the contractor at market rate to be determined by the Engineer-in-Charge whose decision in the matter shall be final.

4.13 The contractor shall submit completion plans for water supply internal sanitary installations and building drainage work within thirty days of the date of completion. These plans are to be submitted on drawings prepared preferably through computers (1 original copy + 3 photocopies) on suitable scales to show the general arrangement and desired details in case the contractor fails to submit the completion plans as aforesaid security deposit shall not be released.

STONE WORK:

4.14 Guarantee Bond:

All types of Stone work shall carry five years guarantee to be reckoned from the date after the expiry of maintenance period prescribed in the contract of the work against faulty workmanship, finishing, unsound materials, structural unstability and other related problems as per guarantee bond attached in this Publish document.

Five years guarantee in prescribed proforma attached must be given by the contractor in token of his overall responsibility. 10% (Ten Percent) of the cost of stone work would be retained as guarantee to the performance of the work done. The guarantee against this item of work shall be in addition to the security deposit mentioned else where in the contract form. If any defects or deficiencies are noticed during the guarantee period, the same shall be rectified by the contractor within seven days of issue of the written notice by the Engineer-in- charge, failing which the defects/deficiencies would be got removed by the Engineer-in-charge from another agency at the risk and cost of the contractor. However this amount of the guarantee can be released in full, if bank guarantee of equivalent amount for the required period is produced and deposited with the COMMITTEE.

SPECIFICATIONS FOR ALUMINIUM DOOR, WINDOW, VENTILATOR WORK ETC.

1. **Extent and intent :**

The work shall be carried out through an approved specialist contractor who shall furnish all materials, labour, accessories equipment tool and plant and incidental required for providing and installing anodised aluminium doors, windows, claddings, louvers and other items as called for in the drawings. The drawings and specifications cover the major requirement only. The supplying of additional fastenings, accessory features and other items mentioned specifically herein but which are necessary to make a complete installation shall be a part of the contract.

1.1 **GENERAL :**

Aluminium doors, windows, etc. shall be of sizes, section details as shown on the drawings. The details shown on the drawings location gives generally the sizes of the components parts and general standards. These may be varied slightly to suit the standards adopted by the manufacturer. Before proceeding with any manufacturing the contractor shall prepare and submit complete manufacturing and installation drawings for approval of the Engineer-in-Charge and no work shall be performed until the approval of these drawings is obtained.

1.2 **Shop Drawings:**

The contractor shall submit the shop drawings of doors, windows, louvers claddings and other aluminium work, based on architectural drawings to the Engineer-in-Charge for his approval. The drawings shall show full size sections of doors, windows etc. thickness of metal (i.e. wall thickness) details of construction, sub frame/rough ground profile anchoring details, hardware as well as connection of windows doors, and other metal work to adjacent work. Samples of all joints and methods of fastening and joining shall be submitted to the Engineer-in-Charge for approval well in advance of commencing the work.

1.3 **Samples:**

Samples of doors, windows, louvers etc. shall be fabricated, assembled and submitted to the Engineer-in-Charge for his approval. They shall be of sizes, types etc. as decided by Engineer-in-Charge. All samples shall be provided at the cost of the contractor.

1.4 **Sections:**

Aluminium doors and windows shall be fabricated from extruded section of profiles as detailed on drawings. The sections shall be extruded by the manufacturers approved by the Engineer-in-Charge. The aluminium extruded section shall conform to IS designation 63400-WP(HV9WP old designation) with chemical composition and technical properties as per IS: 733 and IS: 1285. The permissible dimensional tolerance of the extruded sections shall be such as not to impair the proper and smooth function/operation and appearance of doors and windows.

1.5 **Fabrication:**

Doors, windows etc. shall be fabricated to sizes as shown at factory and shall be of section, sizes combinations and details as shown in the Architectural drawings. All doors, windows etc. shall have mechanical joints. The joints shall be designed to withstand a wind load of 150 kgs per sqm. The design shall also ensure that the maximum deflection of any member shall not exceed 1/175 of the span of the member. All members shall be accurately machined and fitted to form hairline joints prior to assembly. The joint and accessories such as cleats, brackets, etc. shall be of such materials as not to cause any bimetallic action, the design of the joints and accessories shall be such that the accessories are fully concealed. The fabrication of doors, windows etc. shall be done in suitable sections to facilitate easy transportation, handling and installation. Adequate provision shall be made in the door and windows members for anchoring to support and fixing of hardware and other fixtures as approved by the Engineer- in-Charge.

