

**Gurukul Kangri (Deemed To Be University)
Haridwar-249404**



**Vertical Extension of Multipurpose Hall at KGCH in Gurukul kangri (D.U.),
Haridwar**

Ref. No.	:#01/GK(DU)/2022-23/CPPP
Publishing Date	:#29-08-2022
Bid Submission Start Date	: 29-08-2022
Last Date of Bid Submission	: 05-09-2022 (03:00 Pm)
Bid Opening	: 06-09-2022 (03:00 Pm)

INDEX

Name of Work: Vertical Extension of IInd Floor of Multipurpose Hall at KGCH in Gurukul kangri (D.U.)

Serial No.	Contents	Page No.	Remarks
1.	Cover Page	1	
2.	Index	2	
PART - A			
3.	Notice inviting tender	3	
4.	Information and instructions for Contractors	4 to 5	
5.	Format for receipt of deposition of original EMD	6	
6.	Tender	7	
7.	Schedule "A" to "C", & Clauses (Civil + Electrical) & Form of Bank Guarantee	8 to 12	
PART - B			
8.	Particular specification and Special conditions (Civil + Electrical)	13 to 28	
9.	List of approved make	29 to 36	
10.	Schedule of Quantities	37 to 46	

Certified that this bid document contains pages 1 to 46 (One to Forty-Six Pages).

**Registrar
GK(DU) Haridwar**

**Tender document may be downloaded from CPPP site <https://eprocure.gov.in>
NIT may be downloaded from institute's website www.gkv.ac.in**

PART – A

**Gurukul Kangri (Deemed to be university)
Haridwar-249404
NOTICE INVITING TENDER**

The Registrar Gurukul Kangri (Deemed To Be University) invites Item rate e-tenders from enlisted contractors in the appropriate classes and category in CPWD, MES, Railway and state government of Uttarakhand (PWD & IRRIGATION Department only) for the following work: -
NIT No. : 01/GK(DU)/2022-23/CPPP

Name of Work: Vertical Extension of IInd Floor of Multipurpose Hall at kanya Gurukul campus in Haridwar.

Estimated Cost: Rs.40.00 Lacs Earnest money: Rs.2.00 Lacs

Period of completion: 04 Months

Last date & time of submission of bids: 05-09-22 up to 3:00 pm

The tender forms and other details can be seen and downloaded from the website www.gkv.ac.in or CPPP site <http://eprocure.gov.in>

**INFORMATION AND INSTRUCTIONS FOR CONTRACTORS FOR e-TENDERING FORMING
PART OF NIT AND TO BE POSTED ON WEBSITE**

The Registrar invites Item rate e-tenders from enlisted contractors in the appropriate classes and category in CPWD, MES, Railway and state government of Uttarakhand (PWD & IRRIGATION Department only) for the following work:

Name of work & Location	Estimated cost of bid in lacs	Earnest Money in lacs	Period of Completion	Last date & time of submission of bid	Time & date of opening of bid	Date and time of submission of EMD in hard form to Registrar GK(DU) Haridwar.
<u>Vertical Extension of Multipurpose Hall at kanya Gurukul campus Haridwar</u>	Rs.40.00 (Civil + Electrical)	Rs.2.00	04 month	05-09-2022 (03:00 Pm)	06-09-2022 (03:00 Pm)	Agency can submit EMD in hard form up to one day after last date of submission of bid.

- The intending bidder must read the terms and conditions carefully. He should only submit his bid if he considers himself eligible and he is in possession of all the documents required.
- Information and Instructions for bidders posted on website shall form part of bid document.
- The bid 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 can be seen and downloaded from website www.gkv.ac.in or <https://eprocure.gov.in>
- Those contractors not registered on the website mentioned above, are requested to get registered beforehand.
- The intending bidder must have valid class-III digital signature to submit the bid.
- Contractor can upload documents in the form of PDF format only.
- The contractor should quote the rate of item including GST as per statutory rules.
- The successful bidders has to execute a contract (Form No. CPWD 7) on Indian non judicial stamp paper of Rs.100/- (Rupees one hundred only) within fifteen (15) days from the date of award of this tender in his favour and also required to furnish the 10% performance guarantee of contract value in the form of FD/DD Registrar GK(DU) from any Nationalized/Schedule bank duly pledged in favour of Registrar GK(DU) payable at Haridwar. If the successful bidder fails to furnish the full Performance guarantee within 10 (ten) days after the issue of Letter of Acceptance of Work, action will be taken as per bid declaration form, unless time extension has been granted by Gurukul Kangri (DU).
- The bid shall be valid and open for acceptance by the competent authority of Gurukul Kangri (DU) for a period of 30 (Thirty) days from the date of opening of the Financial bid and no request for any variation in quoted rates and / withdrawal of tender on any ground by bidders shall be entertained. 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 department, Further the bidders shall not be allowed to participate in the re-bidding process of the work & action shall be taken as per undertaking furnished.

10. Contractor shall deposit earnest money in fixed deposit receipt of schedule bank/demand draft of schedule bank/bank guarantee issued by a bank is scanned copy uploaded and submit in original up to one day after last date of submission of bid.
11. The Enlisted Contractors must have experience of at least three similar works each of value not less than **Rs. 16.00 Lacs** or two similar work each of value not less than **Rs. 24.00 Lacs** or one similar work of value not less than **Rs. 32.00 Lacs** in last **7 years** ending last day of the month previous to the one in which the tenders are invited. Scanned copy of the completion certificates of said works must be uploaded in the technical bid.
12. The Enlisted Contractors should submit a copy of their GST Registration Certificate & latest GST Challan/ GST Return. Scanned copy must be uploaded in technical bid section by the bidders. Scanned copy must be uploaded otherwise the bid will be treated as non-respective.
13. The enlisted Contractors should submit valid enlisted registration certificates issued by the Govt. agencies.
14. Due to Scarcity of funds payments may get delayed. No interest shall be paid to contractor due to delay in payment.
15. The site for the work is available. The architectural and structural drawings shall be made available as per requirement of the same as per approved programme of completion submitted by the contractor after award of the work.
16. Intending Bidders are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their tenders 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 bid. A bidder shall be deemed to have full knowledge of the site whether he inspects it or not and no extra charge consequent on any misunderstanding or otherwise shall be allowed. The bidders 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 bid 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 local conditions and other factors having a bearing on the execution of the work.
17. The competent authority does not bind itself to accept the lowest or any other bid and reserves to itself the authority to reject any or all the bids received without the assignment of any reason. All bids in which any of the prescribed condition is not fulfilled or any condition including that of conditional rebate is put forth by the tenderer shall be summarily rejected.
18. Canvassing whether directly or indirectly, in connection with bidders is strictly prohibited and the tenders submitted by the contractors who resort to canvassing will be liable to rejection.
19. The competent authority reserves to himself the right of accepting the whole or any part of the tender and the tenderer shall be bound to perform the same at the rate quoted.
20. The contractor shall not be permitted to tender for works in Gurukul Kangri (DU) Haridwar in which his near relative is posted in Estate department or as an officer in any capacity between the grades of Vice Chancellor & Registrar (both inclusive). He shall also intimate the names of persons who are working with him in any capacity or are subsequently employed by him and who are near relatives to any officer in GK (DU). Any breach of this condition by the contractor would render him liable to reject his Bid submitted by him.

FORMAT FOR RECEIPT OF DEPOSITION OF ORIGINAL EMD

Receipt No..... /date.....
<p>Name of Work: Vertical Extension of Multipurpose Hall at KGCH in Gurukul kangri (D.U.), Haridwar</p> <p>1. NIT No. : 01/Gk(DU)/2022-23/CPPP</p> <p>2. Estimated Cost: Rs. 40.00 Lacs</p> <p>3. Amount of Earnest Money Deposit : Rs. 2.00 Lacs</p> <p>4. Last date and time of submission of Bid : 05-09-2022 (03:00 Pm)</p>
<p>1. Name of Contractor:</p> <p>2. Form of EMD</p> <p>3. Amount of Earnest Money Deposit</p> <p>4. Date of submission of EMD</p> <p>Signature, Name and Designation of EMD receiving officer with Officer stamp</p>

Note:

- i) EMD shall be drawn in favour of Registrar GK(DU) Haridwar.

~~in~~TENDER

I/We have read and examined the notice inviting tender, schedule, A, B & C, 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 tender for the execution of the work specified within the time specified in Schedule 'F', viz., schedule of quantities and in accordance in all respects with the specifications, designs, drawings 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 respects in accordance with, such conditions so far as applicable.

We agree to keep the tender open for Thirty (30) days from the due date of opening of financial bid and not to make any modification in its terms and conditions.

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

~~hjh / uen Bim gmuv jvg hv jh kirngr {wurd G-ndymgn} lovofitau yX y k vnd
gnv {LC {nd s gr {wru gv = Inhd n r v m p xov iju C | k {elwngmk igokyX gnw Xjd
hv jh ozsu gmvgvi | l jga jrvovix igokgrv jkdfun {onwngmkgrvgok /ov
= Inhd j r x jdgnd wnohir-rir; n > gkotangvi | l jg z jn~~

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 therefrom to any person other than a person to whom I/We am/are authorised to communicate the same or use the information in any manner prejudicial to the safety of the State.

unkn Dated #.....
Pg gn lun Postal Address#

~~Eygn gvjOrn###~~
Signature of Contractor#

Onak Witness : #
lun Address: #
plwkn Occupation: #

To be filled in by the contractor/witness as applicable

yxbsk SCHEDULES
FOR MAJOR (CIVIL) COMPONENT

yxbsk ga SCHEDULE 'A'

gn>lgv| / ir nylw/g qurw ' > i qre jdgkyiunG yxbsk

Extra schedule for specific requirements/documents for the work, if any. -----Nil-----

yxbsk a SCHEDULE 'B'

- | | |
|--|---|
| | Egvgkoimk> #urjgnodfi |
| 1. Reference to General Conditions of contract | General conditions of contract for CPWD works 2020 (maintenance work) as amended upto date. |

Name of work:- Vertical Extension of Multipurpose Hall at Kanya Gurukul campus in Gurukul kangri (D.U.), Haridwar

- | | |
|---|---|
| gn>lgkyxixu rfu Estimated cost of work | : ₹ 40.00 Lacs |
| 2urjn min Earnest money
bank. | : Rs.2.00 Lacs in form of FDR from schedule |
| ixhroq {mkk Performance guarantee | : 10% of Tendered value. |
| l j u k i a k v (Security Deposit | : 5% of tendered value |

yxbsk d - SCHEDULE 'C'

