

Name of work

**Construction of Boundary Wall around
GSMST Complex and other allied works such
as soil filling and storm water drainage lines
in softscape areas.
at IIT Kanpur**

BID DOCUMENT



**It is certified that this document contains page 109 pages starting with
page no 1**

Sr. Assistant Engineer(SG) Executive Engineer Superintending Engineer

**Office of the Superintending Engineer IWD,
Indian Institute of Technology, Kanpur**

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Superintending Engineer, IWD, IIT Kanpur

INDIAN INSTITUTE OF TECHNOLOGY KANPUR
INSTITUTE WORKS DEPARTMENT
CENTRAL OFFICE
Notice Inviting e-Tender 72/GSMST/Civil/D1/2025-26

The Superintending Engineer, IWD, IIT Kanpur on behalf of the Board of Governors of IIT Kanpur invites online percentage rate open bids from eligible firms / contractors in two bid system (Eligible cum Technical & Financial Bid) for the following work:

SI NO.	Name of Work	Estimated Cost Including GST	Earnest money	Period of completion
1	"Construction of Boundary Wall around GSMST Complex and other allied works such as soil filling and storm water drainage lines in softscape areas at IIT Kanpur".	Rs 10,27,41,038/-	Rs. 20,27,410/-	08 Months.

Last date & time of submission of bid on **15/04/2026 upto 3.30 PM**. All details are available on website, <https://eprocure.gov.in/eprocure/app> & www.iitk.ac.in/iwd/tenderhall.htm. The bids can only be submitted online at <https://eprocure.gov.in/eprocure/app>. Any corrigendum regarding this tender will be published only on above mentioned websites.

No. IWD/CO/2025-26/ 440 dated: 23.03.2026

Superintending Engineer
Phone No. 0512-259-7725

1. Notice Inviting e-Tenders

The Superintending Engineer, IWD, IIT Kanpur invites on behalf of Board of Governors of IIT Kanpur online percentage rates tender from eligible firms/ specialized agencies satisfying the eligibility criteria mentioned in the document.

NIT No: **72/GSMST/Civil/D1/2025-26**

1	Name of work	:	Construction of Boundary Wall around GSMST Complex and other allied works such as soil filling and storm water drainage lines in softscape areas at IIT Kanpur.
2	Estimated cost (inclusive of GST)	:	Rs 10,27,41,038/-
3	Earnest Money Deposit(Rs.)	:	Rs 20,27,410/-
4	Duration of contract	:	Eight (08) Months
5	Last Time & date of submission of bids (Up to)	:	As per CPP portal data (https://eprocure.gov.in/eprocure/app)
6	Opening of bids	:	As per CPP portal data (https://eprocure.gov.in/eprocure/app)

The bid forms and other details may be downloaded from Central Public Procurement Portal (<http://eprocure.gov.in/eprocure/app>). Aspiring bidders who have not enrolled / registered in e- procurement should enroll / register themselves before participating through web site <http://eprocure.gov.in/eprocure/app>. The portal enrolment is free of cost. Bidders are advised to go through instructions provided at "Instructions for online bid submission."

Bidders can access quotation / tender documents on the website (for searching in the NIC site), kindly go to quotation search option and type 'IIT'. Thereafter, click on "GO" button to view all IIT quotations. Select the appropriate quotation / tender and fill them with all relevant information and submit the completed Quotation / Tender document online on the website <http://eprocure.gov.in/eprocure/app>. as per the schedule given in the next page.

Note: No manual bids will be accepted. All bids (both Technical & Financial) should be submitted through the e-procurement portal.

Applicants are advised to keep visiting the above-mentioned websites from time to time (till the deadline for bid submission) for any updates in respect of the tender documents, if any. Failure to do so shall not absolve the applicant of his liabilities to submit the applications complete in all respect including updates thereof, if any. An incomplete application may be liable for rejection.

Superintending Engineer
Institute Works Department
IIT, Kanpur-208016 (U.P.)

1 Information and Instructions for Bidders for E-Tendering

The Superintending Engineer on behalf of Board of Governors of Indian Institute of Technology Kanpur invites online percentage rate tenders from eligible firms/ specialized agencies satisfying the eligibility criteria mentioned in the tender document.

1.1 Schedule

1	Name of organization	:	Indian Institute of Technology, Kanpur
2	NIT No.	:	72/GSMST/Civil/D1/2025-26
3	Location	:	Indian Institute of Technology, Kanpur
4	Tender / Quotation type (open / limited /EOI / Auction / Single	:	Open
5	Tender / Quotation category (services / works	:	Works
6	Type of Contract (work / supply / auction/ service / buy / empanelment / sell	:	Works
7	Form of contract (CPWD-7/8)	:	CPWD-7
8	Work Category (civil / electrical / fleet / management / computer system	:	Civil
9	Is multi-currency allowed?	:	No
10	Date of publishing / issue / start	:	As per CPP portal
11	Document download start date	:	As per CPP portal
12	Document download end date	:	As per CPP portal
13	Date & time of pre-bid meeting	:	As per CPP portal
14	Venue of pre-bid meeting	:	As per CPP portal
15	Last date & time of uploading of bids	:	As per CPP portal

16	Date & time of opening of Technical bids	:	As per CPP portal
17	Bid Validity Days	:	90 days after opening of technical bid
18	Earnest Money Deposit (EMD)	:	Rs 20,27,410/-
19	No. of Bids / Covers (1 / 2 / 3 / 4)	:	2
20	Address for communication	:	Office of Superintending Engineer, Central Office, IIT, Kanpur-208016 (U. P.) Contact no. 0512-259-7725
21	Email address	:	seiwd@iitk.ac.in

The intending bidder must read the terms and conditions of CPWD-6 carefully. He should only submit his bid if he considers himself eligible and he is in possession of all the documents required.

1. Information and instructions for bidders posted on website shall form part of bid document.
2. The bid document consisting of drawings, specifications, schedule of quantities of items to be executed, schedule of stages for payment as applicable and the set of terms & conditions of the contract to be complied with and other necessary documents can be seen and downloaded free of cost from www.eprocure.gov.in
3. Those contractors not registered on the website mentioned above, are required to get registered beforehand. Only e-bids shall be accepted in CPPP portal through e-tendering processes.
4. The intending bidder must have valid Class-III digital signature to submit the bid.
5. On opening date, the contractor can login and see the bid opening process. After opening of bids, he will receive the competitor bid sheets.
6. Contractor can upload documents in the form of JPG format and PDF format.
7. Contractor must ensure to quote item rate. The column meant for quoting rate in figures appears in sky blue color and the moment rate is entered, it remains un change.

In addition to this, while selecting any of the cells a warning appears that if any cell is left blank the same shall be treated as "0". Therefore, if any cell is left blank and no rate is quoted by the bidder, rate of such item shall be treated as "0" (ZERO).

However, if a tenderer quotes nil rates against each item in item rate tender or does not quote any percentage above/below on the total amount of the tender or any section /sub head in percentage rate tender, the tender shall be treated as invalid and will not be considered as lowest tenderer.

8. The "Eligibility/technical Bid" shall be opened first on due date and time as per the evaluation scheme. The "Financial Bid" of bidders qualifying the technical bid shall be opened on a later date as to be announced in CPP portal.
9. The bidders are advised to visit the site before submission of bids to have more clarity about the site conditions and availability of space for execution of the work.
10. All modifications/addendums/corrigendum's issued regarding this bidding process shall be uploaded on website only.
11. The department reserves the right to reject any or all bids without assigning any reason thereof and may restrict the list of qualified bidders to any number deemed suitable by it, if too many bids are received satisfying the minimum laid down criteria.
12. Integrity pact is the integral part of the tender document. The bidders have to download the copy of integrity pact and after getting signed the scan copy shall be uploaded along with bid.
13. The rates for all items of work, shall unless clearly specified otherwise, include cost of all operations and all inputs of labor, material, T&P, wastages, watch and ward, other inputs, all incidental charges, all other taxes (including GST), Cess, duties, levies etc. required for execution of the work.
14. The contractor has to ensure the site free from dust and any kind of pollutants during the course of work and sufficient sprinkling activity should be performed to control the dust and pollution during the duration of contract.
15. If applicable, the enlistment of the contractors should be valid on the last date of submission of bids. In case the last date of submission of bid is extended, the enlistment of contractor should be valid on the original date

of submission of bids.

16. The description of the work is as follows: "**Construction of Boundary wall around GSMST complex and other allied works such as soil filling and storm water drainage lines in softscape areas at IIT Kanpur**".
17. The work is estimated to cost **Rs. 10,27,41,038/-**. However, this estimate given is mere approximation for guide.
18. Agreement shall be drawn with the successful bidders on prescribed Form No. CPWD 7 which is available as a Govt. of India Publication and also available on website www.cpwd.gov.in. Bidders shall quote his rates as per various terms and conditions of the said form which will form part of the agreement.
19. The time allowed for carrying out the entire work will be **Eight (08) months** from the date of start as defined in Schedule "F" or from the first date of handing over of the site, whichever is later, in accordance with the phasing as detailed in special conditions of contract in the bid document.
20. The site for the work will be handed over as per the special terms and conditions of the document.
21. An approved program of completion submitted by the contractor after award of work based on the milestones given in the tender.
22. The bid document consisting of NIT, 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.eprocure.gov.in/eprocure/app free of cost.
23. After submission of the bid the contractor can re-submit revised bid any number of times but before last time and date of submission of bid as notified.
24. While submitting the revised bid, contractor can revise the rate of one or more item(s) any number of times (he need not re-enter rate of all the items) but before last time and date of submission of bid as notified.
25. Copy of documents as specified in the bid shall be scanned and uploaded to the e-tendering website within the period of bid submission.
26. The bid submitted shall be opened at as per the details provided in the CPP portal by the concerned Executive Engineer. The date of opening of Financial Bid shall be informed through web site after the opening of technical bid.
27. The bid submitted shall become invalid if:
 - (i) The bidder is found ineligible.

- (ii) The bidder does not upload scanned copies of all the documents stipulated in the bid document.
- (iii) If a tenderer quotes nil rates against each item in item rate tender or does not quote any percentage above/below on the total amount of the tender or any section / sub head in percentage rate tender, the tender shall be treated as invalid and will not be considered as lowest tenderer.
28. The contractor whose bid is accepted will be required to furnish performance guarantee of 5% of tendered value within the period specified in Schedule F. This guarantee shall be in the form of or Deposit at Call receipt of any scheduled bank/ Banker's cheque of any scheduled bank/ Demand Draft of any scheduled bank/ Pay order of any Scheduled Bank of any scheduled bank (in case guarantee amount is less than Rs. 1,00,000/-) or Government Securities or Fixed Deposit Receipts or Guarantee Bonds of any Scheduled Bank or the State Bank of India in accordance with the prescribed form.
29. In case the contractor fails to deposit the said performance guarantee within the period as indicated in Schedule 'F' including the extended period if any, the contractor shall be suspended for two years and shall not be eligible to bid for IITK tenders from the date of issue of suspension order.
30. The contractor whose bid is accepted will also be required to furnish copy of applicable labour license and BOCW registration certificate.
31. Intending Bidders are advised to inspect and examine the sites and its surroundings and satisfy themselves before submitting their bids as to the nature of the ground and sub-soil (so far as is practicable), the form and nature of the site, the means of access to the site, making proper arrangements to the site for smooth operation, 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. Bidder shall be deemed to have full knowledge of the sites whether he inspects it or not and no extra charge consequent on any misunderstanding or otherwise shall be allowed. The bidder shall be responsible for arranging and maintaining at his own cost all materials, tools & plants, water, electricity access, facilities for workers and all other services required for executing the work unless otherwise specifically provided for in the contract documents. Submission of a 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 of conditions and rates at which stores, tools and plant, etc. will be issued to him by the Institute and local conditions and other factors having a bearing on the execution

of the work.

32. Intending Bidders are advised to get familiarized with the specifications /rules related (i.e., "**Construction of Boundary Wall around GSMST Complex and other allied works such as soil filling and storm water drainage lines in softscape areas at IIT Kanpur**") to the work as approved by the competent authority and various policies related to C & D waste and other environmental guidelines of the institute pertaining to the. Bidder shall be deemed to have full knowledge of such rules and regulations whether he has read it or not and no extra charge consequent on any misunderstanding or otherwise shall be allowed. In case of reduction of scope of work or no work is possible to carry out on account of such issues, no cost shall be payable to them. Submission of a bid by the bidder implies that he has read this notice and all other documents and has made himself aware of the Institute Regulations and other factors having a bearing on the execution of the work.
33. The competent authority on behalf of the Board of Governors 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 assigning any reason. Bids in which any of the prescribed conditions is not fulfilled or any condition including that of conditional rebate is put forth by the bidders shall be summarily rejected.
34. Canvassing whether directly or indirectly, in connection with bids is strictly prohibited and the bids submitted by the bidders who resort to canvassing will be liable to rejection.
35. The competent authority on behalf of the Board of Governors reserves to himself the right of accepting the whole or any part of the bid and the bidders shall be bound to perform the same at the rate quoted.
36. The contractor shall not be permitted to bid for works in the DOIP office /Institute Works Department responsible for award and execution of contracts, in which his near relative is posted as Divisional Accountant or as an officer in any capacity between the grades of Superintending Engineer and Junior Engineer (both inclusive) in IWD and Office of Infrastructure and Planning. 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 Gazetted officer in the Office of Infrastructure and Planning / Institute Works Department. Any breach of this condition by the contractor would render him liable to be removed from the approved list of contractors of this Department.
37. No Engineer of Gazetted Rank or other Gazetted Officer employed in

Engineering or Administrative duties in an Engineering Department of the Government of India is allowed to work as a contractor for a period of one year after his retirement from Government service, without the prior permission of the Government of India in writing. This contract is liable to be canceled if either the contractor or any of his employees is found any time to be such a person who had not obtained the permission of the Government of India as aforesaid before submission of the bid or engagement in the contractor's service.

38. The bids for the work shall remain open for acceptance for a period of Ninety (90) days from the date of opening of bids. If any bidder withdraws his bid before the said period or issue of letter of acceptance, whichever is earlier, or makes any modifications in the terms and conditions of the bid which are not acceptable to the department, then the Institute shall, without prejudice to any other right or remedy, be at liberty to suspend the bidder for one year
39. This Notice Inviting Bid shall form a part of the contract document. The successful bidders/contractor, on acceptance of his bid by the Accepting Authority shall within 7 days from the stipulated date of start of the work, will sign the contract & start the work.
40. The Notice Inviting Bid, all the documents including additional conditions, specifications and drawings, if any, forming part of the bid as uploaded at the time of invitation of bid and the rates quoted online at the time of submission of bid and acceptance thereof together with any correspondence leading thereto
41. Standard C.P.W.D. Form 7 or other Standard C.P.W.D. Form as applicable.
42. The bid document will include the following components:
 - (a) CPWD-7 and CPWD-6 including Schedule A to F for all the components of the work, Standard General Conditions of Contract for CPWD 2023 as amended/modified up to last date of submission of the bid.
 - (b) General / specific conditions, specifications applicable to all components of the work.
43. The eligible bidders shall quote "**Percentage rates**" after considering all the components of the work.
44. After acceptance of the bid by competent authority, the Superintending Engineer shall issue letter of award on behalf of the Board of Governors to the contractor. After the work is awarded, the contractor will have to enter into one agreement with the Superintending Engineer. One such signed set of agreement shall be handed over to Engineer-In-Charge as applicable.
45. Entire work under the scope of bid shall be executed under one agreement.

46. The requirement of technical staff given in various specialized works is as per requirements given in clause-32 of NIT document on Page 44. The actual deployment of these technical staff will be as per execution of work and direction of the Engineer-in-Charge.
47. Running bill must be generated based on the work component decided for execution as directed by Engineer In Charge as per the tender clauses. The work of each component must be satisfactorily executed before a running bill is cleared by the Engineer in Charge. The payment shall be based on actual work done at site. The bills for work components shall be facilitated by Engineer-in-Charge to the contractor and the bills must be submitted to the office of Executive Engineer. The work shall be treated as complete when all the components of the work are completed.
48. It will be obligatory on the part of bidder to sign the contract document for all components before the first payment is released.
49. In case of reduction in scope of work no claim on account of reduction in value of work, loss of expected profit, consequential overheads etc. shall be entertained.
50. A team of officers from Indian Institute of Technology Kanpur may visit the office/ site of work of bidders for establishing their credibility and verification of submitted documents.
51. The mentioned work is urgent as requested by client/Institute and to be completed strictly in given time schedule as per special terms and conditions. The contractor has to deploy the labor and supervisory staff in shifts to meet the targeted completion date. The work may be executed in extended shifts or two shifts. The rates quoted by the contractor will be deemed to be inclusive of any extra expenditures on account of this reason. Nothing shall be paid on this account.
52. The competent authority on behalf of the Board of Governors reserves the right to terminate the contract if,
 - a) Any violation of labor law has been observed.
 - b) Any of the construction workers engaged in the works under this contract is found also engaged in Service Contracts of the Institute at the same time.

The competent authority on behalf of the Board of Governors reserves the right to disqualify an agency for

- (a) Non-compliance of Institute orders
- (b) Violation of Institute policies as established by the Competent Authority in the best interests of the Institute.

1.2 Instructions for Online BID Submission

This tender document has been published on the Central Public Procurement Portal (URL: <http://eprocure.gov.in/eprocure/app>). The bidders are required to submit softcopies of their bids electronically on the CPP portal, using valid Digital Signature Certificates (DSC). The instructions given below are meant to assist the bidders in registering on the CPP portal, prepare their bids in accordance with the requirements and submitting their bids online on the CPP portal.

More information useful for submitting online bids on the CPP portal may be obtained at <http://www.eprocure.gov.in/eprocure/app>

1.2.1 Registration

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

1.2.2 Searching for tender documents

There are various search options built in the CPP portal to facilitate bidders to search active tenders by several parameters. These parameters could include tender ID, organization name, location, date, value, etc. There is also an option of advanced search for tenders, wherein the bidders may combine a number of search parameters such as organization name, form of contract, location, date, other keywords etc. to search for a tender published on the CPP portal.name, form of contract, location, date, other

keywords etc. to search for a tender published on the CPP portal.

1. Once the bidders have selected the tenders they are interested in, they may download the required documents / tender schedules. The tenders can be moved to the respective "My Tenders" folder. This would enable the CPP portal to intimate the bidders through SMS / e-mail in case there is any corrigendum issued to the tender document.
2. The bidder should make a note of the unique Tender ID assigned to each other; in case they want to obtain any clarification/help from the Helpdesk.

1.2.3 Preparation of bids

1. Bidder should take into account any corrigendum published on the tender document before submitting their bids.
2. Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bids. Please note the number of covers in which the bid documents have to be submitted. Any deviations from these may lead to rejection of the bids.
3. Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document / schedule and generally, they can be in PDF / XLS / RAR / DWF formats. Bid documents may be scanned with 100 dpi with black & white option.
4. To avoid the time and effort required in uploading the same set of standard documents which are required to be submitted as a part of every bid, a provision of uploading such standard documents (e.g., PAN card copy, annual reports, auditor's certificates, etc.) has been provided to the bidders. Bidders can use "My Space" area available to them to upload such documents. These documents may be directly submitted from the "My Space" area while submitting a bid, and need not be uploaded again and again. This will lead to a reduction in the time required for bid submission process.

1.2.4 Submission of bids

1. Bidder should log into the site well in advance for bid submission so that he / she upload the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.
2. The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.
3. A standard BOQ Format has been provided with the tender document to be filled by all the bidders. Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other

format is acceptable. Bidders are required to download the BOQ file, open it and complete the white colored [unprotected] cells with their respective financial quotes and other details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it online, without changing the filename. If the BOQ file is found to be modified by the bidder, the bid will be rejected.

OR

In some cases, financial bids can be submitted in PDF format as well (in lieu of BOQ).

4. The server time (which is displayed on the bidders' dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.
5. All the documents being submitted by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. The confidentiality of the bids is maintained using the secured Socket Layer 128-bit encryption technology. Data storage encryption of sensitive fields is done.
6. The uploaded tender documents become readable only after the tender opening by the authorized bid openers.
7. Upon the successful and timely submission of bids, the portal will give a successful bid submission message & a bid summary will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.
8. Add scanned PDF of all relevant documents in a single PDF file of compliance sheet.

1.2.5 Assistance to bidders

1. Any queries relating to tender document and the terms and conditions contained therein should be addressed to the tender inviting authority for a tender or the relevant contact person indicated in the tender.
2. Any queries relating to the process of online bid submission or queries relating to CPP portal in general may be directed to the 24 x 7 CPP Portal Help Desk.

