सत्यमेव जयते

भारत सरकार

GOVERNMENT OF INDIA

केंद्रीय लोक निर्माण विभाग

CENTRAL PUBLIC WORKS DEPARTMENT

निर्माण मंडल - 6, आईपी भवन, दिल्ली

CONSTRUCTION DIVISION – 6, IP BHAWAN, NEW DELHI

CPWD

NOTICE INVITING TENDER

NIT No.: 14/EE/CD-6/CPWD/2026-27.

NAME OF WORK:

Augmentation of Equalisation Tank for Sewage at JNU Campus along with External Site Works, New Delhi. (Balance Work).

Correction = Nil, Insertion = Nil, Overwriting = Nil, Deletion = Nil AE(P), CD-6, EE,CD-6,

TENDER DOCUMENT

NIT No.:	:	**14/EE/CD-6/CPWD/2026-27.**
Estimated cost:	:	Rs. 20,85,865/-
Earnest Money	**:**	Rs. 41,717/-
Performance Guarantee	**:**	As per NIT Terms & Conditions.
Security Deposit	**:**	2.5% of Tendered value
Period of Completion	**:**	**03 Months**
Last Date and Time of Online submission of Bid.	**:**	**28.11.2026 up to 03:00 P.M.**

	GOVERNMENT OF INDIA CENTRAL PUBLIC WORKS DEPARTMENT	

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Name of Work : **Augmentation of Equalisation Tank for Sewage at JNU Campus along with External Site Works, New Delhi. (Balance Work)**

NIT No. : **14/EE/CD-6/CPWD/2026-27.**

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Correction = Nil, Insertion = Nil, Overwriting = Nil, Deletion = Nil AE(P), CD-6, EE,CD-6,

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Certified that this NIT contains pages 01 to 90

The NIT for the above work amounting to **Rs. 20,85,865/- (Rupees Twenty Lakhs Eighty-Five Thousand Eight Hundred Sixty-Five Only)** having pages as per Index is hereby approved.

Assistant Engineer (P)
CD- 6, CPWD
I.P. Bhawan, New Delhi

Executive Engineer
CD- 6, CPWD,
I.P. Bhawan, New Delhi

Correction = Nil, Insertion = Nil, Overwriting = Nil, Deletion = Nil AE(P), CD-6, EE,CD-6,

PART – A

General Information

ABSTRACT OF COST

Name of Work: - Augmentation of Equalisation Tank for Sewage at JNU Campus along with External Site Works, New Delhi. (Balance Work).

S. No.	Details of Sub-Head	Amount (in Rupees)
1.	Civil Work	20,85,865.00
	Total	20,85,865.00

THIS NIT CONTAINS PAGES MARKED 1 TO 90 AS PER INDEX, AMOUNTING TO Rs. 20,85,865/- (RUPEES TWENTY LAKHS EIGHTY-FIVE THOUSAND EIGHT HUNDRED SIXTY-FIVE ONLY).

Executive Engineer
CD – 6, CPWD,
I.P. Bhawan, New Delhi

NOTICE INVITING e–TENDER

The Executive Engineer, Construction Division - 6, Central Public Works Department, I.P. Bhawan, New Delhi (Telephone No-011-23378321, Email ID - eecd6cpwd@gmail.com or deleeccd6.cpwd@nic.in), on behalf of the President of India, invites online Percentage Rate e-tenders from approved and eligible contractors of appropriate class of CPWD for the following work: -

NIT No.: 14/EE/CD-6/CPWD/2026-27.

Name of Work: Augmentation of Equalisation Tank for Sewage at JNU Campus along with External Site Works, New Delhi. (Balance Work).

Estimated Cost	**:**	Rs. 20,85,865/-
Earnest Money	**:**	Rs. 41,717/-
Period of Completion	**:**	03 Months

Last Time & Date of the submission of bids is up to 03:00 P.M. on 28.11.2026.

The tender forms and other details can be seen & downloaded from the website https://etender.cpwd.gov.in

Executive Engineer,
Construction Division - 6,
CPWD, I.P. Bhawan,
New Delhi - 110002

INFORMATION AND INSTRUCTIONS FOR BIDDERS FOR E-TENDERING

Forming Part of The Bid Documents

The Executive Engineer, Construction Division - 6, Central Public Works Department, I.P. Bhawan, New Delhi (Telephone No-011-23378321, Email ID - eecd6cpwd@gmail.com or deleeccd6.cpwd@nic.in), on behalf of the President of India, invites online Percentage Rate e-tenders from approved and eligible contractors of appropriate class of CPWD for the following work: -

NIT No.	**14/EE/CD-6/CPWD/2026-27.**
Name of Work	**Augmentation of Equalisation Tank for Sewage at JNU Campus along with External Site Works, New Delhi. (Balance Work).**
Location	JNU Campus, New Delhi
Estimated Cost Put to Bid	Rs. 20,85,865/-
Earnest Money	Rs. 41,717/-
Stipulated Period of Completion of work	03 Months
Last Date & Time of online submission of Bid	**Up to 03:00 P.M. on 28.11.2026**
Date and Time of opening of Bid	**03:30 P.M. on 28.11.2026**
Period during which copies of scanned Documents shall be submitted	Within the period of submission of bid.

The intending bidder must read the schedule of quantities, additional conditions, additional specifications, particular specifications, CPWD-6 and other terms and conditions given in the NIT and drawings carefully. The bidder should also read the General Conditions of Contract 2023 Maintenance works with up-to-date correction slips (till last date of submission of bid), which is available as Government of India Publications. However, provisions included in the tender document shall prevail over the provisions contained in the standard form.

The set of drawings and NIT shall be available in the office of Executive Engineer, CD-6, CPWD, New Delhi. The contractor should also visit the site of work and acquaint himself with the site conditions before tendering.

The following conditions, which already form part of the tender conditions, are specially brought to his notice for compliance while submitting the tender online. They are requested to comply following instructions: -

1. 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.

2. Information and instructions for bidders posted on the website shall form part of the bid document.

3. The bid document consisting of Plans, Specifications, Schedule of quantities of various types of works to be executed and the set of terms & conditions of the contract to be complied with and other necessary documents can be seen in the office of Executive Engineer, Construction Division-6, IP Bhawan, CPWD, New Delhi between hours of 11:00 AM to 4.00 PM from **21.11.2026** to **27.11.2026** every day except on Sunday and public holidays or seen and downloaded from website https://etender.cpwd.gov.in free of cost.

4. The bidder has to deposit earnest money of Rs. 41,717/- in the form of **Insurance Surety Bonds, Account Payee Demand Draft, Fixed Deposit Receipt, Banker's Cheque or Bank Guarantee from any of the Commercial Banks** issued in favor of **Executive Engineer, Construction Division-6, CPWD, New Delhi** along with tender document. A part of earnest money is acceptable in the form of bank guarantee of *Commercial Banks*. In such case, minimum 50% of earnest money or Rs. 20.00 lac, whichever is less, shall have to be deposited in shape prescribed above, and balance may be deposited in shape of **Insurance Surety Bonds Account Payee Demand Draft, Fixed Deposit Receipt, Banker's Cheque or Bank Guarantee from any of the Commercial Banks** having validity for 90 days or more from the last date of receipt of bids which is also to be scanned and uploaded by the intending bidders.

   But the bid can only be submitted after deposition of original EMD either in the Office of Executive Engineer inviting bids or division office of any Executive Engineer, CPWD within the period of bid submission and uploading the mandatory scanned documents such as Insurance Surety Bonds, Account Payee Demand Draft, Fixed Deposit Receipts (FDR), Banker's Cheque and Bank Guarantee (for balance amount as prescribed) from any of the **Commercial Bank** towards EMD in favour of Executive Engineer as mentioned in NIT, receipt for deposition of original EMD to division office of any Executive Engineer (including NIT issuing EE), CPWD and other documents as specified.

   (The EMD document shall only be issued from the place in which the office of receiving division office is situated). **The EMD receiving Executive Engineer shall issue a receipt of deposition of earnest money deposit to the bidder** in a prescribed format (enclosed) uploaded by tender inviting Executive Engineer in the NIT.

   This receipt shall also be uploaded to the e-tendering website by the intending bidder up to the specified bid submission date and time.

   A part of earnest money is acceptable in the form of bank guarantee also. In such a case, **minimum 50% of earnest money or Rs. 20 Lac whichever is less**, shall have to be deposited in shape prescribed above, and balance may be deposited in shape of Bank Guarantee of any

scheduled bank having validity for six months or more from the last date of receipt of bids which is to be scanned and uploaded by the intending bidders.

The intending bidder has to fill all the details such as Banker's name, Banker's Cheque/ Account Payee Demand Draft/ Fixed Deposit Receipt (FDR)/ Insurance Surety Bonds/ Bank Guarantee number, amount, and date.

The amount of EMD can be paid by multiple Banker's Cheque/ Account Payee Demand Draft/ Fixed Deposit Receipt (FDR)/ Insurance Surety Bonds along with multiple Bank Guarantee of any **Commercial Bank,** if EMD is also acceptable in the form of Bank Guarantee.

Copy of Documents, as specified in the bid document, shall be scanned, and uploaded to the e-Tendering website within the period of bid submission. However, **certified copy of all the scanned and uploaded documents as specified in Bid Document shall have to be submitted by lowest bidder only within a week from last date of submission of bid, physically in the Office of Tender Opening Authority**. Online bid documents submitted by intending bidders shall be opened only of those bidders, who's original EMD deposit with any division of CPWD and other documents scanned and uploaded are found in order.

The bid submitted shall be opened at 03:30 P.M. on **28.11.2026.**

5. Those contractors, who are not registered or have not updated their profile on the website mentioned above, are required to get registered/updated their profile beforehand. The necessary training materials including the videos with step-by-step process are available on download section of https://etender.cpwd.gov.in

6. The intending bidder must have valid class-III digital signature certificate with encryption key (combo type) to perform any operations/ transactions on the e-tendering portal/website, and the bidder should download and install the emSigner on their system as per instructions available on download section of https://etender.cpwd.gov.in.

7. On the opening date, the contractor can login and see the bid opening process. After opening bids, he will receive the competitor bid-sheets.

8. Contractor can upload documents in the form of **JPG** format and **PDF** format.

9. **Contractor must ensure to quote percentage rate of each item in the prescribed columns.** The column meant for quoting percentage rate in figures appears in yellow colour and the moment rate is entered, it turns sky blue.

   However, if a tenderer 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.

10. Certain modifications may be required. Addendum / Corrigendum shall be uploaded by the Engineer-in-Charge, if felt necessary by him, which shall form part of tender document.

11. The bidders are advised to visit the site before submitting his bid to have more clarity about the site conditions and availability of space for execution of the work.

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

(i)	Banker's Cheque/Account Payee Demand Draft / Fixed Deposit Receipts/ Insurance Surety Bonds along with multiple Bank Guarantee of any Commercial Bank **against EMD.**
(ii)	Copy of Receipt for deposition of original EMD issued from division office of any Executive Engineer, CPWD. (The EMD document shall only be issued from the place in which the office of receiving division office is situated) (As per Performa at Page – 12-13).
(iii)	**Enlistment Order** of Contractor in appropriate category.
(iv)	Registration of ESIC and EPF Certificate / Proof of having applied for ESIC and EPF.
(v)	**GST Registration Certificate**, if already obtained by the bidder. If the bidder has not obtained GST registration as applicable, then he shall scan and upload the following undertaking along with bid documents. *"If work is awarded to me, I/we shall obtain GST Registration Certificate as applicable within one month from the date of receipt of award letter or before release of any payment by CPWD, whichever is earlier, failing which I/We shall be responsible for any delay in payments which will be due towards me/us on account of the work executed and/or for any action taken by CPWD or GST department in this regard."* "As applicable" means-GST registration is required in the State/UT from where the contractor makes a taxable supply of goods or services or both, and not in other states.
(vi)	Details of Firm; OR Details of Proprietor; OR Power of Attorney in favour of the duly authorized signatory in case of Partnership firm with a copy of Partnership Deed; OR Power of Attorney in favour of duly authorized signatory in case of Limited Company or a Corporation with a copy of the Memorandum of Articles of Association duly attested by a Public Notary; as applicable.
(vii)	Contact details (Address, Telephone/Mobile No., E-mail address etc.) of the applicant.
(viii)	Sample Consent letter of Contractor for e-MB on page-24.
(ix)	Copy of Enterprises Resource Planning (ERP) training certificate issued by CPWD to enlisted contractor himself or his authorized representative as per OM No. DG/Enlist.Rules-0223/10 dated: 24.04.2024.
(x)	Any other document as specified in the NIT.

Executive Engineer,
Construction Division - 6,
CPWD, I.P. Bhawan,
New Delhi – 110002

Correction = Nil, Insertion = Nil, Overwriting = Nil, Deletion = Nil AE(P), CD-6, EE,CD-6,

Receipt for Deposition of Earnest Money

(Receipt No. ……. /Date …….……)

Name of Work	:	**Augmentation of Equalisation Tank for Sewage at JNU Campus along with External Site Works, New Delhi. (Balance Work).**
NIT No.	:	14/EE/CD-6/CPWD/2026-27.
Estimated Cost Put to Tender	:	Rs. 20,85,865/-
Amount of Earnest Money Deposit	:	Rs 41,717/-
Last Date and time of online submission of Bid	:	28.11.2026 up to 03:00 P.M.

1. Name of the Contractor: …….
2. Form of EMD: …….
3. Amount of Earnest Money Deposit: ……
4. Date of submission of EMD: …….

Signature, Name and Designation of EMD
Receiving Officer (EE/AE (P)/AAO)
along with Office Stamp

(*To be filled by the EMD receiving EE)

Name of Division, Address and Telephone/M. No. receiving ORIGINAL EMD …….

Note:

1. The Executive Engineer receiving EMD in original form shall examine the EMD deposited by the bidder and **shall issue a receipt of deposition of earnest money to the agency** in a given format uploaded by Tender Inviting Executive Engineer. The receipt may be issued by the (EE/AE(P)/AAO).

Correction = Nil, Insertion = Nil, Overwriting = Nil, Deletion = Nil AE(P), CD-6, EE,CD-6,

2. The Executive Engineer receiving Original EMD shall also intimate Tender inviting Executive Engineer about deposition of EMD by the agency by e-mail/fax/telephonically.

3. The Original EMD receiving Executive Engineer shall release the EMD after verification from the e-Tendering portal/website (https://etender.cpwd.gov.in) that the particular contractor is not L-1 tenderer and work is awarded.

4. The Tender Inviting Executive Engineer will call for Original EMD of the L-1 tenderer from EMD receiving Executive Engineer immediately.

Correction = Nil, Insertion = Nil, Overwriting = Nil, Deletion = Nil AE(P), CD-6, EE,CD-6,

	GOVERNMENT OF INDIA CENTRAL PUBLIC WORKS DEPARTMENT	

CPWD - 6 FOR e-TENDERING

The Executive Engineer, Construction Division-6, Central Public Works Department, I.P. Bhawan, New Delhi (Telephone No- 011-23378321, Email ID - eecd6cpwd@gmail.com or deleeccd6.cpwd@nic.in), on behalf of the President of India, invites online Percentage Rate e-tenders from approved and eligible contractors of appropriate class of CPWD for the following work: -

NIT No.: 14/EE/CD-6/CPWD/2026-27.

Name of Work: Augmentation of Equalisation Tank for Sewage at JNU Campus along with External Site Works, New Delhi. (Balance Work).

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.

1. The work is estimated to cost **Rs. 20,85,865/-.** This estimated cost, however, is given merely as a rough guide.

   The authority competent to approve NIT for the combined cost and belonging to the major discipline will consolidate NITs for calling the bids. He will also nominate Division which will deal with all matters relating to the invitation of bids.

   The eligibility of bidders will correspond to the combined estimated cost of different components put to bid.

3. Agreement shall be drawn with the successful bidders on prescribed Form No. **CPWD 7** (amended up to last date of submission of bid) which is available as a Govt. of India Publication and also available on website www.etender.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.

4. The time allowed for carrying out the work will be **03 (THREE) 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, if any, indicated in the bid documents.

5. The site for the work is available. However, the existing collection tank is filled up with water, sludge, silt, or any other deposits and other impurities, materials, objects which shall be emptied and/or removed by the successful contractor after award of work for carrying out further work. The same shall be considered part of scope of work under this tender. In case, the

existing collection tank may again filled up with rain water, then the contractor shall have to carry out the de-watering, desilting, removal and disposal of water, sewerage and other materials, objects, impurities from the existing collection tank, as required for execution of the work. It is a condition of contract that no extra payment whatsoever shall be made on account of above, and the cost of such operations shall be deemed to be included in the quoted rates. The contractor shall also ensure that dewatering operations are carried out in compliance with applicable environmental regulations and without causing nuisance or damage to adjoining structures or property. The department shall not be responsible for providing any facility, equipment, power, access or assistance of any kind in this regard.