1.6 **Anodising:**

All aluminum sections shall be anodised as per IS: 7088 and the required colour as specified in the item as per IS: 1868 grading as specified in items schedule after cuttings the member to the required & requisite sizes before the final assembly. Anodising to specified grade with minimum average thickness of 15 microns when measured as per IS:612. The anodic coating shall be properly sealed by steams or in boiling water or cold sealing process as per IS: 1856/IS:6057. Polythene tape protection shall be applied on the anodised section before they are brought to site. All care shall be taken to ensure surface protection during transportation and storage at site and installation. The tape protection shall be removed on installation. The sample will be tested in the approved laboratory and cost of samples, cost of testing, shall be borne by the contractor.

1.7 **Powder Coating**

The powder used for powder coating shall be polyester powder made by Berger or Jenson & Nicholson or equivalent. The thickness of powder coating shall not be less than 60 micron at any point measured with micron-meter.

1.8 Protection of Finish:

All aluminium members shall be wrapped with approved self adhesive non- staining PVC tapes.

1.9 **Handing and Stacking:**

1.9.1 Fabricated materials shall be created in an approved manner to protect the material against any damage during transportation. The loading and unloading shall be carried out with utmost care on receipt of materials at site, they shall be carefully examined to detect any damaged pieces. Arrangements shall be made for expeditious replacement of damaged pieces/parts. Materials found to be acceptable on inspections shall be repacked in crates and stored safely.

1.9.2 In the case of composite windows, and doors the different units are to be assembled first. The assembled composite units should be checked for line, level and plumb before final fixing is done. Units may be serial numbered and identified as how to be assembled in their final location if situation so warrants.

1.9.3 Where aluminum comes into contact with masonry brickwork, concrete planter or dissimilar metals, it shall be coated with approved insulation lacquer paint or plastic tape to ensure that electro-chemical corrosion is avoided. Insulation materials shall be trimmed off to a clear flush line on completion.

1.9.4 **SILICON SEALANT:**

The peripheral gaps between plastered faces /RCC and aluminium sections shall be sealed both from inside and outside to make the windows watertight. Gaps upto 10 mm between the peripheral aluminium member and masonry/RCC/Stone shall be sealed by inserting Backer Rod manufactured by HT TROPLAST or Supreme Industries and by application of weather silicon/sealant of DOW Corning/GE Silicon make.

1.9.5 The contractor shall be responsible for doors, windows etc, being set straight plumb, level and for their satisfactory operation after fixing is complete.

1.10 **Installation:**

1.10.1 Just prior to installation the doors, windows etc. shall be uncrated and stacked on edge on level bearers and supported evenly. The frame shall be fixed into position true to line and level using adequate number of expansion machine bolts, anchor fasteners of approved size and manufacture and in an approved manner. The holes in concrete/masonry members for housing anchor bolts shall be drilled with an electrical drill.

1.10.2 The doors, windows assembled as shown on drawings shall be placed in correct final position in this opening and marks made on concrete members at jambs, sills and heads against the holes provided in frames for anchoring. The frame shall then be removed from the opening

and laid aside. Neat holes with parallel sides of appropriate size shall then be drilled in the concrete members with an electric drill at the marking to house the expansion bolts. The expansion bolts shall then be inserted in the holes, struck with a light hammer till the nut is forced into the anchor. The frame shall then be placed in final position in the opening and anchored to the support through cadmium plated machine screws of required size threaded to expansion bolts. The frame shall be set in the opening by using wooden wedges at supports and be plumbed in position. The wedges shall invariably be placed at meeting points of glazing bars and frames.

1.11 NEOPRENE GASKETS:

The contractor shall provide and install Neoprene Gaskets of approved size and profile at all locations as shown and as called for to render the doors windows etc. absolutely air tight and weather tight. The contractor shall produce samples of the gaskets for approval and procure after approval only.

Fittings:

Hinges, stays, handles, tower bolts, locks and other fittings shall be in quality and manufacturer as approved by the Engineer-in-Charge

1.12 Manufacturer's Attendance:

The manufacturer immediately prior to the commencement of glazing shall adjust and set all windows and doors and accept responsibility for the satisfactory working of the opening frames.

