

**INDIAN INSTITUTE OF TECHNOLOGY DELHI
HAUZ KHAS, NEW DELHI-110016**

Index of Tender documents

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This Tender documents contains pages One to Sixty Six only

NIT Amounting to Rs. **3,20,77,984.00/-**Rs.ThreeCroreTwenty LakhsSeventy Seven Thousands Ninty Hundred Eighty Four Only) approved.

Institute Engineer

Notice Inviting Tender (E-Procurement mode)**INDIAN INSTITUTE OF TECHNOLOGY DELHI
HAUZ KHAS, NEWDELHI-110016****Dated:** 29/08/2019

Indian Institute of Technology Delhi is in the process of purchasing following item(s)/ services as per details as given as under.

Details of the item	Name of work:-Special Structural Repair of 72 Nos. A Type Houses (A7, A-10, A-11 & A-17 Blocks) in East Campus at IIT Delhi.Sub Head:-Special Structural Repair Work.
Earnest Money Deposit to be submitted	Rs. 6,41,560.00/-
Warranty / Maintenance Period	01Year
Performance Security	5% of Tender Amount

Tender Documents may be downloaded from Central Public Procurement Portal<http://eprocure.gov.in/eprocure/app>

Aspiring Bidders who have not enrolled/registered in e-procurement should enroll/register before participating through the website <http://eprocure.gov.in/eprocure/app>. The portal enrolment is free of cost. Bidders are advised to go through instructions provided at 'Instructions for online Bid Submission'.

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

No manual bids will be accepted. All quotation (both Technical and Financial) should be submitted in the e-procurement portal).

NOTICE INVITING E-TENDERS

Executive Engineer (P) Indian Institute of Technology, Hauz Khas, New Delhi-16. (Phone No. 011-26591762) on behalf of Board of Governors invites online **Item Rate Tender** from authorized applicator of construction chemical manufacturing company (Fosroc/BASF/ Sika/Pidilite/Krishna Conchem) for the following work:

1. NIT No : **..../IITD/EE(P)/2019-2020**
2. Name of Work : **Special Structural Repair of 72 Nos. A Type Houses (A-7, A-10, A-11 & A-17 Blocks) in East Campus at IIT Delhi. (Sub- Special Structural Repair Work)**
3. Estimated cost : **Rs. 3,20,77,984.00/-**
4. Earnest Money : **Rs. 6,41,560.00/-**
5. Period of completion : **17 Months**
6. Last time & date of submission of bid: **11/09/2019 upto 3:00 pm (on line)**

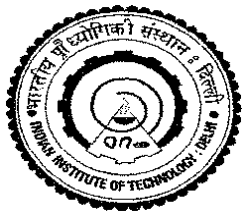
The bid forms and other details can be obtained from the website **www.iitd.ac.in** or **e-procure.gov.in** free of cost. For more clarification you may visit on above website.

**Executive Engineer (P),
For & on Behalf of BOG, IIT Delhi**

Ch. Head: PLN-
Work code-3304

Copy to: -

1. Institute Engineer
2. Executive Engineer (Elect.) for information.
3. D.A. (Works Accounts)
4. AEE (C)
5. D.R. (A/Cs) – for opening of uploaded documents **at 03PM on 13/09/2019** in the office of D.R. Store
6. Notice Boards.
7. Office Copy
8. Web site Administrator, I.I.T.D.



INDIAN INSTITUTE OF TECHNOLOGY: DELHI.
HAUZ KHAS, NEW DELHI-110016

INFORMATION AND INSTRUCTIONS FOR BIDDER FOR e-TENDERING

Executive Engineer (P) Indian Institute of Technology, HauzKhas, New Delhi-16.(Phone No. 011-26591762) on behalf of Board of Governors invites online **Item Rate Tender** from authorized applicator of construction chemical manufacturing company (Fosroc/BASF/ Sika/Pidilite/Krishna Conchem) in two bid system(Part I Eligibility Bid & Part II Financial Bid) as per eligibility conditions laid down in this tender document at suitable places for following work.