- | | |
|---|---|
| 40 oimk ixh /rdiq-miojn
General Rules & Directions: | |
| 50 kiron yimdn gmxv n l j o m k
Officer inviting tender | - Registrar GK (DU) Haridwar |
| 60 gn>lgkhopgkhongv / y l u l j u m i w o o v y l u
k r i q u h o r g v / q u o b n k z i n ^ n P . 4 5 5 y m 4 5 6 g v
yxom jrn
Maximum percentage for quantity of items of work to be executed beyond which rates are to be determined in accordance with Clauses | ixhroq |
| Officer-in-Charge | Registrar GK (DU) Haridwar |
| 4- O g m g u n l j o m k
Accepting Authority | Vice Chancellor GK (DU) Haridwar |
| 80 y i u n G y m k o b v i z g m x g v / M h / x b m i { j o i
gk rfu l m l j u m u
Percentage on cost of materials and labour to cover all overheads and profits. | 15% (Fifteen per cent) |
| 6- q m i g k h o g y x b s k
Standard schedule of Rates for Civil: | - Delhi Schedule of rate 2021 Market |
| Rate | Issued upto date of receipt of tender. |
| 7. i r m {
Department | GK (DU) Haridwar |
| 8. h o g g v n i x i 3 E y n T h
Standard CPWD contract Form with up to date correction slip. | CPWD Specification |

Work Clauses

Clause 1

Time allowed for submission of performance guarantee from the date of issue of letter of acceptance : 10 days

Maximum allowable extension with late fee @ 0.10% per day of performance guarantee amount beyond the period as provided in (i) above : 07 days

Clause 2

Authority for fixing compensation under clause 2 **Vice chancellor GK (DU)**

Clause 3

No. of days from the date of issue of letter of acceptance for reckoning date of start :10 days.

Milestone(s): -

NA

Time allowed for execution of work Authority to decide

04 Months

1. Extension of Time
2. Rescheduling of mile stones

Vice chancellor GK (DU)

Vice chancellor GK (DU)

Shifting of date of start in case of delay in handing over of site

Registrar GK (DU) Haridwar

Clause 4

Specifications to be followed for execution of work

For Civil : CPWD specification 2019, Volume-I & II with correction slips upto date of receipt of tender

Clause 5

List of mandatory machines, tools and plants to be deployed by the contractor at site.

Applicable

Clause 6- Requirement of technical representative (s) and rate

s.n	Minimum Qualification of technical representative	Discipline	Designation	Minimum experience	Number	Rate at which recover shall be made from the contractor in the event of not fulfilling provision of clause 36 (i)	
						Figure	Words
1	Diploma	Civil	Site Engineer	1year	1	Ten Thousand	10000

Clause 7

- a. ~~o k w y m i f n x g k y x b x h z~~
~~h o n i x i n u g m x g v i / y x b s i c i m i n~~ ~~g r a d e c o m h i j i j k m l m y x b s k 5 5 4 g w z m l m~~
 Schedule/statement for determining theoretical quantity of cement & bitumen on the basis of Delhi Schedule of Rates 2021 printed by C.P.W.D. with corrections issued up to date of receipt of tender.
- b. ~~y x b x h z g h o y w h y x b u i s | x~~
 Variations permissible on theoretical quantities. **Yes**
- c. ~~o k w g n i g v i / x i o n h y x b i u h z~~ & 08 | ~~n n o w d g j r v~~ ~~5 l j u w h c b n~~
 Cement for works with estimated cost put to tender more than Rs. 5 lakhs 2 % plus/minus.
~~e o m l i j g R a o ' g r v y m i m k g v i / l x r | x y m o b x t h g e o m g r y~~ ~~5 l j u w h c b n~~
 Steel Reinforcement and structural steel sections for each diameter, section and category. 2% plus/minus
~~o k y x o m i f j~~ ~~z z~~
 All other materials Nil.

Clause 8

12.2 & 12.3	Deviation Limit beyond which clauses 12.2 & 12.3 shall apply for building work	100%.
12.5	1. Deviation Limit beyond which clauses 12.2 & 12.3 shall apply for foundation work (except items mentioned in earth work sub head in DSR and related items)	100%
	2. Deviation Limit for items mentioned in earth work sub head of DSR and related items.	100%

यह दरों को ग्राहक/रोक

RECOVERY RATES FOR QUANTITIES BEYOND PERMISSIBLE VARIATION

विवरण	दरों को ग्राहक/रोक	दरों को ग्राहक/रोक
Description of item	Rates in figures and words at which recovery shall be made from the Contractor	Rates in figures and words at which recovery shall be made from the Contractor
	Excess beyond permissible variation	Less use beyond the permissible variation
1. क Cement	N.A.	Rs. 10,000/- Per MT
50 क Steel Reinforcement	N.A.	Rs. 80,000/- Per M.T.

FORM OF (BANK GUARANTEE)

WHEREAS, contractor.....(Name of contractor) (Hereinafter called "the contractor") has submitted his tender dated (date) for the construction of (name of work) (hereinafter called "the Tender")

KNOW ALL PEOPLE by these presents that we..... (name of bank) having our registered office at..... (hereinafter called "the Bank") are bound unto.....(Name and division of Executive Engineer) (hereinafter called "the Engineer-in-Charge") in the sum of Rs..... (Rs. in words) for which payment well and truly to be made to the said Engineer-in-Charge the Bank binds itself, his successors and assigns by these presents.

SEALED with the Common Seal of the said Bank this day of20..

THE CONDITIONS of this obligation are:

If after tender opening the Contractor withdraws, his tender during the period of validity of tender (including extended validity of tender) specified in the Form of Tender;

If the contractor having been notified of the acceptance of his tender by the Engineer-in-Charge:

fails or refuses to execute the Form of Agreement in accordance with the Instructions to contractor, if required;
OR

fails or refuses to furnish the Performance Guarantee, in accordance with the provisions of tender document and Instructions to contractor, OR

fails or refuses to start the work, in accordance with the provisions of the contract and Instructions to contractor, OR

fails or refuses to submit fresh Bank Guarantee of an equal amount of this Bank Guarantee, against Security Deposit after award of contract.

We undertake to pay to the Engineer-in-Charge either up to the above amount or part thereof upon receipt of first written demand, without the Engineer-in-Charge having to substantiate his demand, provided that in his demand the Engineer-in-Charge will note that the amount claimed by him is due to him owing to the occurrence of one or any of the above conditions, specifying the occurred condition or conditions.

This Guarantee will remain in force up to and including the date. * after the deadline for submission of tender as such deadline is stated in the Instructions to contractor or as it may be extended by the Engineer-in-Charge, notice of which extension(s) to the Bank is hereby waived. Any demand in respect of this Guarantee should reach the Bank not later than the above date.

DATE

SIGNATURE OF THE BANK

WITNESS

SEAL

(SIGNATURE, NAME AND ADDRESS)

*Date to be worked out on the basis of validity period of 6 months from last date of receipt of tender.

PART - B**PARTICULAR SPECIFICATION
&
Special conditions****GENERAL**

1. Wherever any reference to any Indian Standard Specifications of BIS occurs in the documents relating to this contract, the same shall be inclusive of all amendments issued there-to or revisions thereof, if any, up to the date of receipt of tenders.
2. The contractor shall work according to the programme of work as approved by the Engineer-in-charge, for which purpose, the contractor shall submit a programme of the work within 15 days from the stipulated date of start of the work.
3. The contractor shall take instructions from the Engineer-in-charge for stacking of materials at site. No excavated earth or building materials shall be stacked on areas where the buildings, roads, services or compound walls are to be constructed.
4. Unless otherwise provided in the Schedule of quantities, the rates tendered by the contractor shall be all inclusive and shall apply to all heights, lifts, leads and depths of the building and nothing shall be payable to him on this account.
5. Some restrictions may be imposed by the security staff etc. on the working and for movement of labour, materials etc. The contractor shall be bound to follow all such restriction / instructions including issue of identity cards to all persons authorized by him to do work / visit the work site and nothing shall be payable on this account.
6. The contractor shall make his own arrangements for obtaining electric connections, if required, and make necessary payments directly to the department concerned.
7. The contractor shall conduct his 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 contractors, 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 Engineer-in-Charge. The contractor shall be responsible for any damage due to hindrance caused by him.
8. All the material related to the work execution shall be approved by Engineer-In-charge.
9. Any cement slurry added over base surface for bond or for continuation of concreting, for protecting reinforcement bars, its cost shall be deemed to have been included in the respective items, unless specified otherwise and nothing extra shall be payable nor extra cement shall be considered in the cement consumption on this account.
10. Stacking of materials and excavated earth including its disposal shall be done as per the directions of the Engineer-in-Charge. Double handling of materials or excavated earth if required at any stage shall have to be done by the contractor at his own cost.
11. No claim for idle establishment & labour, machinery & equipments, tools & plants and the like, for any reason whatsoever, shall be admissible during the execution of work as well as after its completion.

12. Only Stainless Steel screws shall be used unless otherwise specified.
13. Work shall be carried out in professional manner with finished product serving the intended purpose with specified strength, durability and aesthetics.
14. Work activities shall be executed in well thought out sequences such that consequent activities not adversely affecting previously done work. Nothing extra shall be payable to protect the works already done.
15. The contractor shall prepare all the needed shop drawings well in advance and get them approved before placing the order and execution of the item.
16. Contractor shall be able to claim bill only after issuing site clearance certificate from Engineering Department.
17. Contractor shall submit all material in store which is to be consumed according to specifications during execution of work. It will be further issued by concerned Engineering Department.
18. All materials to be used during work shall be got approved from engineer in charge.
19. All samples of material shall be got approved from engineer in charge before execution of work.