1.13 Details of Test:

1.13.1 The various tests on aluminium section shall be conducted in accordance with the relevant IS codes.

1.13.2 The cost of samples, carriage of the samples and testing charges if any shall be borne by the contractor.

1.14 Acceptance Criteria:

The aluminium section shall be conform to the provisions of the relevant item in the schedule of quantities. For payment purpose only actual weight of sections shall be taken into account. If however, the sectional weight of any aluminium section is higher than the permissible variation then the weight payable shall be restricted to the weight of the section including permissible variation.

1.15 Measurement :

Payment by weight shall be made for aluminium sections including beading only and all fixing angles, fittings, and fixtures such as handles and hinges etc. shall not be included in the weight to be paid.

1.16 Guarantee Bond:

All aluminium work shall carry two years guarantee to be reckoned from the date after the expiry of maintenance period prescribed in the contract of the work against structural unstability, leakage, unsound materials and workmanship and defective anodising, colouring, sealing and finishing as per guarantee bond attached in this Publish document.

Two years guarantee in prescribed proforma attached must be given by the specialized firm, which shall be counter signed by the contractor in token of his over all responsibility. 10% (Ten Percent) of the cost of these items would be retained as guarantee to the performance of the work done. The guarantee against this item of work shall be in addition to the security deposit mentioned else where in the contract form. If any defects or deficiencies are noticed during the guarantee period the same shall be rectified by the contractor within seven days of issue of the written notice by the Engineer-in-charge, failing which the defects/deficiencies would be got removed by the Engineer-in-charge from another agency at the risk and cost of the contractor. However this amount of the guarantee can be released in full, if bank guarantee of equivalent amount for the required period is produced and deposited with the COMMITTEE .

1.17 Rates :

1.17.1 The rates of the item shall include the cost of materials and labour required in all the above operation.

LIST OF MACHINERY, TOOLS & PLANTS TO BE DEPLOYED BY THE CONTRACTOR AT SITE AS & WHEN REQUIRED

Sl. No.	Name of Equipment	Numbers
1	Excavators (various sizes)	Nil
	Equipment for hoisting & lifting	
~~1~~	~~Tower Crane or Builder's hoist (Desirable)~~	~~1 No.~~
	Equipment for Concrete work	
~~1~~	~~Automatic batching plant of sufficient capacity as per direction of Engineer in Charge~~	~~Nil~~
~~2~~	~~Concrete pump (Desirable)~~	~~1 No.~~
~~3~~	~~Concrete transit mixer~~	~~Nil~~
4	Concrete mixer (diesel)	1 No.
5	Concrete mixer (electrical)	1 No.
6	Needle vibrator (electrical)	1 Nos.
7	Needle vibrator (petrol)	1 Nos.
8	Table vibrator (elect./petrol) (Desirable)	3 No.
	Equipment for Building work	
~~1~~	~~Bar bending Machine~~	~~1 No.~~
~~2~~	~~Bar cutting machine~~	~~1 No.~~
3	Drilling machine	1 No.
4	Welding machine	2 Nos.
~~5~~	~~Cube testing machines~~	~~1 No.~~
~~6~~	M.S. pipes — For 500 sqm. Equivalent area or as desired by Engineer–in- Charge	~~1 Set~~
~~7~~	Steel shuttering	~~1 Set~~
~~8~~	Steel scaffolding	~~1 Set~~
~~9~~	~~Grinding/polishing machines~~	~~3 Nos.~~
	Equipment for transportation	
~~1~~	~~Tippers~~	~~Nil~~
2	Trucks	Nil
	Pneumatic equipment	
1	Air compressors (diesel)	Nil
	Dewatering equipment	
1	4Pump (diesel)	1 No.
2	Pump (electric) (Desirable)	1 No.
	Power equipment	
~~1~~	~~Diesel generator~~	~~1 No.~~