Sl. No.	NIT No.	Name of Work	Estimated Cost (in Rs.)	Earnest Money (inRs.)	Tender fees (inRs.)	Time for Completion
1./IITD/EE(P)/2019-2020	Special Structural Repair of 72 Nos. A Type Houses (A-7, A-10, A-11 & A-17 Blocks) in East Campus at IIT Delhi.(Sub-Head: Special Structural Repair Work.)	3,20,77,984.00 /-	6,41,560.00/-	1500.00	17 Months

Last date and time of submission of financial bid :-11/09/2019 upto3:00 pm (on line)

Date and time of opening of technical bid :- 13/09/2019 after 03:00 pm (office of D.R. Store)

Financial bid shall be opened after verification of technical bid

- The successful bidder shall be required to submit a performance guarantee of 5% of the tendered amount in the form of Bank Guarantee or F.D.R. from a Nationalized/Scheduled Bank within 15 days of issue of letter of intent before award of work. In case of failure by the Contractor to supply the performance guarantee within the specified period, full earnest money will be forfeited and the tender shall be treated as void. The performance guarantee shall be initially valid up to the stipulated date of completion plus 60 (Sixty) days beyond that.
- Contractors who fulfill the following requirements shall be eligible to apply. Joint ventures are not accepted.
 - Firms/ Contractors must have completed satisfactorily one similar work of value not less than **Rs. 2,56,62,400.00/-** or two similar works each of value not less than **Rs. 1,92,46,800.00/-** or three similar works each of value not less than **Rs. 1,28,31,200.00/-** during last 7 years ending on date **30/07/2019** for the subject workwith Central/ State Government/ Autonomous Body/ Central Public sector Undertaking/ Private Firms.
For firms who have done work in private sector TDS certificate to verify the work cost to be uploaded in NIC with other documents as per NIT. For these firms at least one work costing not less than 1.29 Cr. Should have been completed in Central govt. /State Govt. /PSU/ Autonomous Body.
 - Tender fees – **Rs.1500.00 through** online payment as per account detail provided in page 3 of the NIT.
 - Earnest money of Rs. **6,41,560.00/-** in the form of Banker Cheque or Demand Draft or Fixed Deposit receipt of a schedule bank drawn in favour of Registrar IIT Delhi or through RTGS. For MSME/ MSEs Units registered with the Government of India exemption shall be applicable as per Govt. of India guidelines.