20. The contractor(s) shall inspect the site of work before tendering and acquaint himself with the site conditions and **no claim on this account** shall be entertained by the department.
21. The tender shall see the approaches to the site. In case any approach from main road is required at or existing approach is to be improved and maintained for cartage of materials by the contractor, the same shall be provided, improved and maintained by the contractor at his own cost.
22. Contractor shall take all precautionary measures to avoid any damage to adjoining property. **All necessary arrangement shall be made at his own cost.** Any damage caused by the contractor to the contractor to existing building/ installation / roads / boundary walls shall be made good by him (the contractor) at his own cost.
23. The contractor shall take all precautions to avoid accidents by exhibiting necessary caution 24. board day and night, speed limit, red flags, red lights and proving barriers. He shall be responsible for all damages and accidents caused to existing / new work due to negligence on his part. No hindrances shall be caused to traffic, running of hospital services during the execution of the work.
24. Royalty at the prevailing rates whenever payable shall have to be paid by the contractor on the boulders, metal, shingle, sand and bajri etc. Or any other material collected by him for the work direct to revenue authorities and **the department shall pay nothing extra for the same.**
25. The contractor shall provide at his own cost suitable weighing, surveying and levelling and measuring arrangements as may be necessary at site for checking. All such equipment shall be got calibrated in advance from laboratory, approved by the Engineer-In-Charge. **Nothing extra shall be payable on this account.**
26. Contractor shall provide permanent bench mark, flags tops 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 level and location, given in the Architectural and plumbing drawings.
27. Water tanks, taps, sanitary, water supply and drainage pipes, civil fittings and accessories should conform to byelaws and municipal body / corporation where CPWD specifications are not available. The contractor should engage licensed plumbers for the work and get the materials (fixture /fittings) tested by municipal Body / Corporation authorities wherever required at his own cost.
28. The contractor shall give performance test of the entire installations as per the standing specifications before the work is finally accepted and completion certificate is recorded by the Engineer- In -Charge. **Nothing extra whatsoever shall be payable to the contractor for the test.**

29. Any cement slurry added over base surface for the continuation of concreting for better bond is deemed to have been included in the items and **nothing extra shall be payable on this account, also the cement consumed on this account shall not be considered in theoretical consumption.**
30. For RCC work, only factory made round type cover block shall be used.
31. The contractor shall bear all incidental charges for cartage, storage and safe custody of materials bought to site.
32. The work 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 and satisfy himself that the information available there from is complete and unambiguous.
33. 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 occurring by the commencement of the work on the basis of any erroneous and or incomplete information.
34. Other agencies will also simultaneously execute and install the works of internal electrical installations, sub- station / generating sets, air- conditioning, lifts, etc. for the work and the contractor shall afford necessary facilities for the same. The contractor shall leave such recesses, holes, openings trenches etc. as may be required for such related works (for which inserts, sleeves, brackets, conduits, base plates, clamps etc. Shall be supplied free of cost by the department unless otherwise specifically mentioned) and the contractor shall fix the same at the time of casting of concrete, stone work and brick work, if required, and **nothing extra shall be payable on this account.**
35. All materials obtained from Govt. stores or otherwise shall be got checked by the Engineer-In-Charge or his any authorized supervisory staff on receipt of the same at site before use.
36. All material shall only be brought at site as per programme finalized with the Engineer-In-Charge. Any pre-delivery of the material not required for immediate consumption shall not be accepted and thus not paid for.
37. The architectural drawings given in the tender other than those indicated in nomenclature of the items are only indicative of the nature of the work and materials / fixtures involved unless otherwise specifically mentioned. However, the work shall be executed in accordance with the drawings duly approved by the Engineer-In –Charge. Architectural drawings are available in the office of Engineer-In-Charge and can be seen.
38. Normally contractors shall not be allowed to work at night. Work at night shall, however, be allowed if the site conditions / circumstances at night, **no claim on this account shall be entertained. In such situations the contractor shall make available to the department proper means of transport such as vehicle at his own cost.**
39. Existing drains, cables, pipes, over-head wires, sewer lines and similar services encountered in the course of execution of work shall be protected against the damage by the contractor's 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. In no case such services should be stopped to the existing buildings.
40. The contractor shall be responsible for the watch and ward/ guard of the buildings, safety of all fitting 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 department. **No extra payment shall be made on this account.**
41. The day to day receipt and issue accounts of different / brands of cement shall be maintained separately in the standard Performa by the Engineering department and which shall be duly signed by the contractor or his authorized representative.
42. The contractor shall be fully responsible for the safe custody of materials brought by him issued to even though the materials are under double lock key system.

43. The contractor shall procure the required materials in advance so that there is sufficient time for testing of the materials and clearance of the same before use in the work. Any predelivery of the materials not required for immediate consumption shall not be resorted to. The contractor shall provide at his own cost suitable weighing and measuring arrangements at site for checking the weight / dimensions as may be necessary for execution of work.
44. No payment shall be made to the contractor for any damage caused by rain, floods, earthquake or any other natural causes whatsoever during execution of work. The contractor at his own cost will make the damages to the work good and no claim on this account shall be entertained.
45. For construction works which are likely to generate malba / rubbish to the tune of more than a truck load, contractor shall dispose of malba, rubbish & other unserviceable materials and **wastes at his own cost** to the notified specified dumping ground and under no circumstances these shall be stacked / dumped even temporarily, outside the construction premises.
46. Any damage done by the contractor to any existing work or work being executed by other agencies shall be made good by him at his own cost.
47. On the account of security consideration, there would be some restrictions, on the working hours, movement of vehicle for transportation of material and location of labour camp. The contractor shall be bound to follow all such restrictions and adjust the programme for execution of work.
48. The contractor shall also be required to follow the rules & restrictions imposed on working / movement/ stacking of materials by the local competent authority at all times. Nothing extra shall be payable on this account.
49. In case, there is any discrepancy between English version and corresponding Hindi version, if provided, then the provisions in English version will prevail.
50. The contractor will have to work as per schedule given by the Engineer-In-Charge.
51. The contractor shall remove all splashes from doors, windows and floors etc. if the contractor fails to remove the same 10% of gross value of the bills would be kept in deposit from each bill simultaneously.
52. The contractor submits the authenticated copies of itemized bills of the material which has to be entered in the M.A.S. Register viz steel, Cement, Bitumen, Paint water proofing material or any other item suggested by the technical sanction authority before settling payment.
53. The contractor shall pump the concrete wherever necessary to expedite the progress of work. **Nothing extra shall be paid on this account.**
54. Sample of building material, fitting and other articles required for execution of work shall be got approved from the Engineer-In-Charge before use in the work. The quantity of samples brought by the contractor shall be judge by standards laid down in the relevant BIS specification.
55. All material and fittings brought by the contractor to the site for use shall conform to the samples approved by the Engineer-In-Charge which shall be preserve till the completion of work. If a particular brand of material is specified in the item of work in schedule of quantity, the same shall be used after getting the same approved from Engineer-In-Charge. Wherever brand/quality of material is not specified in the items of work, the contractor shall submit the samples as per suggestive list of brand name given in the tender document /particular specifications for approval of Engineer-In-Charge. For all other items, materials and fitting carrying BIS mark shall be used with approval of Engineer-In-Charge. Wherever BIS marked material / fittings are not available, the contractor shall submit samples of material/fittings manufactured by firm of repute conforming to relevant specification or IS codes and use the same only after getting the approval of Engineer-In-Charge. To avoid delay, contractor should submit samples as stated above well in advance so as to give timely order for procurement. If any material, even though approved by Engineer-In-Charge is found defective or not conforming to specifications shall be replaced/removed by the contractor at his own risk and

cost.

56. The contractor shall ensure quality construction in a planned and time in bound manner. Any sub-standard material/work beyond set-out tolerance limit shall be summarily rejected by the Engineer-In-Charge & contractor shall be bound to replace/ remove such sub-standard/defective work immediately.
57. BIS marked items (except cement and steel) required on the work shall be got tested. Only important tests shall be carried out. The frequency of such tests shall be 25% of the frequency specified in the CPWD specifications 2009 Vol. I to II with up to date correction slips. For certain items, if the frequency of test is not mentioned in CPWD specifications then relevant IS code shall be followed and tests shall be carried out @25% of frequency specified therein.
58. BIS marked materials except otherwise specified shall be subjected to quality test besides testing of other materials as per the specifications described for the item/material. Wherever BIS marked materials are brought to the site of work, the contractor shall furnish manufacturer's 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.
59. Sample for testing –The contractor shall provide samples of materials required for testing free of charge. The cost of test shall be borne by the contractor / department in the manner indicate below: -
 - a. By the contractor, if the results show that the material does not conform to relevant specifications.
 - b. By the department, if the result show that the material conforms to relevant specifications. **All other expenditure required to be incurred for talking samples, conveyance, packing etc. shall be borne by the contractor himself.**
60. However, if any load testing or special testing is to be done for concrete whose strength is doubtful, the cost of the same shall be borne by the contractor.
61. All necessary tests as per the NIT/CPWD specifications/ relevant BIS codes shall be carried out on all the materials whether ISI marked or otherwise. Wherever NIT/CPWD specifications/relevant BIS Codes do not specify the frequency of tests, the same shall be carried out as per the directions of the engineer –in-charge. Nothing extra whatsoever shall be payable on this account.
62. The contractor shall ensure quality control measures on different aspects of construction methodologies to be adopted.
63. Lists of approved makes and brand of materials for civil works and sanitary works are annexed hereto. Makes and brands of materials specified therein shall only be used on the work. The contractor shall submit brand/ make of various materials to be used for the approval of Engineer-In-Charge along with samples.
64. All material shall be brought as per programme finalized with the Engineer-In-Charge. Any pre delivery of the material, not required for immediate consumption shall not be accepted and thus not paid for.
65. Samples including brand/quality of materials and fitting to be used in the work 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.
66. The rates for all items of work shall, unless clearly specified otherwise, include cost of all labor, material, tools, and plants and other inputs involved in the execution of the items and **nothing extra shall be payable on this account.**
67. The contractor 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 tender document unless specially specified otherwise.
68. Unless otherwise specified in the schedule of quantities, the rates for all items, shall be considered as inclusive of pumping / bailing out water wherever necessary for which **no extra**

payment shall be made.

69. The rate for all items, in which the use of cement is involved is inclusive of charges for curing.
70. The foundation trenches shall be kept free from water work below ground level are in progress.
71. The contractor shall indemnify the Govt. against any claims or obligation rising out of any damage to adjacent property, structure or to building work done by him.
72. In case service are encountered during excavation /earth work and such services are required to be shifted, the contractor is bound to carry out the shifting operation as per guidance/ instructions and with the approval of the Engineer-In-Charge. However, necessary payments shall be made in this regard as per provision of the agreement.
73. Many other agencies would be executing work simultaneously at site. The contractor shall maintain proper co-ordination with other agencies in maintaining progress of work. In case of any dispute, the decision of the Engineer-In-Charge shall be final and binding.
74. LABOUR CESS @ 1% OF THE GROSS VALUE OF THE WORK DONE WIL BE DEDUCTED FROM EACH RUNNING & FINAL BIL AS PER GOVT. NOTIFICATION.
75. **RECOVERY FOR WATER @ 1% OF THE GROSS VALUE OF WORK DONE SHALL BE MADE FROM THE BILL.**
76. **THE CONTRACTOR COMPLIES WITH THE INSTRUCTIOB CONTAINED TO DPCC OREDER FOLLOWS :-**
 - A. The dismantle material /building rubbish received from dismantling/demolishing shall be dumped to the dumping ground in properly covered truck with precaution.
77. The agency has to deposit 50% of paint material before the start of work at site calculated as per theoretical consumption calculated.