1.2.6 General instruction to bidders

1. The tenders will be received online through portal <https://www.eprocure.gov.in/eprocure/app>. In the technical bids, the

bidders are required to upload all the documents in PDF format.

2. Possession of a valid class II / III Digital Signature Certificate (DSC) in the form of smart card / e-token in the company's name is a prerequisite for registration and participating in the bid submission activities through <https://www.eprocure.gov.in/eprocure/app>. Digital Signature Certificates can be obtained from the authorized certifying agencies, details of which are available in the website <https://www.eprocure.gov.in/eprocure/app> under the link "Information about DSC".

Tenderers are advised to follow the instructions provided in the "Instructions to the tenderer" for the e-submission of the bids online through the Central Public Procurement Portal for e-procurement at <https://www.eprocure.gov.in/eprocure/app>.

Superintending Engineer
Indian Institute of Technology
Kanpur

2.1 List of documents to be scanned and uploaded within the period of bid submission.

The following mandatory documents to be submitted with online bid submission:

The Online bids (complete in all respect) must be uploaded online in two Envelops as explained here: -

2.3.1 Envelope - 1: Technical Bid

The following mandatory documents to be provided as a single PDF file in the same sequence as listed for an eligible bid:

1. EMD scanned copy shall be submitted along with the technical bid and original have to be submitted in the office of the tender inviting authority
**
2. GST Registration Certificate as per 5.1
3. EPF & ESI Registration
4. Copy of PAN card
5. Affidavit for not being blacklisted/debarred/restrained as per 5.2
6. Performance report of works executed as per 5.3
7. Structure and Organization of the Agency as per 5.4
8. Declaration on Details of the Bidder(s) as per 5.5
9. Details of Similar Nature of Works Completed as per 5.6
10. Declaration about Site Inspection as per 5.7
11. Letter of Transmittal as per 5.8
12. CPWD-7 as per 5.9
13. Tender Certificate as per 5.10
14. Tender Acceptance Letter as per 5.11
15. Financial Information as per 5.12
16. Solvency certificate as per [5.13](#) (minimum 40% of estimated cost put to tender) **Or** Net Worth Certificate from certified Chartered Accountant as per [5.14](#)
17. Registration details with the Govt. Department (CPWD, BSNL, MES, UPPWD, Central PSUs.)
18. Integrity Pact should be signed and scanned copy of the same shall be uploaded along with technical bid.

**** Earnest money in the form of Demand Draft of pay order or Banker's Cheque or Deposit at Call Receipt or Fix Deposit Receipt drawn in favor of "The Director, IIT Kanpur" shall be scanned and uploaded to the e-Tendering website by the bidder within the period of bid submission. The hardcopy of earnest deposit receipt (EMD) shall be submitted in the office of Superintending Engineer Div-I, IWD, IIT Kanpur before the Date & time of opening of technical bids as specified in the bid document.**

2.3.1 Envelope - 2: Financial Bid

Price bid should be submitted in BOQ format.

3 Eligibility Criteria

3.1 Eligibility criteria for contractors

The eligible Contractors mean registered in appropriate class and category with CPWD, BSNL, MES, UPPWD, Central PSUs.

Eligible Bidders

Eligible bidders should satisfy the following criteria for an eligible bid:

1. Average annual financial turn over:

Average annual financial turnover should be 30% of the estimated cost of work put to tender during the last 3 consecutive financial years by the certified Chartered Accountant.

Audited turnover statements to be furnished as proof of the same duly certified by chartered accountant along with Profit & Loss Statements.

Solvency Certificate- 40% of the estimated cost put to tender as per 5.13
Or Net Worth Certificate from certified Chartered Accountant as per 5.14

2. Experience (value of work done shall be within a span of one year):

Firms/Contractors must have completed satisfactorily

i) One similar work of 80% value of the estimated cost put to tender

Or

ii) Two similar work of 60% value of the estimated cost put to tender

Or

iii) Three similar work of 40% value of the estimated cost put to tender
Works completed during last 7 years ending on date **31.03.2026**.

AND

One work of similar nature (either part of (i) or a separate one), costing not less than the amount equal to 40% of the Estimated cost put to tender with Central Government Organization/Central Autonomous Body/Central Public Sector undertakings/ State Government.

3. **Definition of similar work:** Similar type of work means "**Construction of RCC framed structure building OR Construction of RCC boundary wall /brick Boundary wall**" done in any Central Government Department / Central Autonomous Body / Central Public Sector Undertakings /State Government in last 7 years.

Eligible bidders must also satisfy the following conditions and ensure submission of all documents mentioned in 2.3

1. **Legal:** Unregistered Partnership Firm and Joint Venture or Consortium are not eligible.
2. **Registration:** Bidder should be registered with the Income Tax Department, Employees Provident Fund (EPF) Organization, Employees State Insurance (ESI) Corporation & GST.

4 Bid Evaluation and Award

The following process will be followed for the Technical and Financial Bids Evaluation:

4.1 Technical Bid Evaluation

- Technical bids received complete in all respects covering the entire scope of work, will only be opened
- The technical bid evaluation is done only for bidders who satisfy the eligibility criteria by submitting documentary proof in support of eligibility criteria and the bids of agencies who have not submitted these documents are liable to be rejected without notice
- After evaluation of Pre-Qualification Documents, a list of short-listed agencies will be prepared.

4.2 Financial Bid Evaluation

For financial bids, the following points shall be followed:

- Thereafter the financial bids of only the qualified and technically acceptable bidders shall be opened at the notified time, date and place in the presence of the qualified bidders or their representatives, if present.
- The bid shall remain valid for **Ninety (90) days** from date of opening of eligibility bids/ Technical bid.

4.3 Award Criteria

- The employer reserves the right, without being liable for any damages or obligation to inform the bidder, to:
 - a) Amend the scope and value of contract to the bidder.
 - b) Reject any or all the applications without assigning any reason.
- Any effort on the part of the bidder or his agent to exercise influence or to pressurize the employer would result in rejection of his bid. Canvassing of any kind is prohibited.
- The work shall be awarded to that agency who had quoted lower overall rates.

4.4 Integrity pack: Uploaded separately-The bidders are advised to download the dully providing Integrity pact and dully filled after getting the sign along with date & seal and filled and upload along with the technical bid.

Various Forms and Formats

5.1 GST registration Certificate.

The Scan copy of the GST Registration has to be uploaded.

Signature of bidder(s)

OR

(An authorized Officer of the firm with stamp)

5.2 Affidavit for not being blacklisted/debarred/restrained

Proforma for AFFIDAVIT for not being blacklisted/debarred/restrained
(AFFIDAVIT to be submitted on a 'Non-Judicial' stamp paper worth Rs.100/) (Scanned copy of this notarized affidavit to be uploaded at the time of submission of bid)

I/we undertake and confirm that our firm/partnership firm has not been blacklisted and/or debarred/restrained by any Central Govt./ State Govt. Agency/ Autonomous body of the Central or State govt./ PSU etc. Further that, if such information comes to the notice of the Institute, then I/we shall be debarred for bidding in the Institute in future forever. Also, if such information comes to the notice of the Institute on any day before date of start of work, the competent authority shall be free to cancel the agreement and to forfeit the entire amount of Earnest Money Deposit/Performance Guarantee.

.....
(Signature of Bidder(s))

Or

.....
(An authorized Officer of the firm with stamp)

.....
(Signature of Notary with seal)

5.3 Performance report on work executed

Proforma of Performance report issued by the concerned department letter head)

(Scanned copy of the Performance Reports to be uploaded at the time of submission of bid)

1. Name of work/project & location:
2. Agreement no.:
3. Estimated cost:
4. Tendered cost:
5. Date of start:
6. Date of completion:
7. Stipulated date of completion:
8. Actual date of completion:
9. Amount of compensation levied for delayed completion, if any:
10. Amount of reduced rate items, if any:
11. Performance Report:
 - (a) Quality of work: Outstanding / Very Good / Good /Poor
 - (b) Technical Proficiency: Outstanding / Very Good / Good /Poor
 - (c) Resourcefulness: Outstanding / Very Good / Good /Poor
 - (d) General Behavior: Outstanding / Very Good / Good /Poor

Signature of Executive Engineer or Equivalent

Dated:

5.4 Structure and Organization of the Agency

Proforma of providing Structure and Organization of the Bidding Agency
(To be printed in Company's Letterhead)

(Scanned copy of the Structure and Organization Document to be uploaded at the time of submission of bid)

1. Name & address of the bidder:
2. Telephone no./Telex no./Fax no.:
3. Email address for Communication:
4. Legal status of the bidder (attach copies of original document defining the legal status):
 - (a) An Individual:
 - (b) A proprietary firm:
 - (c) A firm in partnership:
 - (d) A limited company or Corporation:
5. Particulars of registration with various Government Bodies (attach attested photocopy)

Organization / Place of registration	Registration No.
1.	
2.	
3.	
6. Names and titles of Directors & Officers with designation to be concerned with this work.
7. Designation of individuals authorized to act for the organization.
8. Has the bidder, or any constituent partner in case of partnership firm, ever been convicted by the court of law? If so, give details.
9. Any other information considered necessary but not included above.

Signature of bidder(s)

5.5 Declaration on Details of the Bidders

Proforma of Declaration on Details of the Bidders (To be printed in Company's Letterhead)

(Scanned copy of the Performance Reports to be uploaded at the time of submission of bid)

DECLARATION

I/We,.....hereby declare that all the information and data furnished by our organization with regard to this tender specification are true and complete to the best of our knowledge. I/we have gone through the specification, conditions and stipulations in details and agree to comply with the requirements and intent of specification.

Particulars of the bidder as per following details:

1.	Name of the firm / organization	:	
2.	Type of the firm / organization: Public Ltd, / Private Ltd./ Registered firm	:	
3	Registered office	:	
4	Address of office	:	
5	Contract people	:	
6	Name & designation	:	
7	Land line & mobile no.	:	
8	Email	:	
9	PAN No.	:	
10	GST No.	:	
11	EPF Registration No.	:	
12	ESI Registration No.	:	
13	EMD/FDR/DD No. & Date	:	
14	Registration details with the Govt. Department (CPWD, BSNL, MES, UPPWD, Central PSUs.)	:	
15	Validity of the registration with the Govt. department	:	
16	Tendering limit as per the registration details	:	
17	Has the applicant ever been required to suspend any project for a period of more than six months continuously after Commencement of work?	:	If so, give the name of the project and reasons of suspension of project

18	Has the applicant ever been convicted by a court of law?	:	YES / NO, If yes give details of the case
19	Details of any litigation in which the applicant is / was involved.	:	
20	All forms submitted as desired in the bid	:	Yes / No
21	Undertaking regarding no subletting of work.	:	

We further declare that our organization has not been blacklisted /delisted or put to any holiday by any Institutional agency / Govt. Department / Public Sector Undertaking in the last three years.

Signature of Bidder(s) with seal

Dated:

5.6 Details of Similar Nature of Works Completed, project under execution and Bidding capacity

Proforma for submission of Details of Eligible Similar Nature of Works Completed* during the Last Seven Years ending previous day of the last date of submission of tenders (Scanned copy of the Performance Reports to be uploaded)

The bidding capacity of the contractor should be equal to, or more than the estimated cost of the work put to tender. The bidding capacity shall be worked out by the following formula: Bidding Capacity = $[A \times N \times 1.5] - B$, where

A = Maximum turnover in construction works executed in any one year during the last seven years taking into account the completed as well as works in progress. The value of completed works shall be brought to current costing level by enhancing at a simple rate of interest @7%, N = Number of years prescribed for completion of work for which bids has been invited. B = Value of existing commitments and ongoing works to be completed during the period of completion of work for which bids have been invited.

The contractor needs to submit the supporting documents for calculation of A & B as above.

For calculation of B, information is to be supplied in the following tabular format:

Table B- Projects under execution or awarded.

Sr. No	Name of work / project and location	Owners or sponsoring organization	Const of work in crores of rupees	Date of commencement as per contract	Stipulated date of completion	Uptodate percentage progress of work	Slow progresses if any, and reasons thereof	Name and address / telephone number of officers to whom reference may be made	Remarks
1	2	3	4	5	6	7	8	9	10

Certified that the above list of work is complete and no work has been left out and that the information given is correct to my knowledge.

Table B1- Similar Nature of work completed

Sr. No	Name of work / project and location	Owners or sponsoring organization	Const of work in crores of rupees	Date of commencement as per contract	Stipulated date of completion	Actual date of completion	Litigation/ arbitration cases pending /in Progress with details *	Name and address / telephone number of officers to whom reference may be made	Whether the work was done on back to back basis Yes/No
1	2	3	4	5	6	7	8	9	10

* Indicate gross amount claimed and amount awarded by the Arbitrator.

Signature of bidder(s) with seal

Dated:

5.7 Declaration About Site Inspection

Declaration about Site Inspection

(By Bidder)

To
The Superintending Engineer,
Institute Works Department,
IIT, Kanpur-208016 (U.P.)

Subject: Submission of Tender for the work of "Construction of Boundary Wall around GSMST Complex and other allied works such as soil filling and storm water drainage lines in softscape areas IIT Kanpur".

Dear Sir/Madam,

It is hereby declared that as per terms and conditions of this tender document, I/ We the bidder inspected and examined the subject site and its surrounding and satisfy myself / ourselves as to the nature of the ground and sub-soil (so far as is practicable), the forms and nature of the site./ ourselves before submitting the bid, the accommodation which may require and all necessary information as to risks, contingencies and other circumstances which may influence or affect our bid have been obtained. I/We the bidder shall have full knowledge of the site and no extra charge consequent upon any misunderstanding or otherwise shall be claimed in later date. I /We bidder shall be responsible for arranging and maintaining at 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 me/us implies that I / We have read this notice and all other contract documents and has made myself /ourselves 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.

Sincerely

(Duly authorized signatory of the Bidder)

5.8 Letter of Transmittal

To
The Superintending Engineer,
Institute Works Department
IIT, Kanpur-208016 (U.P.)

Name of Work: "Construction of Boundary Wall around GSMST Complex and other allied works such as soil filling and storm water drainage lines in softscape areas at IIT Kanpur".

Dear Sir/Madam

Having examined details given in Notice and bid document for the above work, I/we hereby submit the relevant information.

1. I/We hereby certify that all the statements made and information supplied in the enclosed forms and accompanying statement are true and correct.
2. I/we have furnished all information and details necessary for eligibility and have no further pertinent information to supply.
3. I/We also authorize the Executive Engineer, IWD, Indian Institute of Technology Kanpur or his representative(s) to approach individuals, employers, firms and corporation to verify our competence, work experience, and general reputation.
4. I/we submit the following certificates in support of our suitability, technical knowledge and capability for having successfully completed the following eligible completed works:

Sl. No.	Name of work	Amount	Certificate issued by
1			
2			
3			

CERTIFICATE

It is certified that the information given in the enclosed eligibility bid are correct. It is also certified that I/We shall be liable to be debarred, disqualified/ cancelation of enlistment in case any information furnished by me/us found to be incorrect.

Signature(s) of Bidder with seal

Enclosures:

Date:

5.9 CPWD-7

CPWD-7

PERCENTAGE RATE TENDER & CONTRACT FOR WORKS

Tender for the". **"Construction of Boundary Wall around GSMST Complex and other allied works such as soil filling and storm water drainage lines in softscape areas at IIT Kanpur"**.

1. To be uploaded as per details uploaded in CPP portal at www.eprocure.gov
2. To be opened in the presence of tenderers who may be present at the time of opening in the Superintending Engineer, IIT Kanpur.
3. The pre-qualification/Technical bid shall be opened first on due date and time as mentioned above. The time and date of opening of financial bid of contractors qualifying the technical bid shall be communicated to them at a later date.

TENDER

(To be signed in Company's Letterhead)

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

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

We agree to keep the tender open for **Ninety (90) days** from the due date of its opening and not to make any modification in its terms and conditions.

In lieu of EMD, I/We hereby submit Earnest Money Deposit (EMD) Declaration as per **6.1**

If I/We, fail to furnish the prescribed performance guarantee within prescribed period, I/We agree that the said Board of Governors or his successors, in office shall without prejudice to any other right or remedy, be at liberty to take action as per my/our EMD declaration as per **6.1**. Further, if I/We fail to commence work as specified, I/We agree that Board of Governors or the successors in office shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the said performance guarantee absolutely. The said Performance Guarantee shall be a guarantee to execute all the works referred to in the tender

documents upon the terms and conditions contained or referred to those in excess of that limit at the rates to be determined in accordance with the provision contained in Clauses 12.2 and 12.3 of the tender form.

Further, I/We agree that in case of myself / our self-becoming liable for action as per my/our EMD declaration or forfeiture of Performance Guarantee as aforesaid, I/We shall be debarred for participation in the re-tendering process of the work.

I/We undertake and confirm that eligible similar work(s) has/have not been got executed through another contractor on back-to-back basis. Further that, if such a violation comes to the notice of Department, then I/we shall be debarred for tendering in Indian Institute of Technology Kanpur in future forever. Also, if such a violation comes to the notice of Indian Institute of Technology Kanpur before date of start of work, the Superintending Engineer shall be free to forfeit the entire amount of Performance Guarantee.

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

Dated:

Signature(s) of Contractor(s) with seal
Postal Address:

5.10 Certificate for Tender

(To be given on Company Letter Head)

To,
Superintending Engineer,
Institute Works Department
IIT Kanpur-208016

Date:

Sub Certificate of Compliance as per Rule 144 (xi) GFR's 2017

Tender Reference No. 72/GSMST/Civil/D1/2025-26

Name of Tender / Work: **"Construction of Boundary Wall around GSMST Complex and other allied works such as soil filling and storm water drainage lines in softscape areas at IIT Kanpur"**.

1. "I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority. I hereby certify that this bidder fulfils all requirements in this regard and is eligible to be considered. [Where applicable, evidence of valid registration by the Competent Authority shall be attached.]"
2. "I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India and on sub-contracting to contractors from such countries; I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority and will not sub-contract any work to a contractor from such countries unless such contractor is registered with the Competent Authority. I hereby certify that this bidder fulfills all the requirements in this regard and is eligible to be considered. [Where applicable, evidence of valid registration by the Competent Authority shall be attached.]"

(Signature of the Bidder, with Official Seal)

5.11 Tender Acceptance Letter

(to be give on company letter head)

To,
The Superintending Engineer
IWD, IIT, Kanpur

Sub: Acceptance of terms & conditions of tender. Reference no.

Name of Tender / Work: "Construction of Boundary Wall around GSMST Complex and other allied works such as soil filling and storm water drainage lines in softscape areas at IIT Kanpur".

Dear Sir,

1. I/ We have downloaded / obtained the tender document(s) for the above mentioned 'Tender/Work' from the web site(s) namely: as per your advertisement, given in the above-mentioned website(s).
2. I / We hereby certify that I / we have read the entire terms and conditions of the tender documents from Page No..... to (including all documents like annexure(s), schedule(s), etc.), which form part of the contract agreement and I / we shall abide hereby by the terms / conditions / clauses contained therein. The corrigendum(s) issued from time to time by your department/ organization too have also been taken into consideration, while submitting this acceptance letter.
3. I / We hereby unconditionally accept the tender conditions of above-mentioned tender document(s) / corrigendum(s) in its totality / entirety.
4. I / We do hereby declare that our Firm has not been blacklisted/ debarred/ terminated/ banned by any Govt. Department/Public sector undertaking.
5. I / We certify that all information furnished by our Firm is true & correct and, in the event, that the information is found to be incorrect/untrue or found violated, then your department/ organization shall without giving any notice or reason therefore or summarily reject the bid or terminate the contract, without prejudice to any other rights or remedy including the forfeiture of the full said earnest money deposit absolutely.

Yours Faithfully,

(Signature of the Bidder, with Official Seal)

5.12 Financial Information

Proforma for providing Financial Information

(Scanned copy of the completed information sheet to be uploaded at the time of submission of bid)

Financial Analysis: Details to be furnished duly supported by figures in balance sheet/ profit & loss account for the last **Seven** financial years duly certified by the Chartered Accountant, as submitted by the applicant to the Income Tax Department (Copies to be attached).

Financial Years	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26
Gross Annual turnover							
Profit/Loss							

Signature of Chartered Accountant with Seal

Signature of bidder(s)

5.13 Banker's Certificate from a scheduled Bank

Proforma of Banker's Certificate from a Scheduled Bank

(To be printed in Bank's Letterhead)

(Scanned copy of the Certificate to be uploaded at the time of submission of bid)

This is to certify that to the best of our knowledge and information that M/s./Sh..... having marginally noted address, a customer of our bank are/is respectable and can be treated as good for any engagement up to a limit of Rs (Rupees).

This certificate is issued without any guarantee or responsibility on the bank or any of the officers.