BILL OF QUANTITY

Sl. No.	Item Description	Quantity	Units	Estimated Rate	TOTAL AMOUNT With Taxes
1	2	3	4	5	6
1	Dismantling stone slab flooring laid in cement mortar including stacking of serviceable material and disposal of unserviceable material within 50 metres lead. (15.25)	338.000	Sqm	109.35	**36960.30**
2	Dismantling tile work in floors and roofs laid in cement mortar including stacking material within 50 metres lead.				
2.01	For thickness of tiles 10 mm to 25 mm (15.23.1)	104.000	Sqm	31.55	**3281.20**
3	Demolishing brick work manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge.				
3.01	In cement mortar (15.7.4)	1.000	cum	842.75	**842.75**
4	Dismantling doors, windows and clerestory windows (steel or wood) shutter including chowkhats, architrave, holdfasts etc. complete and stacking within 50 metres lead				
4.01	Of area 3 sq. metres and below (15.12.1)	99.000	each	157.85	**15627.15**
5	Taking out doors, windows and clerestory window shutters (steel or wood) including stacking within 50 metres lead :				
5.01	Of area 3 sq. metres and below (15.13.1)	22.000	each	61.25	**1347.50**
6	Dismantling wood work in frames, trusses, purlins and rafters up to 10 metres span and 5 metres height including stacking the material within 50 metres lead :				
6.01	Of sectional area 40 square centimetres and above (15.14.1)	10.000	cum	1922.45	**19224.50**
7	Demolishing cement concrete manually/ by mechanical means including disposal of material within 50 metres lead as per direction of Engineer - in - charge.				
7.01	Nominal concrete 1:3:6 or richer mix (i/c equivalent design mix) (15.2.1)	2.000	cum	997.05	**1994.10**
7.02	Nominal concrete 1:4:8 or leaner mix (i/c equivalent design mix) (15.2.2)	3.000	cum	615.15	**1845.45**
8	Demolishing R.B. work manually/ by mechanical means including stacking of steel bars and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in- charge.(15.4)	8.000	cum	1300.25	**10402.00**
9	Dismantling old plaster or skirting raking out joints and cleaning the surface for plaster including disposal of rubbish to the dumping ground within 50 metres lead.(15.56)	846.000	Sqm	22.40	**18950.40**
10	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :				
10.01	1:4:8 (1 Cement : 4 coarse sand (zone-III) : 8 graded stone aggregate 40 mm nominal size) (4.1.8)	10.000	cum	4478.15	**44781.50**
10.02	"1:2:4 (1 cement : 2 coarse sand (zone-III) : 4 graded stone aggregate 20 mm nominal size). (4.1.3)	6.000	cum	5481.95	**32891.70**
11	Reinforced cement concrete work in beams, suspended floors, roofs having slope up to 15° landings, balconies, shelves, chajjas, lintels, bands, plain window sills, staircases and spiral stair cases above plinth level up to floor five level, excluding the cost of centering, shuttering, finishing and reinforcement, with 1:1.5:3 (1 cement : 1.5 coarse sand (zone-III) : 3 graded stone aggregate 20 mm nominal size). (5.3)	4.000	cum	7390.80	**29563.20**
12	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete above plinth level.				
12.01	Thermo-Mechanically Treated bars of grade Fe-500 D or more. (5.22A.6)	45.000	kg	56.60	**2547.00**
13	Centering and shuttering including strutting, propping etc. and removal of form for all heights :				
13.01	Lintels, beams, plinth beams, girders, bressumers and cantilevers. with water proof ply 12 mm thick (5.9.21)	21.000	Sqm	418.95	**8797.95**
14	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level in all shapes and sizes in :				
14.01	In gratings, frames, guard bar, ladder, railings, brackets, gates and similar works (6.4.2)	3.000	cum	5582.85	**16748.55**