78. **CONDITION FOR CEMENT: -**

1. The Contractor shall procure 43 grade Ordinary Portland cement (conforming to IS : 8112) or Portland slag cement (conforming to IS : 455) or Portland Pozzolana Cement (PPC) (Fly ash based) – conforming to IS : 1489 (Part-I) as required in the work, from reputed manufactures of cement such as ACC, Ultratech, Vikram, Shree Cement, Ambuja, Jaypee Cement, Century Cement & J.K. Cement or from any other reputed cement Manufacturer having a production capacity not less than one million tons per annum.
The tenderers may also submit a list of names of cement manufacturers which they propose to use in the work. The tender accepting authority reserves right to accept or reject name(s) of cement manufacture(s) which the contractor proposes to use in the work. No change in the tendered rates will be accepted if the tender accepting authority does not accept the list of cement manufactures, given by the tenderer, fully or partially.
Supply of cement shall be taken in 50 Kg bags bearing manufacture's name, batch No. & ISI marking. Samples of cement arranged by the contractor shall be taken by the Engineer-in-charge and got issue in accordance with provisions of relevant BIS codes. In case test results indicate that the cement arranged by the Contractor does not conform to the relevant BIS codes, 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.
If Portland Pozzolana cement or Portland slag cement is used, suitable modification in deshuttering time etc. shall be done if need be as per specifications and standards and as directed by Engineer – in – charge and nothing extra shall be payable on this account.
No extra payment / deduction shall be made from the payment to the contractor for using any of the above type of cement.
2. The cement shall be brought at site in bulk supply or as decided by the Engineer - in - charge.
3. The cement shall be got tested by Engineer –in –charge and shall be used on the work only

after satisfactory test results have been received. The contractor shall supply free of charge the cement required for testing including its transportation cost to testing laboratories. The cost of tests shall be borne by the contractor.

4. The actual issue and consumption of cement on work shall be regulated and proper accounts maintained. The theoretical consumption of cement shall be worked out as per procedure prescribed by CPWD. However, for consumption lesser beyond permissible theoretical variation recovery shall be made in accordance with clause 8 of contract, without prejudice to action for acceptance of work/item at reduced rate or rejection as the case may be. In case of excess consumption, no adjustment shall be made.
 - a. Cement brought to site and cement remaining unused after completion of work shall not be removed from site without return permission of the Engineer-in-charge.
 - b. Damaged cement shall be removed from the site immediately by the contractor on receipt of notice in written. In case if he does not do within three days or receipt of same notice, the Engineer-in-charge shall get removed at the site of the contractor.
 - c. 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.

79. **CONDITIONS FOR REINFORCEMENT STEEL: -**

1. The contractor shall procure TMT bars of Fe 500D grade from primary producers such as SAIL, Tata Steel Ltd., RINL, Jindal Steel & Power Ltd. and JSW Steel Ltd. or any other producer as approved by CPWD who are using iron ore as the basic raw material / input and having crude steel capacity of 2.0 Million tonnes per annum and above.
In case of non-availability of steel from primary producers, use of TMT reinforcement bars procured from secondary producers will be allowed subject to fulfillment of following conditions:
 - a. The grade of the steel such as Fe-Fe 500D or other grade to be procured is to be specified as per BIS: 1786 - 2008.
 - b. The TMT bars procured from primary producers and ISPs shall conform to manufacture's specifications.
 - c. Samples shall also be taken and got tested by the Engineer-in-Charge as per the provisions in this regard in 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 (c) & (d) 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 or written orders from the Engineer-in-Charge to do so.
 - d. The steel reinforcement bars shall be brought at site in bulk supply of 25 tonnes or more as decided by the Engineer in charge.
 - e. The steel reinforcement bars shall be stored by the contractor at site of work in such a way as to prevent distortion and 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.
 - f. For checking nominal mass tensile strength bend test re-bend test etc. specimen of

sufficient length shall be cut from each size of the bar at random at frequency not less than that specified below:

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

- a. 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 (like IIT Roorkee /CBRI).
 - b. All other charges of sampling, packing and transportation of sample shall also be borne by the Contractor.
 - c. The actual issue and consumption of steel on work shall be regulated and proper accounts should be maintained. The theoretical consumption of steel shall be worked out as per procedure prescribed. 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.
2. Steel brought to site and remaining unused shall not be removed from site without the written permission of Engineer-in-Charge.
- 2.1 Reinforcement including authorized spacer bars and lap pages shall be measured in length for different diameters as actually (not more than as specified in the drawings) used in the work nearest to a centimeter. Wastage and unauthorized overlaps shall not be measured.
 - 2.2 Record of actual sectional weights shall also be kept dia wise and 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.
 - a. If the derived weight as in sub-para (iii) above is less than the standard weight as in sub-para (ii) above, then the Derived Actual Weight shall be taken for payment.
 - b. If the derived actual weight is found more than the standard weight, than standard weight as worked out in sub para (ii) above shall be taken for payment. Nothing shall be paid extra for the difference in Derived/ Actual Weight and standard weight.
 - c. The contractor has to obtain vouchers and furnish test certificate to the Engineer-in-charge in respect of all the lots of Steel brought by him from approved suppliers at the site of work. very care should be taken to avoid mixing different types of grades of bars in the same structural members as main reinforcement to satisfy relevant clause of IS: 456. In case of buildings, wherever the situation necessitates, the changeover shall be permitted only from any one level onwards. In case of foundations, all foundation elements (footings and grade

beams) shall have the same kind of steel. In the case of columns, all structural elements up to the level of change, where the changeover is taking place should have the same kind of steel as those in columns.

3. The reinforcing steel brought to site of work shall be stored on brick / timber platform of 30/40 cm height, nothing extra shall be paid on this account.

81. SAFETY MEASURES AT CONSTRUCTION SITE

In order to ensure safe construction, following shall be adhered for strict compliance at the site:-

- a. The work site shall be properly barricaded.
- b. Adequate signage's indicating 'Work in Progress – Inconvenience caused is Regretted' or Diversion Signs shall be put on the sites conspicuously visible to the public even during night hours. These are extremely essential where works are carried out at public places in use by the public.
- c. The construction malba at site shall be regularly removed on daily basis.
- d. All field officials and the workers must be provided with safety helmets, safety shoes and safety belts.
- e. Proper MS pipe scaffoldings with work – platforms and easy-access ladders shall be provided at site to avoid accidents.

Necessary First-Aid kit shall be available at the site.

The above provisions shall be followed in addition to the provisions of General Condition of Contract.

PARTICULAR SPECIFICATIONS

EARTH WORK

1. The work shall be done in accordance with CPWD Specifications - 2021 - Vol.I& Vol. II with upto date correction slips.
2. All the major excavation shall be carried out by mechanical excavator. No extra payment shall be made for that.
3. Any trenching and digging for laying sewer lines/water lines/cables etc. shall be commenced by the contractor 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.
4. The Jungle clearance and clearance of grass are not payable separately for any type of Earth Work in excavation and Preparation of sub-grade.

CONCRETE WORK

1. The work shall be done in accordance with CPWD Specifications - 2021 - Vol.I& Vol. II with upto date correction slips.

RCC/CC WORK (DESIGN MIX CONCRETE)

1. The work shall be done in accordance with CPWD Specifications - 2019 - Vol.I& Vol. II with upto date correction slips.
2. The contractor shall engage one of the IIT/NIT/Reputed Govt. Engineering Institutions/Approved Laboratories as directed by the Engineer-in-charge at his own expenses for designing the concrete mix in accordance with relevant IS Codes and to conduct laboratory test to ensure the target strength and workability criteria for a given grade of concrete.
3. 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.
4. All cost of mix designing and testing connected therewith including charges payable to the laboratory shall be borne by the Contractor including redesigning of the concrete mix wherever required and directed by Engineer-in-Charge.
5. APPROVAL OF DESIGN MIX:

The mix design for a specified grade of concrete shall be done for a target mean compressive strength

$$T_{ck} = F_{ck} + 1.65s$$

Where, F_{ck} =Characteristic compressive strength at 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 follows:

GRADE OF CONCRETE	STANDARD DEVIATION(S)
M-25	4.0
M-30	5.0
M-35	5.0
M-40	5.0

- a. The average strength of each test sets is not less than the specified target meancompressive strength (T_{ck}).
- b. The strength of any specimen cube is not less than 0.85 T_{ck} .
- c. The concrete mix is required degree of workability and acceptance concrete finish.
6. All cost of mix designing and testing connected therewith including charges payable to the laboratory shall be borne by the Contractor.
7. WORK STRENGTH TEST:
 - a. TEST SPECIMEN:

Work strength test shall be conducted in accordance with IS:516 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.

b. TEST RESULTS OF SAMPLES:

The test results of the sample shall be the average of the strength of three specimen. The individual variation shall not be more than + 15% percent of the average. If variation is more, the test results shall be treated as invalid. 90% of the total tests shall be done at the laboratory established at site by the contractor and remaining 10% in the laboratory of IIT/NIT 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 in accordance with 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 Plus one additional sample for each additional 50 cubic meters of part thereof

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

8. STANDARD OF ACCEPTANCE:

- i. The concrete shall be accepted if both the following condition are met.
 - a. Any individual test result is not less than $(F_{ck} - 3) \text{ N/mm}^2$.
 - b. The mean of test results from any group of four consecutive samples is more than $(F_{ck} + 3) \text{ N/mm}^2$.
 - c. **Note:-** For concrete of quantity up to 30 cum (where the number of samples to be taken is less than four as per frequency of sampling given in clause 5.11.5(d) CPWD Specification-2019 Vol-I, the mean of test results of all such samples shall be $f_{ck} + 4 \text{ N/mm}^2$, minimum.
 - ii. Concrete of each grade shall be assessed separately.
 - iii. 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.
9. Nothing extra shall be paid for the centering and shuttering, circular in shape whenever the form work is having a mean radius exceeding 6m in plan.
 10. 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.
 11. As per general engineering practice, level of floors in toilet / bath, balconies, shall be kept 25 mm as required lower than general floors shuttering should be adjusted accordingly and slabs should be laid with slope towards the drainage point. Nothing extra is payable on this account.