.....
(Signature for the Bank)

NOTE:

1. Bankers certificates should be on letter head of the Bank, addressed to tendering authority.
2. In case of partnership firm, certificate should include names of all partners as recorded with the Bank.

5.14 Net Worth Certificate by certified Chartered Accountant

Proforma of Net Worth Certificate by certified Chartered Accountant

(To be printed in Letterhead of Chartered Accountant)

(Scanned copy of the Certificate to be uploaded at the time of submission of bid)

This is to certify that as per the audited Balance Sheet and Profit & Loss statement of the account during the financial year, the net worth of M/s./Sh.....(Name & Registered Address of individual/firm/company) as on 31.03.2025 is Rs._____ (Rupees_____) after considering all liabilities.. It is further certified that the net worth of the company has not eroded by more than 30% in the last three years ending on 31.03.2025.

.....
(Signature of the Chartered Accountant)

.....
(Name of the Chartered Accountant)

.....
(Membership No. of ICAI)

.....
(Date & Seal)

6.0 Proforma of Schedules

Operative schedules shall be supplied separately to each intending tenderer.

SCHEDULE 'A'	Schedule of Qty	Uploaded separately
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SCHEDULE 'B'

Schedule of materials to be issued to the contractor:

S.No.	Description of item	Quantity	Rates in figures & work at which the material will be charged to the contractor	Place of issue
1	2	3	4	5
NIL				

SCHEDULE 'C': Tools and plants to be hired to the contractor

S.No.	Description	Hires charges per day	Place of issue
1	2	3	4
-----NIL-----			

SCHEDULE 'D'	Extra schedule for specific requirements/ document for the work, if any:	As attached is tender form.
SCHEDULE 'E'	Schedule of component of other materials, Labour,POL etc. For price escalation	N.A.
SCHEDULE 'F'	General Conditions of Contract 2023 for Construction works as General Conditions date of amended / modified up to the last sub-mission of Bid of contract.	
Name of Work	Construction of Boundary Wall around GSMST Complex and other allied works such as soil filling and storm water drainage lines in softscape areas at IIT Kanpur	
Estimated cost of work	Rs. 10,27,41,038/- only	
Earnest Money	EMD declaration to be submitted	
Performance Guarantee	5% of tendered value PG shall be 5% of the Estimated cost put to tender (ECPT) or contract amount whichever is higher, valid up to stipulated date of completion and Six (6) months	

	<p>beyond that.</p> <p>a) A bid will be treated abnormally low if the quoted amount is lesser than 80% of estimated cost put to tender.</p> <p>b) Requirement of Additional proforma Guarantee (APG): In case of abnormally low bids as defined above, the bidder shall be required Additional Performance Guarantee (APG) in addition to the Standard Performance Guarantee (PG). The amount of Additional Performance Guarantee (APG) shall be equivalent to the difference between the 80% amount of ECPT and quoted amount. (e.g. if is A and quoted amount is 0.7A then the amount of APG shall be 0.8A-0.7A). The Additional Performance Guarantee (APG) shall be in the prescribed format of Performance Guarantee and has to be submitted within the time frame prescribed for submission of Performance Guarantee. The other terms and conditions of release etc. Of APG shall be same as that of PG.</p>
Security Deposit	<p>2.5% of tendered value will be deducted from each bills as security deposit and will be released after completion of work as mentioned below: First year: 0% (zero percent) Second year: 1.00% (one percent) Third year: 1.50% (one point five percent)</p>

General Rules and Directions:

Officer Inviting tender:	Superintending Engineer, IWD, IIT Kanpur
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Definitions:

2(vi)	Engineer-in-charge	Engineer Authorized by Superintending Engineer
2(viii)	Accepting Authority	Superintending Engineer on behalf of Director, IIT Kanpur
2(x)	Percentage on cost of materials and Labour to cover all overheads and profits	15%
2(xi)	Standard Schedule of Rates	For civil work: DSR2023 (Civil Works) & MR with correction slips up to the last date of Bid
2(xii)	Department	I.W.D, IIT Kanpur
9(ii)	Standard CPWD Contract Form	General Conditions of Contract 2023 for Construction Works as

		amended / modified up to the last date of submission of Bid.
Clause 1	<p>i) Time allowed for submission of Performance Guarantee program chart(Time and Progress) and applicable labour licenses, registration with EPFO, ESIC and BOCW welfare board or proof of applying thereof from the date of issue of the letter of acceptance</p> <p>ii) Maximum allowable extension with late fee @ 0.1% per day of Performance Guarantee amount beyond the Period provided in (i) above</p>	<p>7 days</p> <p>7 days</p>
Clause 1A	The Defect liability period shall be Five (5) years from the date of compliance of the assigned works to the Institute	Applicable
Clause 2	Authority for fixing compensation under Clause 2	SE, IWD,IIT Kanpur
Clause 2A	Whether Clause 2A shall be applicable	YES
Clause 5	<p>i) Number of days from the date of issue of letter of acceptance for reckoning date of start</p> <p>ii) Milestones</p>	<p>7 days</p> <p>As per Table 6</p>
Clause 6	Computerized Measurement of Bills	APPLICABLE
Clause 7		APPLICABLE
Clause 10A		APPLICABLE

Clause 10B (ii)		Not Applicable
Clause 10B (iii)		Not Applicable
Clause 10C		Not Applicable
Clause 10CA		Not Applicable
Clause 10CC		Not Applicable
Clause 11	Work to be executed in Accordance with Specifications, Drawings, Order etc.	CPWD Specifications of all Civil items (CPWD Civil specification vol.1 and vol.2, 2019), MORTH specifications for road and bridge works 2013, IRC: 109 - 2015 & IRC:44 with correction Slips issued up to the last date of receipt of tenders and as per NIT for Civil and Road Works.
Clause 16	Competent Authority for deciding reduced rates: For Civil items and For Electrical items of work	As per Table 7
Clause 17	Defect liability period completion of contract whichever is later	Three (3) years and those listed in Special Conditions of Contract
Clause 18	List of mandatory machinery, tools & plants to be deployed by the contractor at site	As per Table 8 and those listed in special conditions of contract, if any
Clause 32	Requirement of Technical Representative(s)	As per Table 10

If the Contractor commits default in commencing the execution of the work as aforesaid, the performance guarantee shall be forfeited.

**Table 6
Major milestones of the project**

Sl No	Description of Milestone (Physical)	Time allowed from date of start	Maximum Duration of work	Amount to be with- held in case of non - achievement of milestone (% of tendered amount)
1.	Complete supply filling & Compaction of good earth by 15 June 2026.	2 Months	2.5 Months	0.5 %
2.	Boundary wall & other balance works shall be takenup parellarly.	8 Months	8 Months	0.5 %

The detailed program chart approved by the engineer-in-charge shall indicate how the resources will be deployed by the contractor to maintain desired progress and for the completion of the work within the specified period. If the submitted program is approved, the milestone shall be redefined accordingly by the Superintending Engineer, Indian Institute of Technology Kanpur. The amount to be withheld in such a case, for non-achievement of milestone(s), shall remain unaltered i.e., 1% of tendered amount.

1.	Time allowed for execution of work	Eight(08) months
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**Table 7
Authority of decide**

1.	Extension of time (EOT)	SE,IWD, IIT Kanpur
2.	Rescheduling of milestones	SE,IWD, IIT Kanpur
3.	Shifting of date of start in case of delay in handing over of site	SE,IWD, IIT Kanpur

**Table 8
LIST OF MACHINERY, TOOLS & PLANTS TO BE DEPLOYED BY THE CONTRACTOR AT SITE AS & WHEN REQUIRED,**The entire equipment list has to be verified by Engineer-in-Charge before start the work

Sl No	Name of Equipment	Numbers
1.	Equipment for Compaction of earth	
a.	Vibratory Road roller	1 No.
b.	Baby road roller	1 No.
c.	Water tanks with sprinkling system	2 No.
2.	Equipment for transportation	
a.	Tippers	5 No.
b.	JCB	1 No.
3.	Tractor with trolley	1 No.

**Table 9
Requirement of technical staff as per clause 32**

S No.	Qualification	Number	Maximum experience in years	Technical staff designation	Rate at which recovery shall be made from the contractor in the event of not fulfilling provision of clause 32
1	Graduate/ Diploma Engineer	1	5 or 10 years respectively	Site /Quality/billing Engineer	Rs. 50,000/- (Rupees: Fifty Thousand Only) per month per person
2	Safety Engineer	1	05 Years	Safety Engineer	Rs. 30,000/- (Rupees: Thirty Thousand Only) per month per person

Note 1: Assistant Engineers retired from Government services who are holding Diploma will be treated at par with Graduate Engineers. Diploma holder with minimum 10 years relevant experience with a reputed construction co. can be treated at par with Graduate Engineers for the purpose of such deployment subject to the condition that such diploma holders should not exceed 50% of requirement of degree engineers.

The details of the appointed site engineers have to be verified and approved by Engineer-in-Charge.

Names of Independent External Monitors.

SI No.	Name of IEM	Address
1.	Mr. Ranvir Singh	IEM1@iitk.ac.in
2.	Mr. P.V.V Satyanarayana	IEM2@iitk.ac.in

GENERAL REQUIREMENTS OF TENDER

Name of Work: **"Construction of Boundary Wall around GSMST Complex and other allied works such as soil filling and storm water drainage lines in softscape areas at IIT Kanpur."**

- 1 The tenderer is advised to read and examine the tender documents for the work and the set of tender drawings. He should inspect and examine the site and its surroundings by himself before submitting his tender.
- 2 Separate conditions & specification and scope are included in this tender. The contractor shall quote the percentage rates in figures and words accurately in schedule of financial quote so that there is no discrepancy in figures and words.
- 3 Time allowed for the execution of work is **08 months**.
- 4 The contractor(s) shall submit a detailed program of execution in accordance with the **master programme/milestone within fifteen days** from the date of issue of letter of acceptance.
- 5 Quality of the project is of utmost importance. This shall be adhered to in accordance with the provisions of CPWD specifications and guidelines given in the relevant paras.
- 6 Temporary Electric connection (Single/ Three phase) shall be provided by the Institute from its distribution network and the charges shall be realized prevalent commercial tariff of the institute presently recovery rate is Rs. 9.19 Per unit on the basis of actual consumption through the separate meter under the control of Engineer-In-Charge. If the rates are revised in future the same shall be applicable to the contractor. The contractor at his own cost shall arranged the cables for the service connection and the sub meter. The fixed charges shall be payable as per Institute policy.
- 7 No labor huts/jhuggis shall be allowed to construct in the campus except for the security persons at work site with proper sanitation arrangements after due approval of Superintending Engineer.
- 8 The contractor has to appoint qualified safety officer for proper adhering safety requirements during the entire period of contract. No work shall be allowed without presence of the safety officer. Fortnightly training of the workers shall also to be conducted by the safety officer and the proper record of the maintained. All workers with using of proper safety gazettes only be allowed enter at side.
- 9 In case of any serious accident at work site, the Institute may cause an enquiry/ investigation into the accident and depending on the outcome of such enquiry/ investigation, the Institute may take such action against the contractor as may be deemed fit and appropriate in the discretion of the Director, which may also lead

to termination of the contract, and or the contractor may be debarred from applying for further works in the campus for a specified period.

- 10 **Cement shall be arranged by the contractor himself.**
- 11 **Steel Reinforcement shall be arranged by the contractor himself.**
- 12 Contractor has to deploy basic minimum required machinery on the project to complete the work in time as stipulated in the tender. In case the contractor fails to deploy the plant and machinery as per requirement of the work a penalty of Rs 5000/- shall be imposed till the deployment of required T & P at site.
- 13 The contractor shall submit the running bills in the shape of the computerized MB in pages of A-4 size as per the standard format of department and shall act as per modified Clause 6 A of CPWD-7.
- 14 Contractor has to provide reinforcement cover blocks made of approved proprietary pre packed free flowing mortars (Conbextra as manufactured by M/s Fosroc Chemical India Ltd. or approved equivalent) of high early strength.
- 15 The contractor has to take approval from the Superintending Engineer in charge for the boring for the use of water in construction work.

MATERIAL AND QUALITY ASSURANCE

1. The contractor shall ensure quality control measures on different aspects of construction including materials, workmanship and correct construction methodologies to be adopted. He shall have to submit quality assurance programme within two weeks of the award of work. The quality assurance programme should include method statement for various items of work to be executed along with check lists to enforce quality control.
2. The contractor shall depute Quality Manager/Engineer exclusively for enforcement of quality control. Such Quality Manager/Engineer should be qualified Graduate Engineer with minimum Five years similar experience for other staff to be deployed for the said work, the contractor may refer to clause 32 (i) under schedule "F" attached.
3. The contractor shall get the source of all other materials, not specified elsewhere in the document, approved from the Superintending Engineer. The contractor shall stick to the approved source unless it is absolutely unavoidable. Any change shall be done with the prior approval of the Superintending Engineer for which tests etc. shall be done by the contractor at his own cost. Similarly, the contractor shall submit brand/ make of various materials not specified in the agreement, to be used for the approval of the Superintending Engineer along with samples and once approved, he shall stick to it.
4. Frequency and type of tests of various Materials/items/ article shall be conducted as per specifications and relevant BIS-Codes. The test results confirm to the specification/codes.
5. **Test Laboratories:**

A. Laboratory at site :

The contractor shall establish a testing lab at site and provide testing equipment and materials for the field tests mentioned in the list of mandatory tests given in CPWD specifications 2009 Vol. 1 & 2. Nothing extra shall be payable to him on this account. In case of delay in establishment of Lab at site, a non refundable recovery of Rs. 1000/- per day shall be made from Running account bill of the contractor for each delayed d ays.

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

a) **Balances:**

- i) 7 kg to 10 kg capacity, semi-self-indicating type – Accuracy 10 gm.
- ii) 500 gm capacity, semi-self-indicating type Accuracy 1 gm.

- iii) Pan Balance- 5 kg Capacity- Accuracy 10 gm.
- b) **Ovens-** Electrically operated, thermostatically controlled upto 1100C- Sensitivity 10C.
- c) **Sieves:** as per IS: 460
 - i) IS Sieves – 450 mm internal dia of sizes 100 mm, 80 mm, 63 mm, 50 mm, 40 mm, 25 mm, 20 mm, 12.5 mm, 10 mm, 6.3 mm, 4.75 mm, complete with lid and pan.
 - ii) IS Sieves – 200 mm internal dia (brass frame) consisting of 2.36 mm, 1.18 mm, 500 microns, 425 microns, 300 microns, 212 microns, 150 microns, 90 microns, 75 microns with lid and pan.
- d) Sieve shaker capable of 200 mm and 300 mm dia sieves, manually operated with timing switch assembly.
- e) Equipment for slump test- slump cone, steel plate, taping rod, steel scale, scoop.
- f) Surveying Equipment- Total station-01 Nos.
- g) Digital meter, Digital Vernier caliper, Digital screw gauge, Depth gauge etc.
- h) Ultrasonic Pulse Velocity testing machine.
- i) Equipment for concrete testing

i) V-funnel	02 Nos.
ii) L-Box	02 Nos.
iii) Concrete cube moulds 15x15x15cm.	30 Nos.
iv) Pruning Rods 2Kg weight length 40cm and ramming face 25mm	01 Nos.
v) Extra Bottom plates for 15cm cube mould	06 Nos.
vi) Standard Vibration table for cubes	01 Nos.
vii) Dial gauges 25 mm travel- 0.01 mm/division Least count-	01 Nos.
viii) Automatic compression testing machine of 100 tonne capacity.	01Nos.
ix) Flow test apparatus	02 Nos.
x) Instant Moisture meter for aggregate	02 Nos.

B. Sampling of Materials:

B1. Sample of building materials and other articles required for execution of work shall be got approved from the Engineer-in-Charge. Articles manufactured by companies of repute and approved by the Engineer-in-Charge shall only be used. Articles bearing BIS certification mark shall be used in case the above are not

available, the quality of samples brought by the contractor shall be judged by standards laid down in the relevant BIS specifications. All materials and articles brought by the contractor to the site for use shall conform to the samples approved by the Engineer-in-Charge.

B2. The contractor shall ensure quality construction in a planned and time bound manner. Any sub-standard material/work beyond set out tolerance limit shall be summarily rejected by the Engineer-in-Charge.

B3. BIS marked materials except otherwise specified shall be subjected to quality test at the discretion of the Engineer-in-Charge besides testing of other materials as per the specifications described for the item/materials. Wherever BIS marked materials are brought to the site of work, the contractor shall if required, by the Engineer-in-Charge furnish manufacturers test certificate 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.

B4. The contractor shall procure all the materials in advance so that there is sufficient time to testing and approving of the materials and clearance of the same before use in work.

B5. All materials brought by the contractor for use in the work shall be got checked from the PMC / Engineer-in-Charge or his authorized representative of the work on receipt of the same at site before use.

B6. The contractor shall be fully responsible for the safe custody of the materials issued to him even if the materials are in double lock and key system.

B7. The Stone aggregates and sand shall be brought from any quarries subjected to the said materials confirm CPWD specifications.

7. The day-to-day receipt and issue accounts of different grade/brand of cement shall be maintained separately in the standard proforma by the contractor in consultation with the PMC / Engineer - in-Charge of work and which shall be duly signed by the contractor or his authorized representative.
- 5 The contractor shall render all help and assistance in documenting the total sequence of this project by way of photography, slides, audio-video recording etc. Nothing extra shall be payable to the contractor on this account.
- 6 The contractor shall be fully responsible for the safe custody of materials brought by him issued to him even though the materials are under double lock key system.
- 7 Separate Cement registers showing the receipt of the PPC shall be maintained at site. The contractor shall construct go down for storage of PPC at site and nothing extra on this account shall be payable.
- 8 Cement issued shall be for consumption at site only. No cement for factory made items and those not manufactured at site shall be issued.
- 9 In case there is any discrepancy in frequency of testing as given in the list of mandatory test and that in the individual sub-head of work as per CPWD specification 2019 Vol. 1& 2 the higher of the two frequencies of testing shall be adopted.

D) Maintenance of Registers:

1. All the register of tests to be carried out at construction site or in outside laboratories shall be maintained by the contractor which shall be issued to the contractor by Engineer-in-Charge through PMC. All test register are to be maintained by the contractor with due signature & seal of PMC on regular basis.
2. The test registers to be issued to the contractor are :
 - A) Materials at site account register such as steel, bricks, AAC blocks, coarse aggregates etc.
 - B) Cement register.
 - C) Master test registers.
 - D) Cube test register.
 - E) Paint register.
 - F) Any other test register as required.
3. All the entries in the register will be made by the designated engineering staff of the contractor and same should be regularly authenticated by PMC and submitted to Engineer-in-Charge.
4. The Contractor shall be responsible for safe custody of all the test registers to be maintained at site.
5. Submission of copy of test reports of materials with each running account bill and final bill. These test reports should be duly checked and signed by PMC.
6. All Material received at site shall be entered in MAS Register and copy of supply order, MTC and bill-invoice shall be maintained in order by the contractor. MIR to be reviewed and checked by the PMC along with all relevant documents.
7. All the registers of tests carried out at construction out a construction site laboratory or in outside laboratories shall be maintained by the agency. Which may be inspected by Engineer-in-Charge of his/her authorized representative / PMC at any point of time.
8. The agency shall allow access of Third-party quality assurance agency (TPQAA) engaged by Engineer-in-Charge to have a control on quality and methodology of execution. All arrangements for transporting and getting them tested shall be made by the agency.

ADDITIONAL CONDITION FOR CEMENT

1. The contractor shall procure 43 grade Portland Pozzolana Cement conforming to a minimum 43 MPa compressive strength requirement and also conforming to IS: 1489 (Part-I) as required in the work, from reputed manufacturers of cement, such as A.C.C., Ultratech, Shree cement, Ambuja, Century Cement, Mycem cement & J.K. Cement. 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 manufacturer(s) which the tenderer 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 manufacturers, given by the tenderer, fully or partially.
2. Supply of cement shall be made in bags or in Bulk as approved by Engineer-in-Charge .
3. The cement go down of minimum capacity of 500 bags of cements shall be constructed by the contractor at site of work .
4. Samples of cement arranged by the contractor shall be taken by the Engineer- in-Charge and got tested in accordance with provisions of the relevant BIS codes. In case the test results indicate that the cement arranged by the contractor does not conform to the relevant BIS code the same shall stand rejected and shall be removed from the site by the contractor at his own cost within a week's time of written order from the Engineer-in- Charge to do so.
5. Double lock provision shall be made to the door of the cement go down. The keys of one lock shall remain with the Engineer-in-charge or his authorized representative and the key of the other lock shall remain with the contractor. The contractor shall be responsible for the watch and ward and safety of the cement go down. The contractor shall facilitate the inspection of the cement go down by the Engineer-in-Charge at any time.
6. The cement shall be got tested by the 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 test laboratories. The cost of tests shall be borne by the contractor:
7. The actual issue and consumption of cement on work shall be regulated and proper accounts maintained as provided in clause 10 of the contract. The theoretical consumption of cement shall be worked out as per procedure prescribed in clause 42 of the contract and shall be governed by conditions laid therein. In case the cement consumption is less than theoretical consumption including permissible variation, recovery at the rate show prescribed shall be made. In case of excess consumption, no adjustment

need to made.