3. The intending bidder must read the terms and conditions of IITD-6 carefully. He should only submit his bid if he considers himself eligible and he is in possession of all the documents required.
4. Information and Instructions for bidders posted on website shall form part of bid document.
5. The bid document consisting of plans, specifications, the schedule of quantities of various types of items to be executed and the set of terms and conditions of the contract to be complied with and other necessary documents can be seen and downloaded from website <http://eprocure.gov.in/eprocure/app>. in free of cost. But the bid can only be submitted after online payment of Tender Fee .
6. Completion certificates issued by an officer not below the rank of Executive Engineer/Assistant Manager of similar works completed by the Agency.
7. The bidder should be an authorized applicator of construction chemical manufacturing company (Fosroc/BASF/ Sika/Pidilite/Krishna Conchem) in support of above , the bidder should submit a certificate of applicator ship from the manufacturer and an undertaking from the manufacture that “Agency (Bidder’s Name) is over authorized applicator and we undertake that we will guide the agency for the above mentioned work during execution to ensure quality of construction chemicals & workmanship also we will give back to back material warranty for the chemical”.
8. Manufacturer should give back to back Material Warranty of the chemical used a written confirmatory certificate should be submitted along with bid to support this.
9. Similar work shall mean work of “ **Structural Rehabilitation/ Rehabilitation and Repair/ Retrofitting/ Crack Repair/ Seismic Retrofitting/ Special Structural Repair of any RCC Structure**”.
10. Should have had average annual financial turn over of Rupees **3,20,77,984/-** on above mentioned type work during the last 3 years ending 31st march 2018 (Financial year 2015-16, 2016-17, 2017-18). **(Scanned copy of certificate from Chartered Accountant to be uploaded)**
11. **Certificate of Financial turn Over:-** at the time of submission of bid contractor may upload Affidavit/ Certificate from C.A mentioning financial turn over of last 3 years or for the period as specified in the bid document and further details if required may be asked from the contractor after opening of technical bids. There is no need to upload entire voluminous balance sheet.
12. The bidder should have a solvency of **Rs.1,28,31,200/-** certified by his banker.
13. The bidder should not have incurred any loss in more than two years during available last five consecutive balance sheets, duly certified and audited by the Chartered Accountant.
14. The value of executed work shall be brought to current costing level by enhancing the actual value of work at simple rate of 7% per annum calculated from the date of completion to last date of submission of financial bid.
15. IITD is committed to follow the principle of transparency, equity and competitiveness in public procurement. Before submission of bid each bidder should sign acceptance to execute integrity pact at respective places and submit the bid, if duly signed acceptance to execute integrity pact is not submitted by bidder such bid shall not be considered.
16. Those contractors not registered on the website mentioned above, are required to get registered beforehand. If needed they can be imparted training on online bidding process as per details available on the website.
17. The intending bidder must have valid class-III digital signature to submit the bid.
18. On opening date, the contractor can login and see the bid opening process. After opening of bids he will receive the competitor bid sheets.
19. Contractor can upload documents in the form of JPG format and PDF format.
20. Contractor must ensure to quote rate of each item., If any cell is left blank and no rate is quoted by the bidder, rate of such item shall be treated as “0” (ZERO).
21. When bids are invited in two /three stages systems and if it is desired to submit revised financial bid it shall be mandatory to submit revised financial bid. If not submitted then the bid submitted earlier shall become invalid-Not applicable.
22. The department reserves the right to reject any prospective application without assigning any reason and to restrict the list of qualified contractors to any number deemed suitable by it, if too many bids are received satisfying the laid down criterion.
23. **Contractor should be registered with E.S.I and E.P.F.**
24. In e-tendering intending bidder can quote his rates in figures only. The rates in words, amount of each item and total is generated automatically. Therefore, the rate quoted by the bidder in figures is to be taken as correct.
25. The bid can only be submitted after uploading the mandatory scanned documents such as Demand Drafts or Pay Order or Banker’s Cheque or Deposit at call Receipt or Fixed Deposit Receipts and towards cost of EMD in favour of Registrar IIT Delhi or details of RTGS to be deposit with <http://eprocure.gov.in/eprocure/app/NEFT> facility.

26. The physical EMD of the scanned copy of EMD uploaded shall be deposited by the lowest tenderer within a week after opening of financial bid falling which the tender shall be rejected.
27. The following undertaking in this regard shall be up-loaded by the intending bidders: **“the physical EMD shall be deposited by me/us with the authority inviting the tender, in case I/we become the lowest tenderer , within a week of the opening of financial bid, otherwise, department may reject the tender and also take action to debar me/us from tendering in any form in IIT Delhi”**
28. Certificate of applicatorship and certificate of work experience and other documents as specified in the Press Notice / web notice shall be scanned and up-loaded to the e-Tendering website within the period of bid submission. However, certified / original copy of all the scanned and up-loaded documents as specified in press notice web / notice shall have to be submitted by the lowest bidder only along with physical EMD of the scanned copy of EMD uploaded within a week physically in the office of e-tendering authority and it shall be sole responsibility of lowest bidder.
29. Online bid documents submitted by intending bidders shall be opened only of those bidders, who has submitted EMD and other documents scanned and uploaded are found in order.
30. The bid submitted shall become invalid if:
 - a. The bidder is found ineligible.
 - b. The bidder does not uploaded all the documents (GSTIN Registration) as stipulated in the bid document included the undertaking about deposition of physical EMD of the scanned copy of EMD uploaded.
 - c. 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 tenderer in the office of tender opening authority.
 - d. The lowest bidder does not deposit physical EMD within a week of opening of financial bid.
31. Bid validity shall be 90 days from opening of financial bid.
32. Rate of bidders shall be considered inclusive of GST.