12. LAND FOR TEMPORARY USE

The land for labour camps & batching Plant shall be arranged by the contractor. The lease/rent charges shall be borne by the contractor. The Engineer-in-Charge shall extend necessary help and issue necessary recommendations etc. to the concerned clients / department for temporary allotment of land during construction period if land is available with them. In such cases, the contractor shall vacate the land after completion of work in same condition as was at the time of allotment.

SHUTTERING / FORM WORK

1. The work shall be done in accordance with CPWD Specifications - 2019 Vol. I & Vol. II with upto date correction slips.
2. Steel shuttering as approved by the Engineer-in-Charge shall be used by the contractor. Minimum size of shuttering plates shall be 600mm x 900mm except for the case when closing pieces required to complete the shuttering panels. Dented, broken, cracked, twisted or rusted shuttering plates

shall not be allowed to be used on the work.

3. The shuttering plates shall be cleaned properly with electrically driven sanders to remove any cement slurry or cement mortar or rust. Proper shuttering oil or debonding compound shall be applied on the surface of the shutter plates in the requisite quantity before assembly of steel reinforcement.
4. The joint filler shall be resilient closed cell expanded polyethene and non-tainting as per manufacturer specification and direction of Engineer-in-Charge.
5. Providing joint filler of required thickness in position to substrate using either double sided foam adhesive tape or neoprene synthetic rubber adhesive. When forming expansion joint with the Board in in-situ concrete, joint sealing slots can be readily formed in the following matter-
 - a. Before installing, simply cut off a strip of the required depth. Then install the filler flush with the finished surface.
 - b. Prior to sealing, the top strip can then be pulled easily from the joint to provide an uncontaminated sealing slot ready for preparation and sealing.

REINFORCEMENT

1. The reinforcement shall be done as per CPWD Specifications - 2019 - Vol.I& Vol. II with upto date correction slips.
2. The item of reinforcement of RCC work includes all operations including straightening, cutting, bending, welding, binding with annealed steel or welding and placing in position at all the floors with all leads and lift complete as per CPWD Specification - 2019 - Vol.I& Vol. II with upto date correction slips.
3. To avoid displacement of bars in any direction and to ensure proper cover, only factory made round type/rectangular cover blocks shall be used by the contractor. Nothing extra shall be payable on this account.

BRICK WORK

1. Unless otherwise specified FPS Bricks shall be used in all items of brick work. The classification of bricks brought by the contractor shall strictly conform to CPWD Specifications – 2019 Vol-1 & II with upto date correction slips or as specified. The work shall also include for leaving chases/notches for dowels/cramps for all kinds of cladding to come over brick work.

STONE / MARBLE /GRANITE WORK (OTHER THAN MASONARY)

1. The execution of stones work shall be in general as per CPWD Specifications - 2019 - Vol.I& Vol. II with upto date correction slips.
2. All holes, rebates, recesses etc. for providing fixing and inserts shall be predrilled and precut and worked using precision machine tools. Nothing extra on this account shall be payable.
3. **SAMPLES FOR STONE WORK:** Samples of each item of stone work either individually or in combination shall be prepared for approval of Engineer-in-Charge before commencement of work.
4. Sequence of execution for cladding work shall be suggested by the contractor for approval of Engineer-in-Charge.

SCAFFOLDING

1. Double steel scaffolding having two sets of vertical supports shall be provided. The supports shall be sound and strong, tied together with horizontal pieces over which scaffolding planks shall be fixed.

WOOD WORK

1. The wood work in general shall be carried out as per CPWD Specifications - 2019 Vol.I& II with upto date correction slips.
2. The samples of species of timber to be used shall be got approved and deposited by the contractor with the EE before commencement of the work. The contractor shall produce cash vouchers and certificates from kiln seasoning or/and chemical treatment plants about the timber section to be used on the work having been kiln seasoned or/and chemically treated by them.
3. Factory made shutter as specified shall be obtained from factories approved by the Engineer in

charge. The contractor shall inform well in advance to the Engineer-in-charge the names and address of the factory from where the contractor intends to get the shutters manufactured. The contractor will place order for manufacture of shutters only after written approval of the Engineer-in-charge in this regard is given. The contractor is bound to abide by the decision of the Engineer-in-charge and recommend a name of another factory from the approved list in case the factory already proposed by the contractor is not found competent to manufacture quality shutters. Shutters will however be accepted only if this meet the specified tests. The contractor will also arrange stage wise inspection of the shutters at factory to the Engineer-in-charge or his authorized representative. Contractor will have no claim if the shutters brought at site are rejected by Engineer-in-charge in part or in full lot due to bad workmanship / quality even after inspection of factory. Such shutters will not be measured and paid and the contractor shall remove the same from the site of work within 7 days after the written instruction in this regard are issued by Engineer in Charge or his authorized representative.

4. All fittings and fixtures shall be got approved from the Engineer-in Charge before procurement well in advance and the approved samples shall be kept at site till completion of the work.
5. Glazing for toilets shall be of translucent type.
6. The shape and size of beading shall be as per drawings. The joints of beading shall be mitred.

STEEL WORK

1. Work shall be carried out as per CPWD Specifications - 2019 - Vol.I& Vol. II with upto date correction slips.
2. The rate of T- angle iron frame shall include the following.
 - a. M.S. sill/tie of 10 mm dia bar welded to T-iron frames to keep the frames vertical in correct position. The sill / tie shall be embedded in floor concrete. No tie is necessary for window frames.
 - b. Each T – iron frame for doors shall have 4 Nos. M.S. lugs 15x3mm, 10 cm long welded to each vertical member of the frame.
 - c. M.S. flat 6 x 25mm, 100 mm long having threaded holes (No. of flats shall correspond to the no. of butt hinges to be fixed to door / window shutters) shall be welded at appropriate places at the back of the T-iron frames for fixing the required butt hinges to the frame with machine screws.
3. All welded structural steel work shall be tested for quality of weld as laid down in IS:822-1970 before actual erection if required.

FLOORING

1. All work in general shall be carried out as per CPWD Specifications- 2019 - Vol.I& Vol. II with upto date correction slips.
2. Whenever flooring is to be done in patterns tiles/ stone, the contractor shall get samples of each pattern laid and approved by the Engineer-in-Charge before final laying of such flooring for which nothing extra shall be paid.
3. Different stones/ tiles used in pattern flooring as per the approved architectural drawings and nothing extra for laying pattern flooring shall be paid. No additional wastage if any shall be accounted for any extra payment.
4. The proper gradient shall be given to flooring for toilets, varandah, kitchen, court yard, etc. as per the directions of Engineer-in-Charge. For this there may be extra thickness of dry mortar below the tiles/stone slabs. These gradients should be insured in the shuttering itself. Nothing extra shall be paid for this as this is included in the tendered cost.
5. The rate of items of flooring is inclusive of providing sunken flooring in bathrooms, kitchen etc. and nothing extra on this account is admissible. The samples of flooring, dado & skirting as per approved pattern shall be prepared & got approved from the Engineer-in-charge before execution of work.
6. Ceramic Tiles/Vitrified Tiles Work/ Granite stone flooring
 - a. Work shall be carried out as per CPWD Specifications- 2019 Vol I & II with up to date correction slips and as per manufactures specifications.
 - b. Rates shall be inclusive of all operations including labour, material, T&P, scaffolding etc. complete. Nothing extra shall be payable on any account.
 - c. One-piece Granite stone for treads / risers in staircase shall be used and nothing extra shall be paid on this account.

STAINLESS STEEL RAILING/HANDRAILS:

1. **GENERAL:** The contractor shall apply all materials, labour, tools, ladders, scaffolding and other equipment necessary for the completion and protection of all stainless-steel work.
2. **MATERIAL:** All stainless-steel pipes and plates shall conform to AISI 316 grade and the relevant clauses associated with this grade of steel to be followed.
3. **SURFACE FINISH:** Surface finish of all the stainless-steel materials will be in 240 grit satin finish / matt finish.
4. **ACCESSORIES:** Fixing will be done by stainless steel expansion bolts of approved size and make as per Engineer-in-charge and welding to be done by using organ welding rods and the surface being duly finished and cleaned by K2 passivation, which is nitric acid plus fluoric acid solution treatment by which the chances of corrosion will be eliminated and any burn out makes on the metal will also be eliminated.
5. **COATING MASS:** All stainless-steel material will have to be coated by a solution of Inox to avoid finger in prints and avoidance of settlement of environment / atmospheric dust.

WATER PROOFING TREATMENT

1. Work shall be executed as per CPWD Specifications, 2019 Vol I & II with upto date correction slips.
2. The contractor 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.
3. The finished surface after water proofing treatment for roof slab shall have smooth slope with minimum gradient of 1 in 80.
4. Before commencement of treatment on roof surface, it shall be ensured that the outlet drain pipes/ spouts have been fixed and the spout opening have been eased and rounded off properly for easy flow of water.
5. The surface where the water proofing is to be done shall be thoroughly cleaned with wire brushes. All loose scales mortar splashes etc. shall be removed and dusted off. The surface shall be treated with neat cement slurry admixed with proprietary water proof compound to penetrate into crevices and fill up all the pores in the surface.
6. Curing of water proofing treatment shall be done for a minimum period of two weeks by flooding the water by making compartments etc.
7. **GUARANTEE:**
 - a. The work shall carry **Ten Years guarantee** to be reckoned from the date of completion of the entire work under the contract against faulty workmanship, finishing, unsound materials, efficiency of water proofing treatment and other related problems.
 - b. **Ten Years Guarantee bond** in prescribed Performa attached herewith as **Annexure-I** shall be submitted by the contractor which shall also be signed by both the specialized agency and the contractor to meet their liability / liabilities under the guarantee bond. However, the sole responsibility about efficiency of water proofing treatment shall rest with the main contractor. **10% (Tenpercent) of the tender amount of whole work** shall be retained as security deposit and the amount so withheld would be released after ten years from the date of completion of the entire work under the contract, if the performance of the work done is found satisfactory. If any defect is noticed during the guarantee period, it shall be rectified by the contractor within seven days of receipt of intimation of defects in the work. If the defects pointed out are not attended to within the specified period, the same will be got done from another agency at the risk and cost of contractor.
 - c. However, the security deposit deducted may be released in full against bank guarantee of equivalent amount in favour of Engineer in charge, if so decided by the Engineer in charge.
 - d. The Security deposit against this item of work shall be in addition to the security deposit mentioned elsewhere in contract form.