6. The bid document consisting of plans, specifications, the schedule of quantities of various types of items to be executed and the set of terms and conditions of the contract to be complied with and other necessary documents except Standard General Conditions of Contract Form can be seen on website **https://etender.cpwd.gov.in** free of cost. **Bid Document can also be collected by bidders from the Office of Executive Engineer, Construction Division - 6, CPWD, IP Bhawan, New Delhi.**

7. After submission of the bid, the contractor can re-submit a revised bid any number of times but before last time and date of submission of bid, as notified.

8. While submitting the revised bid, the 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 date and time of submission of bid, as notified.

9. Earnest Money of **Rs. 41,717/-** in the form of Insurance Surety Bonds, Account Payee Demand Draft, Fixed Deposit Receipts (FDR), Banker's Cheque or Bank Guarantee including e-Bank Guarantee (for balance amount as prescribed) from any of the **Commercial Banks (drawn in favour of Executive Engineer, Construction Division - 6, CPWD, IP Bhawan, New Delhi)** shall be scanned and uploaded to the e-Tendering website within the period of bid submission.

The original EMD should be deposited either in the Office of Executive Engineer inviting bids or division office of any Executive Engineer, CPWD within the period of bid submission. The EMD receiving Executive Engineer, CPWD (including NIT issuing EE/AE(P)/AAO) shall issue a **receipt of deposition of earnest money deposit** to the bidder in a prescribed format (enclosed) uploaded by tender inviting Executive Engineer in the NIT. This receipt shall also be uploaded to the e-tendering website by the intending bidder within the specified bid submission date and time.

A part of earnest money is acceptable in the form of Bank Guarantee also. In such case, minimum 50% of earnest money or Rs. 20 Lac, whichever is less, shall have to be deposited in shape prescribed above, and balance may be deposited in shape of **Bank Guarantee including e-Bank Guarantee of any Commercial Bank** having validity for a period of 90 days from the last date of receipt of bids which is to be scanned and uploaded by the intending bidders.

The earnest money given by all the tenderers except the lowest tenderer shall be refunded immediately after the expiry of stipulated bid validity period or immediately after acceptance of the successful bidder, whichever is earlier. However, in case of two/ three bid system, earnest

money deposit of bidders unsuccessful during technical bid evaluation etc. should be returned within 30 days of declaration of result of technical bid evaluation.

The intending bidder has to fill in all the details such as Banker's name, Insurance Surety Bonds/ Banker's Cheque/ Account Payee Demand Draft/ Fixed Deposit Receipt (FDR)/ Bank Guarantee number, Amount and Date.

The amount of EMD can be paid by multiple Banker's Cheque/ Account Payee Demand Draft/ Fixed Deposit Receipt (FDR)/ Insurance Surety Bonds along with multiple Bank Guarantee of any Scheduled Bank, if EMD is also acceptable in the form of Bank Guarantee.

Copy of Documents, as specified in the bid document, shall be **scanned, and uploaded** on the e-Tendering website within the period of bid submission. However, certified copy of all the scanned and uploaded documents as specified in the Bid Document shall have to be submitted by the lowest bidder only within a week **physically** in the office of tender opening authority. **Online bid documents submitted by intending bidders shall be opened only of those bidders, whose original EMD deposited with any division of CPWD and other documents scanned and uploaded are found in order.**

10. The contractors registered prior to 01.04.2015 on e-Tendering portal of CPWD shall have to deposit tender process fee at existing rates, or they have option to switch over to the new registration system without tender process fee anytime.

11. The bid submitted shall become invalid and e-Tender processing fee shall not be refunded if: -
    (i) The bidder is found ineligible.
    (ii) The bidder does not deposit the original EMD with division office of any Executive Engineer, CPWD duly filled in and signed.
    (iii) The bidder does not upload scanned copies of all the documents stipulated in the bid document.
    (iv) If any **discrepancy** is noticed between the documents as uploaded at the time of submission of bid and hard copies as submitted physically by the lowest bidder in the Office of Tender Opening Authority. (**Hard copy to be submitted within a week from the date of opening of bid**).
    (v) 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 / subhead in percentage rate tender, the tender shall be treated as invalid and will not be considered as lowest tenderer.

12. **Performance Guarantee:**

    (a.) The contractor whose bid is accepted will be required to furnish **a Performance Guarantee of 5% (Five Percent) of the tendered value or Estimated Cost Put to Tender (as mentioned in Schedule E), whichever is higher** and within the period specified in Schedule F.

    (b.) Where the tendered amount is less than eighty percent (80%) of the Estimated Cost Put to Tender (ECPT), the Performance Guarantee, <u>in addition to the requirement under (a) above,</u> **shall be increased by an amount equal to** the difference between eighty percent

(80%) of the ECPT and the tendered amount.

(c.) This guarantee shall be in the form Insurance Surety Bonds, Account Payee Demand Draft, Fixed Deposit Receipt (FDR), Banker's Cheque or Bank Guarantee from any of the Commercial Banks in accordance with the prescribed form.

In case the Contractor fails to deposit the above said Performance Guarantee **within the period as indicated in Schedule 'F', including the extended period if any,** the Earnest Money deposited by the contractor shall be forfeited automatically without any notice to the contractor.

The earnest money deposited along with the bid shall be returned after receiving the aforesaid performance guarantee.

The contractor whose bid is accepted will also be required to furnish either copy of applicable licenses/ registrations or proof of applying for obtaining labour licenses, registration with EPFO, ESIC and BOCW Welfare Board including Provident Fund Code No. If applicable and also ensure the compliance of aforesaid provisions by the sub-contractors, if any engaged by the contractor for the said work within the period specified in Schedule F.

13. The description of the work is as follows:

Name of Work: - Augmentation of Equalisation Tank for Sewage at JNU Campus along with External Site Works, New Delhi. (Balance Work).

Intending Bidders are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their bids as to the nature of the ground and sub-soil (so far as is practicable), the form and nature of the site, the means of access to the site, the accommodation they may require and in general shall themselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their bid.

A bidder shall be deemed to have full knowledge of the site whether he inspects it or not and no extra charge consequent on any misunderstanding or otherwise shall be allowed.

The 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 Government and *local conditions and other factors having a bearing on the execution of the work.*

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

summarily rejected.

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

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

17. GST or any other tax applicable in respect of inputs procured by the contractor for this contract shall be payable by the Contractor and the Government will not entertain any claim whatsoever in respect of the same. However, the component of GST at time of supply of service (as provided in CGST Act 2017) provided by the contract shall be varied, if different from that applicable on the last date of receipt of tender including extension if any.

18. The contractor shall not be permitted to bid for works in the CPWD Circle (Division in case of contractors of Horticulture/Nursery category) 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). 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 Central Public Works Department or in the Ministry of Housing & Urban Affairs (MoHUA). Any breach of this condition by the contractor would render him liable to be removed from the approved list of contractors of this Department.

19. 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 cancelled 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.

20. The bid for the works shall remain open for acceptance for a period of **Thirty (30) days** from the date of opening of the Technical Bids in case of Single Bid System and **Seventy-Five (75) days** from the date of opening of the Technical Bids in case bids are invited in 2 or 3 Bid System.

Further, **if any tenderer withdraws his tender or makes any modification** in the terms and conditions of the tender which is not acceptable to the department within 7 days after last date & time of submission of bids, then the Government shall, without prejudice to any other right or remedy, be at liberty to forfeit **50% of the earnest money absolutely** irrespective of letter of acceptance for the work is issued or not.

If any tenderer withdraws his tender or makes any modification in the terms and conditions of the tender which is not acceptable to the department after expiry of 7 days after

last date & time of submission of bids, then the Government shall, without prejudice to any other right or remedy, be at liberty to forfeit **100% of the earnest money absolutely** irrespective of letter of acceptance for the work is issued or not.

Withdrawal of the tender, by the tenderer shall be made through e-tender portal. Any other method i.e. through letter / e-mail etc. shall not be considered. The tender inviting authority gets intimation through SMS and e-mail in this regard.

In case of forfeiture of earnest money as above, the bidders shall not be allowed to participate in the re-bidding process, if any, of the same work.

21. 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 **15 days** from the stipulated date of start of the work, **sign the contract** consisting of:

a) 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.

b) Standard C.P.W.D. Form -7 (amended up to last date of submission of bid) or other Standard C.P.W.D. Form as applicable.

22. **In case of reduction in scope of work OR early closure of work**, no claim on account of reduction in value of work/early closure of work, loss of expected profit, consequential overheads etc. shall be entertained.

23. In case of closure OR change of any post OR staff designation mentioned in the contract agreement, the new post/designation/officer created / appointed with respect to this work by DG, CPWD or his authorized representative shall be considered applicable for this contract agreement and final and binding on the contractor.

24. The intending bidders are required to update their profile in CPWD e-tender portal and to upload their bids well in advance of last date of submission of tender. Any issue related to updating profile/uploading tender can be resolved through the concerned Executive Engineer, Construction Division - 6, CPWD, IP Bhawan, New Delhi (Phone No. - 011-23378321, e-mail Id: - eecd6cpwd@gmail.com or deleeccd6.cpwd@nic.in or ERP Helpline No. 18001805286 or e-mail Id cpwd.support@techmhindra.com . The e-tendering bidders are also advised not to wait to raise any issues till the last date of submission of bid in their own interest.

25. **List of documents to be scanned and uploaded within the period of bid submission:**

(i)	Banker's Cheque/Account Payee Demand Draft / Fixed Deposit Receipts/ Insurance Surety Bonds along with multiple Bank Guarantee of any Commercial Bank **against EMD.**
(ii)	Copy of Receipt for deposition of original EMD issued from division office of any Executive Engineer, CPWD. (The EMD document shall only be issued from the place in

	which the office of receiving division office is situated) (As per Proforma at Page – 12-13).
(iii)	**Enlistment Order** of Contractor in appropriate category.
(iv)	Registration of ESIC and EPF Certificate OR Proof of having applied for ESIC and EPF.
(v)	**GST Registration Certificate**, if already obtained by the bidder. If the bidder has not obtained GST registration as applicable, then he shall scan and upload the following undertaking along with bid documents. *"If work is awarded to me, I/we shall obtain GST Registration Certificate as applicable within one month from the date of receipt of award letter or before release of any payment by CPWD, whichever is earlier, failing which I/We shall be responsible for any delay in payments which will be due towards me/us on account of the work executed and/or for any action taken by CPWD or GST department in this regard."* "As applicable" means-GST registration is required in the State/UT from where the contractor makes a taxable supply of goods or services or both, and not in other states.
(vi)	Details of Firm OR Details of Proprietor OR Power of Attorney for Partnership firm with a copy of Partnership Deed OR Power of Attorney with copy of the Memorandum of Articles of Association for limited company or a corporation, as applicable.
(vii)	Contact details (Address, Telephone/Mobile No., E-mail address etc.) of the applicant.
(viii)	Sample Consent letter of Contractor for e-MB on page-24
(ix)	Copy of Enterprises Resource Planning (ERP) training certificate issued by CPWD to enlisted contractor himself or his authorized representative as per OM No. DG/Enlist.Rules-0223/10 dated: 24.04.2024.
(x)	Any other document as specified in the NIT.

Executive Engineer,
CD- 6, CPWD,
I.P. Bhawan,
New Delhi – 110002

Correction = Nil, Insertion = Nil, Overwriting = Nil, Deletion = Nil AE(P), CD-6, EE,CD-6,

CPWD 7

GOVERNMENT OF INDIA

CENTRAL PUBLIC WORKS DEPARTMENT

State	:	New Delhi	**Zone**	:	Delhi Circle - 8
Branch	:	B & R	**Division**	:	Construction Division - 6
Region	:	Delhi	**Sub-Division**	:	4

Percentage Rate E-Tender & Contract for Works

Percentage Rate Tender for the work of:

Name of Work: - **Augmentation of Equalisation Tank for Sewage at JNU Campus along with External Site Works, New Delhi. (Balance Work).**

To be submitted / uploaded online upto **03:00 P.M. on 28.11.2026** through website www.etender.cpwd.gov.in to The Executive Engineer, Construction Division – 6, CPWD, I.P. Bhawan, New Delhi.

Bids will be opened online in the presence of tenderer/their authorized representatives, who may be present at **03:30 P.M. on 28.11.2026** in the Office of the Executive Engineer, Construction Division - 6, CPWD, I.P. Bhawan, New Delhi.

TENDER

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 President of India within the time specified in **Schedule 'F'**, viz., Schedule of Quantities and in accordance in all respects with the Specifications, Special Conditions, Designs, Drawings and Instructions in Writing referred to in Rule-1 of General Rules and Directions and in Clause 11 of the Conditions of Contract and with such materials as are provided for, by, and in respects in accordance with, such conditions so far as applicable.

We agree to keep the tender open for **Thirty (30) days** from the date of opening of the Bid and not to make any modification in terms & conditions.

I/We have deposited EMD for the prescribed amount in the office of the concerned Executive Engineer as per the bid document.

A copy of earnest money deposit receipt of prescribed amount deposited in the form of Insurance Surety Bonds, Account Payee Demand Draft, Fixed Deposit Receipts (FDR), Banker's Cheque or Bank Guarantee (as prescribed) issued by a Commercial Bank, is scanned, and uploaded (strike out as the case may be).

If I/We, fail to furnish the prescribed performance guarantee within prescribed period, I/We agree that the said President of India or his successors, in office shall without prejudice to any other right or remedy, be at liberty to forfeit the said earnest money absolutely.

Further, if I/We fail to commence work as specified, I/We agree that President of India 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 and/or referred to those in excess of that limit at the rates to be determined in accordance with the provision contained in Clause 12.2 and 12.3 of the tender form.

Further, I/We agree that in case of forfeiture of Earnest Money or Performance Guarantee as aforesaid, I/We shall be **debarred** for participation in the re-tendering process of the work.

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

I/We hereby declare that I/We shall treat the tender documents, drawings and other records connected with the work as secret/confidential documents and shall not communicate information/ derived therefrom 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 and integrity of the state.

Dated……** Signature of the Contractor

Witness…… ** Postal Address **

Address:_____ E-MAIL_____

Occupation:_____ FAX_____

Telephone No_____**

** To be filled by contractor/witness.

Correction = Nil, Insertion = Nil, Overwriting = Nil, Deletion = Nil AE(P), CD-6, EE,CD-6,

ACCEPTANCE

The above tender (as modified by you as provided in the letters mentioned hereunder) is accepted by me for and on behalf of the President of India for a sum of Rs.…… …… (Rupee ……*…….…….……).

The letters referred to below shall form part of this contract agreement: -

(a) ……. *

(b) ……. *

(c) ……. *

For & on behalf of President of India

Signature ……*……

Dated: ……..…*……. **Designation ……*……...**

* Blanks to be filled by Executive Engineer, CD-6, CPWD, IP Bhawan, New Delhi OR his successor thereof. ** To be filled by Contractor

Sample Consent letter of Contractor for e-MB

Letter Head of Contractor

To,

The Executive Engineer,
Construction Division – 6,
CPWD, IP Bhawan, New Delhi.

Name of work: Augmentation of Equalisation Tank for Sewage at JNU Campus along with External Site Works, New Delhi. (Balance Work).

NIT No.: **14/EE/CD-6/CPWD/2026-27.**

Sir,

With reference to the above cited work and agreement, I hereby submit my Consent for recording of online measurement on CPWD ERP system and making payment of work done on the basis of online submission of measurements of CPWD ERP System.

Yours faithfully,

(Signature of Contractor/authorized representative)
Name & Seal)

Dated……
Place……

Correction = Nil, Insertion = Nil, Overwriting = Nil, Deletion = Nil AE(P), CD-6, EE,CD-6,

PROFORMA OF SCHEDULES: A TO F

SCHEDULE 'A' Schedule of Quantity as per (CPWD-3)	: :	As per Index
SCHEDULE 'D' Extra Schedule for specific requirements / documents for the work, if any.	:	NIL
SCHEDULE 'E'		
Reference to General Conditions of Contract	:	**General Conditions of Contract for Maintenance Work 2023** as amended / modified up to the last date of submission of Bid.
Name of Work	:	**Augmentation of Equalisation Tank for Sewage at JNU Campus along with External Site Works, New Delhi. (Balance Work).**
Estimated Cost of Work	:	Rs. 20,85,865/-
Earnest Money	:	Rs. 41,717/-
Performance Guarantee	:	(a) 5 % of Tendered Value **or** Estimated Cost Put to Tender (ECPT), **whichever is higher**. (b) Where the tendered amount is less than Eighty Percent (80%) of the Estimated Cost Put to Tender (ECPT), the Performance Guarantee, in addition to the requirement under (a) above, **shall be increased by an amount** equal to the difference between eighty percent (80%) of the ECPT and the tendered amount.
Security Deposit	:	2.5% of Tendered Value

SCHEDULE 'F' (GENERAL RULES & DIRECTIONS)

Officer Inviting Tender		:	**Executive Engineer,** Construction Division - 6, CPWD, New Delhi OR successor thereof.
Definitions:			
2(v)	Engineer-in-Charge for Work	:	**Executive Engineer,** Construction Division - 6, CPWD, New Delhi OR successor thereof.
2(viii)	Accepting Authority	:	**Executive Engineer,** Construction Division - 6, CPWD, New Delhi OR successor thereof.