15	Half brick masonry with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level.				
15.01	Cement mortar 1:4 (1 cement :4 coarse sand) (6.13.2)	6.000	Sqm	684.20	**4105.20**
16	12 mm cement plaster of mix :				
16.01	1:6 (1 cement: 6 coarse sand) (13.4.2)	529.000	Sqm	168.25	**89004.25**
17	15 mm cement plaster on rough side of single or half brick wall of mix:				
17.01	1:6 (1 cement: 6 coarse sand) (13.5.2)	74.000	Sqm	194.60	**14400.40**
18	Steel work welded in built up sections/ framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required.				
18.01	In gratings, frames, guard bar, ladder, railings, brackets, gates and similar works (10.25.2)	321.000	kg	85.95	**27589.95**
19	Steel work in built up tubular (round, square or rectangular hollow tubes etc.) trusses etc., including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer, including welding and bolted with special shaped washers etc. complete.				
19.01	Hot finished welded type tubes (10.16.1)	86.000	kg	90.25	**7761.50**
20	Providing and fixing ISI marked flush door shutters conforming to IS : 2202 (Part I) decorative type, core of block board construction with frame of 1st class hard wood and well matched teak 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters.				
20.01	30 mm thick including ISI marked Stainless Steel butt hinges with necessary screws (9.20.2)	11.000	Sqm	2372.80	**26100.80**
21	Providing and laying vitrified floor tiles in different sizes (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS: 15622, of approved make, in all colours and shades, laid on 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand), jointing with grey cement slurry @ 3.3kg/sqm including grouting the joints with white cement and matching pigments etc., complete.				
21.01	Size of Tile 600x600 mm (11.41.2)	20.000	Sqm	1119.40	**22388.00**
22	Providing and laying Vitrified tiles in different sizes (thickness to be specified by manufacturer), with water absorption less than 0.08 % and conforming to I.S. 15622, of approved make, in all colours & shade, in skirting, riser of steps, over 12 mm thick bed of cement mortar 1:3 (1 cement: 3 coarse sand), jointing with grey cement slurry @ 3.3kg/sqm including grouting the joint with white cement & matching pigments etc. complete.				
22.01	Size of Tile 600x600 mm (11.46.2)	20.000	Sqm	1135.20	**22704.00**
23	Providing and laying Vitrified tiles in floor with different sizes (thickness to be specified by the manufacturer), with water absorption less than 0.08% and conforming to IS:15622, of approved brand & manufacturer, in all colours and shade, laid with cement based high polymer modified quick set tile adhesive (water based) conforming to IS : 15477, in average 6 mm thickness, including grouting of joints (Payment for grouting of joints to be made separately).				
23.01	Size of Tile 600x600 mm (11.49.2)	350.000	Sqm	1169.55	**409342.50**
24	Providing and laying Vitrified tiles in different sizes (thickness to be specified by the manufacturer), with water absorption less than 0.08% and conforming to IS: 15622, of approved brand & manufacturer, in all colours and shade, in skirting, riser of steps, laid with cement based high polymer modified quick set tile adhesive (water based) conforming to IS: 15477, in average 6 mm thickness, including grouting of joints (Payment for grouting of joints to be made separately).				
24.01	Size of Tile 600x600 mm (11.47.2)	332.000	Sqm	1240.60	**411879.20**
25	52 mm thick cement concrete flooring with concrete hardener topping, under layer 40 mm thick cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) and top layer 12 mm thick cement hardener consisting of mix 1:2 (1 cement hardener mix : 2 graded stone aggregate 6 mm nominal size) by volume, hardening compound mixed @ 2 litre per 50 kg of cement or as per manufacturer's specifications. This includes cost of cement slurry, but excluding the cost of nosing of steps etc. complete. (11.4)	46.000	Sqm	555.25	**25541.50**