FINISHING:

1. The work shall be carried out as per CPWD Specifications- 2019 Vol.-I & Vol. II with upto date correction slips.
2. All painting material shall be brought to the site of work in the original sealed containers. The material brought to the site of work shall be sufficient for at least 30 days of work. The material shall be kept under the joint custody of contractor and representative of the Engineer-in-Charge. The empty contains shall not be removed from the site till the completion of the work without permission of the Engineer-in-Charge.

SANITARY INSTALLATIONS, WATER SUPPLY AND DRAINAGE

1. The scope of work comprises supply, laying, installation, commissioning and testing of water supply, sewerage and drainage works including sanitary fixtures and fittings. These works shall be executed as per the specifications of items attached and CPWD specifications- 2019 Vol. I & II with up-to-date correction slips up to the date of tender submission.
2. The work of water supply and sanitary installations shall be got executed by the agency as approved by Engineer-in-Charge.
 - a. 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.
 - b. The entire responsibility for the quality of work will however rest with the building contractor only.
3. 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 contractor shall produce necessary completion certificates from such authority after completion of work.
4. 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 CPWD specifications are not available.
5. The contractor 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.
6. All sanitary wares and fittings shall conform to IS standards and to be procured from approved makes. The contractor shall submit samples of all fittings and fixtures proposed to be used to the Engineer-in-charge for his approval. The approved samples shall remain with the Engineer-in-charge till the completion of the work.
7. All fixtures and accessories shall be fixed in accordance with a set pattern matching the tiles or interior finish as per architectural requirements. Wherever necessary the fittings centered to dimensions and pattern desired.
8. The rates shall include the cost of cutting chases, holes in walls, floors, RCC slabs etc. Wherever required and making good the same for which nothing extra shall be paid. The work in general shall be carried out as per CPWD specifications.
9. Rate includes all materials, labour and all the operations mentioned in the respective items unless and otherwise specifically mentioned.
10. The CI 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.
11. All the works shall be completely concealed either within shafts or chases or in fills and dropped ceilings, unless specifically shown in drawings or required otherwise.
12. All the works shall be adequate protected against corrosion, so that the whole work is free from damage throughout.
13. The contractor 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.
14. 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.
15. 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.

16. Before the work is handed over, the contractor shall clean all fixtures removing all plaster, stickers, rust stains and other foreign matter, leaving every part in acceptable condition and ready for use to the satisfaction of the Engineer-in-charge.
17. 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.
18. Superior quality CP Brass fittings/fixtures shall be provided.
19. INSPECTION AND TESTING

Inspection and testing of water supply sewerage and drainage installations shall be carried out as per CPWD Specification & National Building Code 2016 with up to date amendments.

LIST OF SPECIALISED ITEMS

List of Specialized Items has been provided in **Annexure-6** of Standard Operating Procedures (SOP) for CPWD Work Manual -2019.

PROCEDURE FOR EXECUTION OF THE SPECIALIZED ITEMS:

Specialized items shall be got executed only through associated agencies specialized in these fields. The contractor shall indicate the name(s) of his associated specialized agencies those fulfilling the eligibility conditions as early as possible and within 10 days of award of work to Engineer-in-Charge for approval.

The contractors shall quote the rates after careful study of contract conditions, specifications, drawings & schedule of quantities.

It shall be the responsibility of main contractor to sort out any dispute / litigation with the Specialized Agencies without any time & cost overrun to the Department. The main contractor shall be solely responsible for settling any dispute / litigation arising out of his agreement with the Specialized Agencies. The contractor shall ensure that the work shall not suffer on account of litigation/ dispute between him and the specialized agencies / sub-contractor(s). No claim of hindrance in the work shall be entertained from the Contractor on this account. No extension of time shall be granted and no claim whatsoever, of any kind, shall be entertained from the Contractor on account of delay attributable to the selection/rejection of the Specialized Agencies.

For specialized items, the main contractor cannot work as a specialized agency unless his name is already included in the list of approved specialized agencies for these items. The contractor shall get these items executed through the specialized agencies as approved by Engineer in Charge.

ELIGIBILITY CONDITIONS FOR APPROVAL OF SPECIALIZED AGENCIES:

The Contractor(s) shall submit his proposal for the approval of the Engineer-in-Charge, the names of specialized agencies of repute along with their technical capability /experience proposed to be engaged by him. The agency must be currently actively engaged in execution of the said specialized item and must have who have satisfactorily executed similar work during last 7 (Seven) years as below:

- a. Three works each of value not less than 40% of corresponding cost of the specialized items.
- or
- b. Two works each of value not less than 60% of corresponding cost of the specialized items.
- or
- c. One work of value not less than 80% of corresponding cost of the specialized items.

For calculation purpose only, cost of the specialized item as per accepted tendered value of the all the items corresponding to the specialized item under consideration.

For ascertaining the above criteria, contractor shall provide certified copy of Income tax TDS certificates for payments made, work order copy, completion certificate, performance certificate against each completed similar work for verification by Engineer in charge. In case required and directed by Engineer in charge, contractor shall get such similar completed work inspected by Engineer in charge and contractor shall extend all necessary help for same at no extra cost to the department. Decision as to approve or reject the proposed specialized agency based on the inspection of the completed work shall be final and binding on the contractor and no claim, whatsoever, shall be admissible on this account and the contractor shall be required to propose another specialized agency as per the required eligibility criteria.

LIST OF ACCEPTABLE MAKES OF MATERIALS

Acceptable makes of materials to be used in the work are as given in the table below. In case of non-availability of these makes, the Engineer-in-charge may allow use of alternative makes. Only BIS marked materials shall be used in the work. Non-BIS marked materials may be permitted by the Engineer-in-charge only when BIS marked materials are not manufactured.

(A) LIST OF ACCEPTABLE MAKES OF MATERIALS FOR CIVIL WORKS

S. No.	Materials	Name of Manufacturers
1.	(i) Ordinary Portland Cement/Portland Pozzolana Cement.	A.C.C., Ultratech, Ambuja Cement, J.K. Cement, Century Cement, Shree Cement, Jaypee Cement, Vikram Cement, CCI.
	(ii) White Cement	Birla White, J.K. White.
2.	Reinforcement Steel	SAIL, Tata Steel, Rashtriyaspat Nigam Ltd (RINL), JSW Steel Ltd., Jindal Steel Power Ltd. (JSPL).
3.	Water Proofing compounds, Admixtures, Plasticizer, Super Plasticizer, Curing Compounds	Fosroc, ROFF/Dr. Fixit (Pidilite Industries), CICO, Sika BASF, ArdexEndura (BalEndura)
4.	Integral water proofing compound with cement (For Plaster & Mortar)	Fosroc: Conplast 421 Dr. Fixit : LW+ Sika: Sikacin Asian Paints: Smart care Vitalia & equivalent product of BASF, CICO, ArdexEndura.
5. a)	a) Water proofing for bathroom/toilet/ balcony & other wet areas	Fosroc: Brush Bond Dr. Fixit : Pidifine 2 K Sika: Nito Bond Asian Paints: Damp Block 2 K & equivalent product of BASF, CICO: (Tapecrete), ArdexEndura.
b)	TWO-PART POLYSULPHIDE SEALANT (Gun Grade), Epoxy Repair Mortar, Epoxy Bonding Adhesive, Micro concrete, Primer for Polysulphide sealant.	Fosroc, Dr. Fixit, Sika, BASF, MAPEI.

6.	Crystalline water proofing compound	Fosroc: Fosroco Crystalline Dr. Fixit: Dr. Fixit Crystalline Sika: Sika Crystalline Asian Paints: Crystalline Quart & equivalent product of BASF, CICO, Ardex Endura, Pentron.
7.	Grouts, Tile Adhesive	Latecrete, #Kerokoal, #BASF, #Ardex Endura, Ferrous Crete.
8.	Structural steel	SAIL, Tata Steel, Rashtiryalspat Nigan Ltd (RINL), JSW Steel Ltd., Jindal Steel & Power Ltd.
9.	Polycarbonate Sheet	GE Plastic, LEXAN, MG Polyplast.
10.	Profile Steel Sheet (Precoated)	Ezydeck of TATA, Lloyd Superdesk, JSW/Jindal
11.	Particle Board	Merino, Kit ply, Action TESA, Greenlam
12.	Laminated Particle Board/Laminates	Action TESA, Greenlam, Century Ply, Merino, Sunmica, Kit ply
13.	Flush door Shutters	Duro Century, Durian, Green Ply, Archidply, Jain Wood Industries, Kit ply. Note: Only ISI marked flush door to be used.
14.	Fire Rated Doors	Signum fire protection, Shakti Metdoor, NAVAIR, Sukri, Promat International, Bhawani Fire.
15.	False Ceiling system	Armstrong, Hunter Douglas, USG Boral, Saint Gobain, Aerolite, Durlum, Interarch.
16.	Plywood/ Veneer	Green Ply, Century, Merino, Duro, Durian.
17.	Melamine Polish	Asian Paints Melamine Gold,

		Wudfin ofPidililte, Timbertone of ICI Dulux.
18.	Floor Spring & Door Closure	Geze,Dorma, Doorset, Kich.
19.	(a) Aluminium section	Hindalco, Jindal, Indian Aluminium Co.
	(b) AnodisedAluminiumHardware (Heavy Duty)	Kilong, Alualpha, Ebco, Classic.
	(c) Clear/ Float/ Frosted/ Refractive/ Coated Glass	Saint Gobain, AIS, Modiguard, Ashai Float.
20.	Stainless Steel Railing, Accessories etc.	JINDAL, Dorma, Kich, GEZE, Hardwyn.
21.	S.S. Door & window Fittings	JINDAL, Dorma, Kich, Doorset, Geze.
22.	Silicon Based water repellent/weather sealant	G.E. Plastics, Dow Corning, Wacker, BASF, Pidilite (Dr. Fixit/Roff)
23.	Poly-Sulphide Sealant	Fosroc, Pidilite (Dr. Fixit/roff), Sika, BASF.
24.	Mosaic Tiles/ Chequered Tiles	Ultra Tiles, NITCO, NTC tile
25.	Ceramic Tiles	Somany, Kajaria, NITCO, RAK
26.	Vitrified Tiles (Antiskid/ Matt/Glazed)	Somany, Kajaria, RAK, NITCO.
27.	Paver Block &Kerb Stone	KK, Krishna tiles (Awesome), Tulip, NTC, NITCO
28.	Dash/Anchoring Fasteners	HILTI, Fischer, Bosch, Wurth.
29.	Cement Based wall putty	Birla Wall care, JK white, Berger, Asian Paints.
30.	Oil Bound Washable AcrylicDistemper	Asian Paints: (Professional Acrylic Distemper)Nerolac: Beauty Acrylic Distemper Berger: Bison Acrylic Distemper Dulux ICI: Maxilite