List of Documents to be Scanned and uploaded within the period of bid submission:

1. Scanned copy of EMD /Online Payment of EMD (UTR No.).
 2. Certificate of authorized applicatorship of approved construction chemical manufacturing company.
 3. Certificate of work experience.
 4. Certificate of Registration of GST and acknowledgment of up to date field return of GST.
 5. Affidavit as per Notice Inviting Tender condition 1.2.2 of IITD-6 of NIT to be submitted on stamp paper.
 6. Acceptance to execute INTEGRITY PACT.
 7. Undertaking as per “sr. no. 27” above on firm’s letter head or as given blow.
- “ the physical EMD shall be deposited by me/us with the authority inviting the tender, in case I/we become the lowest tenderer , within a week of the opening of financial bid, otherwise, department may reject the tender and also take action to debar me/us from tendering in any form in IIT Delhi”**
8. ESI and EPF Registration.
 9. Tender Fee of Rs.1500/- to be paid online as per detailed provided in schedule page 10.
 10. Form “F” (Duly filled with all required details).
 11. Affidavit/ Certificate duly audited by chartered accountant C.A of last 3 years(2015-16, 2016-17, 2017-18) financial turn over.
 12. Solvency certified from his banker from any nationalized or scheduled bank as per condition No. 12.
 13. Manufacturer undertaking as per serial No. 7 above.
 14. Undertaking of condition 13 along with duly audited profit & loss statements. (2013-14, 2014-15, 2015-16, 2016-17, 2017-18)

**Executive Engineer (P),
For & on Behalf of BOG, IIT Delhi**

Ch. Head: PLN-
Work code-W03304

Copy to: -

1. D.A. (Works Accounts)
2. AEE (C)
3. D.R. (A/Cs) – for opening of uploaded documents on 13/09/2019at **03:00 PM** in the office of D.R. Store
4. Notice Boards.
5. Office Copy
6. Web site Administrator, I.I.T.D.
7. NIT:- Publicity on Website on institute as well as on CPP portal <http://eprocure.gov.in> may be ensured as per instruction issued.E-tendering Web.<http://eprocure.gov.in/eprocure/app> or www.iitdelhi.ac.in

8
FORM "F"

STRUCTURE & ORGANISATION

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

Organization/ Place of registration

Registration No.

- 1.
- 2.
- 3.
5. Name and titles of Directors & Officers with designation to be concerned with this work.....!
6. Designation of individuals authorized to act for the organization.....!
7. Has the bidder or any constituent partner in case of partnership firm, ever abandoned the awarded work before its completion? If so, give name of the project and reasons for abandonment.....!
8. Has the bidder or any constituent partner in case of partnership firm, ever been debarred/ black listed for tendering in any organization at any time? If so, give details.....!
9. Has the bidder, or any constituent partner in case of partnership firm, ever been convicted by the court of law? If so, give details.....!
10. Past work experience in IIT Delhi will be considered in deciding the Technical bid.....!

Notice Inviting Tender

INDIAN INSTITUTE OF TECHNOLOGY DELHI

HAUZ KHAS, NEW DELHI-110016

Terms & Conditions

IITD/WORKS(SP-2492)/2019

Indian Institute of Technology Delhi is in the process of purchasing following item(s) as per details as given as under.

Details of the item	As per Tender Notice
Earnest Money Deposit to be submitted	Rs. 6,41,560/-
Warranty	As per Tender Notice, NIT & IITD form 8
Performance security	As per Tender Notice, NIT & IITD form 8

Tender Documents may be downloaded from Central Public Procurement Portal <http://eprocure.gov.in/eprocure/app>. Aspiring Bidders who have not enrolled / registered in e-procurement should enroll / register before participating through the website <http://eprocure.gov.in/eprocure/app>. The portal enrolment is free of cost. Bidders are advised to go through instructions provided at 'Instructions for online Bid Submission'.

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

No manual bids will be accepted. All quotes (both Technical and Financial should be submitted in the E-procurement portal).