2(x)	Percentage on cost of Materials and Labour to cover all overheads and profits	:	15% (7.5% OH + 7.5% CP) (Provided that no extra overheads and profits shall be payable on the part(s) of work assigned to other agency(s) by the contractor as per terms of contract).
2(xi)	**Standard Schedule of Rates**	:	(i) Market Rate for Non-DSR Items (ii) Delhi Schedule of Rates 2023 along with DAR 2023 with amendments / correction slips up to last date of submission of tender.
(xii)	Department	:	**Central Public Works Department (CPWD)**
9 (ii)	Standard CPWD Contract Form	:	CPWD Form 7 & **General Conditions of Contract for Maintenance Work 2023** with amendments/correction slips up to last date of submission of the tender.

Clause 1

(i)	Time allowed for submission of Performance Guarantee, Programme 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 Letter of Acceptance.	:	**7 (Seven) days**
(ii)	Maximum allowable extension with Late Fee @ 0.1% per day of Performance Guarantee (PG) amount beyond the period provided in (i) above	:	3 (Three) days with Late Fee @ 0.1% per day of the PG Amount **(Non-Refundable)**

Clause 2

(i)	Authority for fixing compensation under Clause 2	:	Superintending Engineer, Delhi Circle - 8, CPWD, New Delhi OR successor thereof.

Clause 5

(i)	Number of days from the date of issue of Letter of Acceptance for reckoning Date of Start	:	10 (Ten) days

Milestone(s) for Work shall be as per table given below: -

Table of Milestones:

S.no	Description of Milestone (physical)	Time allowed in Days (from date of start)	Amount to be with-held in case of non-achievement of milestone
---------- NIL ----------			

Time allowed for execution of work : 03 Months

(i)	Extension of Time	:	**Superintending Engineer, Delhi Circle - 8**, CPWD, New Delhi OR successor thereof.
(ii)	Rescheduling of Milestones	:	Not Applicable
(iii)	Shifting of Date of start in case of delay in handing over of site	:	**Superintending Engineer, Delhi Circle - 8**, CPWD, New Delhi OR successor thereof.
(iv)	Authority to convey the decision of shifting of milestone and extension of time	:	**Executive Engineer,** Construction Division - 6, CPWD, New Delhi OR successor thereof.

Clause 5

Whether Clause – 5/5A applicable		Clause – 5 applicable
Clause 6	:	Computerized Measure Book (CMB) / Electronic Measurement Book (EMB)
Mode of Measurement: CMB/EMB	:	EMB

Clause 7

Gross work to be done together with Net Payment/Adjustment of Advances for material collected, if any, since the last such payment for being eligible to Interim Payment.	:	**Rs. 6.00 Lacs.** However, the Engineer-in-Charge, at his discretion, may release monthly payment even at a lesser amount subjected to availability of funds from client. But Contractor cannot claim it as a matter of right and no interest payment as per Clause 7 is permitted.

Clause 7A Whether Clause 7A shall be applicable (No RA bill shall be paid till submission of the applicable GST, labour licenses, registration with EPFO, ESIC and BOCW Welfare Board, whatever applicable)	:	**Yes, Applicable**
Clause 7B Whether Clause 7B shall be applicable	:	**Yes, Applicable**

Clause 10A List of testing equipment to be provided by the contractor at site lab	:	As per list enclosed in tender.
Clause 10B (ii)	:	Not Applicable
Clause 10C Component of labour expressed as percent of value of work	:	Not Applicable
Clause 10CC	:	Not Applicable

Clause 11: Specifications to be followed for execution of work.

Specifications to be followed for execution of work	**Civil Works**: CPWD Specifications 2019 with amendments/corrections slips up to last date of submission of tender.
	Other Instructions, Additional/ Special Conditions, Guidelines, SOP's, and Circulars mentioned in NIT

Clause 12: Applicable

Type of Work	**Maintenance Work**
Authority to decide deviation up to 1.5 times of tendered amount	The completion cost shall, in no case, exceed 1.5 times the contract amount. Contractor will devise a system to keep a watch on quantum of work taken up vis-a-vis balance items required to complete defined scope of work and will give the alerts to Engineer-in-Charge before taking up extra

	item(s), deviation(s) so that completion cost does not exceed above limit. Work executed beyond limit will neither be recorded nor be paid.
Deviation Limit beyond which clauses 12.2 shall apply for work	All deviation quantity shall be paid at the agreement rates.

Clause 16

1. Upto 5% of the contract Value	Superintending Engineer, Delhi Circle - 8, CPWD, New Delhi OR his successor thereof.
2. Beyond 5% of the contract Value	Superintending Engineer, Delhi Circle - 8, CPWD, New Delhi OR his successor thereof with prior approval ADG(D)/ CPWD/New Delhi or his successor thereof.

Clause 18

List of mandatory machinery, tools & plants to be deployed by the contractor at site:	As per list enclosed in tender.

Clause 19Authority to decide penalty for each default: -	Engineer-in-Charge (Major /Minor Component of work)
Clause 19C	Executive Engineer, CD-6, CPWD, New Delhi or successor thereof
Clause 19D	Executive Engineer, CD-6, CPWD, New Delhi or successor thereof
Clause 19G	Executive Engineer, CD-6, CPWD, New Delhi or successor thereof
Clause 19K	Executive Engineer, CD-6, CPWD, New Delhi or successor thereof

Clause - 25:

Conciliator: - ADG (Delhi), CPWD, New Delhi OR successor thereof.

Arbitrator Appointing Authority: - Superintending Engineer, Delhi Circle - 8, CPWD, New Delhi OR successor thereof.

Place of Arbitration: - New Delhi District.

Correction = Nil, Insertion = Nil, Overwriting = Nil, Deletion = Nil AE(P), CD-6, EE,CD-6,

Clause 32

Requirement of Technical Representatives and Recovery Rate :-						
Min. Qualification of Technical Representative	Discipline	Designation	Min. Experience	Number		
					Figure	Words
Graduate Engineer or Diploma Engineer	Civil	Project Manager cum Planning /quality/ Site/billing Engineer	2 or 5 respectively	1 of Major Component	Rs. 15000/- Per month per person	Rs. Fifteen Thousand per month
Assistant Engineer retired from Government services who are holding Diploma will be treated at per with Graduate Engineer. Diploma holder with minimum 5 year relevant experience with a reputed construction co. can be treated at per with graduate engineers for the purpose of such deployment subject to the condition that such diploma holder should not exceed 50% of requirement of degree engineers.						

Clause 38

(a)	**Schedule/statement for determining theoretical quantity of cement & bitumen on the basis of Delhi Schedule of Rates 2023 printed by CPWD with correction slips up to previous day of the last date of submission of the tender.**	
Variations permissible on theoretical quantities:		
a)	Cement for works with estimated cost put to tender not more than Rs. 25 Lakh	3% plus/minus
	For works with estimated cost put to tender more than Rs 25 Lakh	2% plus/minus
b)	Bitumen for all works.	2.5% plus only & nil on minus side
c)	Steel Reinforcement and structural steel sections for each diameter, section and category.	2% plus/minus
d)	All other materials.	Nil

LIST OF FIELD TESTS EQUIPMENT TO BE PROVIDED AT SITE LAB BY THE CONTRACTOR

i) Particle size and shape

ii) Flakiness & Elongation Index tests

iii) Bulking of sand

iv) Silt content of sand

v) Temperature measuring with thermometer with brass protected end 0-200° C

vi) TDS Meter

FIELD TESTING EQUIPMENT AND INSTRUMENTS

A. Testing Equipment at Field Laboratories

i) Balances

a) 7kg to 10 kg. Capacity, Semi-self indicating type-Accuracy 10 gm

b) 500 gm. Capacity, Semi-self indicating type Accuracy 1 gm

c) Pan Balance – 5 Kg. Capacity, accuracy 10 gm.

d) Weighing scale platform type 100kg capacity.

ii) Sieves: as per IS 460-1962.

a) I.S. Sieves – 450 mm internal dia of sizes 100 mm, 80 mm, 63 mm, 50mm, 40 mm, 25 mm, 20 mm, 12.5 mm, 10 mm, 6.3 mm, 4.75 mm complete with lid and pan.

b) IS Sieves – 200 mm internal dia (brass frame) consisting of 2.36 mm, 1.18 mm, 600 microns, 425 microns, 300 microns, 212 microns, 150 microns, 90 microns, 75 microns with lid and pan.

v) Graduated measuring cylinders 200 ml capacity

vi) Graduated cylinder 1000 ml. Capacity.

vii) Any other equipment for site tests as outline in BIS and as directed by the Engineer-in-charge

B. Field Testing Instruments

i) Steel tapes – 3 m

ii) Digital Vernier Callipers

iii) Digital Micrometre Screw 25 mm gauge

iv) A good quality plumb bob

v) Spirit level minimum 30 cms long with 3 bubbles for horizontal vertical

vi) Wire gauge (circular type) disc.

vii) Foot rule
viii) Long nylon thread
ix) Magnifying glass
x) Screw driver 30 cms long
xi) Ball pin hammer, 100 gms
xii) Plastic bags for taking samples
xiii) Digital Distance meter
xiv) Levelling machine

Note:

1. The above list is only indicative and not exhaustive. The Bidder may be required to deploy more or less T&P as per requirement of work and as per directions of Engineer-in-Charge. Nothing extra on account of such deployment shall be payable.
2. All the above tools, plants & equipment's are to be deployed as and when required or directed by Engineer-in-Charge.
3. No Claim shall be entertained regarding idle/inactivity, if any, of machineries/ manpower/ tools/ plants etc. during the currency of work including extensions, if any.

SPECIAL CONDITIONS

1.0 General

1.1 Except for the items, for which Particular Specifications are given or where it is specifically mentioned otherwise in the description of the items in the schedule of quantities, the work shall generally be carried out in accordance with the "CPWD Specifications 2019 Vol. I & II" with upto date correction slips and manufacture specification additional / Particular Specifications, Architectural / structural drawings and as per instructions of Engineer-in-Charge.

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

Should there be any difference or discrepancy between the description of items as given in the schedule of quantities, particular specifications for individual items of work (including special conditions) and I.S. Codes etc., the following order of preference shall be observed :

(i) Description of Schedule of Quantities
(ii) Particular Specifications and Special Conditions, additional condition if any.
(iii) Drawings
(iv) CPWD Specifications.
(v) Indian Standard Specifications of B.I.S.
(vi) Manufacturers' specifications & as decided by Engineer-in-charge.

"In the event of any variation/ discrepancy in the drawings, specifications and tender documents etc., the Accepting Authority shall be the deciding authority with regard to the intention of the document and is his decision shall be final and binding on the contractor. Any error in description, quantity or rate in schedule of quantities or any omission therefrom shall not vitiate the contract or release the contractor from the execution of the whole or any part of the works comprised therein according to drawings and specifications or from any of his obligations under the contract. In case the contractor has any doubt, the same shall be got clarified immediately from the competent authority and no claim of the contractor shall be entertained thereafter. Moreover, the agency is not allowed to take benefit out of any clerical/ grammatical mistake in the standard clauses/Schedule of Quantities/Specifications etc. being used in the agreement".

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

The works to be undertaken by the contractor shall include the following:

i. Preparation of detailed SHOP drawings and AS BUILT drawings wherever applicable.
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 fittings/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 for any of the services etc. These shop drawings/layout drawings shall be got approved from Engineer-in-charge before implementation and this shall be binding on the contractor. The contractor shall submit material submittals along with material sample for approval of Engineer-in-charge prior to delivery of material at site.

1.2 Any reference made to any Indian Standard Specifications, shall imply to the latest version of that standard, including such revisions / amendments as issued by the Bureau of Indian Standards up to last date of receipt of tenders. **The Contractor shall keep at his own cost all such publications including relevant Indian Standard Codes applicable to the work at site**.

1.3 All the hidden items such as water supply lines, drainage pipes, conduits, sewers etc. are to be properly tested before covering.

1.4 Samples including brand / quality of materials and fittings to be used in the work shall be got approved from the Engineer-in-Charge, well in advance of actual execution and shall be preserved till the completion of the work.

1.5 Equipment's like batching plant, concrete pumps excavators/Transit mixers etc. shall be allowed to be moved away from the site when, in written opinion of Engineer-in-Charge, the same are no longer required at site of work.

1.6 The contractor, his authorized representative, workmen etc. shall strictly observe orders pertaining to fire precautions prevailing in the area.

1.7 Contractor(s) shall satisfy himself about complete characteristics of soil and other parameters at site. However, no claim on the non-availability, inadequacy or incorrectness of the soil data shall be entertained.

1.8 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.

1.9 Contractor shall take all precautionary measures to avoid any damage to adjoining property. All necessary arrangement shall be made at his own cost.

1.10 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 damages and accidents caused to work due to negligence on his part. No hindrances shall be caused to traffic, during the execution of the work.

1.11 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.

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

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

1.14 Water tanks, taps, sanitary, water supply and drainage pipes, fittings and accessories should conform to approved manufacturers specifications where CPWD Specifications are not applicable. The contractor should get the materials (fixtures/fittings) tested from approved labs wherever required at his own cost.

1.15 The work shall be carried out in accordance with the Architectural drawings and Structural drawings. Before commencement of any item of work, the contractor shall correlate all the

relevant architectural and structural drawings issued for the work, nomenclature of items, specifications etc. and satisfy himself that the information available therefrom is complete and unambiguous. The figures & the written dimensions of the drawing shall supersede the measurement by scale. The discrepancy, if any, shall be brought to the notice of the Engineer-in-Charge for immediate decision before execution of the work. The contractor alone shall be responsible for any loss or damage occurring by the commencement of work on the basis of any erroneous and/ or incomplete information and no claim, whatsoever shall be entertained on this account.

1.16 The contractor should submit the shop drawing of staging and shuttering for approval of Engineer-in-Charge before actually commencing the execution of work under the item. Nothing extra shall be payable on this account.

1.17 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.

1.18 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.

1.19 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.

1.20 Existing drains, pipes, cables, over-head wires, sewer lines, water lines and similar services encountered in the course of the execution of work shall be protected against the damage by the contractor at his own expense. The contractor shall not store materials or otherwise occupy any part of the site in a manner likely to hinder the operation of such services. In case temporary supporting of such services is required to facilitate the work, the same shall be done by the contractor at no extra cost.

In case the existing services are to be shifted permanently, then before dismantling the existing services, alternate/diversion of service lines has to be laid by the contractor so that there is no interruption in use of existing services. The contractor has to plan the alternate suitable route

for diversion/shifting of service lines and get the same approved from the Engineer-in-Charge before starting shifting of services. Nothing extra shall be paid except the payment of dismantling and laying of new service lines as per conditions of contract.

1.21 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 client department. No extra payment shall be made on this account.

1.22 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.

1.23 For construction works which are likely to generate malba / rubbish, contractor shall dispose of malba, rubbish & other unserviceable materials and wastes at his own cost to the notified specified dumping ground and under no circumstances these shall be stacked / dumped even temporarily, outside the construction premises.

1.24 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.

1.25 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 quantities.

1.26 The Contractor is advised to obtain sub-surface investigations details directly as may be considered necessary by him before quoting rates in the tender. No claim whatsoever on account of any discrepancy between the sub-surface strata conditions that may be actually encountered at the time of execution of the work and if any given in these tender documents, in-accuracy or interpretation thereof shall be entertained from the Contractor under any circumstances. The ground water table is a variable condition and it may vary from time to time. The contractor shall satisfy himself regarding the water table information before quoting his bid. Nothing shall be paid extra on this account.

1.27 Any legal or financial implications resulting out of disposal of earth shall be sole responsibility of the contractor. Nothing extra over the schedule shall be paid on this account.

1.28 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. It is clarified that the extra sewerage charges (one time charges for commencement of work) required to be paid to the Municipal Corporation / other statutory bodies shall be paid by the department and need not be considered by the contractor. The water charges (for municipal water connection as well as tanker water) shall be borne by the contractor. Also, if the contractor obtains water connection for the drinking purposes from the municipal authorities or any other statutory body, the consequent sewerage charges shall be borne by the contractor. All statutory taxes, levies, charges (including water and sewerage charges, charges for temporary service connections and / or any other charges) payable to such authorities for carrying out the work, shall be borne by the Contractor. 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 Department 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 fee payable to statutory authorities for obtaining the various permanent service connections and Occupancy Certificate for the building shall be borne by the Department.

1.29 Royalty at the prevalent rates shall be paid by the Contractor as per the terms of supply between them on all materials such as boulders, metals, sand and bajri etc. collected by him for the execution of the work, directly to the revenue authority of the state government concerned. Nothing extra shall be payable on this account.

1.30 No foreign exchange shall be made available by the Department for importing (purchase) of equipment, plants, machinery, materials of any kind or any other items required to be carried out during execution of the work. No delay and no claim of any kind shall be entertained from the Contractor, on account of variation in the foreign exchange rate.