31.	1 st Quality Acrylic Distemper (washable/Ready mix/LowVOC)	Asian Paints (Tractor Aqua Lock Paint)† Berger: Commando Or Equivalent paints of Nerolac or ICI-Dulux.
32.	Acrylic Emulsion Paints	Asian Paints (Professional Premium Interior Emulsion Paint) Nerolac: Beauty Gold#Berger: Rangoli Total careICI-Dulux: Super Cover
33.	Plastic Emulsion paint	Asian Paints (Apolite Heavy Duty#Premium Emulsion Paint) #Nerolac: Impression#Berger: Easy CleanICI-Dulux: 3 in 1
34.	Premium Acrylic Emulsion Paints (Interior)	Asian Paints (Royale Luxury Emulsion)† Nerolac: Impression#Berger: Silk#ICI-Dulux: Velvet touch.
35.	Textured Exterior Paint	Asian Paints, Nerolac, Berger Paints, UltratechPaints, Luxture.
36.	Acrylic Smooth Exterior Paint	Asian Paints (Apex/Professional Exterior Emulsion) Nerolac: XL Berger: Weather Coat ICI-Dulux: Weather Shield
37.	Premium Acrylic Smooth Exterior Paints with Silicon Additive.	##Asian Paints (Apex Ultima)###Nerolac: XL Total##Berger:##Weather Coat all guard ICI## Dulux: Weather Shield Max
38.	Synthetic Enamel paint	Asian (ApolitePremium gloss enamel) Nerolac:Synthetic Hi gloss Berger: Luxol Hi gloss Dulux: Gloss Synthetic enamel. Berger: Luxol Hi gloss
39.	Cement Primer	Nerolac, Berger, Decoprime WT (Asian), Dulux.
40.	Steel Primer (Red Oxide ZincChromate Primer)	Asian,Nerolac, Berger, Dulux
41.	Wood Primer	Asian, Berger, Nerolac, Dulux
42.	Epoxy Paint	Asian, Nerolac, Berger, Akzo Nobel.

43.	Fire Paint	Asian Paints, Akzo Nobel, PROMAT, Jotun
44.	G.I./ M.S Pipe	Tata, Jindal (Hisar).
45.	G.I. Fittings	Unik, AVR, Zoloto
46.	HDPE Pipes	Reliance, Jain Pipes, ORIPLAST, Supreme
47.	DI PIPES	Elctrosteel, Jindal, TATA DUCTURA, Kapilansh, Kesoram.
48.	DI Fittings	Elctrosteel, Jindal, TATA DUCTURA, Kapilansh, Kesoram
49.	UPVC pipe and fittings	Astral, Supreme, Ashirwad, Finolex.
50.	CI Fittings	NECO, Unik, Neel, Kartar, Sarkar
51.	Centrifugally cast (spun) Iron Pipes & fittings	NECO, Kapilansh, Electrosteel, SKF, HIF, RPMF.
52.	C.I Manhole Covers, Frames & GI Gratings	NECO, Raj Iron Foundary Agra, BIC, SKF, Kapilansh, RPMF.
53.	SFRC Manhole Cover & gratings	KK, JAIN, PARGATI, (Local make to be modified by each zone)
54.	CP Brass Fitting (Superior Range)	Jaquar, Grohe, Roca, Kuhler
55.	Sanitary ware, Fittings & accessories (Superior Range)	Hindware, CERA, Parryware, Jaquar, Somany.Kohler, Roca, Grohe

56.	Mirror Glass	Atul, Modi Guard, Golden Fish.
57.	CPVC Pipe & Fitting	Astral, Supreme, Ashirwad, Finolex.
58.	Stainless Steel sink	Neelkanth, Nirali, Jayna.
59.	RCC Pipes (NP-2)	Lakshmi, Sood&Sood, Jain Pipe Co. (Newai), Mahaveer Enterprises (Newai), work well spun pipes (Pali)(Local make to be modified by each zone)
60.	uPVC Doors and windows (Profile makers and their authorized fabricators only)	Fenesta, VEKA, KOEMMERLING, RHEAU, Aluplast, Wintech
61.	Extruded Polystyrene Insulation Board	DowCorning, Supreme, Texas, Analco.
62.	Heat Resistant Tiles	Swastik, Thermatek
63.	Gypsum Plaster	Ferrous Crete, Gyproc, Saint Gobain, Ultratech
64.	Floor Hardener	Ironite, Ferrok, Hardonate
65.	Modular Expansion Joint	Herculus, Sanfield India Ltd. Vexcolt, Devin
66.	Glass Wool	Dow Corning, U.P. Twiga, Isover
67.	uPVC doors and window Hardware	Rotto, Dorset, Kinlong
68.	AAC Block Adhesive	Ultratech, ArdexEndura, Ferrous Crete.

69.	Roller/Roman/Vertical blinds	Vista, Mac
70.	Closed-cell Polyethylene foam back-up/backer rod	Supreme, SIKA
71.	Grout Material	Prestec, MAPEI, Fosroc, SIKA
72.	Precoated galvanized rolled form steel windows/ventilators /door frame	NCL, Ajanta
73.	Aluminium Doors and windows systems	Schueco, Raynaers, Cruze, AGV, IGT, Kalco
74.	Fiberglass reinforced asphalt Roof Shingle	Certain Teed (Saint Gobian), GAF
75.	Corian.	Dow Cornice, Du pont
76.	Antistatic false/raised flooring (Frames & tiles)	SNS, ZK, KIBO
77.	Vinyl flooring	Armstrong, wonder floor, LG
78.	GRC Jali& Claddings	Unistone, VARE, Birla GRC
79.	Vault Room Asseceries - Tang bar, Security door, Emergency door, Vault ventilator, Time lock3 movement, Exhust Fan	Godrej&Boycee, Gunnevesteelage.

80.	Acoustic wall fabric paneling	Armstrong, Phoenix, U Gen.
81.	Insulation Board	INSUBOARD, NOWFILL
82.	GRC Jali	Unistone, Birla GRC, Asian GRC
83.	Stainless steel door"s and window"s fittings	Geze, Dorma, D-Line, Godrej
84.	Revolving Door Shutter	Geze, Dorma, Stanley
85	WPC DOORS & FRAMES	ALSTONE, RAJSHRI
86	WPC BOARDS	ALSTONE, RAJSHRI, AMULYA
87	AAC Block	Biltech, Eco Green, Finecrete, J.K. Lakshmi Cement Ltd, Indo Bhutan

(B) LIST OF ACCEPTABLE MAKES OF MATERIALS FOR ELECTRICAL WORKS

1.	MCB DB	Legrand, Havells, L&T (Preferred all Safety measures Earth link Neutral Link etc.)
2.	PVC concavity	Polycab, Heavy duty (Unbreakable)
3.	Wire	Polycab, Havells, Kei (Halogen free. Fumeless fire retardant)
4.	Switch socket	Anchor, Havells.
5.	G.I. Box	Anchor Polycab Heavy duty, Rust proof
6.	Ceiling fan	Crompton, Bajaj, Usha, (Preferred Institution Model & ISI approved)

GURUKUL KANGRI (Deemed To Be University), HARIDWAR

Name of Work:- Extension of second Floor of Multipurpose Hall at Kanya gurukul campus Haridwar.

(A) Civil Items

S. No	Description of Items	Quantity	Unit	Items Rates	Amount
1.	Demolishing R.C.C. 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.	05.00	m ³		
2.	Taking out doors, windows and clerestory window shutters (steel or wood) including stacking within 50 metres lead: Of area 3 sq. metres and below	01	No.		
3.	Demolishing brick work manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge. In cement mortar	09.00	m ³		
4.	Dismantling roofing including ridges, hips, valleys and gutters etc., and stacking the material within 50 metres lead of: G.S. Sheet	25.00	m ²		
5.	Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means, including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all leads including all lifts involved.	10.00	m ³		
6.	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).	51.50	m ³		
7.	Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. above plinth level up to floor five level, excluding cost of centering, shuttering, finishing and reinforcement: 1:1.5:3 (1 cement: 1.5 coarse sand(zone-III) : 3 graded stone aggregate 20 mm nominal size).	09.00	m ³		
8.	Centering and shuttering including strutting, propping etc. and removal of form for all heights: A. Columns, Pillars, Piers, Abutments, Posts and Struts B. Lintels, beams, plinth beams, girders, bressumers and cantilevers C. Suspended floors, roofs, landings, balconies and access platform	110.00 120.00 320.00	m ² m ² m ²		
9.	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete above plinth level. Thermo-Mechanically Treated bars of grade Fe-500D or more.	10,000.00	Kg		
10.	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :1:4:8 (1 Cement : 4 coarse sand (zone-III) : 8 graded stone aggregate 40 mm nominal size)	17.00	m ³		
11.	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 : Cement mortar 1:6 (1 cement : 6 coarse sand)	51.00	m ³		
12.	Half brick masonry with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level. Cement mortar 1:4 (1 cement :4 coarse sand)	85.00	m ²		