8. The cement brought to site and the cement remaining unused after completion of the work shall not be removed from site without the written permission of the Engineer-in- Charge.
9. The damaged cement shall be removed from the site immediately by the contractor on receipt of a notice in writing from the Engineer-in-Charge. If he does not do so within three days of receipt of such notice, the Engineer-in-Charge shall get it removed at the cost of the contractor.
10. Wet curing period shall be enhanced to a minimum of 10 days or its equivalent. In hot & arid regions, the minimum curing period shall be 14 days or its equivalent.
11. Till the time, BIS makes it mandatory to print the % age of fly ash on each bag of cement, the certificate from the PPC manufacturer indicating the same shall be obtained and permission obtained from Engineer-in-Charge before use of such cements in works.

ADDITIONAL CONDITIONS FOR STEEL REINFORCEMENT

1. For reinforced cement concrete, the reinforcement bars shall consist of Fe 500 D grades or as specified in the GFC drawings conforming to IS 1786:2008 (Indian Standard specification for high strength deformed steel bars and wires for concrete reinforcement) as per amendment 3, para 4.2 note 3 (Indian Standard specification for high strength deformed steel bars and wires for concrete reinforcement) as presently applicable and any further amendments issued during & up to the period of execution/completion. The primary producers of such Low Alloy Steel reinforcement TMT bars shall be as per approved list given in the "Preferred makes of the materials" incorporated in this tender document.
 - 1.1 The contractor shall obtain manufacturers certificate stating the process of manufacture, chemical composition and test sheet giving result of each mechanical test applicable to the material purchased and submit it to the Engineer-in-charge. Each test certificate shall indicate the number of the cast to which it applies, corresponding to the number or identification mark to be found on the material.
2. The contractor shall have to obtain vouchers and furnish test certificates to the Engineer-in-charge in respect of all supplies of steel brought by him to the site of work.
3. Samples shall also be taken and got tested by the Engineer-in-charge as per the provisions in this regard in the relevant BIS codes. In case the test results indicate that the steel arranged by the contractor does not conform to the specifications as defined under para 1.1 and 1.2 above, the same shall stand rejected and it shall be removed from the site of work by the contractor at his cost within a week time of written orders from the Engineer-in-charge to do so.
4. The steel reinforcement shall be brought to the site in bulk supply of 50 tons or more or as directed by the Engineer-in-charge.
5. The steel reinforcement bars shall be stored by the contractor at site of work in such a way as to prevent distortion & corrosion, and nothing extra shall be paid on this account. Bars of different sizes and lengths shall be stored separately to facilitate easy counting and checking.
6. For checking nominal mass, tensile strength, bend test, re-bend test etc. specimens of sufficient length shall be cut from each size of the bar at random at frequency not less than that specified below:

Size of bar	For consignment below 100 tons	For consignment over 100 tons
Under 10 mm dia bars	One sample for each 25 tons or part thereof	One sample for each 40 tons or part thereof
10 mm to 16 mm dia bars	One sample for each 45 tons or part thereof	One sample for each 50 tons or part thereof
Over 16 mm dia bars	One sample for each 50 tons or part thereof	One sample for each 75 tons or part thereof

7. The contractor shall supply free of charge the steel required for testing including its transportation to testing laboratories. The cost of the all passed tests conducted through the Institute labs shall be borne by the Institute & the cost of failed tests shall be borne by the contractor.
8. The actual issue and consumption of steel on work shall be regulated and proper accounts maintained as provided in clause 10 of the contract. The theoretical consumption of steel shall be worked out as per procedure prescribed in clause 38 of the contract and shall be governed by the conditions laid therein. In case the consumption is less than theoretical consumption including permissible variations recovery at the rate so prescribed shall be made. In case of excess consumption no adjustment need to be made.
9. The steel brought to the site and the steel remaining unused shall not be removed from site without the written permission of the Engineer-in-charge.
10. Steel bars brought by the contractor for use in the work shall be got checked from the Engineer-in-Charge or his authorized representative of the work on receipt of the same at site before use. The contractor shall supply free of charge the steel required for testing including its transportation to testing laboratories. The cost of the all passed tests conducted through the Institute labs shall be borne by the Institute & the cost of failed tests shall be borne by the contractor.
11. If the quantity of steel actually used in the work is found to be more than the theoretical quantity of steel including authorized variation, nothing extra shall be payable to the contractor on this account. In the event of it being discovered that after the completion of the work the quantity of steel used is less than the quantity ascertained as herein before provided (allowing variation on the minus side as stipulated in clause 42). The cost of quantity of steel so less used shall be recovered from the contractor at rate as specified in schedule 'F'. Decision of the Engineer-in- Charge in regard to theoretical quantity of steel which should have been actually used and recovery of the rate specified shall be final and binding on the contractor.
12. In case the contractor brings surplus quantity of steel the same after completion of the work will be removed from the site by the contractor at his own cost after approval of the Engineer-in-Charge.

13. Reinforcement including authorized spacer bars and lap pages shall be measured in length of different diameters, as actually (not more than as specified in the drawing) used in the work, nearest to a centimeter. Wastage and unauthorized overlaps shall not be measured.
14. The standard sectional weights referred to as in Table 5.4 under para 5.3.4 in CPWD specifications for works 2009 Vol. 1 will be considered for conversion of length of various sizes of MS bars, Tor steel bars and TMT bars into standard weight.
15. Records of actual sectional weight shall also be kept dia-wise & lot-wise. The average sectional weight for each diameter shall be arrived at from samples from each lot of steel received at site. The decision of the Engineer-in-Charge shall be final for the procedure to be followed for determining the average sectional weight of each lot. Quantity of each diameter of steel received at site of work each day will constitute one single lot for the purpose. The weight of steel by conversion of length of various sizes of bars based on the actual weighted average sectional weight shall be termed as derived actual weight.
16. Mixing of different type of steel/different grades of steel shall not be allowed in the same structural members as main reinforcement to satisfy clause 26.1 of IS:456.
17. Tolerances on Nominal Mass (individual sample) shall be as under:

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

Scope of work

1.1	The work of supply, filling & leveling of earth is most urgent activity of this work. This shall be completed in all respect before the monsoon season. Therefore the agencies are advised to make the survey in near by areas and after getting assured that they may complete the earth filling work by 15 June, 2026 in all respect. Any request for extension of time for supply of earth shall not be entertained. Non completion of earth filling work by 15 June, 2026 a penalty of Rs. 5 Lakhs shall be imposed against the Milestone.
1.2	The work shall be executed in accordance with the layout plan, architectural, structural, MEP, External Development and services drawings attached with bid document with the intent to complete and hand over the project in satisfactory condition and ready for occupation.
1.3	The Contractor's attention is drawn toward present site condition. All the area marked in layout plan attached with this bid document shall be handed over to contractor. The works shall be done on ground as available; therefore, no claim for extra cost or time shall be entertained on this account. The land is free from encroachment and there is no hindrance to execute the work. The agency shall fix a permanent bench mark at the site of work. Plinth level shall be fixed above the General finished ground level as per drawings and decided by Engineer-in-charge. The data provided in this document are for general guidance. Changes, if any, would not affect the agreed rates and no claim on this account shall be entertained.
1.4	To carry out spot levels at 5 M center to center of the site for execution of the work and verify the site dimensions as per the site plan provided along with bid document. The all spot Levels have to be taken in presence of PMC. The spot Levels i.e. (Initial & Final) after compaction have to be certified by PMC for the release of payment.
1.5	Providing and erecting temporary barricading with MS tubular members of appropriate sizes as approved by PMC/Engineer-in-Charge on the digging site for safety purpose. Nothing shall be paid on this account.
1.6	The work is to be executed as per Good for Construction (GFC) drawings attached and General specifications, Schedule of finishes, and other terms and conditions mentioned in the bid document.
1.7	CPWD Specifications 2019 Vol-I and Vol-II as amended upto last date of submission of bid shall be applicable for all the items/ sub-items to be executed as per Good for Construction (GFC) drawings.

1.8	Those items which are to be executed under the scope of this NIT and for which CPWD specifications are not available, such items shall be executed in compliance with the specifications mentioned separately in this document and/or as per relevant IS codes, International Standards etc. as applicable or as per the direction of Engineer-in-Charge.
1.9	Execution of all External services like drainage system, Boundary wall, soil filling in landscaped areas and all connected sub-structures and superstructures within the premises (as marked in layout plan), as per byelaws and norms of the local bodies including making connections with the peripheral services after getting the services approved from Superintending Engineer within the scope of work.
1.10	The scope includes Construction of Boundary Wall around GSMST Complex and other allied works such as soil filling and storm water drainage lines in softscape areas IIT Kanpur " as per approved drawings /specifications and as directed by SE, IWD.
1.11	Complete leveling / dressing including filling of good earth, its supply from outside of the campus or disposal of surplus earth as required to maintain the finished level including the required compaction with road roller (8 to 10 Ton) as per the GFC drawings is within the scope of work.
1.12	Taking all precautionary measures to safeguard safety measures against any accidents for the agency's employees, labour, public, and staff of PMC and IITK by providing all necessary safety equipments, helmets etc. at work site.
1.13	The Agency shall construct/provide one site office (semi-permanent structure) for use by Engineer-in- charge, PMC staff and his staff consisting of room with toilet for and IITK staff. The location and plan shall be got approved from Superintending Engineer. The Agency shall provide a typical plan of site offices (having light fixtures, wiring & fans etc.) with specification within 15 days of award of work and shall construct after approval of Engineer-in- Charge. All running cost & charges for office including Electricity, water supply, RO/ drinking water etc. shall be provided and cost shall be borne by the agency.
1.14	The agency shall provide the following furniture (new) for use of IWD / PMC staff at site office and will take them away these items after completion of work.

	S.No.	Articles	Quantity
	1.	Office Tables	2 Nos.
	2.	Office Chairs	2 Nos.
	3.	Steel Almirah (Big)	2 No.
	4.	Visitor chairs	4 Nos.
1.15	The scope of the works listed above is indicative only for the details of the works, please refer to the BoQ/ GFC drawings and the work has to be done strictly as per the specifications in the BoQ and the particular specifications and conditions mentioned in the tender document.		
1.16	The above scope of work includes cost of all materials, manpower, equipment's, T&P fixtures, accessories, royalties, all taxes (excluding GST) watch & ward till handing over to the department and all other essential elements for completion Any change, modification, revision etc. required to be done by user's Committee, IWD etc. in accordance with applicable standards and bye- laws will have to be done at agency's cost and nothing extra shall be payable.		
1.17	All GFC drawings shall be made available to contractor from start of work and if there is any clarification required by contractor, the same will be issued as per requirement of work.		
1.18	The cost of deficiency charges and rectification of any defect at the end of the job, if any is also to be borne by the agency.		

GENERAL TERMS & CONDITIONS

●	<p>Order of Preference</p> <p>Should there be any difference or discrepancy between the specifications and or the drawings, the following order of preference shall be observed: -</p> <ol style="list-style-type: none"> 1) Bill of quantities 2) GFC drawings. 3) General specification and Schedule of finishes provided in bid document. 4) Additional & Special Conditions provided in bid document. 5) Any other terms & Condition provided in bid document. 6) CPWD specifications including correction slips issued up to the last date of uploading/submission of bid. 7) Indian standard specifications of B.I.S. 8) ASTM, BS, or other foreign origin code mentioned in bid document. 9) Manufacturer’s specifications if B.I.S specification is not available. 10) Sound Engineering Practices or well-established local construction practices. 11) Decision of Engineer-in-Charge if none the above is available. <p>Above provision supersedes para 8.1 of General Conditions of Contract- 2023 projects, as applicable.</p> <p>If there are varying or conflicting provisions made in any one document forming part of the contract, the Accepting Authority shall be the deciding authority with regard to the intention of the document and his decision shall be final and binding on the contractor.</p> <p>In case of any difference in the Hindi version and English version in any of the condition of contract, English version shall prevail.</p>
●	<p>The rates tendered by the contractor are deemed to be inclusive of site clearance, setting out work profile, establishment of reference bench mark, spot levels, construction of all safety and protection measure, around the site, preparatory works, testing charges of materials working during monsoon, working etc. all-inclusive and shall apply to all heights, lifts, leads and depths of the work and nothing extra shall be payable to him on account of the same unless otherwise mentioned in the bid document.</p>
●	<p>The proposed work is a prestigious work around and in the GSMST complex and quality of work is paramount importance. Contractor shall have to engage well experienced skilled labor and deploy modern T&P and other equipment to execute the work.</p>

<ul style="list-style-type: none"> ● 	<p>a) 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.</p> <p>b) The contractor (s) shall get himself acquainted with nature and extent of the work and satisfy himself about the availability of materials from kiln or approved quarries for collection and conveyance of materials required for construction.</p>
<ul style="list-style-type: none"> ● 	<p>The tenderer shall see the approaches to the site. In case any approach from main road is required by the contractor, the same shall be made good, improved and maintained by the contractor at his own cost. No payment shall be made on this account.</p>
<ul style="list-style-type: none"> ● 	<p>The contractor shall give to the Municipality, Police and other authorities all necessary notices etc. that may be required by law and obtain all requisite Licenses for temporary obstructions, enclosures etc. and pay all fee, taxes and charges which may be liveable on account of these operations in executing the contract. He shall make good any damage to the adjoining property whether public or private and shall supply and maintain light and other illumination on for cautioning the public at night.</p>
<ul style="list-style-type: none"> ● 	<p>The contractor shall take all precautions to avoid accidents by exhibiting necessary caution boards day and night speed limit boards red flags, red lights and providing barriers. He shall be responsible for all dangers and incidents caused to existing / new work due to negligence on his part. No hindrances shall be caused to traffic during the execution of the work.</p>
<ul style="list-style-type: none"> ● 	<p>Contractor shall provide permanent bench marks and other reference points for the proper execution of work and these shall be preserved till the end of work. All such reference points shall be in relation to the levels and locations, given in the Architectural and plumbing drawings.</p>
<ul style="list-style-type: none"> ● 	<p>Other agencies doing works related with this project may also simultaneously execute their works and the contractor shall afford necessary facilities for the same. The contractor shall leave such necessary holes, openings etc. for laying/burying in the work, pipes cables, conduits, clamps, boxes and hooks for fan clamps etc. as may be required for the other agencies. Nothing extra over the Agreement rates shall be paid for doing these.</p>
<ul style="list-style-type: none"> ● 	<p>Some restrictions may be imposed by the security staff etc. on the working and for movement of labor, materials etc. The contractor shall be bound to follow all such restrictions/instructions and nothing extra shall be payable on account of the same.</p>
<ul style="list-style-type: none"> ● 	<p>The contractor shall fully comply with all legal orders and directions of the Public or local authorities or municipality and adhere by their rules and regulations and pay all fees and charges for which he may be liable in this regard. Nothing extra shall be paid/reimbursed for the same.</p>

●	This proposed work shall be carried out in the manner complying in all respects with the requirements of the relevant bylaws and regulations of the local body under the jurisdiction of which the work is to be executed or as directed by the Superintending Engineer and nothing extra shall be paid on this account.
●	In case of items for which abbreviated nomenclature is not available in the aforesaid publication and also in case of extra and substituted items for which abbreviated nomenclature are not provided for in the agreement. Full nomenclature of item shall be reproduced in the measurement books and bill forms for running account bills.
●	For the purpose of recording measurements and preparing running account bills, the abbreviated nomenclature indicated in the publications Abbreviated Nomenclature of Items of DSR 2023 shall be accepted. The Abbreviated Nomenclature shall be taken to cover all the materials and operations as per the complete nomenclature of the relevant items in the agreement and relevant specifications.
●	For the final bill, however, full nomenclature of all the items shall be adopted in preparing abstract in the measurement books and in the bill forms.
●	It shall be ensured by the contractor that no electric live wire is left exposed or unattended to avoid any accidents in this regard.
●	The structural and architectural drawings shall at all times be properly co-related before executing any work. However, in case of any discrepancy, former shall prevail unless otherwise mentioned in bid document or as directed by the Superintending Engineer.
●	The contractor shall maintain in perfect condition, all portions executed till completion of the entire work allotted to him. Where however phased delivery of work is contemplated these provisions shall apply separately to each phase.
●	The entire royalty at the prevalent rates shall have to be paid by the contractor on all the boulders, metals, shingle sand, earth etc. collected by him for execution of the work, directly to the Revenue authority or authorized agents of the State Government concerned or the Central Government, as the case may be.
●	All RCC work in Structural members shall be of M25 design mix concrete. The Agencies had to submit the request letter for Mix Design from Institute Lab. The charges shall be payable by the agencies to the Institute.

●	PROGRAM CHART
	<p>The contractor shall submit a Detailed construction program (Time and Progress Chart) for execution of work in stipulated period of completion considering each mile stone within 15 days of date of issue of letter of acceptance. The Engineer-in-charge may within 30 days thereafter, if required modify, and communicate the program to the contractor. The work program shall include all details of balance drawings and decisions required by contractor without causing any delay in execution of the work. The chart shall be prepared in direct relation to the time stated in the contract documents for completion of items of the works. It shall indicate the forecast of the dates of commencement and completion of various trades of sections of the work and may be amended as necessary by agreement between the Engineer-in-charge and the contractor within the limitations of time imposed in the Contract documents, and further to ensure good progress during the execution of the work, the contractor shall in all cases in which the time allowed for any work, exceeds one month complete the work as per mile stones given in Schedule "F".</p>
	<p>In case of non-submission of construction program by the contractor the Program approved by the Superintending Engineer-in-charge shall be deemed to be final.</p>
	<p>The approval by the Superintending Engineer-in-charge of such program shall not relieve the contractor of any of the obligations under the contract.</p>
	<p>The program chart should include the following: -</p> <ol style="list-style-type: none"> 1) Descriptive note explaining sequence of various activities. 2) BAR CHARTS prepared in mutually agreed software or in other format decided by by Engineer-in-charge which will indicate resources in financial terms, manpower and specialized equipment's for every important stage. 3) Program for procurement of materials by the contractor. 4) Program for arranging and deployment of manpower both skilled and unskilled so as to achieve targeted progress. 5) Program of deployment of machinery/equipment's having adequate capacity, commensurate with the quantum of work to be done within the stipulated period, by the contractor. 6) Program for achieving milestones.
●	<p>If the work is carried out in more than one shift or during night, no claim on this accounts shall be entertained.</p>
●	<p>Existing drains, pipes, cables, over-head wires, sewer lines, water lines and similar services encountered in the course of the execution of work shall be protected against the damage by the contractor at his own expense. The</p>

	contractor shall not store materials or otherwise occupy any part of the site in a manner likely to hinder the operation of such services.
•	The contractor shall be responsible for the watch and ward/guard of the buildings, safety of all fittings and fixtures including sanitary and water supply fittings and fixtures provided by him against pilferage and breakage during the period of installations and thereafter till the building is physically handed over to the department. No extra payment shall be made on this account.
•	Any cement slurry added over base surface for continuation of concreting for better bond is deemed to have been built in the items and nothing extra shall be payable for extra cement considered in consumption on this account.
•	The contractor shall take instructions from the Engineer-in-Charge regarding collection and stacking of materials at any place. No excavated earth or building rubbish shall be stacked on areas where other buildings, roads, compound wall, services etc. are to be constructed.
•	Any trenching and digging for the foundation of boundary wall, drainage lines etc. shall be commenced by the contractor only when all men, machinery and materials have been arranged and closing of the trench(s) thereafter shall be ensured within the least possible time.
•	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 work and safety himself that the information available thereof is complete and unambiguous.
•	Other agencies may also simultaneously execute and install the works 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 available as specified elsewhere in the contract) 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.
•	The contractor shall conduct work so as not to interfere with or hinder the progress or completion of the work being performed by other contractor(s) or by the Engineer-in-Charge and shall as far as possible arrange his work and shall place and dispose of the materials being used or removed so as not to interfere with the operations of other contractor or he shall arrange his work with that of the others in an acceptable and coordinated manner and shall perform it in proper sequence to the complete satisfaction of others.