1.31 The Contractor shall conduct his work so as not to interfere with or hinder the progress of the work being performed by other Contractors or by the Engineer-in-Charge. As far as possible, he shall arrange his work and place, so as not to interfere with the operations of other Contractors or shall arrange his work with that of the others, in an acceptable and coordinated manner and shall perform it in proper sequence.

1.32 The Contractor shall assume all liability, financial or otherwise in connection with this 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.

1.33 The Contractor shall make all necessary arrangements for protecting from rains, the work already executed and for carrying out the further work, during rains including providing and fixing temporary shelters, protections etc. Nothing extra shall be payable on this account. Also, no claims for hindrance shall be entertained on this account.

1.34 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 not withstanding any other provisions elsewhere in the contract agreement. Also, the Contractor shall make good, at his own cost, the damages caused, if any.

1.35 The Contractor shall take all necessary precautions to prevent any nuisance or inconvenience to the owners, tenants or occupants of the adjacent properties and to the public in general .The Contractor shall take all care, as not to damage any other adjacent property or other services running adjacent to the plot. If any damage is done, the same shall be made good by the Contractor at his own cost and to the entire satisfaction of the Engineer-in-Charge. The Contractor shall use such methodology and equipment's for execution of the work, so as to cause minimum environmental pollution of any kind during construction, to have minimum construction time and minimum inconvenience to road users and to the occupants of the buildings on the adjacent plot and public in general, etc. He shall make good at his own cost and to the entire 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. Further, the Contractor shall take all precautions to prevent any pollution of streams and waterways. All waste or superfluous materials shall be carted away by the Contractor, entirely to the satisfaction of the Engineer-in-Charge. Utmost care shall be taken to keep the noise level to the barest minimum so that no disturbance as far as possible is caused to the occupants / users of adjoining buildings. No claim what so ever on account of site constraints mentioned above or any other site constraints not specifically stated here, shall be entertained from the Contractor. Therefore, the Contractors 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.

1.36 All ancillary and incidental facilities required for execution of work like labour camp, stores, fabrication yard, offices for Contractor, watch and ward, temporary ramp required to be made for working at the basement level, temporary structure for plants and machineries, water storage tanks, installation and consumption charges of temporary electricity, telephone, water etc. required for execution of the work, liaison and pursuing for obtaining various No Objection Certificates, completion certificates from local bodies etc., protection works, barricading, testing facilities / laboratory at site of work, facilities for all field tests and for taking samples etc. during execution or any other activity which is necessary (for execution of work and as directed by Engineer-in-Charge), shall be deemed to be included in rates quoted by the Contractor, for various items in the schedule of quantities. Nothing extra shall be payable on these accounts. Before start of the work, the Contractor shall submit to the Engineer-in-Charge, a site / construction yard layout, specifying areas for construction, site office, positioning of machinery, material yard, cement and other storage, steel fabrication yard, site laboratory, water tank, etc.

1.37 The Contractor shall display all permissions, licenses, registration certificates, bar charts, other statements etc. under various labour laws and other regulations applicable to the works, at his site office.

1.38 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 (or any other claim) shall be entertained on this account.

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

(a) Allow use of scaffolding already erected, 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 Contractor amicably and the Engineer-in-Charge shall not be made intermediary or arbitrator. The contractor shall indemnify the Department against any claim(s) arising out of such disputes.

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

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

b) Ground and invert level of all drainage pipes together with locations of all manholes and connections, up to outfall.

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

In case the contractor fails to supply "as built drawing" aforesaid within 30 days of the date of completion, then the recovery @ Rs.10,000/- for each such set of drawings shall be made from the contractor's final bill.

1.40 **Condition for Dewatering of Existing Collection Tank**

a) The contractor shall assess the condition of the existing collection tank, including the presence of water, sludge, silt, or any other deposits including means of access to the site of work. The contractor shall make his own arrangements for dewatering, desilting, and disposal of water, sewerage and other materials from the existing collection tank, as required for execution of the work.

b) In case of rainfall and/or any other source, the existing collection tank may again filled up with water, sludge, silt or any other deposits in which case the contractor shall have

to carry out the de-watering, desilting and disposal of water, sewerage and other materials, objects etc. from the existing collection tank, as required for execution of the work. Accordingly, contractor is advised to mobilize and expeditiously complete the work in his own interest. Necessary safety arrangements shall be made by the contractor to avoid any untoward incident.

c) No extra payment whatsoever shall be made on account of above conditions 1.40 (a) & 1.40 (b), and the cost of such operations shall be deemed to be included in the quoted rates. The contractor shall also ensure that dewatering operations are carried out in compliance with applicable environmental regulations and without causing nuisance or damage to adjoining structures or property. The contractor shall keep the department and its official indemnified, in case of any violation of applicable environmental regulations, laws in this regard. No claim shall be entertained in this regard.

d) The department shall not be responsible for providing any facility, equipment, power, or assistance for dewatering purposes.

2.0 Unless otherwise specified in the schedule of quantities or CPWD specifications, the rates for respective items shall be all inclusive and apply to the following: -

(i) All lifts & all heights, floors including terrace, leads and depths.

(ii) All labour, material, tools and plants and other inputs involved in the execution of the item.

(iii) Any of the conditions and specifications mentioned in the tender documents.

(iv) Providing sunk flooring in bath-rooms, kitchen, etc.

(v) Any legal or financial implications resulting out of disposal of earth, if any.

(vi) Payment of Royalty at the prevailing rates, if any, on the boulders, metal, shingle, sand and bajri etc. or any other material collected by him for the work direct to revenue authorities.

(vii) Performance test of the entire installation(s) before the work is finally accepted.

(viii) Any cement slurry added over base surface (or) for continuation of concreting for better bond is deemed to have been built in the items.

(ix) All incidental charges for cartage, storage and safe custody of materials brought to site.

(x) All local taxes, Entry taxes, and all other taxes of J&K State government and central taxes.

3.0 QUALITY ASSURANCE/TESTING OF MATERIALS: -

3.1.1 The contractor shall establish a laboratory at site to test the coarse aggregate, fine aggregate, water, sand, cement etc. to be used in construction.

3.1.2 With each Running Bill, the details of test carried out shall be submitted by the contractor as per Performa **(As per General Index)**

3.1.3 Samples of materials required for testing shall be provided free of charge by the contractor.

Testing charges to be borne by contractor:

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 from the list of approved laboratories for testing as approved by ADG (Delhi).

3.1.4 However, if any ultrasonic pulse velocity / load testing or special testing is to be done for concrete whose strength is doubtful, the cost of the same shall be borne by the contractor.

3.1.5 In case there is any discrepancy in frequency of testing as given in list of mandatory tests and that in individual sub-heads of work as per CPWD Specifications higher of the two frequencies of testing shall be followed and nothing extra shall be payable on this account.

3.2 FIELD LABORATORY

The contractor has to establish field laboratory at site including all necessary equipment's and skilled manpower for the **Field Tests (As per General Index)** at his own cost to have proper quality control.

For performing the above tests, the **Field-Testing Equipment's and Instruments (As per General Index)** are to be arranged and maintained by the contractor. (DG/MAN/410 dated 22.10.2021)

Testing charges to be borne by contractor:

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 from the list of approved laboratories for testing as approved by ADG (Delhi).

3.3 SAMPLE OF MATERIALS: -

3.3.1 All materials and fittings brought by the contractor to the site for use shall conform to the samples approved by the Engineer-in-Charge which shall be preserved till the completion of the work. If a particular brand of material is specified in the item of work in Schedule of Quantity, the same shall be used after getting the same approved from Engineer-in-Charge. Wherever brand / quality of material is not specified in the item of work, the contractor shall submit the samples as per **List of preferred Makes (As per General Index)** for approval of Engineer-in-Charge. For all other items, ISI Marked materials and fittings shall be used with the approval of Engineer-in-Charge. Wherever ISI Marked material / fittings are not available, the contractor shall submit samples of materials / fittings manufactured by firms of repute conforming to relevant Specifications or IS codes for the approval of Engineer-in-Charge.

3.3.2 To avoid delay, contractor should submit samples as stated above well in advance so as to give timely orders for procurement. If any material, even though approved by Engineer-in-Charge is found defective or not conforming to specifications shall be replaced / removed by the contractor at his own risk & cost.

3.3.3 BIS marked materials except otherwise specified shall also be subjected to quality test besides testing of other materials as per the specifications described for the item/material. Wherever BIS marked materials are brought to the site of work, the contractor shall, furnish manufacturer's test certificate or test certificate from approved testing laboratory to establish that the material procured by the contractor for incorporation in the work satisfies the provisions of specifications relevant to the material and / or the work done.

BIS marked items (except cement & steel for which separate provisions have been made in para 4.0) required on the work shall be got tested for only important tests, which govern the quality of the product, as decided by the Engineer-in-Charge. The frequency of such tests (except the mandatory test) shall be 5% of the frequency as specified in BIS. For mandatory test, frequency shall be as specified in the CPWD Specifications.

3.3.4 For certain items, if frequency of tests is neither mentioned in the CPWD Specifications & BIS, then tests shall be carried out as per decision of Engineer-in-Charge.

4.0 CEMENT & STEEL REINFORCEMENT (IF NOT STIPULATED TO BE SUPPLIED BY THE CONTRACTOR).

4.1 Contractor has to produce manufacturers test certificate and challan for each lot of Cement & Steel Reinforcement procured at site.

4.2 CONDITIONS FOR CEMENT

4.2.1 The contractor shall procure 43 grade (conforming to IS 8112) Ordinary Portland cement as required in the work, from reputed manufacturers of cement, having a production capacity of one million tonnes per annum or more, such as ACC, Birla, Ultratech, J.K, Ambuja i.e. agencies approved by Ministry of Industry, Govt. of India, and holding license to use ISI certification mark for their product. The tenderers may also submit a list of names of cement manufactures which they propose to use in the work. The Engineer-in-charge reserves right to accept or reject name(s) of cement manufacture(s) which the tenderer proposes to use in the work. No change in the tendered rates will be accepted if the Engineer-in-charge does not accept the list of cement manufacturers, given by the tenderer, fully or partially. Supply of cement shall be taken in 50 kg bags bearing manufacturer's name and ISI marking except for concrete from RMC producer where bulk cement can be procured. Samples of cement arranged by the contractor shall be taken by the Engineer in Charge and got tested in accordance with provisions of relevant BIS Codes. In case test results indicate that the cement arranged by the contractor does not conform to the relevant BIS Codes, the same shall stand rejected and shall be removed from the site by the contractor at his own cost within a week's time of written order from the Engineer in Charge to do so. Only the cement with satisfactory test results shall be allowed to be used in the work.

4.2.2 The cement shall be brought at site in bulk supply of 1 tonnes or as decided by the Engineer in Charge.

4.2.3 The cement godown of the capacity to store a minimum of 50 bags of cement shall be constructed by the contractor at site of work for which no extra payment shall be made. Double lock provision shall be made to the door of the cement godown. The key of one lock shall remain with the Engineer in Charge or his authorised 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 godown.

4.2.4 The day to day actual issue/receipt 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 the procedure prescribed in clause 42 of the contract and shall be governed by conditions laid therein.

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

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

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

4.2.8 Cement, which is not used within 90 days from its date of manufacture, shall be retested at approved laboratory. Until the results of such tests are found satisfactory, it shall not be used on the work.

4.2.9 **The original voucher and test certificate of cement shall be defaced by the Site staff and kept on record in the site office.**

4.3 STEEL REINFORCEMENT: -

4.3.1 The contractor shall procure **Thermo Mechanical Treated (TMT) Steel Reinforcement bars of Fe 500D** from Primary producers such as TATA, SAIL or Rashtriya Ispat Nigam Ltd. Or TISCO or Jindal Steel & Power Ltd. or JSW Steel Ltd. as approved by Ministry of Steel.

4.3.2 The contractor shall have to obtain and furnish test certificates & challan to Engineer –in-Charge in respect of all the supplies brought by him to the site of work.

4.3.3 Samples shall also be taken and got tested by the Engineer-in-Charge as per the provisions in this regard in relevant BIS codes. In case the test results indicate that the steel arranged by the contractor does not conform to the specifications, as defined under para 4.3.1 (a) above, the same shall stand rejected, and it shall be removed from the site of work by the contractor at his cost within a week time or written orders from the Engineer-in Charge to do so: -

4.3.4 The steel reinforcement shall be brought in bulk supply of 100 tonne or more or as decided by the Engineer-in-Charge along with manufacturer test certificate for each lot.

4.3.5 The steel reinforcement shall be stored by the contractor at site of work in such a way as to prevent their distortion and corrosion and nothing extra shall be paid on these accounts. Bars of different sizes and lengths shall be stored separately to facilitate easy counting and checking.

1.3.6 Unless OTHERWISE specified elsewhere in the contract document, the testing (nominal mass, tensile strength, bend test, re bend test etc.) shall be done as per frequency of samples not less than as given below.

SIZE OF BAR	FOR CONSIGNMENT BELOW 100 TONNES	FOR CONSIGNMENT OVER 100 TONNES
Under 10 mm dia	One sample for each 25 tonnes or part thereof.	One sample for each 40 tonnes or part thereof
10 mm to 16 mm dia	One sample for each 35 tonnes or part thereof.	One sample for each 45 tonnes or part thereof
Over 16 mm dia	One sample for each 45 tonnes or part thereof	One sample for each 50 tonnes or part thereof

4.3.7 The contractor shall supply free of charge the steel required for testing including transportation to testing laboratories.

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

4.3.9 Steel brought to site and steel remaining unused shall not be removed from site without the written permission of the Engineer-in-Charge

4.3.10 The contractor shall submit original vouchers from the manufacturer for the total quantity of steel supplied under each consignment to be incorporated in the work. All consignment received at the work site shall be inspected by the Site staff along with the relevant documents before acceptance. The contractor shall obtain Original Vouchers and Test Certificates and furnish the same to the Engineer-in-Charge in respect of all the lots of steel brought by him from approved supplier to the site of work. The original vouchers and test certificates shall be defaced by the Site staff and kept on record in the site office.

4.3.11 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 drawings) used in the work nearest to a centimetre. Wastage and unauthorized overlaps shall not be measured.

4.3.12 The standard sectional weights referred to as in Table 5.4 in para 5.3.4 in CPWD Specifications will be considered for conversion of length of various sizes of M.S. Bars, Steel Bars and T.M.T. bars into Standard Weight.

4.3.13 Records of actual Sectional weights shall also be kept dia-wise and lot-wise. The average sectional weight for each diameter shall be arrived at from samples from each lot of steel received at site. The decision of the Engineer-in-Charge shall be final for the procedure to be followed for determining the average sectional weight of each lot. Quantity of each diameter of steel received at site of work each day will constitute one single lot for the purpose. The weight of steel by conversion of length of various sizes of bars based on the actual weighted average sectional weight shall be termed as Derived Actual Weight. However for the stipulated issue of steel reinforcement up to and including 10mm diameter bars, the actual weight of steel issued shall be modified to take into account the variation between the actual and the standard coefficients and the contractors' accounts will be debited by the cost of modified quantity.

4. 3.14 (a) If the Derived Weight as in sub-para (4.3.13) above is less than the Standard Weight as in Sub-para (4.3.12) above then the Derived Actual Weight shall be taken for payment provided, it is within the following tolerances specified in IS1786-2008, otherwise whole lot will be rejected.

Tolerances on Nominal Mass

Nominal Size in mm	Tolerance on Nominal mass Percent		
	Batch	Individual Sample*	Individual sample for coil**
a) Up to and including 10	+7	-8	+8
b) Over 10 up to and Including 16	+5	-6	+6
c) Over 16	+3	-4	+4

* For individual sample plus tolerance is not specified.

**For coils batch tolerance is not specified.

b) If the Derived Actual Weight is found more than the Standard Weight, the Standard Weight as per in sub-para (4.3.13) above shall be taken for payment. In such case nothing extra shall be paid for the difference between the Derived Actual Weight and the Standard Weight.

~~**5.0 SECRECY**~~

~~5.1 The contractor shall take all steps necessary that all persons employed on any work in connection with the contract have notice that the Indian Official Secrets Act 1923 applies to them & will continue so to apply even after the execution of such works under the contract.~~

6.0 LABOUR AND SECURITY

6.1 Contractor should provide his plan for labour huts as per his requirement and get it approved from the Engineer-in-Charge. The contractor will be provided space for labour huts etc. inside the campus but the space requirement and location, as assessed by Engineer-in-Charge shall be final and binding.

6.2 Contractor has to follow the security requirement of the campus and obtain necessary entry passes for the labour and vehicles and follow security checks at entry / exit gates, restriction on movement of vehicle, restricted timings of working etc. The Department however shall assist the contractor in obtaining such passes for movement of vehicles and labour. No claim whatsoever shall be entertained on account of delay in entry of vehicles and labour including restrictions in working hours, if there is any.

6.3 The contractor shall employ only Indian Nationals after verifying their antecedents and loyalty. The contractor shall, on demand submit list of his agents, employees and work people concerned & shall satisfy as to the Bonafide's of such people.