13.	Kota stone slab flooring over 20 mm (average) thick base laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab, including rubbing and polishing complete with base of cement mortar 1 : 4 (1 cement : 4 coarse sand) :	205.00	m ²		
14.	Kota stone slabs 20 mm thick in risers of steps, skirting, dado and pillars laid on 12 mm (average) thick cement mortar 1:3 (1 cement: 3 coarse sand) and jointed with grey cement slurry mixed with pigment to match the shade of the slabs, including rubbing and polishing complete.	20.00	m ²		
15.	Providing and fixing M.S. Tubular frames for doors, windows, ventilators and cupboard with rectangular/ L-Type sections, made of 1.60 mm thick M.S. Sheet, joints mitred, welded and grinded finish, with profiles of required size, including fixing of necessary butt hinges and screws and applying a priming coat of approved steel primer. Fixing with 15x3 mm lugs 10 cm long embedded in cement concrete block 15x10x10 cm of C.C. 1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)	700.00	Kg		
16.	Providing and fixing double scaffolding system (cup lock type) on the exterior side of building/structure, upto 25 metre height, above ground level, including additional rows of scaffolding in stepped manner as per requirement of site, made with 40mm dia M.S. tube, placed 1.5 metre centre to centre, horizontal & vertical tubes joint with cup & lock system with M.S. Tubes, M.S. tube challis, M.S. clamps and staircase system in the scaffolding for working platform etc. and maintaining it in a serviceable condition for execution of work of cleaning and/ or pointing and/ or applying chemical and removing it thereafter. The scaffolding system shall be stiffened with bracings, runners, connecting with the building etc, wherever required, if feasible, for inspection of work at required locations with essential safety features for the workmen etc., complete as per directions and approval of Engineer-in-charge. Note:- (1) The elevational area of the				

	scaffolding shall be measured for payment purpose.(2) The payment will be made once only for execution of all items for such works.	170.00	m ²		
17.	Providing and fixing factory made ISI marked steel glazed doors, windows and ventilators, side /top /centre hung, with beading and all members such as F7D, F4B, K11 B and K12 B etc. complete of standard rolled steel sections, joints mitred and flash butt welded and sash bars tenoned and riveted, including providing and fixing of hinges, pivots, including priming coat of approved steel primer, but excluding the cost of other fittings, complete all as per approved design, (sectional weight of only steel members shall be measured for payment).	800.00	Kg		
18.	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. With 12 mm mild steel U beading	30.00	m ²		
19.	Providing and fixing ISI marked flush door shutters conforming to IS : 2202 (Part I) non-decorative type, core of block board construction with frame of 1st class hard wood and well matched commercial 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters: 35 mm thick including ISI marked Stainless Steel butt hinges with necessary screws	15.00	m ²		
20.	Providing and fixing stainless steel (Grade 304) railing made of Hollow tubes, channels, plates etc., including welding, grinding, buffing, polishing and making curvature (wherever required) and fitting the same with necessary stainless steel nuts and bolts complete, i/c fixing the railing with necessary accessories & stainless steel dash fasteners , stainless steel bolts etc., of required size, on the top of the floor or the side of waist slab with suitable arrangement as per approval of Engineer-incharge, (for payment purpose only weight of stainless steel members shall be considered excluding fixing accessories such as nuts, bolts, fasteners etc.).	40.00	kg		

21.	Providing and fixing ISI marked oxidised M.S. pressed butt hinges with necessary screws etc. complete. 100x58x1.90 mm	64.00	No.		
22.	Providing and fixing ISI marked oxidised M.S. tower bolt black finish, (Barrel type) with necessary screws etc. complete : 200x10 mm	136.00	No		
23.	Providing and fixing ISI marked oxidised M.S. handles conforming to IS:4992 with necessary screws etc. complete : 125 mm	60.00	No.		
24.	Providing and fixing oxidised M.S. casement stays (straight peg type) with necessary screws etc. complete. 300 mm weighing not less than 200 gms	34.00	No.		
25.	12 mm cement plaster of mix : 1:6 (1 cement: 6 fine sand)	525.00	m ²		
26.	15 mm cement plaster on the rough side of single or half brick wall of mix : 1:6 (1 cement: 6 fine sand)	300.00	m ²		
27.	6 mm cement plaster of mix :	250.00	m ²		
28.	Providing and applying Birla white putty of 1 mm thickness over plastered surface to prepare the surface even and smooth complete.	525.00	m ²		
29.	Distempering with 1st quality acrylic distemper (ready mixed) of approved manufacturer, of required shade and colour complete, as per manufacturer's specification.	525.00	m ²		
30.	Finishing walls with textured exterior paint of required shade : New work (Two or more coats applied @ 3.28 ltr/10 sqm) over and including priming coat of exterior primer applied @ 2.20kg/10 sqm	1,000.00	m ²		
31.	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade : Two or more coats on new work	395.00	m ²		
32.	Providing and fixing G.I. pipes complete with G.I. fittings and clamps, i/c cutting and				

	making good the walls etc. Internal work - Exposed on wall A. 20 mm dia nominal bore metre 224.15	20.00	Rmt		
33.	Structural steel work in single section, fixed with or without connecting plate, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.	800.00	Kg		
34.	<p>Providing and laying integral cement based water proofing treatment including preparation of surface as required for treatment of roofs, balconies, terraces etc. consisting of following operations:</p> <p>(a) Applying a slurry coat of neat cement using 2.75 kg/sqm of cement admixed with water proofing compound conforming to IS. 2645 and approved by Engineer-in-charge over the RCC slab including adjoining walls up to 300 mm height including cleaning the surface before treatment.</p> <p>(b) Laying brick bats with mortar using broken bricks/brick bats 25 mm to 115 mm size with 50% of cement mortar 1:5 (1 cement: 5 coarse sand) admixed with water proofing compound conforming to IS: 2645 and approved by Engineer-in-charge over 20 mm thick layer of cement mortar of mix 1:5 (1 cement :5 coarse sand) admixed with water proofing compound conforming to IS: 2645 and approved by Engineer-in-charge to required slope and treating similarly the adjoining walls up to 300 mm height including rounding of junctions of walls and slabs.</p> <p>(c) After two days of proper curing applying a second coat of cement slurry using 2.75 kg/ Sqm of cement admixed with water proofing compound conforming to IS: 2645 and approved by Engineering- charge.</p> <p>(d) Finishing the surface with 20 mm thick joint less cement mortar of mix 1:4 (1 cement :4 coarse sand) admixed with water proofing compound conforming to IS: 2645 and approved by Engineering- charge including laying glass fiber cloth of approved quality in top layer of plaster and finally finishing the surface with trowel with neat cement slurry and making pattern of 300x300 mm square 3 mm deep.</p> <p>(e) The whole terrace so finished shall be</p>				

	flooded with water for a minimum period of two weeks for curing and for final test. All above operations to be done in order and as directed and specified by the Engineer-in-Charge: With average thickness of 120 mm and minimum thickness at khurra as 65 mm.	225	m ²		
35.	S/F Acrylic Sheet on Window & ventilators	33.00	m ²		
36.	S/F PVC Rain Water Pipe 100 mm dia of Supreme make	20.00	Rmt		
37.	Extra for additional height in centering, shuttering where ever required with adequate bracing, propping etc., including cost of de-shuttering and decentering at all levels, over a height of 3.5 m, for every additional height of 1 metre or part thereof (Plan area to be measured). 5.11.1 Suspended floors, roofs, landing, beams and balconies (Plan area to be measured)	170.00	m ²		
38.	Extra for pre finished nosing in treads of steps of Kota stone/ sand stone slab.	36.00	Rmt		
	(A) TOTAL				

(B) Electrical Items

S.No.	Description	Quantity	Unit	Items Rates	Amount
1	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed steel conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable etc. as required.				
	Group A	8	point		
	Group B	11	point		
	Group C	11	point		
2	Wiring for twin control light point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed steel conduit, 2 way modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc. as required.	1	point		
3	Wiring for circuit/ Sub main wiring along with earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required.				
	2 X 1.5 sq. mm + 1 X 1.5 sq. mm earth wire	900	Metre		
	2 X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire	500	Metre		
	2 X 4 sq. mm + 1 X 4 sq. mm earth wire	200	Metre		
	2 X 6 sq. mm + 1 X 6 sq. mm earth wire	20	Metre		
	2 X 10 sq. mm + 1 X 6 sq. mm earth wire	15	Metre		
4	Supplying and fixing two module stepped type electronic fan regulator on the existing modular plate switch box including connections but excluding modular plate etc. as required.	9	Each		
5	Supplying and fixing modular blanking plate on the existing modular plate & switch box excluding modular plate as required.	25	Each		
6	Supplying and fixing following size/ modules, GI box along with modular base & cover plate for modular switches in recess etc. as required.				
	1 or 2 Module (75mmX75mm)	2	Each		
	3 Module (100mmX75mm)	4	Each		
	4 Module (125mmX75mm)	8	Each		
	6 Module (200mmX75mm)	4	Each		
	8 Module (125mmX125mm)	2	Each		
	12 Module (200mmX150mm)	8	Each		

7	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.				
	5/6 amps switch	42	Each		
	2 way 5/6 A switch	2	Each		
	15/16 A switch	9	Each		
	3 pin 5/6 A socket outlet	9	Each		
	6 pin 15/16 A socket outlet	9	Each		
8	supplying, Installation, testing and commissioning of ceiling fan, including wiring the down rods of standard length (up to 30 cm) with 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable, including providing and fixing phenolic laminated sheet cover on the fan box etc. as required.	9	Each		
9	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 2 nos. 3 pin 5/6 A modular socket outlet and 2 nos. 5/6 A modular switch, connections etc. as required.(For light plugs to be used in non residential buildings).	21	Each		
10	supplying and Installation of exhaust fan in the existing opening, including making good the damage, connection, testing, commissioning etc. as required.				
	Up to 450 mm sweep	1	Each		
	510 mm sweep	1	Each		
11	Supplying & fixing suitable size GI box with modular plate and cover in front on surface or in recess including providing and fixing 25 A modular socket outlet and 25 A modular SP MCB, "C" curve including connections, painting etc. as required.	4	Each		
12	Supplying and fixing PVC batten/ angle holder including connections etc. as required.	8	Each		
13	Supplying and fixing 5 A to 32 A rating, 240/415 V, 10 kA, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required.				
	Single pole	12+1	Each		
	Triple pole and neutral	1+1	Each		
14	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required.				
	20 mm	40	Metre		
	25 mm	30	Metre		

	32 mm	20	Metre		
	40 mm	15	Metre		
	50 mm	10	Metre		
15	Supplying and fixing following way, horizontal type three pole and neutral, sheet steel, MCB distribution board, 415 V, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator				
	6 way (4 + 18), Double door	02	Each		
16	Supplying and fixing following rating, four pole, 415 V, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required.				
	63 A	02	Each		
	(B) TOTAL				

GRAND TOTAL AMOUNT (A+B) =