Schedule

Name of Organization	Indian Institute of Technology Delhi
Tender Type (Open/Limited/EOI/Auction/Single)	Open
Tender Category (Services/Goods/works)	Works
Type/Form of Contract (Work/Supply/Auction/Service/Buy/Empanelment/ Sell)	Works
Product Category (Civil Works/Electrical Works/Fleet Management/ Computer Systems)	Civil
Source of Fund (Institute/Project)	Budget Code PLN -05/ WO3304
Is Multi Currency Allowed	No
Date of Issue/Publishing	29/08/2019 AT 13:00 HRS
Document Download/Sale Start Date	29/08/2019 AT 13:00 HRS
Document Download/Sale End Date	11/09/2019 AT 15:00 HRS
Date for Pre-Bid Conference	---
Venue of Pre-Bid Conference	---
Last Date and Time for Uploading of Bids	11/09/2019 AT 15:00 HRS
Date and Time of Opening of Technical Bids	13/09/2019 AT 15:00 HRS
Tender Fee	Rs. 1500/-
EMD	Rs. 6,41,560.00/- (To be paid through RTGS/NEFT. IIT Delhi Bank details are as under: Name of the Bank A/C : Registrar IIT Delhi SBI A/C No. : 10773572622 Name of the Bank : State Bank of India, IIT Delhi, Hauz Khas, New Delhi-110016 IFSC Code : SBIN0001077 MICR Code : 110002156 Swift No. : SBININBB547 (This is mandatory that UTR Number is provided in the on-line quotation/bid. (Kindly refer to the UTR Column of the Declaration Sheet at Annexure-II) <u>or as per NIT/ Tender notice</u>
No. of Covers (1/2/3/4)	02
Bid Validity days (180/120/90/60/30)	90 days (From last date of opening of bids)
Address for Communication	EE(P), Work Section Room no. MZ-136, Main Building, IIT D.
Contact No.	011-26591762
Fax No.	Nil
Email Address	a26790@admin.iitd.ac.in

Instructions for Online Bid Submission:

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

More information useful for submitting online bids on the CPP Portal may be obtained at:

<http://eprocure.gov.in/eprocure/app>

REGISTRATION

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

SEARCHING FOR TENDER DOCUMENTS

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

PREPARATION OF BIDS

- 1) Bidder should take into account any corrigendum published on the tender document before submitting their bids.
- 2) Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid. Please note the number of covers in which the bid documents have to be submitted, the number of documents - including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.

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

SUBMISSION OF BIDS

- 1) Bidder should log into the site well in advance for bid submission so that he/she upload the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.
- 2) The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.
- 3) Bidder has to select the payment option as "on-line" to pay the tender fee / EMD as applicable and enter details of the instrument. Whenever, EMD / Tender fees is sought, bidders need to pay the tender fee and EMD separately on-line through RTGS (Refer to Schedule, Page No.2).
- 4) A standard BoQ format has been provided with the tender document to be filled by all the bidders. Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. Bidders are required to download the BoQ file, open it and complete the white colored (unprotected) cells with their respective financial quotes and other details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the filename. If the BoQ file is found to be modified by the bidder, the bid will be rejected.
- 5) The server time (which is displayed on the bidders' dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.
- 6) All the documents being submitted by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. The confidentiality of the bids is maintained using the secured Socket Layer 128 bit encryption technology. Data storage encryption of sensitive fields is done.
- 7) The uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- 8) Upon the successful and timely submission of bids, the portal will give a successful bid submission message & a bid summary will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.
- 9) Kindly add scanned PDF of all relevant documents in a single PDF file of compliance sheet.

ASSISTANCE TO BIDDERS

- 1) Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the relevant contact person indicated in the tender.

- 2) Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24x7 CPP Portal Helpdesk. The contact number for the helpdesk is 1800 233 7315.