6.4 The contractor & his work people shall observe all relevant rules regarding security promulgated in which work is to be carried out by the Controlling Administrative Authority of the campus/area (hereinafter referred to as "Administrator").

6.5 The contractor, his representative, workman shall be allowed to enter through specified gates & timing as laid down by the controlling authority. They shall be issued an identity card or an individual pass in accordance with the standing rules & regulations & they should possess the same while working. The contractor shall be responsible for the conduct & actions of his workmen, agents / representatives.

6.6 Normally contractor shall be allowed to carry out work between 7 AM to 6 PM. However, he may also be allowed to carry out the work beyond 6 PM & up to 7 AM if the site conditions / circumstances so demand with prior written permission from the competent authority. However, if the work is carried out in more than one shift or at night, no claim on this account shall be entertained.

6.7 Normally contractor's material / vehicles etc. shall be allowed to move in / go-out between 7 AM to 7 PM only & no movement of material / vehicles out of site of work shall be allowed during night hours unless specific permission is obtained from the competent authority.

6.8 In case if a separate entry has been allowed, the contractor has to make all arrangement for making a separate entry gate and barricading of the working area to segregate/separate the same from other areas. All these have to be done by the contractor at his own cost including safeguarding any untoward incident in the restricted area due to separate entry gate and barricading arranged by the contractor. No extra amount on this account shall be payable by the department.

7.0 DOCUMENTATION

The Contractor shall render all help and assistance in documenting the total sequences of this project by way of photography, slides, audio / video recording & other records etc. Nothing extra shall be payable to Contractor on this account. The original films shall be the property of the Department. No copy shall be prepared without the prior approval of the Engineer- in – Charge.

8.0 PROGRAM CHART: -

8.1 The Contractor shall prepare an integrated program chart for the execution of work, showing clearly all activities from the start of work to completion, with details of manpower, equipment and machinery required for the fulfilment of the program within the stipulated period or earlier and submit the same for approval of the Engineer-in-Charge within 07 days of the issue of letter of acceptance for the contract. This program chart should clearly indicate that work will simultaneously be started on all different locations of Class rooms and hostels. The integrated program chart so submitted should not have any discrepancy with the milestones attached in the Contract Agreement.

8.2 The work has to be completed in stages as indicated in the Milestones under Schedule 'F' (As per General Index) and the program should be prepared in such a manner to achieve these Milestones as indicated therein or earlier.

8.3 The program chart should include the following: -

a) Descriptive note explaining sequence of various activities.

b) Network (PERT / CPM / BAR CHART) prepared on MS project which will indicate resources in financial terms, manpower and specialized equipment's for every important stage.

c) Program for procurement of materials by the contractor.

d) Program of procurement of machinery / equipment's having adequate capacity, commensurate with the quantum of work to be done within the stipulated period, by the contractor.

8.4 If at any time, it appears to the Engineer-in-Charge that the actual progress of work does not conform to the approved program referred above, the contractor shall produce a revised program showing the modifications to the approved program by additional inputs to ensure completion of the work within the stipulated time.

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

Notwithstanding the fact that the contractor will have to pay to the labourers and other staff engaged directly or indirectly on the work according to the provisions of the labour regulations and the agreement entered upon and/or extra amounts for any other reason.

9.0 PROGRESS AND MONITORING OF WORK:

9.1 Apart from the above integrated program chart, the contractor shall be required to submit monthly progress report of the work in a computerized form. The progress report shall contain the following, apart from whatever else may be required as specified:

(i) Construction schedule of the various components of the work through a bar chart for the next three quarters (or as may be specified), showing the milestones, targeted tasks and up to date progress.

(ii) Progress chart of the various components of the work that are planned and achieved, for the month as well as cumulative up to the month, with reason for deviations, if any in a tabular format.

(iii) Plant and machinery statement, indicating those deployed in the work.

(iv) Man-power statement, indicating individually the names of all the staff deployed on the work, along with their designations.

(v) Financial statement, indicating the broad details of all the running account payment received up to date, such as gross value of work done, advances taken, recoveries effected, amount withheld, net payments details of cheque payment received etc.

9.2 For completing the work in time, the Contractor might be required to work in two or more shifts (including night shifts). No claim whatsoever shall be entertained on this account, not with-standing the fact that the Contractor may have to pay extra amounts for any reason, to the labourers and other staff engaged directly or indirectly on the work according to the provisions of the labour and other statutory bodies regulations and the agreement entered upon by the Contractor with them.

9.3 The work should be planned in a systematic manner so that chase cuttings in the walls, ceilings and floors is minimized. Wherever absolutely essential, the chase shall be cut using chase cutting machines. Chases will not be allowed to be cut using hammer / chisel. The electrical boxes should be fixed in walls simultaneously while raising the brick work. The contractor shall ensure proper co-ordination of various disciplines viz. building works, sanitary & water supply & electrical installations etc.

9.4 The contractor shall conduct his work, so as not to interfere with or hinder the progress or completion of the work being performed by other contractor(s) or by the Engineer-in-Charge and shall as far as possible arrange his work and shall place and dispose off 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 Engineer-in-charge.

9.5 The Contractor shall do proper sequencing of the various activities by suitably staggering the activities within various pockets in the plot and at different plots so as to achieve early completion. The agency may 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 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. It shall be ensured by the Contractor that all the equipment, Tools & Plants, machineries etc. provided by him are maintained in proper working conditions at all times during the progress of the work and till the completion of the work. Further, all the constructional tools, plants, equipment and machineries provided by the Contractor, on site of work or his work shop for this work, shall be exclusively intended for use in the construction of this work and they shall not be shifted / removed from site without the permission of the Engineer-in-Charge.

9.6 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.

10.0 ENGAGING SPECIALISED AGENCIES FOR WORKS: -

10.1 The main contractor has to associate agencies **for specialized component(s)** conforming to eligibility criteria as defined in the bid document and has to submit detail of such agency(s) to Engineer-in-charge of relevant component(s) within prescribed time. Name of the agency(s) to be associated shall be approved by Engineer-in-charge of relevant component(s).

10.2 The Specialized agency for the work shall be got approved from the Engineer-in-Charge well before actual commencement of the item of work. The contractor shall submit the list of specialized agencies except for Internal Electrical Installation, proposed to be engaged by him along with necessary performance certificates, within 10 days from the date of issue of acceptance letter to substantiate technical capability and experience of the agency for prior approval of the Engineer-in-Charge. 10% of the amount of the specialized component shall be retained as Security Deposit from the payments due to the contractor.

10.3 Same milestones shall be applicable for all components of work.

10.4 **For the specialized item of door & window fittings, water supply and sanitary installations; the contractor shall engage such vendors/installers, as approved by the manufacturers. Provisions mentioned under Sr. No. 10.1 above shall not be applicable for the items mentioned herein above.**

11.0 Defect liability:

11.1 The contractor's liability during the defect liability period from the final date of completion as per clause 17 shall be limited to rectification of defects including replacement as follows which in the opinion of Engineer-in-Charge are not manmade.

Sl. No.	**Description**	**Defect** Liability
(ii)	Concrete	(a) Rectification of structural / superficial / non-structural cracks. (b) Rectification of dampness / seepage in roof slab / junctions & sunken portion. (c) Rectification of cracks in beam, shade, column.
(iii)	Brick work/ Concrete Block Masonry	(a) Rectification of cracks in panel wall / portion. (b) Cracks / settlement of dwarf walls. (c) Rectification of efflorescence/ leaching.
(viii)	Plastering	(a) Rectification of structural / superficial cracks if any. (b) Rectification of protruding / peeling off plaster if any. (c) Rectification of efflorescence
(ix)	Flooring	(a) Rectification of sinking portion of plinth protection including saucer drain. (b) Settlement of foundation & floors, hollow sounding, cracks in tiles/stones.
(x)	Plumbing / Sanitary fittings	(a) Making good of leakage through soil / waste pipe joints. (b) Replacement of looking mirror if found wavy. (c) Rectification of leakage of overhead tanks. (d) Leakage / seepage of sunken floor, blockage of taps / pipes, non-functioning of cistern.
(xi)	Finishes	(a) Making good of defective / dissimilar patches of painting to match with remaining surfaces, peeling of paint.

Correction = Nil, Insertion = Nil, Overwriting = Nil, Deletion = Nil AE(P), CD-6, EE,CD-6,

Sl. No.	Description	**Defect** Liability
(xii)	Internal Water Supply	(a) Repairs / Replacement of defective taps / fittings. (b) Repair to leakage of GI water pipe lines including joints. (c) Removal of blockage of GI pipe lines.
(xiv)	Sewage	(a) Rectification of slope / system if found defective during use. (b) Rectification of major blockage in Sewer lines. (c) Cracks & settlement of sewage lines.
(xv)	Drains	(a) Repair to Drains. (b) Settlement of Drains
(xvi)	External Water Supply	(a) Repairs to installations & fittings.
(xvii)	General	(a) All manufacturing defects of structures / fixtures / fittings / equipment's other than listed above including any defects of shrinkage or other faults that appear in the work within twelve months after a certificate of its completion is given by the Engineer-in-Charge shall be rectified by the contractor.

Above list is not exhaustive but is only indicative.

12.0 SAFETY MEASURES

12.1 Contractor shall take all precautionary measures to avoid any damage to adjoining property. All necessary arrangement shall be made at his own cost. `

12.2 Warning **/ Caution Boards**

All temporary warning / caution boards / glow signage display such as "Construction Work in Progress", "Keep Away", "No Parking", Diversions & protective Barricades etc. shall be provided and displayed

During day time by the Contractor, wherever required and as directed by the Engineer-in-Charge. These glow signage and red lights shall be suitably illuminated during night also. The

Contractor shall be solely responsible for damage and accident caused, if any, due to negligence on his part. Also he shall ensure that no hindrance, as far as possible, is caused to traffic during execution of the work. This signage shall be dismantled & taken away by the Contractor after the completion of work, only after approval of the Engineer – in – Charge. Nothing extra shall be payable on this account.

12.3 Sign Boards

The Contractor shall provide and erect a display board of size and shape as required and paint over it, in a legible and workman like manner, the details about the salient features of the project, as required by the Engineer-in-Charge. The Contractor shall fabricate and put up a sign board in an approved location and to an approved design indicating name of the project, client / owner, architects, structural consultants, Department etc. besides providing space for names of other Contractors, Associate contractors and specialized agencies. Nothing extra shall be payable on this account.

12.3.1 Necessary protective and safety equipment's shall be provided to the Site Engineer, Supervisory staff, labour and technical staff of the contractor by the Contractor at his own cost and used at site.

12.3.2 No inflammable materials including P.O.L shall be allowed to be stored in huge quantity at site. Only limited quantity of P.O.L may be allowed to be stored at site subject to the compliance of all rules / instructions issued by the relevant authorities and as per the direction of Engineer -in-Charge in this regard. Also all precautions and safety measures shall be taken by the Contractor for safe handling of the P.O.L products stored at site. All consequences on account of unsafe handling of P.O.L shall be borne by the Contractor.

13.0 **Special condition for Hardware and sanitary wares:**

13.1 Engineer-in-Charge will take a decision regarding model numbers of equivalent Door/window hardware's/ sanitary wares at the time of execution, in case the material, from the manufacturer whose model number is mentioned, is not available. However, in case, the equivalent model so approved, is cheaper than the model already mentioned in item/approved makes list, the price adjustment will be made based on the difference in market rate. In case, the rate of subsequently approved model is more, no extra payment will be made on this account.

14.0 Pollution Control Provisions:

The contractor shall ensure compliance of pollution control measures at site of work for which nothing extra shall be payable. In case of failure, action may be taken against the contractor by Engineer-in-Charge and/or relevant authorities:

1. Statutory Compliance Clause

The contractor shall comply with all environmental and pollution control regulations prescribed by the Central Pollution Control Board (CPCB), Delhi Pollution Control Committee (DPCC),

and the Commission for Air Quality Management (CAQM) in NCR, and shall obtain all necessary permissions as applicable.

2. Dust and Air Pollution Control

1. Contractor shall ensure no visible dust emission from construction or demolition work at sites. The contractor shall install tarpaulin or green net on scaffolding around the area under construction and the building.

2. All vehicles carrying construction material or debris shall be covered with tarpaulin.

3. Wheel washing facilities shall be provided at site exit to prevent mud/dust on public roads.

4. All construction and demolition waste shall be transported to authorized processing facilities only (such as approved C&D waste plants).

5. Dust suppression by regular water sprinkling or use of anti-smog guns (as per CAQM directions).

6. Grinding, cutting, or batching operations shall be done in enclosed areas only.

7. Stockpiles of sand/aggregates shall be covered to prevent windblown dust.

8. Use low-emission machinery/equipment complying with CPCB norms.

9. Use non-polluting fuels (no diesel generators unless permitted with valid DPCC approval and retrofitted with emission control device).

3. Noise Pollution Control

• Construction operations may be restricted to specified hours by statutory or government authorities (typically 6 a.m. to 10 p.m.).

• Noise levels at site boundary shall not exceed limits prescribed under the Noise Pollution (Regulation and Control) Rules, 2000 including amendments/modifications, as applicable.

4. Construction and Demolition Waste Management

- Contractor shall strictly comply with the C&D Waste Management Rules, 2016.
- Maintain record of waste generation, transport, and disposal to authorized facilities.
- Submit periodic returns to the Engineer-in-Charge regarding waste handling.

5. Green Cover and Site Housekeeping

- Maintain green fencing or geotextile sheet covering around site periphery.
- Avoid open burning of any waste material at site.
- Maintain overall site cleanliness and ensure proper solid waste segregation.

6. Monitoring and Penalties

- Engineer-in-Charge shall have the right to stop work in case of any violation. In case of such stoppage due to violation at contractor end, no claim of contractor shall be entertained.

- Penalties may be imposed in accordance with CAQM guidelines (₹10,000–₹5,00,000 depending on severity).
- Contractor shall bear all expenses in case of any notice, fine, or penalty by statutory authorities.

7. Undertaking by Contractor

The contractor shall furnish an undertaking before commencement of work that "all anti-pollution measures prescribed by CAQM/DPCC/CPCB shall be implemented at site and maintained throughout the execution period. In case of any notice, fine, or penalty by statutory authorities, all the expanses including of legal process shall be borne by me."

8. Record Keeping and Reporting

- Contractor to maintain a site pollution control register with records of:
- Dust suppression measures
- C&D waste disposal slips
- Vehicle maintenance records
- Air/noise monitoring results
- Monthly environmental compliance report to be submitted to the department.

9. Reference to some Standard Documents

- CPWD OM No. DG/SE/CM/2021/28 dated 22.11.2021 – "Measures to control air pollution during construction" including amendments/modifications/addendums, if any.
- CAQM Order No. 52/2022 dated 08.02.2022 – "Directions to curb dust and pollution in construction/demolition activities" including amendments/modifications/ addendums, if any.
- C&D Waste Management Rules, 2016 including amendments/modifications/ addendums, if any.
- NCR Construction Ban Guidelines (Graded Response Action Plan – GRAP) including amendments/modifications/addendums, if any.
- Any other extant rules in this regard, if any.

ADDITIONAL CONDITIONS FOR INTERNAL & EXTERNAL PAINTING WORKS

1. The contractor shall see the site conditions before quoting the rates. The rates for different items of works shall apply for all heights and depth unless otherwise specified.
2. The works is required in piece meal manner in building and work shall be started at very short notice and be completed as per program decided and as per the convenience of occupants.
3. At a particular time contactor may have to undertake work in different area by engaging at least ten painters and ten beldars/coolies in each of the places failing which, if it is felt that building will not be completed in fix time schedule, the department will deploy required number of painter/coolie & cost of wages will be recovered from the contractor.
4. Any failure to fulfill the above cited and following conditions shall amount to forfeit the claim of contractor to quote the same kind of tenders in future.
5. Before starting the work, the contractor shall have to prepare one sample of all items / shade & should be got approved from the Engineer In charge. Only after acceptance of sample work, contractor will be allowed to commence the work and sample is to be preserved by contractor till the whole work is completed. The quality of work should confirm to the approved samples.
6. Splashes on the floor, walls glasses & other places must be removed after completion of work. Glass panes must be cleaned after completion of works. In the event of failure to clean splashes the work of cleaning will be got done at the risk and cost of the agency.
7. Payment for a building shall be made only after completion of full scope of work required in main building, part of building compound wall etc. and after removal of splashes of paint and cleaning of glass panes and splashes marks on marks skirting / dado, frames etc. this is to be done immediately after the completion of painting work. In the event of work splashes on the floors, walls, glasses & other places must be removed after completion of works. Glass panes must be cleaned after completion of work. In the event of failure to clean splashes the works of cleaning will be got done at the risk and cost of the agency.
8. The brand and manufacture of materials to be supplied shall be as follows: -

A) Oil bound washable distemper White shade or any required shade in 5 Kg. Packing.

i) Bison acrylic washable oil bound distemper of Berger make

or

ii) Nerolac premium washable oil bound distemper of Godless Nerolac make.

or

iii) Acrylic washable distemper Tractor brand of Asian paints make. or

iv) Maxlite ICI paints make.