26	Providing and fixing 18 mm thick gang saw cut, mirror polished, premoulded and prepolished, machine cut for kitchen platforms, vanity counters, window sills, facias and similar locations of required size, approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 (1 cement : 4 coarse sand), joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing, moulding and polishing to edges to give high gloss finish etc. complete at all levels.				
26.01	Granite of any colour and shade (11.49.2)				
26.02	Area of slab over 0.50 sqm (8.2.2.2)	10.000	Sqm	3113.30	**31133.00**
27	Providing edge moulding to 18 mm thick marble stone counters, Vanities etc., including machine polishing to edge to give high gloss finish etc. complete as per design approved by Engineer-in-Charge.				
27.01	Granite work (8.3.2)	240.000	mtr	245.70	**58968.00**
28	Providing and fixing fly proof stainless steel grade 304 wire gauge, to windows and clerestory windows using wire gauge with average width of aperture 1.4 mm in both directions with wire of dia. 0.50 mm all complete.				
28.01	With 2nd class teak wood beading 62X19 mm (9.135.1)	42.000	Sqm	1343.55	**56429.10**
29	Providing and applying white cement based putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete. (13.80)	704.000	Sqm	87.35	**61494.40**
30	Distempering with oil bound washable distemper of approved brand and manufacture to give an even shade :				
30.01	New work (two or more coats) over and including water thinnable priming coat with cement primer (13.41.1)	704.000	Sqm	93.70	**65964.80**
31	Removing dry or oil bound distemper, water proofing cement paint and the like by scrapping, sand papering and preparing the surface smooth including necessary repairs to scratches etc. complete. (14.46)	223.000	Sqm	10.80	**2408.40**
32	Finishing walls with Acrylic Smooth exterior paint of required shade :				
32.01	New work (Two or more coat applied @ 1.67 ltr/10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/10 sqm) (13.46.1)	524.000	Sqm	96.05	**50330.20**
33	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade :				
33.01	Two or more coats on new work (13.61.1)	120.000	Sqm	78.40	**9408.00**
34	Providing and fixing chromium plated brass handles with necessary screws etc. complete:				
34.01	125 mm (9.92.1)	10.000	Each	211.85	**2118.50**
34.02	100 mm (9.92.2)	10.000	Each	182.45	**1824.50**
35	Providing and fixing bright finished brass tower bolts (barrel type) with necessary screws etc. complete :				
35.01	250x10 mm (9.74.1)	10.000	Each	313.20	**3132.00**
35.02	150 mm (9.74.3)	10.000	Each	193.45	**1934.50**
36	Providing and fixing ISI marked oxidised M.S. tower bolt black finish, (Barrel type) with necessary screws etc. complete :				
36.01	250x10 mm (9.63.1)	10.000	Each	64.00	**640.00**
36.02	150 mm (9.63.3)	10.000	Each	44.10	**441.00**
37	Providing and fixing ISI marked oxidised M.S. handles conforming to IS:4992 with necessary screws etc. complete :				
37.01	125 mm (9.66.1)	10.000	Each	28.60	**286.00**
37.02	100 mm (9.66.2)	10.000	Each	22.65	**226.50**
38	Providing and fixing ISI marked oxidised M.S. sliding door bolts with nuts and screws etc. complete :				
38.01	250x16 mm (9.62.2)	10.000	Each	142.05	**1420.50**
39	Providing and fixing aluminium hanging floor door stopper, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour and shade, with necessary screws etc. complete.				
39.01	Single rubber stopper (9.101.1)	10.000	Each	27.55	**275.50**
40	Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require:				

40.01	White Vitreous China Wash basin size 630x450 mm with a single 15 mm C.P. brass pillar tap (17.7.2)	10.000	Each	2020.60	**20206.00**
41	Providing and fixing C.P. brass bib cock of approved quality conforming to IS:8931 :				
41.01	15 mm nominal bore (18.49.1)	10.000	Each	371.70	**3717.00**
42	Providing and fixing C.P. brass stop cock (concealed) of standard design and of approved make conforming to IS:8931.				
42.01	15 mm nominal bore (18.52.1)	10.000	Each	545.95	**5459.50**
43	Providing and fixing C.P. brass angle valve for basin mixer and geyser points of approved quality conforming to IS:8931				
43.01	15mm nominal bore (18.53.1)	10.000	Each	475.70	**4757.00**
44	Providing and fixing G.I. pipes complete with G.I. fittings and clamps, i/c cutting and making good the walls etc.				
44.01	Internal work - Exposed on wall				
44.02	15 mm dia nominal bore (18.10.1)	100.000	Mtr	186.40	**18640.00**
44.03	20 mm dia nominal bore (18.10.2)	50.000	Mtr	224.15	**11207.50**
45	Making connection of G.I. distribution branch with G.I. main of following sizes by providing and fixing tee, including cutting and threading the pipe etc. complete :				
45.01	25 to 40 mm nominal bore (18.13.1)	10.000	Each	394.15	**3941.50**
46	Providing and fixing ball valve (brass) of approved quality, High or low pressure, with plastic floats complete :				
46.01	15 mm nominal bore (18.18.1)	4.000	Each	287.25	**1149.00**
46.02	20 mm nominal bore (18.18.2)	4.000	Each	327.05	**1308.20**
47	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately) :				
47.01	For fixed portion				
47.02	Anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC 15) (21.1.1.1)	87.000	kg	355.20	**30902.40**
48	Providing and fixing factory made uPVC white colour sliding glazed window upto 1.50 m in height dimension comprising of uPVC multi-chambered frame with in-built roller track and sash extruded profiles duly reinforced with 1.60 ± 0.2 mm thick galvanized mild steel section made from roll forming process of required length (shape & size according to uPVC profile), appropriate dimension of uPVC extruded glazing beads and uPVC extruded interlocks, EPDM gasket, wool pile, zinc alloy (white powder coated) touch locks with hook, zinc alloy body with single nylon rollers (weight bearing capacity to be 40 kg), G.I fasteners 100 x 8 mm size for fixing frame to finished wall and necessary stainless steel screws etc. Profile of frame & sash shall be mitred cut and fusion welded at all corners, including drilling of holes for fixing hardware's and drainage of water etc. After fixing frame the gap between frame and adjacent finished wall shall be filled with weather proof silicon sealent over backer rod of required size and of approved quality, all complete as per approved drawing & direction of Engineer-in-Charge. (Single / double glass panes, wire mesh and silicon sealant shall be paid separately) Note: For uPVC frame and sash extruded profiles minus 5% tolerance in dimension i.e. in depth & width of profile shall be acceptable.				
48.02	Two track two panels sliding window made of (small series) frame 52 x 44 mm & sash 32 x 60 mm both having wall thickness of 1.9 ± 0.2 mm and single glazing bead of appropriate dimension. (Area of window upto 1.75 sqm) (9.147D.1)	13.000	Sqm	5608.60	**72911.80**