•	The works to be governed by this contract shall cover delivery and transportation up to destination, safe custody at site, insurance, erection, testing and commissioning of the entire works.
•	The contractor shall deploy resources e.g. manpower, labour, T & P plant & Equipment etc. as per actual requirement of work. No damages/compensation shall be payable on account of idle manpower, labour, T&P plant and Equipment and loss of profit etc. for whatsoever reason.
•	<p>The work to be undertaken by the contractor shall inter-alia include the following:</p> <ul style="list-style-type: none"> (i) Preparation of detailed SHOP drawings and AS BUILT drawings wherever applicable and nothing extra shall be paid on this account. (ii) Obtaining of Statutory permissions where-ever applicable and required. (iii) Pre- commissioning tests as per relevant standard specifications, code of practice, Acts and Rules wherever required. (iv) Warranty obligation for the equipment's and /or fitting/ fixtures supplied by the contractor. Contractor shall provide all the shop drawings or layout drawings for all the co-ordinated services before starting any work or placing any order of any of the services etc.
•	Articles bearing BIS certifications mark shall only be used unless no manufacturer has got BIS/ISI mark for the particular material. Any material/fitting whose sample has not been approved in advance and any other unapproved material brought by the contractor shall be immediately removed as soon as directed. Where the make of any particular material is not specified in the Contract document, the material shall be supplied as per makes desired by the engineer-in-charge.

•	POUR CARD, CHECK-LIST FOR EXECUTION OF WORK
	As and when any important item is taken up for execution, the agency shall submit the specifications and develop a checklist and pour card. This sample checklist should be got approved from the PMC / Superintending Engineer and should be used at site.
	This check list should be shown to the Superintending Engineer or his/her design during inspection. This procedure is to be followed for all hidden items, CC/RCC work, steel reinforcement, shuttering, including drainage pipelines, earth filling etc. The agency shall render all help and assistance in documenting the total sequence of this project by way of photography, sides, audio-video recording etc. nothing extra shall be payable on this account.

●	PREVENTION OF NUISANCE AND POLLUTION CONTROL
	The contractor shall take all necessary precautions to prevent any nuisance inconvenience to the owners, tenants or occupiers of adjacent properties and to the public in general and to prevent any damage to such properties from pollutants like smoke, dust noise. The contractor shall use such methodology and equipment so as to cause minimum environmental pollution of any kind and minimum hindrance to road users and to occupants of the adjacent properties or other services running adjacent / near vicinity. The contractor shall make good at his cost and to the satisfaction of the Engineer-in-charge, any damage to roads, paths, cross drainage works or public or private property whatsoever caused due to the execution of the work or by traffic brought thereon by the contractor. All waste or superfluous materials shall be carried away by the contractor, without any reservation, entirely to the satisfaction of the Engineer-in-charge.
	The contractor shall ensure that all the trucks or vehicles of any kind which are used for construction purpose / or are carrying construction material like cement sand and other allied materials are fully covered.
	The contractor shall ensure that the construction materials including transportation of earth are covered by tarpaulin.

●	SECURITY AND TRAFFIC ARRANGEMENTS
	In the event of any restrictions being imposed by the Security Officer of the Institute or any other authority having jurisdiction in the area on the working or movement of labour / material, the contractor shall strictly follow such restrictions and nothing extra shall be payable to the contractor on such accounts. The loss of time on these accounts, if any, shall have to be made up by augmenting additional resources whatever required.
	No payment will be made for any damage caused by rain, snow fall, flood, earthquake or any other natural calamity, whatsoever during the execution of work. The contractor shall be fully responsible for any damage to the govt. property and the work for which payment has been advanced to him under the contract and he shall make good the same his risk and cost. The contractor shall be fully responsible for safety and security of his material, T & P / Machinery brought to the site by him.
	The contractor shall construct suitable godowns, yard at the site of work for storing all materials so as to be safe against damage by sun, rain, damages, fire, theft etc. at his own cost and also employ necessary watch and ward establishment for the purpose at his cost.

	<p>The Contractor shall keep himself fully informed of all acts and laws of the Central & State Governments, all orders, decrees of statutory bodies, tribunals having any jurisdiction or authority, which in any manner may affect those engaged or employed and anything related to carrying out the work. All the rules & regulations and bye-laws laid down by Collector / MC etc. and any other statutory bodies shall be adhered to, by the contractor, during the execution of work. The Contractor shall also adhere to all traffic restrictions notified by the local authorities. The Contractor shall arrange to give all notices as required by any statutory / regulatory authority and shall pay to such authority all the fees that is required to be paid for the execution of work. He shall protect and indemnify the Institute and its officials & employees against any claim and /or liability arising out of violations of any such laws, ordinances, orders, decrees, by him/her or by his/her employees or his/her authorized representatives. Nothing extra shall be payable on these accounts.</p>
	<p>For works below ground level the contractor shall keep that area free from water. If dewatering or bailing out of water is required, the contractor shall do it and nothing extra shall be paid except otherwise provided in the items of schedule of quantity.</p>
	<p>The Contractor shall make all necessary arrangements for protecting from rains, fog or likewise extreme Weather conditions, the work already executed and for carrying out further work, during monsoon including providing and fixing temporary shelters, protections etc.</p>
	<p>In case of flooding of site on account of rain or any other cause and any consequent damage, whatsoever, no claim financially or otherwise shall be entertained notwithstanding any other provisions elsewhere in the contract agreement. Also, the Contractor shall make good, at his own cost, the damages caused, if any.</p>
	<p>The contractor will take reasonable precautions to prevent his workman and employees from removing and damaging any flora (tree/plant/vegetation) from the project area.</p>

●	Setting out
	<p>The contractor shall carry out survey of the work area, at his own cost, setting out the layout of buildings/roads/ services in consultation with the PMC / Engineer-in-Charge & proceed further. Any discrepancy between architectural drawings and actual layout at site shall be brought to the notice of the PMC/ Engineer-in-Charge. It shall be responsibility of the contractor to ensure correct setting out of alignment. Total station survey instruments only shall be used for layout, fixing boundaries, and centre lines etc., Nothing extra shall be payable on this account.</p>

	The Contractor shall establish, maintain and assume responsibility for grades, lines, levels and benchmarks. He shall report any errors or inconsistencies regarding grades, lines, levels, dimensions etc. to the Engineer-in-Charge before commencing work.
	If at any time, any error appears due to grades, lines, levels and benchmarks during the progress of the work, the Contractor shall, at his own expense rectify such error, if so required, to the satisfaction of the Engineer-in-Charge. Nothing extra shall be payable on this account.
	The approval by the Engineer-in-Charge, of the setting out by the Contractor, shall not relieve the Contractor of any of his responsibilities and obligation to rectify the errors /defects, if any.
	The Contractor shall be entirely and exclusively responsible for the horizontal, vertical and other alignments, the level and correctness of every part of the work and shall rectify effectively any errors or imperfections therein.
	The rates quoted by the Contractor are deemed to be inclusive of site clearance, setting out work, profile, establishment of reference bench mark(s), taking spot levels, construction of all safety and protection devices, barriers, preparatory works, working during monsoon, working at all depths, height, lead, lift and location etc until / unless specified otherwise and any other incidental works required to complete this work. Nothing extra shall be payable on this account.
•	<p>The contractor should have own constructions equipment required for the proper and timely execution of the work. Nothing extra shall be paid on this account. No tools and plants including any special T & P etc. shall be supplied by the Department and the Contractor shall have to make his own arrangements at his own cost. No claim of hindrance shall be entertained on this account.</p> <p>Wherever required for all execution of work, all the scaffolding shall be provided and suitably fixed, by the Contractor.</p>
•	The contractor shall do proper sequencing of the various activities by suitably staggering the activities within various pockets in the plot so as to achieve early completion. The agency to deploy adequate equipment, machinery and labour as required for the completion of the entire work within the stipulated period specified. Also ancillary facilities shall be provided by contractor commensurate with requirement to complete the entire work within the stipulated period. Nothing extra shall be payable on this account. Adequate number/ sets of equipment in working condition, along with adequate stand-by arrangements, shall be deployed during entire construction period.
•	The contractor shall maintain all the work in good condition till the completion of entire work. The Contractor shall be responsible for and shall make good, all damages and repairs, rendered necessary due to fire, rain, traffic, floods or any

	<p>other causes. The Engineer-in-Charge shall not be responsible for any claims for injuries to person/ workmen or for structural damage to property happening from any neglect, default, want of proper care or misconduct on the part of the Contractor or of any other of his representatives, in his employment during the execution of the work. The compensation, if any, shall be paid directly to the Department / authority/ persons concerned, by the Contractor at his own cost.</p>
<ul style="list-style-type: none"> • 	<p>The contractor shall take all precautions to abide by the environmental related restrictions imposed by any statutory body having jurisdiction in the area as well as prevent any pollution of streams, revines, river bed and waterways. All waste or superfluous materials shall be transported by the Contractor, entirely to the satisfaction of the Engineer-in-Charge and disposed at designated places only. No claim what so ever on account of site constraints mentioned above or any other site constraints, lack of public transport, inadequate availability of skilled, semi-skilled or unskilled workers in the near vicinity, non-availability of construction machinery spare parts and any other constraints not specifically stated here, shall be entertained from the Contractor. Therefore, the Tenderers are advised to visit site and get first-hand information of site constraints. Accordingly, they should quote their tenders. Nothing extra shall be payable on this account.</p>
<ul style="list-style-type: none"> • 	<p>The contractor shall cooperate with and provide the facilities to the associate Contractors and other agencies working at site for smooth execution of the work. The Contractor shall indemnify the Department against any claim (s) arising out of such disputes. The Contractor shall:</p> <ol style="list-style-type: none"> a. Allow use of scaffolding, toilets, sheds etc. b. Properly co-ordinate their work with the work of other Contractors. c. Provide control lines and benchmarks to his associate Contractors and the other Contractors. d. Provide electricity and water at mutually agreed rates. e. Provide hoist and crane facilities for lifting material at mutually agreed rates. f. Co-ordinate with other Contractors for leaving inserts, making chases, alignment of services etc. at site. g. Adjust work schedule and site activities in consultation with the Engineer-in-Charge and other Contractors to suit the overall schedule completion. h. Resolve the disputes with other Contractors / associate contractors amicably and the Engineer-in-Charge shall not be made intermediary or arbitrator.
<ul style="list-style-type: none"> • 	<p>The work should be planned in a systematic manner so as to ensure proper co-ordination of various disciplines viz. sanitary & water supply, drainage, rain</p>

	water harvesting, electrical, firefighting & fire alarm system, information technology, communication & electronics and any other services.
•	All fossils, coins, articles of value of antiquity, structures and other remains or things of geological or archaeological interest discovered on project location during excavation / construction shall be the property of the Government and shall be dealt with as per provisions of the relevant legislation. The contractor will take reasonable precaution to prevent his work men or any other persons from removing and damaging any such articles or thing. He will, immediately upon discovery thereof and before removal acquaint the Engineer-in-Charge of such discovery and carry out the official instructions of Engineer-in-Charge for dealing with the same, till then all work shall be carried out in a way so as not to disturb / damage such article or thing.
•	He shall protect and indemnify the Institute and its officials & employees against any claim and /or liability arising out of violations of any such laws, ordinances, orders, decrees, by himself or by his employees or his authorized representatives. Nothing extra shall be payable on these accounts.
•	The Contractor shall assume all liability, financial or otherwise in connection with the contract and shall protect and indemnify the Department from any and all damages and claims that may arise on any account. The Contractor shall indemnify the Department against all claims in respect of patent rights, royalties, design trademarks- of name or other protected rights, damages to adjacent buildings, roads or members of public, in course of execution of work or any other reasons whatsoever, and shall himself defend all actions arising from such claims and shall indemnify the Department in all respect from such actions, costs and expenses. Nothing extra shall be payable on this account.

•	Supervision of work
	The Contractor shall depute Site Engineer & skilled workers as required for the work. He shall submit organization chart along with details of Engineers and supervisory staff. It shall be ensured that all decision making powers shall be available to the representatives of the Contractor at site itself to avoid any likely delays on this account. The Contractor shall also furnish list of persons for specialized works to be executed for various items of work. The Contractor shall identify and deploy key persons having qualifications and experience in the similar and other major works, as per the field of their expertise. If during the course of execution of work, the PMC /Engineer-in-Charge is of the opinion that the deployed staff is not sufficient or not well experienced, the Contractor shall deploy more staff or better experienced staff at site to complete the work with quality and in stipulated time limit. Principal Technical representative of the Contractor having minimum experience in similar nature of work as mentioned in the clause 32 of schedule-F, shall always be available at the site during the actual execution of the work.

●	Cleanliness of site
	<p>The Contractor shall not stack building material / malba / muck on the land or road of the institute or on the land owned by the others, as the case may be. So the muck, rubbish etc. shall be removed periodically as directed by the Engineer-in-Charge, from the site of work to the approved dumping grounds as per the local bye laws and regulations of the concerned authorities and all necessary permissions in this regard from the local bodies shall be obtained by the Contractor. Nothing extra shall be payable on this account. In case the Contractor is found stacking the building material / malba as stated above, the Contractor shall be liable to pay the stacking charges / penalty as may be levied by the local body or any other authority and also to face penal action as per the rules, regulations and bye-laws of such body or authority. The Engineer-in-Charge shall be at liberty to recover, such sums due but not paid to the concerned authorities on the above accounts, from any sums due to the Contractor including amount of the Security Deposit and performance guarantee in respect of this contract agreement.</p>
	<p>The contractor shall take instructions from the Engineer-in-Charge regarding collection and stacking of materials at any place. No excavated earth or building rubbish shall be stacked on areas where other buildings, roads, services and compound walls are to be constructed</p>
	<p>The contractor shall take all care to prevent any water-logging at site. The waste water, slush etc. shall not be collected at site. For discharge into public drainage system, necessary permission shall be obtained from relevant authorities after paying the necessary charges, if any, directly to the authorities. The work shall be carried out in such a way that the area is kept clean and tidy. All the fees / charges in this regard shall be borne by the Contractor. Nothing extra shall be payable on this account.</p>

●	Inspection of work
	<p>The PMC Engineers will assist the IITK Engineers during the Third Party Quality Assurance Team/ users committee appointed by Institute shall be inspecting the on-going work at site at any time with or without prior intimation. The contractor shall, therefore, keep updated the following requirements and detailing.</p> <p>a) Display Board showing detail of work, weekly progress achieved with respect to targets, reason of shortfall, status of manpower, wages being paid for different categories of workers.</p> <p>b) Entrance and area surrounding to be kept cleaned.</p>

	<p>c) Display layout plan key plan, building drawings including plans, elevations and sections.</p> <p>d) Up-to-date displays of Bar chart, CPM and PERT etc.</p> <p>e) Keep details of quantities executed, balance quantities, deviations, possible Extra item, substituted Item etc.</p> <p>f) Keep plastic / cloth mounted one sets of building drawings.</p> <p>g) Set of Helmets and safety shoes for exclusive use for officers / dignitaries visiting at site.</p>
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•	Insurance Policy
	<p>Before commencing the execution of work, the Contractor shall, without in any way limiting his obligations and liabilities, insure at his own cost and expense against any damage or loss or injury, which may be caused to any person or property, at site of work. The Contractor shall obtain and submit to the Engineer-in-Charge proper Contractor All Risk Insurance Policy for an amount 1.25 times the contract amount for this work, with Engineer-in-Charge as the first beneficiary. The insurance shall be obtained in joint names of Engineer-in-Charge and the Contractor (who shall be second beneficiary). Also, he shall indemnify the Department from any liability during the entire execution of the work.</p>
	<p>Further, agency shall obtain and submit to the Engineer-in-Charge, a third-party insurance policy with the Engineer-in-Charge as the first beneficiary. The insurance shall be obtained in joint names of Engineer-in-Charge and the Contractor (who shall be second beneficiary).</p>
	<p>The Contractor shall, from time to time, provide documentary evidence as regards payment of premium for Insurance Policy for keeping them valid till the completion of the work. Without prejudice to any of its obligations and responsibilities specified above, the Contractor shall within 15 days from the date of letter of acceptance of the tender and thereafter at the end of each quarter submit a report to the Department giving details of the Insurance Policy along with Certificate of this insurance policy being valid, along with documentary evidence as required by the Engineer-in-Charge/PMC. No work shall be commenced by the Contractor unless he obtains the Insurance Policy as mentioned above. Also, no payment shall be made to the Contractor on expiry of insurance policy unless renewed by the Contractor. Nothing extra shall be payable on this account. No claim of hindrance (or any other claim) shall be entertained from the contractor on this accounts.</p>

●	Personal Safety Measures for Labour
	Contractor shall provide the following items for safety of workers employed by contractor and associate agencies:
•	Protective footwear / helmet and gloves to all workers employed for the work on mixing, cement, lime mortars, concrete etc. and openings in water pipeline/sewer line.
•	Welder's protective eye-shields to workers who are engaged in welding works
•	Safety helmet and Safety harness/ belt Provide adequate sanitation/safety facilities for construction workers to ensure the health and safety of the workers during construction, with effective provisions for the basic facilities such as sanitation, drinking water and safety equipment's or machinery.
•	All the workers should be wearing helmet and shoes all the time on site.
•	Masks and gloves should be worn whenever and wherever required.
•	Adequate drinking water facility should be provided at site, adequate number of decentralized latrines and urinals to be provided for construction workers
•	Full time workers (if any with the approval of Engineer-in-Charge) residing on site should be provided with clean and adequate temporary hutment.
•	First aid facility should also be provided.
•	Tobacco and cigarette smoking should be prohibited onsite.
•	All dangerous parts of machinery are well guarded and all precautions for working on machinery are taken.
•	Maintain hoists and lifts, lifting machines, chains, ropes and other lifting tackles in good condition. Provide safety net of adequate strength to arrest falling material down below.
•	Use of durable and reusable formwork systems to replace timber formwork and ensure that formwork where used is properly maintained.
•	Ensure that walking surfaces or boards at height are of sound construction and are provided with safety rails and belts. Provide protective equipment's such as helmets.
•	Provide measure to prevent fire. Fire extinguisher and buckets of sand to be provided in fire prone area and elsewhere.
•	Provide sufficient and suitable light for working during night.
•	Ensure that measures to protect workers from materials of construction,

	transportation, storage and other dangers and health hazards are taken.
•	Comply with the safety procedure, norms and guidelines (as applicable) as outlined in NBC 2005 (BIS 2005c).
•	Adopt additional best practices and prescribed norms as in NBC 2005 (BIS2005).

24.0	Water Pollution
•	The Contractor shall take all precautionary measures to prevent the wastewater during construction to accumulate anywhere.
•	The wastewater arising from the project is to be disposed of in the manner that is acceptable to the Engineer-in-Charge.

25.0	Air and Noise Pollution
	Contractor shall use dust screens and sprinkle water around the construction site to arrest spreading of dust in the air and surrounding areas.
•	Contractor shall ensure that all vehicles, equipment and machinery used for construction are regularly maintained and confirm that emission levels comply with environmental emission standards / norms.
	For controlling the noise for Vehicles, Plants and Equipments, the Contractor shall confirm the following: <ul style="list-style-type: none"> i. All vehicles and equipment used in construction will be fitted with exhaust silencers. ii. Servicing of all construction vehicles and machinery will be done regularly and during routine servicing operations, the effectiveness of exhaust silencers will be checked and if found defective will be replaced. iii. Noise emission from compactors (rollers) front loaders, concrete mixers, cranes (movable), vibrators and saws should be less than 75 dB (A). iv. As per the standards / guidelines for control of Noise Pollution from Stationary Diesel Generator (DG) sets, noise emission in dB(A) from DG set (15-500 KVA) should be less than $94+10 \log_{10} (KVA)$. The standards also suggest construction of acoustic enclosure around the DG Set and provision of proper exhaust muffler with insertion loss of minimum 25 dB(A) as mandatory.

26.0	Construction Vehicles, Equipment and Machinery
•	All vehicles, equipment and machinery to be produced for construction shall conform to the relevant Bureau of India (BIS) Norms.
•	Emission from the vehicles must conform to environmental norms.

•	Dust produced from the vehicular movement and other site activities is to be mitigated by sprinkling of water.
•	Noise limits for construction equipments shall not exceed 75 dB(A), measured at one meter from the edge of the equipment in free area, as specified in the Environment Protection Act, 1986, schedule VI part E, as amended on 9 th May 1993. The maximum noise levels near the construction site should be limited to 65 dB (A) Leq (5 min) in project area.

27.0	Construction Wastes Disposal
	The pre-identified dump locations will be a part of solid waste management plan to be prepared by the Contractor in consultation with Engineer-in-Charge.
•	Contractor shall get approved the location of disposal site prior to commencement of the excavation on any section of the project location
•	Contractor shall ensure that any spoils of material / construction waste will not be disposed off in any municipality solid waste collection bins.