B) Synthetic enamel paint.

a) White shade or any required shade in 4 Ltr. Packing.

i) Luxol Hi-Gloss synthetic enamel snowhite of Berger make.

or

ii) Nerolac full gloss hard drying synthetic enamel ultra-white of Good lass Nerolac make.

or

iii) Apcolitelusture finish white synthetic enamel paint of Asian paints make.

or

iv) Dulux gloss synthetic enamel paint of ICI make.

C) Acrylic emulsion paint (20 litres packs will be allowed) (Exterior)

i) Snowcryl XT of Snowcem paint

ii) Wheather coat smooth of Berger paints

iii) Whethershield of ICI paints

iv) Apex of Asian paints

v) Safeguard Acrylic Exterior Emulsion of Jenson & Nicholson

D) Cement primer water base. (20 litres packs will be allowed)

i) B.P. cement primer (alkali resistant) water thinable of Berger paint make. Or `

ii) Primolite water thinable cement primer of Goodlass Nerolac paint make. or

iii) Cement primer of Asian paint make.

E) Water Proofing cement paint. (25 Kg packs will be allowed)

i) Durocem water proofing cement coating of Berger paints make. or

ii) Super snowcem decorative water proof cement of Snowcem India Ltd. Make. or

iii) Gattucem water proofing cement paint of Asian paints make.

F) Plastic emulsion paint. (4 litres packs will be allowed)

i) Luxol silk emulsion of Berger paint make.

or

ii) Allscape of Kansai Nerolac paint Ltd. Make.

or

iii) Royal of Asian paint make.

9. The following theoretical coefficients shall be considered for working out theoretical consumption of material:-

i) Oil bound washable distemper.

a) One or more coats on old work – 1.00kg per 10 sqm.

b) Two and more coats on old work – 1.25 kg. per 10 sqm.

c) Two or more coat on prepared – 1.50 kg per 10 sqm.

ii) Cement primer -0.70 litre per 10 sqm.

iii) Cemprover primer – 0.80 litre per 10 sqm.

iv) Varnish – 1.00 littre per 25 sqm.

v) Safeda (white lead) – 1.00 kg per 25 sqm.

vi) Synthetic cement paint –

a) Two or more coats on new work – 1.16 litre per 10 sqm.

b) Two or more coats on old work 0.93 litre per 10 sqm.

c) One or more coats on old work – 0.70 litre per 10 sqm.

vii) Water proofing cement paint.

a) Two or more coats on new work – 3.84 kg per 10 sqm.

b) One or more coats on old work – 2.20 kg. per 10 sqm .

viii) Pink or grey primer – 0.75 litre per 10 sqm.

ix) Repainting of C.I. Cistern with synthetic enamel paint 0.20 litre each.

x) Anticorrosive bitumastic paint one or more coats on rain water pipe.

a) 50mm diameter pipe – 1 litre per 102 metre.

b) 75mm diameter pipe 1.46 litre per 102 metre.

c) 102mm diameter pipe 1.914 litre per 102 metre.

xi) Plastic emulsion paint.

a) Two or more coats on new – 1.21 litre per 10sqm.

b) One or more coats on old work – 0.73 litre per 10 sqm.

xii) Repainting of G.I. pipe one or more coats on old work with synthetic enamel paint.

a) 15mm diameter pipe – 0.3297 per 102 metre.

b) 20mm diameter pipe – 0.4396 per 102 metre.

c) 25mm diameter pipe – 0.5495 per 102 metre.

d) 32mm diameter pipe – 0.7035 per 102 meter.

xiii) Wood preservative oil type one or more coats – 0.81 litre per 10 sqm.

10 Sundries such as brusher, sand paper, scaffolding, old dhoties, colour pigment (strainer tubes) and chalk mitti (whiting) etc. will be arranged by the contractor for which no extra payment shall be made.

11 All ceilings of main building and servant quarters shall be done in one or more coats unless and until permitted for scrapping and two or more coats of wash. Nothing extra shall be paid for any extra height.

12 Contractor shall be required to make arrangement for plastic/cotton sheets for use in building during repairs to protect floors, furniture, carpets, shelves etc. from splashes, dust, dirt, mortars dropping and damages etc. for which no extra payment shall be make.

13 Empty containers against the material issued departmentally shall have to be returned to the Junior Engineer immediately on the same day after the use on work and the contractor will responsible for the loss of containers failing which no further material will be issued, AE / JE may issue material if feasible / suitable and retain empty container with them.

14 White oil bound distemper plastic emulsion paint synthetic enamel paint shall be issued to the contractor. He will arrange for the strainer of required shade and nothing extra shall be paid for it.

15 Contractor and / or his duly authorized representative shall have to have contact with Engineer in-charge/AE/JE twice a day for obtaining the execution programme.

16 Acrylic smooth exterior painting/ plastic emulsion painting/ distempering over walls shall only be carried out with application of roller.

17 The manufacturing date and batch No. will be inscribed or printed on packs/containers by manufacturers are acceptable for all the above said materials. Fresh material shall be brought at site as far as possible and materials more than 04 Months old from the date of manufacturing will be rejected.

18 The contractor shall have to get the shades of all types of paints, distempers, water proofing cement paint etc. approved from the Engineer-in-charge before procurement of materials.

19 The contractor shall be required to produce samples of all materials sufficiently in advance to obtain approval of the Engineer-in-charge. Subsequently the materials to be used in the actual

execution of the work shall strictly conform to the quality of samples approved. In case of variation, such materials shall be liable to rejection.

20 All materials to be obtained from Govt. stores or otherwise shall be got checked from the junior Engineer-in-charge of work, on receipt of the same at site before use.

21. The contractor shall deposit along with cash memos, the materials like Dry distemper, O.B.D. Varnishes, synthetic enamel paint, plastic emulsion, water proofing cement paint, primer, exterior paint etc. in 50% quantity before start of the work.

23. The material is to be purchased from the authorized dealer and cash memos to this effect is to be produced along with material. It should be ensured that the material is taken from authorized dealers and supported with challans of the manufacture.

24. Nothing extra shall be paid to the contractor for excess consumption of materials in case of the materials arranged by him.

PARTICULAR SPECIFICATIONS

MEASUREMENT

(i) As per CPWD Specifications.

1. TOLERANCES - As per CPWD Specifications.

2. RATES: -

(i) The rate includes the cost of materials, labour and T&P, including mixing, placing, transportation involved in all the operations described above except for the cost of centring, shuttering & reinforcement which will be paid for separately.

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

3. 0 FLOORING

3.1 All work in general shall be carried out as per CPWD Specifications (Volume 1) 2009 with up-to-date correction slips.

3.2 Whenever flooring is to be done in patterns of tiles and stones, the contractor shall get samples of each pattern laid and approved by the Engineer-in-charge before final laying of such flooring. Nothing extra shall be payable on this account.

3.3 Different stones / tiles used in pattern flooring shall be measured separately as defined in the nomenclature of the item and nothing extra for laying pattern flooring shall be paid over and above the quoted rate. No additional wastage, if any, shall be accounted for any extra payment.

3.4 Samples of flooring stones/ Tile (Kota/ Marble/ Granite/ Ceramic tiles/ Vitrified tiles etc.) shall be deposited well in advance with the Engineer-in-Charge for approval. Approved samples should be kept at site with the Engineer-in-Charge and the same shall not be removed except with the written permission of Engineer-in-Charge. No payment whatsoever shall be made for these samples.

3.5 The Marble/ Kota/ Granite or any other stone shall be fully supported by the details establishing the quarry and its location.

3.6 Full width Marble/ Kota/ Granite stone over kitchen platform shall be provided which shall not be less than 900mm long except to adjust for closing pieces. The marble / stone flooring in treads and risers of staircase shall not be less than 1500mm long except to adjust the closing pieces. Nothing extra shall be paid on these accounts.

4 **Vitrified Tile Flooring**

The tiles shall be of approved make and shall generally conform to Table 12 of IS15622.

The full body Vitrified tiles of specified sizes shall be used & sample of tiles shall be got approved from the Engineer-in-Charge. All tiles shall be rectified. The Mandatory tests for vitrified tiles shall be got done as per CPWD Specifications (volume-1)/relevant BIS Code

5. Ceramic Tiles Flooring

The tiles shall be procured from the approved manufactures of the specified shade & colour. The floor & wall tiles shall be conforming to IS: 15622 for floor and wall tiles respectively. Tiles for dado shall be 300mm x 450mm (minimum size) or more (GROUP-III) as approved. Tiles for flooring shall be 300mm x 300mm (minimum size) or more (GROUP-V) as approved

Test shall be conducted to satisfy the quality of material as per CPWD Specifications

6 The rate of items of flooring is inclusive of providing sunken flooring in bathrooms, kitchen etc. and nothing extra on this account is admissible. The proper gradient shall be given to flooring for toilets, verandas, kitchen, courtyard, etc. as per the directions of Engineer-in-charge. The entire responsibility for the quality of work will however rest with the building contractor only and he shall submit a Guarantee Bond as per Performa **(As per General Index). 10% (Ten percent) of the cost of all tile/stone flooring work items would be retained as security deposit and the amount so deducted would be released after Five years from the date of completion of the entire work under the agreement, if the**

performance of the items is found satisfactory. If any defect is noticed during the guarantee period, the contractor should rectify it within seven days and if not attended to, the same will be got done from another agency at the risk and cost of contractor. However, this security deposit can be released in full if bank guarantee of equivalent amount is produced and deposited with the department.

GUARANTEE BOND FOR ALL WATER PROOFING ITEMS:-

Ten years Guarantee bond in prescribed Performa at **(As per General Index)** shall be submitted by the contractor which shall also be signed by both the specialized agency and the contractor to meet their liability / liabilities under the guarantee bond. However, the sole responsibility about efficiency of water proofing treatment shall rest with the building contractor. **10% (Ten per cent) of the cost of water-proofing work shall be retained as Security Deposit and the amount so deducted would be released after five years from the date of completion of the entire work under the agreement, if the performance of the treatment is found satisfactory**. If any defect is noticed during the guarantee period, the contractor shall rectify it within 15 days of receipt of intimation of defects in the work. If the defects pointed out are not attended to within the specified period, the same will be got done from another agency at the risk and cost of contractor.

7. **FINISHING:-**

7.1 The work shall be done in accordance with CPWD Specifications (Volume II) 2019 with up-to-date correction slips and/or manufacturers specifications wherever applicable.

7.2 All painting material of approved brand and manufacturer shall be brought to the site of work in the original sealed containers. The material brought to the site of work shall be sufficient for at least 30 days of work. The material shall be kept under the joint custody of contractor and representative of the Engineer-in-charge. The empty containers shall not be removed from the site till the completion of the work without permission of the Engineer-in-charge.

7.3 In the item of finishing walls with water proofing cement paint, only the plain/flat area shall be measured for payment and nothing extra shall be paid on account of pointed wall surface.

doors, windows, floors, furniture, electric & fittings and other article shall be protect from dust, splashes and damages, sufficient covering for the days work shall be shown to the representative of the Engineer-in-charge before the contractor will be allowed to proceed with work, splashes and dropping from white washing. Colour washing, distempering, painting etc.

on walls, floors, doors and windows, down take pipes furniture shall be removed by the contractor at his own cost and the surface cleaned simultaneity after the completion of the day's work in individual room/quarter or premises where the work is done, without waiting for the actual completion of all the other items of contract. In case the contractor fails to comply with this requirement the Engineer-in-charge or his authorized representative shall have the right to get this work done at the risk and cost of the contractor either departmentally or through another agency without issue of any notice to the contractor, on this account. The representative of the Engineer-in-charge will however, mention about it in the site order book before employing the labour on the job at the contractor cost.

8. The work is required in piece meal manner and be started at very short notice and be completed as per programme decided as per the convenience of occupants.

9. Before starting the work, a sample of required shade for paints/distemper will have to be prepared as per direction of Engineer-in-charge and got approved.

10. The contractor shall see the site conditions of existing splashes/paint marks etc. and quote rates accordingly.

11. The cleaning operation should be done within 24 hrs. of completion of job otherwise a recovery @ Rs. 5000/- per flat shall be made.

12. 50% quantity of paints required theoretically shall be deposited with Junior Engineer-in-charge by the contractor before physically start of work. The material shall be approved by the Engineer-in-charge before use. The paints drums/containers shall be identification numbered by the Assistant Engineer-in-charge. The empty drums shall not be removed from site till completion of work. After consuming this quantity, balance quantity shall also be received and used in same manner. Any violation of this condition shall be viewed seriously and Assistant Engineer-in-charge will be held responsible personally.

13. The register for internal finishing for each quarter shall be maintained by the field staff with signature of allottee in prescribed Performa. Photocopy of the register for the quarters measured for payment shall be submitted with each bill.

14. It will be the responsibility of the contractor to take direction on time from the Engineer-in-charge in advance so that the progress of the work is not affected.

15. The following theoretical coefficient shall be considered for working theoretical quantities.

A) Synthetic enamel paint:-

(i) Two or more coats on new work – 1.16 litres per 10 Sqm.

(ii) One or more coats on old work – 0.70 litres per 10 Sqm.

B) Pink or grey primer – 0.75 litres per 10 Sqm.

C) Repainting of C.I. Cistern with synthetic enamel paint 0.20 litres each.

D) Anticorrosive bitumastic paint one or more coats on rain water pipe.

a) 50 mm diameter pipe – 1 litre per 100 Metre.

b) 75 mm diameter pipe – 1.46 litres per 100 metre.

c) 100 mm diameter pipe – 1.91 litres per 100 metre.

E) Plastic emulsion paint.

a) Two or more coats on prepared surface – 1.21 litres per 10 Sqm.

b) One or more coats on old work – 0.73 litres per 10 Sqm.

F) Repainting of G.I. pipe one or more coats on old work with synthetic enamel paint.

a) 15 mm diameter pipe – 0.3297 litres per 100 metre.

b) 20 mm diameter pipe – 0.4396 litres per 100 metre.

c) 25 mm diameter pipe- 0.5495 litres per 100 metre.

d) 32 mm diameter pipe – 0.7035 litres per 100 metre.

G) Wood preservative oil type one or more coats – 0.81 litre per 10 Sqm.

H) Oil bound washable distemper.

a) One or more coats on old work 1.00 kg per 10 Sqm.

b) Two or more coats on prepared surface – 1.50 kg per 10 Sqm.

I) Cement primer – 0.70 litres per 10 Sqm.

J) Lettering with black Japan Paint – 0.56 litres per 100 letters 15 cm height.

K) Re-lettering with black Japan Paint – 0.37 litres per 100 letters 15 cm height.

L) Finishing walls with acrylic smooth exterior paint

a) New work (Two or more coats) – 1.67 litres per 10 Sqm.

b) Old work (Two or more coats) – 1.67 litres per 10 Sqm.

c) Old work (One or more coats) – 0.90 litres per 10 Sqm.

M) Finishing walls with Premium acrylic smooth exterior paint

a) New work (Two or more coats) – 1.43 litres per 10 Sqm.

b) Old work (Two or more coats) – 1.43 litres per 10 Sqm.

c) Old work (One or more coats) – 0.83 litres per 10 Sqm.

10. The brand and manufacture of materials to be used shall be as follows:-

A) Oil bound/ Acrylic washable distemper in 20 kg. Pack:-

i) Bison acrylic washable oil bound distemper of Berger make. or

ii) Nerolac, washable oil bound distemper of Goodlass Nerolac make. or

iii) Acrylic washable distemper Tractor brand of Asian Paints make. or

iv) Maxilite brand of ICI paints make.

B) Synthetic enamel paint in 4 litre pack:-

i) Luxol Hi-gloss synthetic enamel snowhite of Berger make. or

ii) Nerolac full gloss hard drying synthetic enamel ultra white of Goodlass Nerolac make. or

iii) Apcolite histure finish white synthetic enamel paint of Asian Paints make. or

iv) Dulux gloss synthetic enamel paint of ICI make.

C) Cement primer water base in 20 litre pack:-

i) B.P. cement primer (alkali resistant) water thinable of Beger Paint make. or

ii) Primolite water thinable cement primer of Goodlass Nerolac Paint make. or

iv) Cement primer of Asian paints make.

v) Water bourn cement primer of ICI make.

D) Plastic emulsion paint of Beger or ICI or Nerolac or Asian Paints make in 20 litre pack.

16. Contractor shall be required to make arrangement for plastic cotton sheets for use at workplace during execution of work to protect floors, furniture shelves etc. from splashes, dust, dirt mortars droppings etc. for which no extra payment shall be made.

17. Any failure to fulfill the above cited conditions shall amount to debar the contractor to quote for the same kind to tender in future.

18.0 **EARTH WORK**

18.1 Earth work shall be executed as per CPWD Specification 2019, Volume –I with upto date correction slip.

19.0 **CLEARING OF JUNGLE**

19.1 Before the execution of the item of jungle clearance, proper documentation shall be made and kept in record till the completion of the work.