General Instructions to the Bidders

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

Terms & Conditions Details

S.No.	Specification
1.	Due date: The tender has to be submitted on-line before the due date. The offers received after the due date and time will not be considered. No manual bids will be considered.
2.	Preparation of Bids: The offer/bid should be submitted in two bid systems (i.e.) Technical bid and financial bid. The technical bid should consist of all technical details along with commercial terms and conditions. Financial bid should indicate item wise price for the items mentioned in the technical bid in the given format i.e BOQ_XXXX. OR Financial Bids to be submitted in Excel. The Technical bid and the financial bid should be submitted Online.
3.	EMD (if applicable): As per NIT
4.	Refund of EMD :- As per NIT
5.	Opening of the tender: As per Tender Notice, NIT & IITD form 8
6.	Acceptance/ Rejection of bids: The competent authority of IIT Delhi reserves the right to reject any or all offers without assigning any reason.
7.	Pre-qualification criteria: - Mentioned in Tender notice
8.	Performance Security:-Mentioned in Tender notice
9.	Force Majeure :- As per IITD form 8
10.	Risk & Cost Clause : As per IITD form 8
11.	Delivery and Documents: As per Tender Notice & NIT & IITD form 8
12.	Delayed delivery: As per Tender Notice & NIT & IITD form 8
13.	Prices: As per Tender Notice & NIT & IITD form 8
14.	Progress of Work :As per Tender Notice & NIT & IITD form 8
15.	Inspection and Tests: As per Tender Notice & NIT & IITD form 8
16.	Resolution of Disputes: As per Tender Notice & NIT & IITD form 8
17.	Applicable Law:As per Tender Notice & NIT & IITD form 8
18.	Supplier Integrity : As per Tender Notice & NIT & IITD form 8
19.	Training : As per Tender Notice & NIT & IITD form 8
20.	Installation & Demonstration : As per Tender Notice & NIT & IITD form 8
21.	Incidental services: As per Tender Notice & NIT & IITD form 8

22.	Defect liability Period : As per Tender Notice & NIT & IITD form 8
23.	Governing Language : As per Tender Notice & NIT & IITD form 8
24.	Applicable Law : As per Tender Notice & NIT & IITD form 8
25.	Notices : As per Tender Notice & NIT & IITD form 8
26.	Taxes : As per Tender Notice & NIT & IITD form 8
27.	Termination for Default : As per Tender Notice & NIT & IITD form 8
28.	Disputes and Jurisdiction: As per Tender Notice & NIT & IITD form 8
29.	Completion certificate: As per Tender Notice & NIT & IITD form 8

ANNEXURE-I

C----NIL

I----NIL

O-----NIL

D'Man/AEE(C)

E.E.(P)

16
COMPLIANCE SHEET

TECHNICAL SPECIFICATION

S.No.	Technical Bid Requirement As per Tender Notice & NIT & IITD form 8	Compliance Y/N
1	Scanned copy /Online Payment of EMD	
2	Certificate of authorized applicator ship of approved construction chemical manufacturing company	
3	Attested certificate of work experience.	
4	Certificate of Registration of GST and acknowledgment of up to date field return of GST.	
5	Affidavit as per Notice Inviting Tender condition 1.2.2 of IITD-6 of NIT to be submitted on stamp paper.	
6	Acceptance to execute INTEGRITY PACT.	
7	Undertaking as per tender notice on firm's letter head if the scan copy of EMD uploaded.	
8	ESI and EPF Registration.	
9	Proof of Tender Fee of Rs.1500/-	
10	FORM "F" (Duly filled with all required details	
11	Affidavit/ Certificate from C.A of last 3 years(2015-16, 2016-17, 2017-18) financial turn over.	
12	Solvency certified his banker.	
13	Manufacturer undertaking as per serial No. 7/Page-5	
14	BOQ	
15	Any Other Document specified in NIT	

I have also enclosed all relevant documents in support of my claims, (as above) in the following pages.

Signature of Bidder

Name: _____

Designation: _____

Organization Name: _____

Contact No. : _____

**<< Organization Letter Head >>
DECLARATION SHEET**

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

This is certified that our organization has been registered as per Tender Notice & NIT & IITD form 8Tender. We further certified that our organization meets all the conditions of eligibility criteria laid down in this tender document.

We, further specifically certify that our organization has not been Black Listed/De Listed or put to any Holiday by any Institutional Agency/ Govt. Department/ Public Sector Undertaking in the last three years.	NAME & ADDRESS OF THE Vendor/ Manufacturer / Agent
1 Phone	As per Tender Notice & NIT
2 Fax	
3 E-mail	
4 Contact Person Name	
5 Mobile Number	
6 TIN Number	
7 PAN Number	
(In case of on-line payment of Tender Fees)	
8UTR No. (For Tender Fee)	
(In case of on-line payment of EMD)	
9 UTR No. (For EMD)	

(Signature of the Tenderer)

Name:

Seal of the Company

List of Govt. Organization/Deptt.