28.0	Procurement of Construction Materials
•	All vehicles delivering construction materials to the site shall be covered to avoid spillage of materials and maintain cleanliness of the roads.
•	Contractor shall arrange for regular water sprinkling at least twice a day (i.e. morning and evening) for dust suppression of the construction sites and unpaved roads used by his construction vehicles.
•	Identify roads on-site that would be used for vehicular traffic. Update vehicular roads (if these are unpaved) by increasing the surface strength by improving particle size, shape and mineral type that make up the surface base. Add surface gravel to reduce source of dust emission. Limit amount of fine particles (smaller than 0.075mm) to 10-20%. Limit vehicular speed on site 10km/h. Nothing extra will be payable for this.
•	All material storages should be adequately covered and contained so that they are not exposed to situations where winds on site could lead to dust / particulate emissions.
•	Ensure that water spraying is carried out by wetting the surface by spraying water on: <ul style="list-style-type: none"> ▪ Any dust material. ▪ Areas where demolition work is carried out. ▪ Any unpaved main-haul road and. ▪ Areas where excavation or earth moving activities are to be carried out.

	The contractor shall ensure the following:
•	Cover and enclose the site by providing dust screen, sheeting of height not less than 6 meter or netting to scaffold along the perimeter of a building or group of the buildings.
•	Covering stockpiles of dusty material with impervious sheeting.
•	Covering dusty load on vehicles by impervious sheeting before they leave the site.
•	Transferring, handling / storing dry loose materials like bulk cement and dry pulverized flyash inside a totally enclosed system.
•	Spills of dirt or dusty materials shall be cleaned up promptly so that the spilled material does not become a source of fugitive dust and also to prevent seepage of pollutant laden water into the ground aquifers. When cleaning up the spill, ensure that the clean-up process does not generate additional dust. Similarly, spilled concrete slurries or liquid wastes should be contained / cleaned up immediately before they can infiltrate into the soil / ground or runoff in nearby areas.
•	Clear vegetation only from areas where work will start right a way
•	Adopt measure to prevent air pollution in the vicinity of the site due to construction activities. There is no standard reference for this. The best practices should be followed (as adopted from international best practice documents and codes).
•	Provide sheet covering / barricading of site of not less than 6 meter height along the site boundary, next to a road or other public area. Nothing extra will be paid for this
•	The contractor shall provide experienced personnel with suitable training to ensure that these methods are implemented. Prior to the commencement of any work, the method of working, plant equipment and air pollution control system to be used on-site should be made available for the inspection and approval of the Engineer-in-Charge to ensure that these are suitable for the project
•	Employ measures to segregate the waste on-site into inert, chemical or hazardous wastes. Recycle the unused chemical / hazardous wastes such as oil, paint, batteries and asbestos. The inert waste is to be disposed off to Municipal Corporation / local bodies dump yard and land fill sites.
•	To preserve the existing landscape and protect it from degradation during the process of construction. Select proper timing for construction activity to minimize the disturbance such as soil pollution due to spilling of the construction material and its mixing with rainwater. The construction management plan including soil erosion control management plan shall be prepared accordingly for each month.

	<p>The application of erosion control measures includes construction of gravel pits and tyre washing bays of approved size and specification for all vehicular site entry / exits, protection of slopes greater than 10%. Sedimentation Collection System and run-off diversion systems shall be in place before the commencement of construction activity. Preserve and protect the existing vegetation by not disturbing or damaging to specified site areas during construction.</p>
<ul style="list-style-type: none"> • 	<p>The Contractor should follow the construction plan as proposed by the Engineer-in-charge to minimize the site disturbance such as soil pollution due to spilling. Use staging and spill prevention and control plan to restrict the spilling of the contaminating material on site.</p>
<ul style="list-style-type: none"> • 	<p>Spill prevention and control plans should clearly state measures to stop the source of the spill. Measures to contain the spill and measures to dispose the contaminated material and hazardous wastes. It should also state the designation of personnel trained to prevent and control spills. Hazardous wastes include pesticides, paints, cleaners and petroleum products</p>
<ul style="list-style-type: none"> • 	<p>A soil Erosion and Sedimentation Control Plan (ESCP) should be prepared prior to construction and should be applied effectively.</p>
<ul style="list-style-type: none"> • 	<p>The contractor shall prepare and submit 'Spill prevention and control plans' before the start of construction, clearly stating measures to stop the source of the spill, to contain the spill, to dispose the contaminated material and hazardous wastes, and stating designation of personnel trained to prevent and control spills. Hazardous wastes include pesticides, paints, cleaners, and petroleum products.</p>
<ul style="list-style-type: none"> • 	<p>The contractor shall ensure that no construction leaches (Ex: cement slurry) is allowed to percolate into the ground. Adequate precautions are to be taken to safeguard against this including reduction of wasteful curing processes, collection, basic filtering and reuse. The contractor shall follow requisite measures for collecting drainage water run-off from construction areas and material storage sites and diverting water flow away from such polluted areas. Temporary drainage channels, perimeter dike/ swale, etc. shall be constructed to carry the pollutant – laden water directly to the treatment device or facility (municipal sewer line).</p>
<ul style="list-style-type: none"> • 	<p>All lighting installed by the contractor around the contractor around the site and at the labour quarters during construction shall be CFL bulbs of the appropriate Illumination levels. This condition is a must, unless specifically prescribed otherwise.</p> <p>No extra payment will be made for operation/ activity mentioned at Sl.No. 1 to 17 above unless specifically mentioned otherwise.</p>

29.0	National Green Tribunal Guidelines
•	The contractor shall not store/ dump construction material or debris on metalled road.
•	The contractor shall get prior approval from Engineer-in-Charge for the area where the construction material or debris can be stored beyond the material road. This area shall not cause any obstruction to the free flow of traffic/ inconvenience to the pedestrians. It should be ensured by the contractor that no accidents occur on account of such permissible storage
•	The contractor shall ensure that all the trucks or vehicles of any kind which are used for construction purpose/ or are carrying construction material like cement, sand and other allied material are fully covered. The contractor shall take every necessary precaution that the vehicles are properly cleaned and dust free to ensure that enroute their destination, the dust sand or any particles are not released in air/ contaminate air.
•	The contractor shall provide mask to every worker working on the construction site and involved in loading, uploading and carriage of construction material and construction debris to prevent inhalation of dust particles.
•	The contractor shall provide all medical help, investigation and treatment to the workers involved in the construction of building and carry of construction material and debris relatable of dust emission.
•	The contractor shall ensure that C&D waste is transported to the C&D Waste site only and due record shall be maintained by the contractor.
•	The contractor shall compulsory use of wet jet in grinding and stone cutting.
•	The contractor shall comply all the preventive and protective environmental steps as stated in the MoEF guidelines, 2010.
•	The contractor shall carry out on-Road-Inspection for black smoke generating machinery.
•	The contractor shall use cleaner fuel.
•	The contractor shall ensure that all DG sets comply emission norms notified by MoEF.
•	The contractor shall use vehicles having pollution under control certificate. The emissions can be reduced by a large extent by reducing the speed of a vehicle to 20 kmph. Speed bumps shall be used to ensure speed reduction. In cases where speed reduction cannot effectively reduce fugitive, the contractor shall divert traffic to nearby paved areas.
•	The contractor shall ensure that the construction material is covered by tarpaulin. The contractor shall take all other precaution to ensure that no dust particles are permitted to pollute air quality as a result of such storage.
•	The paving of the path for plying of vehicles carrying construction material is more permanent solution to dust control and suitable for longer duration projects
•	The natural drainage system should be maintained by the contractor at his own cost. Local Bye-law/ provisions on Rain Water Harvesting should be followed.

	No extra payment will be made for operation/ activity mentioned at above.
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30.0	Project Monitoring
•	The Agency shall prepare the phase wise (monthly) resource chart (materials, manpower and machinery) based on the project execution schedule as per clause 5.1 of GCC.
•	The Agency shall submit the photographs & videos of progress of work on fortnightly basis to make it possible to create a short film of the entire execution of the work to be kept in archive
•	Agency shall a detailed Monthly progress & program report through PMC to the Engineer-in-Charge by 5 th of every month. The format of monthly progress & program report shall be as approved by Engineer-in-Charge
•	The agency will make it possible to be represented by a senior level executive who have sufficient financial powers to take decisions required for completing the project in time.
•	The agency shall stick to the construction schedule, if there is any hindrance or delay due to any reason the same shall be mitigated through engaging extra manpower, material and machinery

31.0	Documentation of work:
	Agency shall make documentation in regard to the various stages of progress of work. Nothing shall be paid on this account to the contractor. The scope includes:-
•	Colour photography of the work at month interval or lesser interval as per direction of Engineer-in-Charge and at the completion of work covering the entire work up to that stage and supplying the same in soft copy with storage instrument of required capacity as per direction of Engineer-in-Charge
•	Videography of the execution of work every three months or lesser interval and at completion of work i/c preparation of documentary with voice over showing the progress of work as directed by Engineer-in-Charge
•	Each photograph / video shall be suitably captioned and dated.
•	The photographs/ video and materials including soft copy shall form a part of the records of GSMST and the prints cannot be supplied to anybody else or published without the written permission of Engineer-in-Charge.

PARTICULAR SPECIFICATIONS

1.0 EARTH WORK:

1.1 General.

The excavation work shall be done in accordance with CPWD specifications 2019 Volume-I & II.

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

The final development level is to be achieved as per drawings. For which the royalty paid earth shall be brought by the contractor from outside. Similarly, if there is any disposal of extra earth, rubbish, malba etc., the same shall be done by contractor as per direction of Engineer-in-Charge.

1.2 Setting out

The Contractor shall be responsible for accurately setting out the works to the specified positions, dimensions, levels, and building lines and also surveying the site for dimensional and level accuracy and reporting any discrepancies before the commencement of work.

Any errors in position, level, dimension or alignment of any part of the work any time shall be rectified by the contractor at his own expense. The contractor shall provide the Engineer-in-Charge or his authorized representative with all facilities, equipment and labour to enable him to check the setting out point, line or level by the Engineer-in-Charge or his authorized representative shall not in any way receive the Contractor of his responsibility.

1.3 Applicable Standards

The Contractor shall ensure to follow the applicable Standards/ Specifications related to the excavation including local building regulations and statutory regulations.

1.4 Labour and Equipment:

The Contractor shall provide all labours, equipment, materials and any incidentals necessary to complete all aspects of work included in the drawings and specifications.

1.5 Related works:

- 1.5.1.1 Clearing, grubbing, and removing all vegetation from the site.
- 1.5.1.2 Excavation including getting out and necessary dressing to make surface ready to construct the boundary wall.
- 1.5.1.3 Filling, back filling and compaction of fills
- 1.5.1.4 Removal and disposal of surplus material.
- 1.5.1.5 Dewatering.
- 1.5.1.6 Bringing earth from outside the IIT Kanpur campus to raise the NGL as per GFC drawings.

2.0 Dewatering :-

Dewatering is in the scope of contract as per this tender document. Dewatering shall be performed as per CPWD Specifications Volume-I & II with correction slips upto the last date of submission of bid. The contractor shall arrange to have the entire dewatering system throughout the course of the work.

2.1 The Contractor shall install, maintain and operate a system of wells, trenches and pumps as required for performing the excavations for the areas and subsequent construction of the structure and placement of backfill, in dry condition.

2.2 Dewatering of the excavation shall be accomplished in a manner that will prevent seepage, boils, loss of fines, corrosion, softening of the strata, and that will maintain the stability of the bottom and slopes of excavation.

2.3 During excavation/ filling of earth, if any, water supply line, sewer line, electrical cable or any such services are encountered/ getting damaged these shall be restored/ shifted by the contractor at his own cost as directed by Engineer-in-Charge and nothing extra shall be paid on this account.

2.4 In case any damage is caused to the work, in the opinion of Engineer in charge, due to inadequacy or failure of the dewatering system, in part or in whole, then the supply of all labour, materials and plant required to make good for such damage shall be undertaken and re-done by the contractor at his own cost.

2.5 The dewatering system shall be designed to operate on a continuous basis in such a manner that during excavation, the water level shall be kept below the working level for laying of PCC, concrete or any other work, etc.

2.6 Contractor shall obtain necessary permissions from the competent authority of local body regulatory body/ traffic/ irrigation department etc, at his own level to drain pumped out water. The arrangement shall include cost of material in respect of laying pipes, making drains from site to the final disposal of dewatering pump out water shall be made by the contractor at his own level and cost. No claim shall be entertained on this account by the department.

3.0 Landscape area

All cutting and filling of earth required to maintain the required finished level of complete in the area as mentioned in the layout/building/GFC drawings is in the scope of contractor. All filling should be done with available excavated earth and as per CPWD specifications and if the earth is not available, the same of approved quality to be brought from outside as decided by Engineer-in-Charge

4.0 Sand filling

Supplying and filling with local Ganga sand including watering, ramming, consolidating and dressing complete as per CPWD specifications shall be done as mentioned in GFC drawing.

5.0 CONCRETE WORK

5.1.1 Plain cement Concrete / Lean Cement

Plain cement Concrete / Lean Concrete of required proportions and in required thicknesses as per GFC drawings shall be laid below the foundation, kerb stone, road, footpath, courtyards, under floors and wherever required as per drawings, particular specifications & CPWD Specifications Volume –I & II with correction slips up to the last date of submission of bid. 40/20 mm nominal size graded stone aggregate derived from natural sources shall be used in all Plain Cement Concrete / lean concrete, unless specified otherwise or as directed by the Engineer-in-Charge.

6.0	REINFORCED CEMENT CONCRETE WORK
	The work shall be done as per CPWD specifications 2019 Volume- I & II with correction slips up to the last date of submission of tender documents. The RCC work shall be carried out by using Normal Design mix concrete or Self Compacting design mix Concrete of M25/M30/M40 Grade or above as shown in the GFC drawings and schedule of finishes or as directed by the Engineer-in-Charge.
<ul style="list-style-type: none">•	If the quantity of cement actually used in the work is found to be more than the theoretical quantity of cement including authorized variation, nothing extra shall be payable to the contractor on this account. Normally as per Mix Design of various grades cement content goes high and extra cement is consumed. The consumption of extra cement shall be included in the scope of work and nothing extra shall be paid on this account.
<ul style="list-style-type: none">•	For non-scheduled items, the decision of the Superintending Engineer, IWD, IIT Kanpur regarding theoretical quantity of the cement which should have been actually used shall be final and binding on the contractor.
<ul style="list-style-type: none">•	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.
<ul style="list-style-type: none">•	In case the contractor brings surplus quantity of cement the same after completion of the work will be removed from the site by the contractor at his own cost after approval of the Engineer-in-Charge.
<ul style="list-style-type: none">•	Separate Cement Register for the cement procured in bags and bulk shall be maintained at site. Cement bags shall be stored in separate godowns to be constructed by the contractor at his own cost as per sketch (which is only indicative and actual size will depend on the site requirements) given in CPWD specifications with weather proof roofs and walls. Each godown shall be provided with a single shutter door with two locks. The key of one lock shall remain with Engineer-in-charge or his authorized representative and that of the other lock with the authorized agent of the contractor at the site of work so that the cement is issued from the godown according to the daily requirements with the knowledge of both parties and proper account for the same is maintained in the standard proforma.
<ul style="list-style-type: none">•	Grade slab as per drawings shall be provided at ground floor level covering entire plinth area of building.

PROFORMA FOR THE CEMENT REGISTER PARTICULARS OF RECEIPT & ISSUE

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

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

6.1.7	DESIGN MIX CONCRETE:
	The contractor shall be required to submit two separate design mix of concrete with and without using plasticizers, separately for machine batched mix concrete of all grades as M25 etc. The decision of the engineer-in-charge to specify the design mix of concrete based on above shall be final.
	<ul style="list-style-type: none"> Coarse aggregate: As per CPWD Specifications
	<ul style="list-style-type: none"> Fine Aggregate: As per CPWD Specifications.
	<ul style="list-style-type: none"> Water: It shall conform to requirements laid down in IS:456 : 2000 and CPWD specifications.
	<ul style="list-style-type: none"> Cement: Cement arranged by the contractor will be PPC (in bags) conforming to IS: 1489-Part-I. If for any reasons, cement other than that specified in this para for example OPC of grade 43 or higher grade is brought to site by contractor, the issue, payments rate as well as the quantity to be used in the design mix concrete will remain unchanged.
	<ul style="list-style-type: none"> Slump: Design slump should be clearly specified in the mix design.
	<ul style="list-style-type: none"> Admixtures shall not be used without approval of Engineer-in-charge. Wherever required, admixtures of approved quality shall be mixed with concrete as specified. The admixtures shall conform to IS: 9103. The chlorides content in the admixture shall satisfy the requirements of BS: 5075. The total amount of chlorides admixture mixed in concrete shall also satisfy the requirements of IS: 456. The contractor shall not be paid anything extra for admixture required for achieving desired workability without any change in specified water cement ratio for RCC/CC work.
	<ul style="list-style-type: none"> Grade of Concrete : The compressive strength of various grades of concrete shall to be given as below:

Grade designation	Compressive strength on 15 cm cubes min. 7 days (N/mm ²)	Specified characteristic compressive strength at 28 days (N/mm ²)	Minimum cement quantity (Kg. per cum. Mtr.)	Maximum water cement ratio
M25	As per design	25	330	0.50
M30	As per design	30	340	0.45
M35	As per design	35	350	0.45
M40	As per design	40	360	0.40

Note-

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

(ii) Normally as per Mix Design of various grades cement content goes high and extra cement is consumed. The consumption of extra cement shall be included in the scope of work and shall be paid as per relevant item in BOQ.

(iii) Design slump has to be constantly monitored and maintained during placing of concrete through slump tests carried out as per CPWD specification 2019 Vol. 1 for Mortar, Concrete and RCC works, and records maintained accordingly.

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

- (i) IIT Kanpur
- (ii) HBTU Kanpur

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

•	The contractor shall submit the mix design report from any of above approved laboratory for approval of Engineer-in-Charge within 30 days from the date of issue of letter of acceptance of the tender.
•	The source of coarse and fine aggregate shall be got approved from Engineer-in-Charge well before execution of work. 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 above mentioned approved laboratory shall be submitted by the contractor as per the direction of the Engineer-in-Charge. No payment will be made for revised mix design.

6.1.8	APPROVAL OF DESIGN MIX
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The mix design for a specified grade of concrete shall be done for a target mean compressive strength $T_{ck} = F_{ck} + 1.65 s$.

Where F_{ck} = Characteristic compressive strength of 28 days

s = Standard deviation which depends on degree of quality control

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

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

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

•	All cost of mix designing and testing connected therewith including charges payable to the laboratory shall be borne by the contractor.
•	All other operations in concreting work like Mixing, Slump, Laying Placing of concrete, compaction curing etc. not mentioned in this particular specification for Design Mix of concrete shall be as per CPWD specification

6.1.9	WORK STRENGTH TEST SPECIMEN
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Work strength test shall be conducted in accordance with IS: 456 on random sampling. Each test shall be conducted on six specimens, three of which shall be tested at 7 days and remaining three at 28 days. Additional samples shall be prepared, if required, as per direction of Engineer-in-charge for testing samples cured by accelerated method as described in IS:9103.

	TEST RESULTS OF SAMPLE
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The test result 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 more the test results of the sample are invalid. 90% of the total test shall be done at the laboratory established at site by contractor and remaining 10% in the laboratory of CPWD or in any other laboratory as directed by the Engineer-in-Charge.
Lot size: The minimum frequency of sampling of concrete of each grade shall be according to the following: -

Quantity of concrete in the work cubic metre per day	Number of samples.
1-10	1
11-30	2
31-60	3
61-100	4
101 & above	4 + one additional sample for additional 50 cubic metre or part thereof.