48.03	Three track three panels sliding window with fly proof SS wire mesh (Two nos. glazed & one no. wire mesh panels) made of (small series) frame 92 x 44 mm & sash 32 x 60 mm both having wall thickness of 1.9 ± 0.2 mm and single glazing bead of appropriate dimension (Area of window upto 1.75 sqm). (9.147D.2)	11.000	Sqm	7494.70	**82441.70**
48.04	Two track two panels sliding window made of (big series) frame 67 x 50 mm & sash 46 x 62 mm both having wall thickness of 2.3 ± 0.2 mm and single glazing bead / double glazing bead of appropriate dimension. (Area of window above 1.75 sqm upto 2.50 sqm). (9.147D.3)	13.000	Sqm	5826.05	**75738.65**
48.05	Three track three panels sliding window with fly proof S.S wire mesh (Two nos. glazed & one no. wire mesh panels) made of (big series) frame 116 x 45 mm & sash 46 x 62 mm both having wall thickness of 2.3 ± 0.2 mm and single glazing bead / double glazing bead of appropriate dimension. (Area of window above 1.75 sqm). (9.147D.4)	15.000	Sqm	7261.20	**108918.00**
49	Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of equired dia & length (hold fast lugs or dash fastener shall be paid for separately).				
49.01	Sal wood (9.1.2)	0.250	cum	85386.95	**21346.74**
50	Providing and fixing Stainless Steel A ISi 304 (18/8) kitchen sink as per IS: 13983 with C.I. brackets and stainless steel plug 40 mm, including painting of fittings and brackets, cutting and making good the walls wherever required:				
50.01	Kitchen sink with drain board				
50.02	510x1040 mm bowl depth 250 mm (17.10.1.1)	4.000	Each	4120.80	**16483.20**
51	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of Engineer-in-charge. (Cost of aluminium snap beading shall be paid in basic item):				
51.01	With float glass panes of 5.50 mm thickness (21.3.2)	16.000	Sqm	1003.95	**16063.20**
52	Providing and fixing panelled or panelled and glazed shutters for doors, windows and clerestory windows, including ISI marked M.S. pressed butt hinges bright finished of required size with necessary screws, excluding panelling which will be paid for separately, all complete as per direction of Engineer-in-charge.				
52.01	Second class teak wood				
52.02	35 mm thick shutters (9.5.1.1)	33.000	Sqm	2548.15	**84088.95**
53	Providing and fixing panelling or panelling and glazing in panelled or panelled and glazed shutters for doors, windows and clerestory windows (Area of opening for panel inserts excluding portion inside grooves or rebates to be measured). Panelling for panelled or panelled and glazed shutters 25 mm to 40 mm thick :				
53.01	Second class teak wood (9.7.1)	33.000	Sqm	2037.05	**67222.65**
53.02	Float glass panes 4mm (9.7.7.1)	7.000	Sqm	1169.60	**8187.20**
54	Applying priming coat:				
54.01	With ready mixed pink or Grey primer of approved brand and manufacture on wood work (hard and soft wood) (13.50.1)	122.850	Sqm	34.95	**4293.61**
55	Wall painting with acrylic emulsion paint of approved brand and manufacture to give an even shade :				
55.01	Two or more coats on new work (13.60.1)	122.850	Sqm	84.45	**10374.68**
56	carraige of malba (Approved Rate)	35.000	Per trip	339.00	**11865.00**
	Total in Figures				**2336280.93**