20.0 **SANITARY INSTALLATIONS /WATER SUPPLY / DRAINAGE: -**

20.1 The contractor shall submit schematic drawing of water supply and sanitary installation showing details of layout, including internal water supply and drainage details, showing the

detail of water supply lines including fittings diameter wise and fixtures connecting to soil waste through traps and connection of W.C. to main shaft pipe for drainage including its ventilation system for approval of Engineer-in-Charge.

20.2 For the work of water supply and sanitary installations, the contractor shall engage the approved licensed plumbers and submit the name of proposed plumbing agencies with their credentials for approval of the Engineer-in-Charge.

20.3 The work in general shall be carried out as per CPWD Specifications (Volume II) 2009 with up-to-date correction slips.

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

20.5 The Centrifugally spun cast iron pipe IS: 3989-1984 wherever necessary shall be fixed to RCC columns, beams etc. with rawl plugs of approved quality and nothing extra shall be paid for on this account.

20.6 The pig lead to be used in the jointing should be as per CPWD specifications.

20.7 Nothing extra for providing & fixing CP Brass caps /extension pieces wherever required for CP Brass fittings shall be paid beyond the rates payable for corresponding CP Brass fittings.

20.8 The entire responsibility for the quality of sanitary installations/ water supply/ drainage works will however rest with the building contractor only and he shall submit a Guarantee Bond as per Proforma **(As per General Index).** **10% (Ten percent) of the cost of these items would be retained as security deposit and the amount so deducted would be released after five years from the date of completion of the entire work under the agreement, if the performance of the items is found satisfactory.** If any defect is noticed during the guarantee period, the contractor should rectify it within seven days and if not attended to the same will be got done from another agency at the risk and cost of contractor. However, this security deposit can be released in full if bank guarantee of equivalent amount is produced and deposited with the department.

The contractor shall be responsible for assembling composite, bedding and filling the grove with polysulphide sealant inside and outside, at transoms and mullions placing the doors, windows etc. in their respective openings. After the doors/ windows have been fixed in their

correct assigned position, the open hollow sections abutting masonry concrete shall be fitted with approved polysulphide sealant densely packed and finished neat.

21.0 Aluminium doors, windows, ventilators etc. glazing specifications

21.1 Extent and Intent: -

The work shall be carried out in the factory through an approved Special Agency, who shall furnish all material, labour, accessories, equipment, tool and plants and incidentals required for providing and installing anodized/powder coated aluminium doors, windows, claddings, louvers and other items as called for on the drawings. The drawings and specifications cover the major requirements only. The supplying of additional fastenings, accessories, fixtures and other items not mentioned specifically herein, but which are necessary to make a complete installation shall be a part of this contract. Hinges for openable panel shall be stainless steel friction hinges / stays selected for specified wind load and dead loads or specifically extruded in-built hinges.

21.2 General: -

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

Anodizing/ powder coating: -

All aluminium sections shall be Powder coated (minimum 50 micron thickness) as per requirement as per IS: 7088 and to required colour as specified in the item as per IS: 1868 grading as specified in item schedule after cutting the member to requisite sizes before the final assembly. Powder coating shall be of minimum 50 micron thickness. Anodizing confirming to specified grade with minimum average thickness of 15 microns when measured as per IS: 612. The anodic coating shall be properly sealed by steams or in boiling water are cold sealing process as per IS:1868/IS: 6057. Polythene tape protection shall be applied on the anodised section before they are brought to site. All care shall be taken to ensure surface protection during transportation, storage at site and installation. The tape protection shall be removed on

installation. The sample will be tested in the approved laboratory and cost of samples; etc. shall be borne by the contractor.

21.3 Protection of finish: - All aluminium members shall be wrapped with approved self-adhesive non-staining. PVC tapes.

21.4 Handling and Stacking: -

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

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

The contractor shall be responsible for assembling composite, bedding and filling the grove with polysulphide sealant inside and outside, at transoms and mullions placing the doors, windows etc. in their respective openings. After the doors/ windows have been fixed in their correct assigned position, the open hollow sections abutting masonry concrete shall be fitted with approved polysulphide sealant densely packed and finished neat.

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

21.5 **Installation**:

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

21.5.2 The door/ windows assembled as shown on drawings shall be placed in correct final position on the opening and marks made on concrete members at jambs, sills and heads against the holes provided in frames for anchoring. The frame shall then be removed from the opening and laid aside. Neat holes with parallel sides of appropriate size shall then be drilled in the concrete

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

22 EPDM Rubber / Neoprene gaskets:

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

23 Fittings:

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

23.1 Manufacturer's Attendance:

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

23.2 Poly-sulphide:

The gaps between frames and supports and also any gaps in the door and windows sections shall be raked out as directed and filled with poly-sulphide of approved colour and make to ensure complete water tightness. The poly-sulphide shall be of such colour and composition that it would not stain the masonry/concrete work, shall receive paint without bleeding, will not sag or run and shall not set hard or dry out under any conditions of weather. The sample of poly-sulphide to be used for this purpose shall be got approved from the Engineer-in-Charge before its actual used.

25. Details of Test:

The various tests on aluminium sections shall be conducted in accordance with the relevant IS codes

The minimum number of tests for anodizing/powder coating and corrosion resistance shall be as given below:

S. No.	Details	*A. No. of Tests*
1.	Doors, windows and ventilators	One test for every 1000 kg or part thereof.

25.1 The samples of major member of each unit of doors/ windows shall be selected at random by Engineer-in-Charge as such that all the aluminium section shall be got tested.

26. **Acceptance Criteria:** - The entire responsibility for the quality of work will however rest with the building contractor only. The **aluminium work** shall carry Five years guarantee after completion of work against unsound material, workmanship and defective anodizing/ powder coating as per Guarantee Bond. Five years guarantee in prescribed Performa attached under **(As per General Index)** must be given by the specified firm, which shall be counter signed by the contractor, in token of his overall responsibility. **10% (ten percent) of the cost of these items would be retained as security deposit and the amount so deducted would be released after five years from the date of completion of the entire work under the agreement, if the performance of the items is found satisfactory.** If any defect is noticed during the guarantee period, the contractor should rectify it within seven days and if not attended to the same will be got done from another agency at the risk and cost of contractor. However, this security deposit can be released in full if bank guarantee of equivalent amount is produced and deposited with the department.

27 **Rates:** -

27.1 The rates of the item shall include the cost of materials, labour required in all the above operations.

27.2 The rates exclude the cost of stainless steel friction hinges / stays selected for specified wind load and dead loads or specifically extruded in-built hinges, and rest of the fittings shall also be paid separately.

List of Bureau of Indian Standards Codes

All equipment, supply, erection, testing and commissioning shall comply with the requirements of Indian Standards and code of practices as applicable and amended upto date. All equipment and material being supplied by the contractor shall meet the requirements of IS/applicable Codes. Tariff advisory committee's regulation (fire insurance), electrical inspectorate and Indian Electricity rules and other Codes / Publications as applicable.

(ANNEXURE-I)

FORM OF PERFORMANCE SECURITY (GUARANTEE)
BANK GUARANTEE BOND

In consideration of the President of India (hereinafter called “The Government")”having offered to accept the terms and conditions of the proposed Agreement between …… and ……..…… (Hereinafter called "the said contractors")” for the work …….. (Hereafter called “the said Agreement”) having agreed to production of a irrevocable Bank Guarantee for Rs. ……..….(Rupees……) as a security/guarantee from the contractor(s) for compliance of his obligations in accordance with the terms & conditions in the said agreement ,

We …….. (Hereinafter referred to as "the Bank")” hereby undertake to pay to (indicate the name of the Bank) The Government an amount not exceeding Rs. …… (Rupees ……. only) on demand by the Government.

2) We ……. do hereby undertake to pay the amounts due and payable under (indicate the name of the Bank) this Guarantee without any demure, merely on a demand from the Government stating that the amount claimed is required to meet the recoveries due or likely to be due from the said contractor(s). Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the bank under this Guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs……..(Rupees……only).

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

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

4). We …… further agree that the guarantee herein contained shall remain (Indicate the name of the Bank) in full force and effect during the period that would be taken for the performance of the said agreement and that it shall continue to be enforceable till all the dues of the Government under or by virtue of the said agreement have

been fully paid and its claims satisfied or discharged or till Engineer-in-Charge on behalf of the government certifies that the terms and conditions of the said agreement have been fully and properly carried out by the said contractor(s) and accordingly discharges this guarantee.

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

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

We …… lastly undertake not to revoke this guarantee except with the (Indicate the name of the Bank) Previous consent of the Government in writing

This guarantee shall be valid up to _____ . Unless extended on demand by Government. Notwithstanding anything mentioned above, our liability against this guarantee is restricted to Rs. _____ (Rs. _____only) and unless a claim in writing is lodged with us within six months of the date of expiry or the extended date of expiry of this guarantee all our liabilities under this guarantee shall stand discharged.

Dated the _____ day of _____for _____ (indicate the name of bank)

(ANNEXURE-II)

GUARANTEE TO BE EXECUTED BY CONTRACTORS FOR REMOVAL OF DEFECTS AFTER COMPLETION IN RESPECT OF WATER PROOFING WORKS.

The Agreement made this _____day of _____Thousand and_____between_____son of_____ of_____ (hereinafter called the Guarantor of the one part) and the PRESIDENT OF INDIA (hereinafter called the Government of the other part).

WHEREAS THIS agreement is supplementary to a contract (hereinafter called the Contract), dated _____and made between the GUARANTOR OF THE ONE part and the Government of the other part, whereby the Contractor, *inter alia*, undertook to render the buildings and structures in the said contract recited completely water and leak-proof.

AND WHEREAS THE GUARANTOR agreed to give a guarantee to the effect that the said structures will remain water and leak-proof for TEN **YEARS** from the date of giving of water proofing treatment.

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

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

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

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

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

During this period of guarantee, the guarantor shall make good all defects and in case of any defect being found render the building water proof to the satisfaction of the Engineer-in-charge at his cost and shall commence the work for such rectification within seven days from the date of issue of the notice from the Engineer-in-charge calling upon him to rectify the defects failing which the work shall be got

done by the Department by some other contractor at the GUARANTOR'S cost and risk. The decision of the Engineer-in-charge as to the cost, payable by the Guarantor shall be final and binding.

That if the Guarantor fails to execute the water proofing or commits breach here under, then the Guarantor will indemnify the Principal and his successors against all loss, damage, cost, expense or otherwise which may be incurred by him by reason of any default the part of the GUARANTOR in performance and observance of this supplementary agreement. As to the amount of loss and / or damage and /or cost incurred by the Government the decision of the Engineer-in-charge will be final and binding on the parties.

IN WITNESS WHEREOF these presents have been executed by the Obligor_____ and by _____ and for and on behalf of the PRESIDENT OF INDIA on the day, month and year first above written.

Signed, sealed and delivered by Obligor in the presence of -

1._____

2._____

Signed for and on behalf of the President of India by _____

In the presence of -

1._____2._____

List of Preferred Make of Material (For Civil Work)

Make/Brands of Materials and finishes approved are listed below. However, equivalent materials and finishes of any other Specialized firms may be used, in case it is established that the Makes/brands specified below are not available in the market or for any other reasons, subject to approval of the alternate Make/brand by the Engineer-in-Charge,

Sl. No.	MATERIALS	MAKE
1	Structural Steel & Sections	Tata, Jindal Steel (Panther), JSW, SAIL, Apollo, Bhushan
2	Admixture	Fosroc, MC BAUCHEMIE, CICO/ RachTR Chemical/ CHOCKSEY/ BASF, Berger Protecton, MAKPHALT
3	Bitumen	Indian Oil, Hindustan Petroleum, Bharat Petroleum
4	Injection Grouting	Pidilite (Dr. Fixit), SIKA, FOSROC CHOCKSEY/ RachTR Chemical, DURA BUILD, Berger Protecton, MAKPHALT, Ultra Tech,
5	Locks/Latch	Godrej, Harrison, Plaza, Doorky, Dorma, Assa Abloy, Hefele, Geze, Yale, Hettich
6	Laminates	Formica, Century, Imperia Décor, Country laminate, Merino, E3, Kitply, skydecor, Greenlam, Green-panel,
7	Stainless steel wire mesh	Sterling enterprises, Doorky, Trimurty Welded Mesh, Jayna Doors of Jain wood Industries
8	Pre-laminated MDF Board	Century, Country laminate,, Imperia Décor, Green Ply, E3, Kitply, Green Penel, Marino
9	Adhesive	Pidilite, Dunlop, Vamorganic CHOCKSEY/ RachTR Chemical, DURA BUILD, Orinetbell, Ultra Tech,
10	Flush Door Shutters (Decorative/Non Decorative)	Kutty, Duro, Merino, Doorky, Kitply, Century ply, Greenlam, Polyalloy, Jayna Doors of Jain wood Industries
11	Block Boards, Plyboards	Merino, Kitply, Greenply, DURO, CENTURY,E3, Greenlam, Polyalloy, Greenpanel,

Correction = Nil, Insertion = Nil, Overwriting = Nil, Deletion = Nil AE(P), CD-6, EE,CD-6,

12	Hydraulic Door Closure/Floor spring	Hardwyn, Godrej, Dorma, Doorky, Hafele, Geze, Ozone
13	Panic Exit Device	Ingerrsoll, Dorma, Assa Abloy, Doorky, Hefele, Geze
14	Aluminium Extruded Profile	Hindalco, Jindal, Indalco
15	Anodised Aluminium Hardwares (Heavy Type)	Godrej, Dorma, Doorky, Crown, Polyalloy, Hafele.
16	Tempered Glass	Modi Guard, Saint Gobain, Gold Plus, ASAHI, Glaverbel, Pilkington
17	Polyster Powder Coating Shades	Nerolac, J&N
18	Dash/anchoring Fasteners	Hilti/Fischer/ E3/Wuerth/Kinlong
19	Friction Stay Hinges	Assa Abloy, Kinlong, Earl- Bihari, E3, Hettich
20	Steel Nuts, Bolts and Screws	Kundan, Puja, Atul
21	EDPM Gasket	Hanu/Anand
22	Ceramic Tiles	Kajaria, Nitco, Orinetbell, Somany, RAK
23	Vitrified Tiles (Double Charged/ Nano Tech) (GVT/Anti-Skid/ Glossy/Matt finish 1st Quality).	Kajaria/ Orinetbell/Somany / Nitco /RAK
24	Terrazzo Tiles	Nitco, Unistone, E3, K.K Manhole
25	Chequered Tiles	Kajaria, Somany, Nitco, Unistone
26	Cement Concrete Tiles	NITCO, Unistone
27	Tile Adhesive	CICO, PIDILITE FERROUS, BASE-X, FOSROC/ CHOKSEY, RachTR Chemical, Reynoarch, MYK Laticrete, MAKPHALT, Orinetbell, United, Ultra Tech,
28	White Cement	Birla White, E3, JK White
29	Clay Tile on Roof	KENZAI, JOHNSON

Correction = Nil, Insertion = Nil, Overwriting = Nil, Deletion = Nil AE(P), CD-6, EE,CD-6,

30	CC Pavers	NITCO, TUFTEK/K.K Pvt. Ltd, Unistone
31	Water Proofing Cement Paint	Snowcem, ICI India Ltd., Asian Paints
32	Synthetic Enamel Paint (Premium Quality)	Nerolac, ICI Dulux, Asian Paints, Berger
33	Acrylic exterior emulsion paint (Premium Quality)	Asian Paints, Nerolac, Dulux, Berger
34	Fire Clay Sink & Drain Board	Parryware, Hindware, Cera, Sunfire.
35	Soil waste & Vent Pipes & fittings (a) Centrifugal Cast iron pipes	NECO, RIF, SKF, HIF, Kapilansh,
36	LA (CI) Pipes	Electro Steel, Kesoram,
37	G.I. Pipes & M.S. Pipe	TATA, JINDAL (Hissar), Prakash Surya
38	G.I. Fittings (Malleable Cast Iron)	Unik, ICS, Surya
39	Gunmetal Valves (Full way chech Valves.)	Leader, Zoloto, SANT,
40	Stone ware Pipes & Gully Traps	Perfect / Parry/Anand,
41	PVC Doors/Windows	Syntex, Polyalloy, Alstone, Rajshri, Jain Doors
42	MS pipes	Kirloskar, Electro Steel.
43	C.I. Double Flnaged Sluice Valves	Kirloskar, IVS, Burn
44	C.I. Double Flnaged Non Return Sluice Valves	Kirloskar
45	C.I. Manhole Covers	RIF, Polyalloy, NECO,
46	UPVC pipes	Supreme, Prince, Finolex, Sparsh Pearl, Astral, Surya, APL-apollo
47	SS Autoclose Hinges	Hettich, Crown, Earl-Bihari
48	Ball Valves	Zoloto, Sparsh Pearl ,IBP, Arco
49	Butterfly Valves	Audco

Correction = Nil, Insertion = Nil, Overwriting = Nil, Deletion = Nil AE(P), CD-6, EE,CD-6,