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

6.1.10	STANDARDS OF ACCEPTANCE
•	In case the test result of all the samples is above the characteristic compressive strength, the concrete shall be accepted.
•	In case the test result of one or more samples fails to meet the requirement <ul style="list-style-type: none"> a) Any individual test result is not less than $(F_{ck} - 4)$ N/mm². b) The mean of test result from any group of four consecutive samples is more than $(F_{ck} + 4)$ N/mm².
•	Concrete of each grade shall be assessed separately.
•	Concrete is liable to be rejected if it is porous or honeycombed, its placing has been interrupted without providing a proper construction joint the reinforcement has been displaced beyond the tolerances specified, or construction tolerances have not been met. However the hardened concrete may be accepted after carrying out suitable remedial measures to the satisfaction of the Engineer-in-Charge for which nothing extra is payable to the contractor.
•	MS centering /shuttering and scaffolding material unless & otherwise specified shall be used for all RCC. Work to give an even finish of concrete surface. However marine ply shuttering in exceptional cases as per site requirement may be used on specific request from contractor on approval by the Engineer-in-Charge.
•	In case of actual average compressive strength being less than specified strength which shall be governed by para —Standard of Acceptance as above the rate payable shall be worked out accordingly on prorated basis.
•	In case of rejection of concrete on account of unacceptable compressive strength governed by para "Standard of Acceptance" as above, the work for which samples have failed shall be re done at the cost of contractors. However, the Engineer-in-Charge may order for additional test to be carried out at the cost of

	contractor to ascertain if the portion of structure where in concrete represented by the sample has been used, can be retained on the basis of results of individual or combination of these tests.
•	Necessary arrangements shall be made for field tests and all required equipment's shall be arranged by establishing field lab by the Agency for mandatory tests of the materials as specified in CPWD specifications or as per direction of Engineer-in-Charge. No extra payment shall be paid on this account.
•	Cover blocks to be used for RCC works shall be made of Conbextra GP2 grout of FOSROC of equivalent approved makes. The precast cover blocks shall also be allowed to be used if the quality of the same is found satisfactory by Engineer-in-Charge.
•	All the required registers such as Master Test Register, Cement Register, Cube Register, M.A.S Register, Drawings Register, Side order Book, Steel Register, Paint Register & Inspection Register etc. shall be properly maintained by contractor's Engineer as per direction of PMC/Engineer-in-Charge.
•	All the test report, done from outside lab, shall be properly maintained in folder as well as in register.
•	All the testing charges, for the all materials to be used in the work, shall be borne by contractor
•	All the material's bills shall be produced by contractor as per direction of Engineer-in-Charge.
•	All the batch mixed plant slips shall be systematically maintained in folder and no slip should be missing.

6.2	Form work/Shuttering
	Shuttering / Form Work - Formworks material should be in steel with rubberized joints. Centering and shuttering including strutting, propping etc. and removal of form work including cost of de-shuttering and de-centering at all levels, for all heights and depths. The work shall be done in accordance with CPWD Specifications - 2019 - Vol. I & Vol. II with up-to-date correction slips. Steel shuttering and 12 mm thick BWP grade film faced plywood shuttering to be used by contractor as per direction of engineer in charge. All shuttering should be new/fresh.
•	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.
•	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 de-shuttering compound shall be applied on the surface of the shutter plates in the requisite quantity before assembly of steel reinforcement.

•	The joint filler shall be resilient closed cell expanded polythene and non- tainting as manufactured by Supreme Industries Ltd or equivalent.
•	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-
•	Before installing, simply cut off a strip of the required depth. Then install the filler flush with the finished surface. 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.
•	Shuttering surface before concreting should be free from any defect/ deposits and fully cleaned so as to give perfectly straight smooth concrete surface. Shuttering surface should be therefore checked for any damage to its surface and excessive roughness before use.
•	Form work including centering, shuttering, propping, staging shall be strong enough to withstand the dead and live loads and forces caused by ramming and vibrations of concrete and other incidental loads, imposed upon it during and after casting of concrete. It shall be made sufficiently rigid by using adequate number of ties and braces, screw jacks or hard board wedges where required shall be provided to make up any settlement in the form work either before or during the placing of concrete.
•	Form shall be so constructed as to be removable in sections in the desired sequence without damaging the surface of concrete or disturbing other sections, care shall be taken to see that no piece is keyed into the concrete.
•	Camber: Suitable camber shall be provided in horizontal members of structure, especially in cantilever spans to counteract the effect of deflection. The form work shall be so assembled as to provide for camber. The camber for beams and slabs shall be 4 mm per meter (1 to 250) or as directed by the Engineer-in-charge, so as to offset the subsequent Deflection, for cantilevers the camber at free end shall be 1/50th of the projected length or as directed by the Engineer-in-charge.
•	Tolerance in Finished Concrete - The form work shall be so made as to produce a finished concrete true to shape, lines, level, plumb and dimensions as shown in the drawings subject to the following tolerance unless otherwise specified in this specification or drawings.

Variation from Plumb	+ -6 mm	Up to 3 m Height
Variation from the plumb of conspicuous liner	+ -6 mm	Up to 6 m Height
Variation in the size of wall openings	(+)15mm (-) 6mm	

COLUMN/ FINS: SLAB, BEAM & GIRDER FORMS:

Variation from the level or from the specified grid for beam soffit before removal of shores,

In any 6/3m span	+ -6mm
In 10m span	+ -10mm

All the tolerances mentioned above shall apply to concrete dimensions only, and not to positioning of vertical steel or dowels. The tolerances given above are specified for local aberration in the finished concrete surface and should not be taken as tolerance for the entire structure taken as whole for the setting and alignment of formwork. Any error, within the above tolerance limits, or any other if noticed in any of the structure after part or portion stripping of forms, shall be corrected in the subsequent work to bring back the structure to its true line, level and alignment.

	Workmanship
•	Erection of form work may be from pre-molded, prefabricated, pre-assembled plates or forms reasonable enough to transport and erect at site to correct line and level as set out at site. Supports shall be firm and maintained in position by nails, cross bracings, tie rods, locking bolts and nuts. It shall be rigid and stiff so as to retain its shape during and after concreting. The tie rods shall be terminated at least 40mm inside the finished surface. Joints shall be water-tight, and no cement slurry shall be allowed to slip through. In joints foamed tapes shall be used. Prefabricated or site forms shall be assembled, to de-shutter without any jerk to the green concrete. For this double wedge shall be used. Wedges shall be nailed, the heads reasonably left out, allowing easy removal while de-shuttering.
•	Prefabricated or on-site fabricated forms shall be of enough thickness and with the required supporting runners in either direction. Supporting runners shall be standardized in size for easy replacement and universal use at site. Props shall be of steel only. Size and verticality shall be approved by the Engineer-in-charge. Its spacing shall be as per design. It shall be vertical and plumbed. Base shall be a proper steel plate or timber plank, for equal distribution of load. In repeated use, panels shall be clearly marked for using at defined locations. Successive lift shall be tightened with previous lift by fixing foamed strips at joints to avoid grout

	leakage.
•	In fill pieces and panels shall be well dressed, levelled and jointed with main formwork so as to achieve smooth, even natural finish. Props, Soldiers, walling's, Shores, bearers, Clamps, wall & ties etc. shall be at required spacings. Props, shores shall be securely braced with firm bearing.
•	Provide and fix or fix only inserts pockets, to correct line and level and with enough rigidity to keep in position while concrete placing is in progress along with vibration.
•	Sloping, brackets, chajjas etc shall be well secured and firmly restrained. Adequate access and working platform shall be arranged with required safety to avoid reinforcement displacement, damage to shuttering and easy movement of concrete gang.
•	Props and scaffolds are to be erected to correct plumb, line, level and with required tie. Load carrying capacity of props shall be as per table of manufacturer.
•	Props and scaffolds shall not be loaded more than allowed by manufacturer of Props /scaffolds. Heavy, medium and light duty props shall not be mixed up. Beams and slabs shall have camber of 4 mm per meter or as directed by the Engineer-in-charge.
•	All angles and corners shall be sharp and well defined. In places where concrete edges are permanently exposed and require no further treatment; they shall be chamfered in a triangle of 25×25mm.
•	Props of steel shall be provided with adequate horizontal and cross - bracing. Steel props shall use steel pipes and steel couplers use of timber is not permitted.

At the design and erection stage, the following additional points shall be considered and incorporated into the Shutters-

•	Openings for cleaning prior to start of concreting.
•	Pouring points shall avoid high drops and provide easy access to vibrator needles. Surfaces shall be treated with mould releasing oil or emulsion as approved by the Engineer-in-charge prior to reinforcement laying. The following

	point shall be observed very carefully:
•	Joints of moulds shall be water-tight & should be checked from bottom to make sure, that no light is visible.
•	Props shall be on solid base, plumbed, in one straight line, and braced horizontally and cross.
•	Tie bars in beams, walls and columns shall be at the correct place and fully tight.
•	Wedges shall be fully secured and nailed with head left out for easy removal.
•	All saw dust, dirt, shaving and any other unwanted materials shall be cleaned and hosed out.
	<p>Provision shall be made for watching form work while concreting and any other platform needed for movement of workers without any disturbance to reinforcement.</p> <p>Opening/inserts: All required openings and pockets shall be provided as detailed in the drawing. The contractor shall provide for the required material, labour for fixing and supporting during concreting, in his quoted price. It is imperative that all openings and pockets shall be de-shuttered with care and all corners of openings shall be preserved. All openings/pockets shall be in a correct line and level. After concreting, the openings shall be secured by proper covering against any accident and guard rail and warning notice, if any will be incorporated. In case of multi-storey building, any upper floor shall be suitably supported on at least one floor below the same or as approved by the Engineer-in-charge. The concreting of upper floor shall be done only after lower floors have attained the strength.</p> <p>Form work: - Form work shall be placed and removed as per timeline provided in CPWD specifications.</p>

6.3	STEEL WORK (REINFORCEMENT STEEL)
•	The steel work shall be carried out as per CPWD specifications 2019 Volume- I & II with correction slips up to the last date of submission of bid. The Contractor shall procure steel reinforcement TMT bars of various grades from the steel Manufacturers mentioned in preferred make list for civil works or their authorized dealers/ authorized distributors/ channel partners.
•	For reinforced cement concrete, the reinforcement bars shall consist of the grades as specified in the GFC drawings conforming to IS 1786:2008 as per amendment 3, para 4.2 note 3 as presently applicable and any further amendments issued during and upto the period of execution/completion. The primary producers of such Low Alloy Steel reinforcement TMT bars shall be as per approved list given

	in the "Preferred makes of the materials" incorporated in this tender document.
•	The Contractor shall obtain manufacturer's certificate stating the process of manufacture, chemical composition and test sheet giving result of each mechanical test applicable to the material purchased and submit it to the Engineer-in-charge. Each test certificate shall indicate the number of the cast to which it applies, corresponding to the number or identification mark to be found on the material.
•	Steel bars brought by contractor for use in the work shall be got checked by the Engineer-in-charge or his authorized representative of the work on receipt of the same at site before use. Samples shall be taken and got tested by the Engineer-in-charge as per the provisions in this regard in the relevant BIS codes. In case the test results indicate that the steel arranged by the contractor does not conform to the specifications as defined under para 1.1 and 1.2 above, the same shall stand rejected and it shall be removed from the site of work by the contractor at his cost within a week time of written orders from the Engineer-in-charge to do so.
•	The steel reinforcement shall be brought to the site in bulk supply of 25 tons or more or as directed by the Engineer-in-charge.
•	The steel reinforcement bars shall be stored by the contractor at site of work in such a way as to prevent distortion & corrosion, and nothing extra shall be paid on this account. Bars of different sizes and lengths shall be stored separately to facilitate easy counting and checking.
•	All the expenditure to be incurred for testing of samples i.e., packaging, sealing, transportation, loading, unloading, etc including testing charges shall be borne by the contractor.
•	If the quantity of steel actually used in the work is found to be more than the theoretical quantity of steel including authorized variation, nothing extra shall be payable to the contractor on this account. In the event of it being discovered that after the completion of the work the quantity of steel used is less than the quantity ascertained as herein before provided (allowing variation on the minus side as stipulated in clause 42). The cost of quantity of steel so less used shall be recovered from the contractor at rate as specified in schedule 'F'. Decision of the Engineer-in- Charge in regard to theoretical quantity of steel which should have been actually used and recovery of the rate specified shall be final and binding on the contractor. In case the contractor brings surplus quantity of steel the same after completion of the work will be removed from the site by the contractor at his own cost after approval of the Engineer-in-Charge.
•	The standard sectional weights referred to as in Table 5.4 under para 5.3.4 in CPWD specifications for works 2009 Vol. 1 will be considered for conversion of length of various sizes of MS bars, Tor steel bars and TMT bars into standard weight.
•	Records of actual sectional weight shall also be kept dia-wise & lot-wise. The average sectional weight for each diameter shall be arrived at from samples from each lot of steel received at site. The decision of the Engineer-in-Charge shall be final for the procedure to be followed for determining the average sectional weight of each lot. Quantity of each diameter of steel received at site of work each day

	will constitute one single lot for the purpose. The weight of steel by conversion of length of various sizes of bars based on the actual weighted average sectional weight shall be termed as derived actual weight.
•	If the derived actual weight is found more than the standard weight then the standard weight as worked out in para 12 above shall be taken for payment. In such case nothing extra shall be paid for the difference between the derived actual weight and the standard weight.
•	Mixing of different type of steel/different grades of steel shall not be allowed in the same structural members as main reinforcement to satisfy clause 26.1 of IS:456.
•	Tolerances on Nominal Mass (individual sample) shall be as under:-

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

•	The scope of work also includes providing and fixing circular/Hexagonal M.S sheet box for ceiling of internal dia 140 mm, 73 mm height, top lid of 1.5 mm thick M.S sheet with its top surface hacked for proper bonding, top lid shall be screwed into then M.S sheet box by means of 3.3 mm dia round headed screws, one lock at the corners. Providing and fixing M.S fan clamp type I or II of 16 mm dia M.S. bar, bent to shape with hooked ends in R.C.C. slabs or beams during laying, including painting the exposed portion of loop, all as per standard design complete for all terrace slabs/beams.
•	Chairs, spacer bars etc. shall be provided as per GFC drawings or as per CPWD Specification and/or as per direction of Engineer-in-charge for which nothing extra shall be paid.

	MASONRY WORK:
•	The masonry work shall be done as per CPWD Specifications 2019, Volume-I & II with revisions/ amendments / correction slips up to last date of bid submission (including extensions if any). In case of conflict or contradiction between detailing shown in drawings and specification mentioned here in under this subhead, the specification mentioned herein under this subhead will be followed.
•	All masonry work in walls shall be Burnt clay FPS bricks as per GFC drawings.
•	Brick work with common burnt clay F.P.S. (non-modular) bricks (local Ist class) shall be done in walls as per GFC drawings and as per CPWD Specifications 2019 all complete as per direction of Engineer-in-Charge.

	FINISHING WORK:
	The work shall be done in accordance with CPWD Specifications Volume-I & II with correction slips up to the last date of submission of tender documents. Wherever directed by the Engineer in charge, all joints between concrete frames and masonry in filling shall be expressed by a groove cut in the plaster.
•	All External finish face shall be finished with 12 mm thick cement plaster in 1:6 (1 cement : 6 coarse sand) a
•	All rough finished brick wall, shall be finished with 15 mm thick 1:6 (1 cement : 6 Coarse Sand).
•	All slab/beam & column shall be finished with 6mm thick 1:3 (1 cement : 3 Coarse Sand).
•	Grooves shall be provided in all junctions of concrete and masonry work as per directed by Engineer-in-charge.
•	Pointing on brick work or brick flooring with cement mortar 1:3 (1 cement : 3 fine sand):
•	Application of paints shall be done with paint rollers. Necessary sand papering (for scrubbing & preparation of surface) shall be done by the contractor before applying primer /paint.
•	All the steel work shall be applied two or more coats of synthetic enamel paint over a coat of suitable primer of approved brand and manufacture with ready mixed red oxide zinc chromatic on steel / iron works having VOC content less than 250 grams/litre.
•	PAINTING & FINISHING Agency needs to refer all drawings, schedules of finishes, etc. to identify various items to be carried out in the section and locations. Contractor will submit sample of each finishing items as per agreement to Engineer in charge before executing the work for approval.
•	External Painting All external RCC / brick surfaces shall be painted as per schedule of finishes, with Premium Acrylic Smooth exterior paint with Silicone additives of required shade.
•	Base Preparation: Base Preparation by grinding/rubbing/sand papering to remove mortar dropping and other foreign materials from the RCC /Brick surface.
•	Applying one or more coat cement primer of approval brand and manufacturer over cleaned base of concrete surface.
•	Applying Premium Acrylic Smooth exterior paint with Silicone additives of required shade & colour in two or more coats on new work over one or more coat cement primer.

	MS STRUCTURAL STEEL WORK:-
•	The work includes labour, fabrication, delivery, assembly, erection, lifting, painting, finishing, supervision and Non-destructive testing of welded steel work etc. complete.
•	All other incidental works not specified herein mentioned but necessary for the

	satisfactory completion of the works, shall be deemed to be included.
•	All the specifications for structural steel works shall be as per CPWD Specifications Volume-I & II with correction slips up to the last date of submission of tender documents.
•	MS support at wall / ceiling for services line shall be provided as per approved shop drawing, design and direction of Engineer-in- Charge. MS supports to be fixed with 100x8 mm anchor fasteners in concrete / hold fast with grade of concrete as shown in drawing.
•	Painting & finishing of Steel work: All MS structural steel works shall be finished with two or more coat of Enamel paint over a coat of primer complete as per CPWD specification.

7.0 List of Preferred Makes for Road Works (as applicable)

LIST OF PREFERRED MAKES OF MATERIALS (CIVIL WORKS)

Preferred makes of materials to be used in the work is given below and Contractor shall procure the material mentioned in the list from any one of the preferred makes only. The Engineer in charge reserves the right to select any of the makes/brands indicated in the list of approved brand/make. The tenderers shall quote his rates on the basis of the price for the best quality product of the brand/make stipulated for the item of work in the schedule of quantity/specification/list of preferred brand/ make. In case of non-availability of these makes, the Engineer-in-charge may allow use of alternative BIS marked materials/makes in the work. Non BIS marked materials may be permitted by the Engineer-in-charge only when BIS marked materials are not manufactured.

Sl. No.	Material description	Manufacturer / Brand Name
1.	Ready Mix Concrete	Ultratech Concrete, ACC Ready Mix and RMC India
2.	Cement (PPC/OPC)	ACC, Ultratech, Vikram, Shree Cement, Abuja, JK Cement, Century Cement, Jaypee Cement & Prism Cement.
3.	White Cement	Birla White, J.K. White
4.	Reinforcement Steel	SAIL, Tata Steel Ltd, RINL, Jindal Steel & Power Ltd. and JSW Steel Ltd
5.	Water proofing compounds, admixtures, plasticizer, super plasticizer, curing compounds	Fosroc, ROFF/Dr. Fixit (Pidilite Industries), STP Ltd., Sika, BASF, Ardex Endura & Parma Construction Aids Pvt. Ltd.
6.	Integral water proofing compound with cement (for plaster & mortar)	Fosroc: Conplast 421, Dr. Fixit : LW+, Sika: Sikacim, Asian Paint: SmartCare Vitalia & equivalent product of BASF, STP Ltd., Ardex Endura, Perma Construction Aids Pvt. Ltd.
7.	Water proofing compound for bathroom/ toilet /balcony & other wet area	Fosroc: Bush Bond, STP Ltd.: Shalcrete, CICO: Tapecrete, Dr. Fixit : Pidifine 2K, Sika : Topseal 107, Asian Paints: Damp Block 2K & equivalent
8.	Crystalline water proofing compound	Product of BASF, Ardex Endura, Perma Construction Aids Pvt. Ltd. Fosroc: Bushbond TGP, Dr. Fixit : Dr. Fixit Krystalline, Sika: Sika 101h, Asian Paints: SmartCare & equivalent product of BASF, Ardex Endura, STP Ltd., Perma Construction Aids Pvt.
10.	Structural steel	SAIL, Tata Steel, Rashtriya Ispat Nigam Ltd. (RINL), JSW Steel Ltd., Jindal Steel & Power Ltd.
11.	Paver block & Kerbstone	Pavcon, Hyper, Mayur, KK, Power, Sharda & Navya
12.	Cement Based wallputty	Asian Paints, Birla Wall Care, JK, White & Berger
13.	Oil bound washable distemper / dry distemper	Asian Paints (Professional Acrylic Distemper), Nerolac: Beauty Acrylic Distemper, Berger: Bison Acrylic Distemper& Dulux ICI: Maxilite
14.	1st quality acrylic distemper	Asian Paints (Tractor Aqua Lock Paint), Berger:

	(washable/ ready mix / Low VOC)	Commando or equivalent paints of Nerolac & ICI-Dulux
15.	Acrylic emulsion paints	Asian Paints: (Professional Premium Interior, Emulsion Paint), Nerolac: Beauty Gold, Berger: Rangoli Total Care & ICI Dulux: Super Cover, Indigo
16.	Plastic emulsion paint	Asian Paints: (Apolite Heavy Duty Premium Emulsion Paint), Nerolac: Impression, Berger: Easy Clean & ICI Dulux: 3 in 1
17.	Premium acrylic emulsion paints (Interior)	Asian Paints: (Royale Luxury Emulsion), Nerolac: Impression, Berger: Silk & ICI Dulux: Velvet Touch, Indigo
18.	Textured exterior paint	Asian Paints, Nerolac, Berger Paints, Ultratech Paints & Luxture
19.	Acrylic smooth exterior paint	Asian Paints: (Apex/Professional Premium Exterior Emulsion), Nerolac: XL, Berger: Weather Coat & ICI Dulux: Weather Shield, Indigo
20.	Premium acrylic smooth exterior paint with silicon additive	Asian Paints: Apex Ultima, Nerolac: XL total, Berger: Weather Coat all Guard & ICI Dulux : Weather Shield Max
21.	Synthetic Enamel Paint	Asian Paints: Apolite Premium Gloss Enamel, Nerolac: Synthetic Hi gloss, Berger: Luxol Hi gloss & ICI Dulux: Gloss Synthetic enamel.
22.	Cement Primer	Nerolac, Berger (BP white), STP Ltd., Asian (Decoprime WT) & ICI (White primer).
23.	Steel primer (Red Oxide Zinc Chromate Primer)	Asian Paints, Nerolac, Berger & ICI
24.	Wood primer	Asian Paints (wood primer - White/Pink), Berger, ICI & Nerolac
25.	Epoxy paint	Asian Paints, STP Ltd., Nerolac, Berger, ICI, Kansai, & Akzo Nobel
26.	Fire paint	Asian paint, STP Ltd., Akzo Nobel, PROMAT, & JOTUN
27.	GI/MS Pipe	Tata, Jindal (Hisar) & Prakash Surya
28.	GI Fittings	Unik, AVR & Zoloto
29.	HDPE Pipes	Reliance, Jain Pipes, ORIPLAST & Supreme
30.	SW Pipes (BIS approved)	Anand, Parry & Perfect
31.	CI Manhole covers, frames & GI Gratings	NECO, BIC, SKF & Kapilansh,
32.	SFRC Manhole covers & gratings	K K Jain & Pragati
33.	Dash fasteners /Anchors	Hilti, Bosch & Fischer

केन्द्रीय लोक निर्माण विभाग
कार्यालय ज्ञापन

No. DG/MAN/410

ISSUED BY AUTHORITY OF DIRECTOR GENERAL, CPWD

NIRMAN BHAWAN, NEW DELHI

DATED: 22.10.2021

Subject: Addition of new Para 4.10.2 in CPWD Works Manual 2019 regarding testing charges to be borne by contractor.