List of Government Organizations for whom the Bidder has undertaken such work As per Tender Notice & NIT & IITD form 8

Name of the organization	Name of Contact Person	Contact No.

As per Tender Notice & NIT

Signature of Bidder

Name: _____

Designation: _____

Organization Name: _____

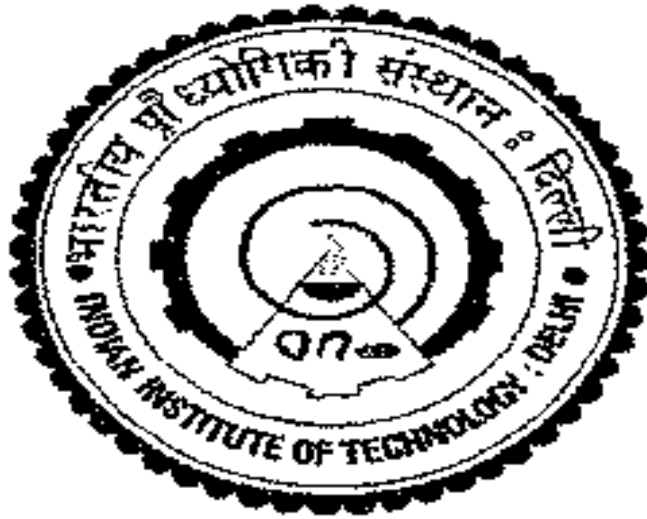
Contact No. : _____

Bid Submission**Online Bid Submission:**

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

Bid Document – 1 (Following documents to be provided as single PDF file)			
Sl. No.	Documents	Content	File Types
1.	Technical Bid	Compliance Sheet as per Annexure – I	.PDF
2.		Organization Declaration Sheet as per Annexure – II	.PDF
3.		List of organizations/ clients where the same products have been supplied (in last two years) along with their contact number(s). (Annexure-III)	.PDF
4.		Technical supporting documents in support of all claims made at Annexure-I (Annexure-IV)	.PDF
Bid Document – 2			
Sl. No.	TYPES	Content	
1.	Financial Bid	Price bid should be submitted in Excel format.	.EXCEL

Notice Inviting Tender



INDIAN INSTITUTE OF TECHNOLOGY DELHI
HAUZ KHAS, NEW DELHI
(Works Department)

**INDIAN INSTITUTE OF TECHNOLOGY
HAUZ KHAS, NEW DELHI - 110016****NOTICE INVITING TENDER**

Item rate tenders are invited on behalf of The Board of Governors, I.I.T. Delhi, HauzKhas, New Delhi - 16 from authorized applicator of construction chemical manufacturing company (Fosroc/BASF/ Sika/Pidilite/Krishna Conchem) in two bid system(Part I Eligibility/ Technical Bid & Part II Financial Bid) as per eligibility conditions laid down in this tender document at suitable places for following work of **Special Structural Repair of 72 Nos. A Type Houses (A7, A-10, A-11 & A-17 Blocks) in East Campus at IIT Delhi.(Sub-Head: Special Structural Repair Work..)**

The work is estimated to cost **Rs.3,20,77,984.00** /-This estimate, however, is given merely as a rough guide.

1.1.1 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.

For composite bid, besides indicating the combined estimated cost put to tender, should clearly indicates the estimated cost of each component separately. The eligibility of bidders will correspond to the combined estimated cost of different components put to bid.

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

Criteria of eligibility for submission of bid documents:**As per Tender Notice**

1.2.2 To become eligible for issue of bid, the bidders shall have to furnish an affidavit as under :-

I/We undertake and confirm that eligible similar works(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 bidding in I.I.T.D in future forever. Also, if such a violation comes to the notice of Department before date of start of work, the Engineer-in-Charge shall be free to forfeit the entire amount of Earnest Money Deposit/Performance Guarantee (Scanned copy to be uploaded at the time of submission of bid)

2. Agreement shall be drawn with the successful bidders on prescribed Form No. I.I.T.D 7/8 which is available as I.I.T.D. Publication. Bidders shall quote their rates as per various terms and conditions of the said form which will form part of the agreement.
3. The time allowed for carrying out the work will be **as per Tender Notice** 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.
4. The site for the work is available.