50	Unglazed Vitrified Heavy Duty Tiles	Somany-(Dura Stone), Kajaria, RAK
51	Spider Fittings	Dorma, Sevax, Hettich
52	Mineral Fiber False ceiling	Armstrong, Unidus Acoustics, Hunter Douglas, RK Ceiling, Hi-Steel, Gyptech,
53	APP	Bitumat Co. Ltd., STP, Berger Protecton, Dermabit Technow NICOL/ Torchtar, Pidilite, Ultra Tech, Fosroc, MAKPHALT. Asian,
54	FRP Doors & Frames	Ashoo Model Arts, Selected Product Co., Doorky, Fiberways, Polyalloy, and Jayna Doors of Jain wood Industries, Avians
55	PVC Doors & Frames	Ashoo Model Arts, Selected Product Co., Alstone, Fiberways, Polyalloy, and Jayna Doors of Jain wood Industries, KAKA
56	PVC /Synthetic Water Storage Tank	Sintex, Vectus, Sheetal, Supreme
57	RMC	ACC, Ultra Tech (Birla), RMC India, Lafarge, M/S NDCON Construction. Shri Ram Ready Mix Concrete Pvt. Ltd.
58	Indian/European WC, Wash Basin and other Sanitary Installation.	Parryware, Hindware, Cera, Coronet, ESSCO by Jaquar, Geberit
59	C.P. Brass Fittings	Jaquar, Kohler, Cera, Grohe, Coronet, Versa Kingston
60	Water Proofing compound	CICO, IMPERMO (By Snowcem India Ltd.) PIDILITE/ Berger Protecton, CHOKSEY / DURA BUILD/ Ultra Tech, Fosroc., Reynoarch, MAKPHALT
61	Stainless Steel Sink	Jayna/Neelkantha/ Vectus,/ Coronet/ Sparsh Pearl /Nirali/Geberit
62	Bevelled Edge Mirror	ATUL/MODIGAURD, Coronet,
63	Glass Panes	Modi Guard/Saint Gobain/Gold Plus/ASAHI

Correction = Nil, Insertion = Nil, Overwriting = Nil, Deletion = Nil AE(P), CD-6, EE,CD-6,

64	Plaster of Paris	Shree Ram/Adhar Shree/Sakarni/DECOTOUCH, United
65	Wall Putty	Birla White/JK White
66	Cement	Ultratech, Ambuja, ACC, Birla, J.K Cement
67	Aluminium hinges	Classic /Argent/Crown
68	Steel Reinforcement (TMT Bars)	Tata, SAIL, RINL, JSPL, JSW
69	Galvanised/Galvalume Profile Sheets	Tata, Jindal, Polyalloy, Sail, Bhushan
70	Metal False ceiling	Armstrong, Polyalloy, Unidus Unisteel, Dexune, Credence, RK Ceiling, Gyptech, Hi-Steel,
71	Acrylic Distemper	Nerolac, ICI India Ltd., Asian Paints, Berger.
72	Smooth Exterior Paint.	Asian (Apex), Berger (Wheather Coat), Nerolac, ICI India Ltd.
73	Premium Exterior Paint with Silicon Additives	Asian (Apex-Ultima), Berger (All Guard), Nerolac, ICI India Ltd.
74	Acoustic Foldable movable partitions	Hafele, Dorma, Azazo, Geze, Unidus, Ozone, Anakon
75	Accoustic Board / Panel	Imperia Décor, Unidus, Gyptech, E3, Armstrong
76	Door Fittings	Hafele, Dorma, Polyalloy, Crown, Hardwyn, Doorky, Godrej, Dorset
77	PVC pipes & Fittings	Supreme, Astral, Finolex, Sparsh Pearl, Jain Irrigation
78	Steel Primer	NEROLAC, BERGER, ASIAN PAINTS, ICI DULUX
79	Wood Primer	NEROLAC, BERGER, ASIAN PAINTS, ICI DULUX
80	Plastic Seat covers of W.C.	Diplomant, Vectus, Hindware, Coronet, Sparsh Pearl, Somany, Geberit
81	PVC flushing Cistern	Hindware (Slimline), Vectus, Hindustan, Coronet, Sparsh Pearl,
82	Stainless Steel Railing	Connect Arch. Pvt. Ltd., Jindal S.S. Ltd., Geze,

		ICICH Inds., ESSAL, DORMA, D Line, Doorky, Kitch, Geberit,
83	C-PVC pipes & Fittings	Supreme, Astral, Prince, Sparsh Pearl, Surya, APL-Apollo
84	Stainless Steel hard ware fittings	Dorma, Polyalloy, Hafele, Crown, Geberit, Doorky, Godrej, Geze.
85	Stainless Steel Pipe & Fittings of Grade AISI 304 as per JIS Standard 3448 for Water Supply line and fittings	Sail (Salem Steel)/Tata/Jindal//Geberit/Alfa Press/J Press
86	Hermitically Sealed Performance glass & Toughened glass.	Saint Gobain, Asahi, Pilkington, Viracon (Processed by them or their approved Processors).
87	Epoxy Paint	Asian, ICI, Kansai, Berger Protecton, Nerolac.
88	Sanitary Fittings	Hindware, Parryware, Cera, Coronet, Hindustan, Jaquar
89	Textured Exterior Paint	Ultratech, Spectrum, Heritage, Asian, Dulux (AkzoNobel), Luxture,
90	Gypsum Board	Saint Gobain, USG, Unidus, Gyptech
91	Calcium Sillicate false ceiling i/c frame work	Aerolite, Hilux, RK Ceiling, Unidus, Gyptech, Hi-Steel,
92	Glass Reinforced Jali	Uni Stone, Dalal, UltraTech
93	Laminated sheet	Greenlam, Merino, Polyalloy, Country laminate, Century, E3, Duro, Archid ply.
94	WPC board	Rajshree, Alstone, Polyalloy,
95	R.C.C. PIPES-(NP-2)	LAKSHMI, SOOD & SOOD, JAIN & CO, DIWAN SPUN PIPES
96	PRECAST CC KERB STONE	DALAL, PAVER INDIA, K.K.

Correction = Nil, Insertion = Nil, Overwriting = Nil, Deletion = Nil AE(P), CD-6, EE,CD-6,

97	E- fibre wrap	TYFO SEH-51 / GFF-900A / La STRUC EP(GF-AR)
98	Rust Remover	ANUVI chemical, SUNANDA specialty coating PVT. LTD, SKG constn. Chemical PVT. LTD
99	Passivator	PIDICRETE, ANUVI CHEMICAL, SUNANDA specialty coating PVT. LTD, SKG constn. Chemical PVT. LTD
100	Fire Rated Door (Wooden, Metal, Glaze)	Kutty, Promat, Navair, Indian Fire Equipment
101	Wooden Flooring	Armstrong, Polyalloy, Deck, E3, Mikasa, Green Penel,
102	Fire Rated Glass	Pyroguard, Saint Gobain, Hero-Fire, Schott, Indian Fire Equipment
103	Fire Rated Hardware	Briton, Geze, Doorky, Assa-abloy, Hafele
104	Micro-Concrete	FOSROC, Ultra Tech, DR FIXIT
105	ACP (Aluminium Composite Panel)	Imperia Décor,E3,Reynoarch, Polyalloy
106	SBR Compound (for repair mortar & water proofing slurry)	Master EMACO SBR2 of BASF, Berger Protecton, SIKA LATEX POWER, Ultra Tech, CICO LATEX
107	Exterior Cement Primer Water base	Berger, Nerolac, Asian
108	Vitrified tiles (Double Charge)	Kajaria, Somany, Orinetbell, NATCO, RAK
109	Veneers	Century, Greenlam, Bhutan Tuff
110	Furniture Make	Godrej Interio, Steelcase, Haworth, HNI, Rockworth, Durian
111	Poly Corbonate / Solid Polycarbonated Sheet, Transparent, Compact,	Lexan, Coxwell, Roofclad, Polyalloy, Polyguard, Sunlite, Utlralite
112	Layer Acrylic Flooring	Acrytech/Setlife Cushion/Rebound Ace/courtsol
113	Upvc doors/windows	Fenesta, VEKA, Duroplast,
114	RCC (NP-2) Pipe	New Laxmi Tiles, Aashi, Jain Spun pipe

For Items/Materials not covered in the list above, the 1st quality material is to be used as per the Nomenclature of items or 1st quality material of the reputed Make/Brand required to be used for execution of either agreement item or any Extra/Substituted item as per approval and direction of Engineer-in-Charge.

Correction = Nil, Insertion = Nil, Overwriting = Nil, Deletion = Nil AE(P), CD-6, EE,CD-6,

Schedule of Quantity						
Name of work- Augmentation of Equalisation Tank for Sewage at JNU Campus along with External Site Works, New Delhi. (Balance Work).						
S No	**Description**	**Quantity**	**Unit**	**Rate**	**Amount**	**Code No**
1	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 and for all lift.	199.00	cum	196.00	39004.00	2.25
2	Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and for all lift, as directed by Engineer-in-charge.					2.6
2.1	All kinds of soil	3.00	cum	177.50	533.00	2.6.1
3	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :					4.1
3.1	1:4:8 (1 Cement : 4 coarse sand (zone-III) derived from natural sources : 8 graded stone aggregate 40 mm nominal size derived from natural sources)	36.00	cum	6812.00	245232.00	4.1.8
4	Centering and shuttering including strutting, propping etc. and removal of form for					5.9
4.1	Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.	190.00	sqm	842.5	160075.00	5.9.2
4.2	Suspended floors, roofs, landings, balconies and access platform	35.00	sqm	927.25	32454.00	5.9.3
4.3	Lintels, beams, plinth beams, girders, bressumers and cantilevers	10.00	sqm	736.4	7364.00	5.9.5
5	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level.					5.22
5.1	Thermo-Mechanically Treated bars of grade Fe-500D or more.	5400.00	kg	107.85	582390.00	5.22.6

Correction = Nil, Insertion = Nil, Overwriting = Nil, Deletion = Nil AE(P), CD-6, EE,CD-6,

6	Providing and laying in position ready mixed or site batched design mix cement concrete for reinforced cement concrete work; using coarse aggregate and fine aggregate derived from natural sources, Portland Pozzolana / Ordinary Portland/ Portland Slag cement, admixtures in recommended proportions as per IS:9103 to accelerate / retard setting of concrete, to improve durability and workability without impairing strength; including pumping of concrete to site laying, curing, carriage for all leads; but excluding the cost of centering shuttering; including pumping of concrete to site oflaying, curing, carriage for all leads; but excluding the cost of centering, shuttering, finishing and reinforcement as per the direction of the Engineer-in-charge; for the following grades of concrete. Note: Extra cement up to 10% of the minimum specified cement content in design mix shall be payable separately .In case the cement content in design mix is more than 110% of the specified minimum cement content, the contractor shall have discretion to either re-design the mix or bear the cost of extra cement.					5.33
6.1	All works upto plinth level					5.33.1
6.1.1	Concrete of M30 grade with minimum cement content of 350 kg /cum	46.00	cum	9655.70	444162.00	5.33.1.2
7	Providing and fixing Ist quality ceramic glazed wall tiles conforming to IS: 15622 (thickness to be specified by the manufacturer), of approved make, in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge, in skirting, risers of steps and dados, over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm, including pointing in white cement mixed with pigment of matching shade complete.	70.00	sqm	1267.95	88757.00	8.31
8	Steel work in built up tubular (round, square or rectangular hollow tubes etc.) trusses etc., including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer, including welding and bolted with special shaped washers etc. complete.					10.16
8.1	Hot finished welded type tubes.	80.00	Kg	194.40	15552.00	10.16.1
9	Providing and laying vitrified floor tiles in different sizes (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS: 15622, of approved make, in all colours and shades, laid on 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand), jointing with grey cement slurry @ 3.3 kg/ sqm including grouting the joints with white cement and matching pigments etc., complete.					11.41
9.1	Size of Tile 600x600 mm	30.00	sqm	1553.45	46604.00	11.41.2

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10	Dismantling stone slab flooring laid in cement ortar including stacking of serviceable material and disposal of unserviceable material within 50 metres lead.	6.25	sqm	266.45	1665.00	15.25
11	Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means, including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all leads including all lifts involved.	20.00	cum	263.95	5279.00	15.60
12	Providing and fixing G.I. chain link fabric fencing of required width in mesh size 25x25 mm made of G.I. wire of dia 3 mm including strengthening with 2 mm dia wire or nuts, bolts and washers as required complete as per the direction of Engineer-in-charge.	30.00	sqm	1149.25	34478.00	16.71
13	Providing and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc					18.12
13.1	65 mm dia nominal bore	50.00	mtr	896.6	44830.00	18.12.7
14	Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end) :					18.17
14.1	65 mm dia nominal bore	4.00	each	1742.15	6969.00	18.17.5
15	Painting G.I. pipes and fittings with two coats of anti-corrosive bitumastic paint of approved quality :					18.40
15.1	65 mm dia nominal bore	50.00	mtr	37.85	1893.00	18.40.7
16	Providing and fixing G.I. Union in G.I. pipe including cutting and threading the pipe and making long screws etc. complete (New work) :					18.46
16.1	65 mm nominal bore	4.00	each	1136.80	4547.00	18.46.7
17	Making connection of drain or sewer line with existing manhole including breaking into and making good the walls, floors with cement concrete 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) cement plastered on both sides with cement mortar 1:3 (1 cement : 3 coarse sand), finished with a floating coat of neat cement and making necessary channels for the drain etc. complete					19.21
17.1	For pipes 100 to 250 mm diameter	1.00	each	810.45	810.00	19.21.1

18	Providing and laying integral cement based treatment for water proofing on horizontal surface at all depth below ground level for under ground structures as directed by Engineer-in-Charge and consisting of : (i) Ist layer of 22 mm to 25 mm thick approved and specified rough stone slab over a 25 mm thick base of cement mortar 1:3 (1 cement : 3 coarse sand) including applying of twice (at base and top of mortar) cement slurry @ 2.2kg/m2 (each time) mixed with water proofing compound conforming to IS:2645 in the recommended proportion over the leveling course (leveling course to be paid separately). Joints sealed and grouted with cement slurry mixed with water proofing compound. (ii) 2nd layer of 25 mm thick cement mortar 1:3 (1 cement: 3 coarse sand) mixed with water proofing compound in recommended proportions. (iii) Finishing top with stone aggregate of 10 mm to 12 mm nominal size spreading @ 8 cudm/sqm thoroughly embedded in the 2nd layer.					22.1
18.1	Using rough kota stone.	30.00	sqm	1515.60	45468.00	22.1.1
19	Providing and laying integral cement based treatment for water proofing on the vertical surface by fixing specified stone slab 22 mm to 25 mm thick with cement slurry mixed with water proofing compound conforming to IS:2645 in recommended proportions with a gap of 20 mm (minimum) between stone slabs and the receiving surfaces and filling the gaps with neat cement slurry mixed with water proofing compound and finishing the exterior of stone slab with cement mortar 1:3 (1 cement : 3 coarse sand) 20 mm thick with neat cement punning mixed with water proofing compound in recommended proportion complete at all levels and as directed by Engineer-in-charge :					22.2
19.1	Using rough Kota stone	90.00	sqm	2024.70	182223.00	22.2.1
20	Providing and applying of swellable type water stop tape, 19 mm x 25 mm thick in linear metre (expansive nature) for construction joints treatment of RCC structure such as raft slab, retaining walls, water storage tank and at the junctions of raft slab with the retaining walls etc.. After cleaning the surface, one coat of required primer for swellable water stop tape shall be applied throughout the length of the joint @3.78 litre per 240 running metre. Over the primed surface swellable type water stop tape shall be placed. The work shall be carried out all complete as per specification and the direction of the Engineer-In-Charge. The product performance shall carry guarantee for 10 years against any leakage.	24.00	mtr	573.45	13763.00	22.26

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21	Providing and mixing integral crystalline admixture for water proofing treatment to RCC structures like basement raft, retaining walls, reservior, sewage & water treatment plant, tunnels / subway and bridge deck etc. at the time of transporting of concrete into the drum of the ready-mix truck , using integral crystalline admixture @0.80% (minimum) to the weight of cement content per cubic meter of concrete) or higher as recommended by the manufacturer's specification in reinforced cement concrete at site of work. The material shall meet the requirements as specified in ACI-212-3R-2010 i.e. by reducing permeability of concrete by more than 90%, compared with control concrete as per DIN 1048 and resistant to 16 bar hydrostatic pressure. The crystalline admixture shall be capable of self-healing of cracks up to a width of 0.50mm. The work shall be carried out all complete as per specification and the direction of the Engineer-in-charge. The product performance shall carry guarantee for 10 years against any leakage.	146.00	kg	388.00	56648.00	22.22
	Total "A"				**2060700.00**	
	Modified Estimated cost after using Correction factor On DSR Item, Serial No 1 to 21 on account of GST @ 0.973 on Total "A"				**2005061.00**	
	Add @ 4.03% Cost Index on modified estimate cost Rs. 20,05,061/-				**80804.00**	
	Total				**2085865.00**	

Executive Engineer
CD-6, CPWD
IP Bhawan, New Delhi

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