It has been noticed that following provisions are sometimes being made in the NITs / Agreements by the NIT approving authorities:

"The cost of test shall be borne by contractor/ department in the manner as below:

- i. By the contractor, if the result shows that material does not conform to the relevant codes/ specification.
- ii. By the department, if the results show that the material conforms to relevant codes/ specification."

It has been decided by the competent authority that testing charges shall be borne by the contractor in all cases. Accordingly following new para is added in CPWD Works Manual -2019.

Existing Provision	Modified Provision
4.10 Preparation of NIT	4.10 Preparation of NIT
4.10.2 No Provision	4.10.2 Testing charges to be borne by contractor Following provision shall be incorporated by the NIT approving authority in the NIT: All expenditure to be incurred for testing of samples e.g. packaging, sealing, transportation, loading, unloading etc. including testing charges shall be borne by the contractor. The NIT shall have list of approved laboratories for testing as approved by ADG / SDG.

This issues with the approval of competent authority.

(सो. पा. साह) 22/10/2021

अधीक्षण अभियंता(सी.एंड एम.)

e-file 9116587

Issued from file No. CSQ/CM/18(1)/2021

प्रतिलिपि: सभी केलोनिवि तथा लोनिवि दिल्ली के अधिकारियों को आवश्यक सूचना एवं कार्यवाही हेतु। (केलोनिवि वेबसाइट के माध्यम से)।

Figure 1: Modified provisions in CPWD works manual 2019 regarding testing charges to be borne by contractor

8.0	Special Conditions of Contract
8.1	Timely Completion
•	The proposed work of urgent nature hence contractors are advised to ensure the availability of all machines, manpower and materials so that the work can be completed as per the time period as stipulated in the tender document.
•	All work components must be started simultaneously and has to be delivered together or early within the given time schedule
•	The contractor shall deploy sufficient labor and supervisory staff in shifts to achieve the targeted completion date. The work may be carried out in extended hours or in two shifts, as required. All necessary arrangements including MS hard fencing, site lightning arrangement along the work site, diversion signage, traffic control personnel, water tanks with sprinklers, road rollers, tippers and all other tools, plants, and equipment (T&P) required for satisfactory completion of the work shall be provided by the contractor without any additional cost.
•	Number of days from the date of issue of letter of acceptance for reckoning date of start shall be as per Schedule. If the Contractor commits default in commencing the execution of the work as aforesaid, the performance guarantee shall be forfeited.
•	The detailed program chart approved by the engineer-in-charge shall indicate how the resources will be deployed by the contractor to maintain desired progress and for the completion of the work within the specified period. If the submitted program is approved, the milestone shall be redefined accordingly by the Superintending Engineer. The amount to be withheld in such a case, for non-achievement of milestone(s), shall remain unaltered. Any delay in achieving the milestone must be compensated within the limitations of time imposed in the Contract document.
•	The contractor shall procure the required materials in advance so that there is sufficient time for testing of the materials and approval of the same before use in the work, as required.
•	All the dismantled materials such as Building rubbish, earth etc shall be also to be dumped at designated place. The required space shall be provided inside the campus to keep the materials T & P etc. at that location. The necessary barricading shall be done by the contractor without any extra cost.
•	The proposed work is to be barricade with the MS hard fence so that persons /animals may not enter into construction site. All workers to be deployed shall use the all safety gadgets. No workers shall be allowed at site without safety gadgets. The qualified & experienced

	Safety Engineer has to deployed full time at site. The contractors are advised to quote the rates accordingly. No extra cost against providing and fixing of MS hard fence shall be payable. The work is urgent & to be completed with the highest quality. All required tests are to be carried out through the Institute Lab without any additional cost.
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8.2	Rates
•	Unless otherwise provided in the schedule of quantities of the work 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 extra shall be payable to him on this account.
•	The rates for all items of work shall, unless clearly specified otherwise, include cost of all labors, materials and other inputs involved in the execution of the item irrespective of whether they have been specifically mentioned in the tender document or not.
•	In case the same item (s) appear more than once in the schedule of work / BOQ under the same sub head or among the different subhead of works, the lowest rate quoted for that item (s) shall be considered for the particular item(s) wherever appeared in any part of BOQ / Schedule of works for the purpose of tender evaluation although web generated e-price bid may incorporate different quoted rate for same item(s) as per the quoting pattern of the tenderer. The tendered amount thus worked out shall be final & shall be binding on the contractor.
•	The rates quoted by the contractor will be deemed to be inclusive of any extra expenditure of this reason. The contractor has to increase the manpower or other tools etc. to do the work as per the quantum of work provided to him at his own expenses. Nothing shall be paid on this account.
•	The contractor shall provide at his own cost suitable weighing, surveying and leveling and measuring arrangements as may be necessary at site for checking. All such equipment's shall be got calibrated in advance from laboratory, approved by the Engineer-in-Charge. Nothing extra shall be payable on this account.
•	All material shall only be brought at site as per program 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.
•	The rates quoted by the Contractor are deemed to be inclusive of site clearance, setting out work, profile, establishment of reference bench mark(s), taking spot levels, construction of all safety and protection devices,

	barriers, preparatory works, working during monsoon, working at all depths, height, lead, lift and location etc. until / unless specified otherwise and any other incidental works required to complete this work. Nothing extra shall be payable on this account.
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8.3	Quality and Workmanship
•	The contractor shall be entirely responsible and answerable for all the works done by him regarding quality, adherence to the laid down specifications, terms and conditions, warranty/guarantee etc. and he shall be liable to bear any compensation that may be levied by the department under any of the clauses of the agreement.
•	All materials used in the work shall be new and of good quality, conforming to the relevant specifications as per good engineering practice. All the materials proposed to be used in the work should be approved from Engineer in Charge before use in work.
•	Articles bearing BIS certifications mark shall only be used unless no manufacturer has got BIS/ISI mark for the particular material. Any material/fitting whose sample has not been approved in advance and any other unapproved material brought by the contractor shall be immediately removed as soon as directed. Where the make of any particular material is not specified in the Contract document, the material shall be supplied as per makes desired by the engineer-in-charge.
•	It will be the responsibility of the contractor / bidder to ensure use of genuine materials in the work. The department reserves the right to get (any / all materials / components) inspected by the manufacturer or their authorized representatives at any stage of the execution of work. If any of the materials, supplied and used in work is found spurious at any stage, then the department reserves the right to ask the contractor to replace it by genuine one and make suitable recovery till it is done, even if any payment against that material is already made.
•	The contractor should get the make/TDS documents approved before procuring any material at site. The TDS/Make once approved shall not be changed without any valid recorded reasons. No material to be brought and used at site without the prior knowledge & approval of Engineer-in-Charge.
•	The department may ask for any valid document like manufacturer's test certificate, document for purchase of the material, document for import/shipment of imported materials etc. as deemed fit by the engineer-in-charge to ascertain genuinely of material supplied by/used in the work by the contractor. The contractor shall remain bound to submit all such documents

	to the department failing which payment may not be made or if already paid may be recovered/ withheld from subsequent running account payment.
•	All equipment and their components, and all the materials to be used in the work shall be suitable for the environmental conditions at the location of the work.
•	The contractor shall ensure quality control measures on different aspects of construction including materials, workmanship and correct construction methodologies to be adopted. He shall have to submit quality assurance programme within two weeks of the award of work. The quality assurance programme should include method statement for various items of work to be executed along with check lists to enforce quality control
•	The contractor shall get the source of all other materials, not specified elsewhere in the document, approved from the Engineer-in-Charge. The contractor shall stick to the approved source unless it is absolutely unavoidable. Any change shall be done with the prior approval of the Engineer-in-Charge for which tests etc. shall be done by the contractor at his own cost. Similarly, the contractor shall submit brand/ make of various materials not specified in the agreement; to be used for the approval of the Engineer-in-Charge along with samples and once approved, he shall stick to it.

8.4	Natural calamity
	No payment will be made to the contractor for any damage caused by rain, snow fall, floods, dampness, fire, sun or any other natural cause whatsoever during the execution of work. The damage to the work due to above reason, if any, shall have to be made good by the contractor at his own cost and no claim on this account shall be entertained.

8.5	Stocking and Disposal of Materials & Debris
•	After completion of work the agency shall remove materials and debris etc. from site and shall be disposed off at any suitable place as per the direction of Engineer-in-Charge, at no extra cost.
•	Contractor's job will also include removing of all malba and debris arising in the process of painting including washing of roads to remove unnecessary stains of paint, at no extra cost.
•	The contractor shall conduct work so as not to interfere with or hinder the progress or completion of the work being performed by other

	contractor(s) or by the Engineer-in-Charge and shall as far as possibly arrange his work and shall place and dispose of the materials being used or removed so as not to interfere with the operations of another contractor or he shall arrange his work with that of the others in an acceptable and coordinated manner and shall perform it in proper sequence to the complete satisfaction of others.
•	For construction/renovation works which are likely to generate malba/rubbish to the tune of more than a tempo/truck load, contractor shall dispose of malba, rubbish & other unserviceable materials and wastes at their own cost to the notified/specified dumping ground and under no circumstances these shall be stacked/dumped, even temporarily outside the construction premises.
•	Dismantled but useful materials/components/equipment, if any, should be returned to the Institute as per the direction of Engineer-in-Charge.
•	The dismantled material resulted due to cutting of road shall be removed by the contractor from the site. It should not be allowed to be used in this work. The contractor is advised to quote the rates accordingly.

8.6	Safety and Security
•	The contractor has to follow all safety norms as laid down in National Building Code of India. All the workers shall be equipped with the required safety gadgets while working at site such as ISI marked helmets, Shoes and safety belts, gumboots, gloves etc.
•	The contractor, the authorized representative(s), workmen etc., shall strictly observe orders pertaining to fire precautions prevailing in the area.
•	The contractor shall be fully responsible for the safe custody of materials brought by him/ issued to him even though the materials may be under double lock key system.
•	Contractor will arrange proper machineries and equipment's at his own cost and will take all safety measures like using safety gadgets during work, traffic clearance etc. If it is observed that work is proceeding without adequate safety precautions, work may be stopped by Engineer-in-charge and in such cases, contractor will be solely responsible for delay and its consequences thereof.
•	The contractor has to arrange proper safety gadgets like boots, gloves etc. to all the workers engaged in laying of bituminous work. Any mishappening happens due to the negligence in this regard, the contractor

	will be liable.
•	All the machineries involve in the work shall have valid certifications and proper registrations.
•	The contractor shall be responsible for the watch and ward/guard of the buildings, safety of all fittings and fixtures including sanitary and water supply fittings and fixtures provided by him against pilferage and breakage during the period of installations and thereafter till the building is physically handed over to the department. No extra payment shall be made on this account.
•	The contractor shall take all precautions to avoid accidents by exhibiting necessary caution boards day and night speed limit boards red flags, red lights and providing barriers. He shall be responsible for all dangers and incidents caused to existing / new work due to negligence on his part. No hindrances shall be caused to traffic during the execution of the work.
•	The Institute shall not have any responsibility or liability in case of any accident injury to the personnel to the contractor at work site or to the general public at the work site due to mishandling equipment by the personnel of the contractor or any other similar reason. The responsibilities and liabilities for such accidents and incidents shall be borne by the contractor.

8.7	Approach to Site
•	The tenderer shall see the approaches to the site. In case any approach from main road is required at site 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.
•	Contractor shall take all precautionary measures to avoid any damage to adjoining property. All necessary arrangement shall be made at his own cost.

8.8	Water and Flooding
	In case of flooding of site on account of rain or any other cause and any consequent damage, whatsoever, no claim financially or otherwise shall be entertained notwithstanding any other provisions elsewhere in the contract agreement. Also, the Contractor shall make good, at his own cost, the damages caused, if any.

8.9	Acts and Laws
	<p>The Contractor shall keep himself fully informed of all acts and laws of the Central & State Governments, all orders, decrees of statutory bodies, tribunals having any jurisdiction or authority, which in any manner may affect those engaged or employed and anything related to carrying out the work. All the rules & regulations and bye-laws laid down by Collector / MC etc. and any other statutory bodies shall be adhered to, by the contractor, during the execution of work.</p> <ul style="list-style-type: none"> •
	<ul style="list-style-type: none"> • The Contractor shall also adhere to all traffic restrictions notified by the local authorities.
	<ul style="list-style-type: none"> • All statutory taxes, levies, charges (including water and sewerage charges, charges for temporary service connections and / or any other charges, as applicable) payable to such authorities for carrying out the work, shall be borne by the Contractor.
	<ul style="list-style-type: none"> • The Contractor shall arrange to give all notices as required by any statutory / regulatory authority and shall pay to such authority all the fees that is required to be paid for the execution of work. He shall protect and indemnify the Institute and its officials & employees against any claim and /or liability arising out of violations of any such laws, ordinances, orders, decrees, by himself/herself or by his/her employees or his/her authorized representatives. Nothing extra shall be payable on these accounts.
	<ul style="list-style-type: none"> • The fee payable to statutory authorities for obtaining the various permanent service shall be borne by the Institute.

8.10	Labor and Laws
	<ul style="list-style-type: none"> • The Contractor shall display all permissions, licenses, registration certificates, bar charts, other statements etc. under various labor laws and other regulations applicable to the works, at his site office.
	<ul style="list-style-type: none"> • Huts for labor are not permitted within the premises of the Institute. No extra cost shall be payable even if the contractor provides such accommodation at a place as is acceptable to the local body.

8.11	Nondisclosure Agreement
<ul style="list-style-type: none"> • The Agency shall take all precautions not to disclose, divulge and/or disseminate to any third party any confidential information, proprietary information on the Institute business or security arrangements (including but not limited to the Assignment instructions, Schedules and other subsequent Arrangements) and/or business of the Institute. The obligation is not limited to any Scope and the Agency shall be held responsible in case of breach of the confidentiality of Institute's information. 	
<ul style="list-style-type: none"> • If the Agency receives enquiries from Press/Media/Radio/Television or other bodies/persons, the same shall be referred by the Agency to Institute immediately on receipt of such queries. 	

8.12	Indemnification:
<ul style="list-style-type: none"> • The agency shall be directly responsible to indemnify the Institute against all charges, dues, claims, etc. arising out of the disputes relating to the dues and employment of the personnel deployed and further for any claim/compensation against all damages and accidents caused due to negligence on the part of the agents, employees and other personnel of the agency. 	
<ul style="list-style-type: none"> • That the contractor shall keep the IITK indemnified against all claims whatsoever in respect of the employees deployed by the contractor. In case any employee of the contractor so deployed enters in dispute of any nature whatsoever, it will be the primary responsibility of the contractor to contest the same. In case IITK is made party and is supposed to contest the case, IITK will be reimbursed for the actual expenses incurred towards Counsel Fee and other expenses which shall be paid in advance by the Contractor to IITK on demand. Further, the contractor shall ensure that no financial or Any other liability comes on IITK in this respect of any nature whatsoever and shall keep IITK indemnified in this respect. 	

8.13	Force Majeure:
<p>If at any time, during the continuance of this contract, the performance in whole or in part by either party of any obligation under this contract is prevented or delayed by reasons of any war, hostility, acts of public enemy, civil commotion, sabotage, fires, floods, explosion, epidemics quarantine restriction, strikes, lockouts or acts of god (hereinafter referred to as events) provided notice of happenings of any such event, is served by party seeking concession to the other as soon as practicable, but within 21 days from the date of occurrence and termination thereof. Provided the Party satisfies Institute adequately of the measures taken by it. Neither party shall, by reason of such event, be entitled to terminate this contract, nor shall either party have any claim for damages against</p>	

	<p>the' other in respect of such non-performance or delay in performance. Further, the services under the contract shall be resumed as soon as practicable after such event has come to an end or ceased to exist and the decision of Institute as to whether the services have to resume or not shall be final and conclusive, provided further, that if the performance in whole or in part of any obligation under this contract is prevented or delayed by reason of any such event for a period exceeding 60 days, Institute may at his option, terminate the contract.</p>
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8.14	Dispute resolution
•	The institute reserves the right to amend rules whenever and wherever considered necessary and appropriate. The same shall be intimated to the agency in due course.
•	Any dispute arising out of and in relation to this agreement shall be referred to the arbitration by sole arbitrator to be appointed by Director of the Institute. The arbitration would be conducted and governed by and under the provisions of Arbitration Act, 1996 and its amendments. Any legal dispute will be subject to jurisdiction of Kanpur Courts only and no other court shall have the jurisdiction.
•	Any dispute arising out of and in relation to this agreement shall be referred to the arbitration by sole arbitrator to be appointed by Director of the Institute. The arbitration would be conducted and governed by and under the provisions of Arbitration Act, 1996. Any legal dispute will be subject to jurisdiction of Kanpur Courts only and no other court shall have the jurisdiction.

8.15	Arbitration
•	Except as otherwise provided anywhere in this Agreement, if any dispute, difference, the question of disagreement or matter, whatsoever, arises between the parties, as to the meaning, operation or effect of the Agreement or out of or relating to the Agreement or breach thereof, the same shall be referred to a Sole Arbitrator, to be appointment by the Director of the Institute at the time of the dispute.
•	If the Arbitrator, to whom the matter is originally referred, dies or refuses to act or resigns for any reasons from the position of arbitration, it shall be lawful for the Director of the Institute to appoint another person to act as Arbitrator in the manner aforesaid. Such person shall be entitled to proceed with the reference from the stage at which it was left by its predecessor, provided both the parties consent to this effect, failing which, the arbitrator shall be entitled to proceed on the matter de- novo
•	It is a term of the Agreement that the party invoking the arbitration shall specify all disputes to be referred to arbitration at the time of invocation of arbitration under the clause.
•	It is a term of the contract that the cost of arbitration shall be borne by

	the parties themselves.
•	The place of the arbitration shall be Kanpur Nagar, Uttar Pradesh, India.
•	Subject as aforesaid, the provisions of the Arbitration and Conciliation Act, 1996 and any statutory modifications, amendments or re-enactment thereof and rules made thereunder and for the time being in force, shall apply to the arbitration proceeding under this clause.
•	Except as otherwise provided anywhere in this Agreement, the Arbitration proceedings shall be conducted in English and the Agreement shall be constructed, interpreted and governed by the law of India, for the time being in force.

8.16	Jurisdiction of Courts
	The court(s) at Kanpur Nagar, Uttar Pradesh, shall have the exclusive jurisdiction to try any as all the disputes(s) between the parties arising out this Agreement.

Boundary Wall (Plan, Elevation & Sections)