OR

The site for the work shall be made available in parts as specified below:-

5. 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 from the web Site **www.iitd.ac.in or e-procure.gov.in free of cost** and other necessary documents can be seen in the office of the **Work Section of Room No. MZ-136 between hours of 11:00 AM & 4:00 PM from 28/08/2019 to 11/09/2019** as per tender notice every day except on Saturday, Sunday and public holidays.
6. After submission of the bid the contractor can re-submit revised bid any number of times but before last time and date of submission of tender as notified.
7. While submitting the revised bid, contractor can revise the rate of one or more item(s) any number of times (he need not re-enter rate of all the items) but before last time and date of submission of tender as notified.
8. If it is desired to submit revised financial bid then it shall be mandatory to submit revised financial bid. If not submitted then the tender submitted earlier shall become invalid.

Copy of Enlistment Order and certificate of work experience and other documents as specified in the press notice / web notice shall be scanned and uploaded to the tender website within the period of bid submission. However, certified copy of all the scanned and uploaded documents as specified in press notice / web notice shall have to be submitted by the lowest bidder in the office of tendering authority.

Online bid documents submitted by intending bidders shall be opened only of those bidders, who has deposited tender online fees with and earnest money deposit and other documents scanned and uploaded are found in order.

The bid submitted shall become invalid & Tender fees shall not be refunded if:

- (i) The bidder is found ineligible.
- (ii) The bidder does not upload all the documents (GSTIN Registration) as stipulated in the bid document.
- (iii) 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 tenderer in the office of tender opening authority.

9. The contractor whose bid is accepted will be required to furnish **performance guarantee of 5% (Five Percent)** of the bid amount within the period specified in Schedule F. This guarantee shall be in the form of cash (in case guarantee amount is less than Rs. 10000/-) or Deposit at Call receipt of any scheduled bank/Banker's cheque of any scheduled bank/ Demand Draft of any scheduled bank/Pay order of any Scheduled Bank (in case guarantee amount is less than Rs.1,00,000/-) or Government Securities or Fixed Deposit Receipts or irrevocable Bank Guarantee Bonds of any Scheduled Bank or the State Bank of India in accordance with the prescribed form. In case the contractor fails to deposit the said performance guarantee within the period as indicated in Schedule 'F' including the extended period if any, the Earnest Money deposited by the contractor shall be forfeited automatically without any notice to the contractor.

10. 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 subsoil (so far as is practicable), the form and nature of the site, the means of access to the site, the accommodation they may require and in general shall themselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their bid. A bidder shall be deemed to have full knowledge of the site whether he inspects it or not and no extra charge consequent on any misunderstanding or otherwise shall be allowed. The bidders shall be responsible for arranging and maintaining at his own cost all materials, tools & plants, water, electricity access, facilities for workers and all other services required for executing the work unless otherwise specifically provided for in the contract documents. Submission of a bid by a bidder implies that he has read this notice and all other contract documents and has made himself aware of the scope and specifications of the work to be done and 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.

11. The competent authority on behalf of the Board of Governors does not bind itself to accept the lowest or any other bid and reserves to itself the authority to reject any or all the bids received without 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 bidder shall be summarily rejected.
12. 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 to rejection.
13. The competent authority on behalf of Board of Governors reserves to himself the right of accepting the whole or any part of the bid and the bidder shall be bound to perform the same at the rate quoted.
14. The contractor shall not be permitted to bid for works in the IITD responsible for award and execution of contracts, in which his near relative is posted a 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 IIT Delhi. Any breach of this condition by the contractor would render him liable to be debarred from bidding process in future in IIT Delhi.
15. 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.
16. The bid for the works shall remain open for acceptance for a period of **ninety (90) days** from the date of opening of financial bids, if any bidder withdraws his bid before the said period or issue of letter of acceptance, whichever is earlier, or makes any modifications in the terms and conditions of the bid which are not acceptable to the department, then the IIT Delhi shall, without prejudice to any other right or remedy, be at liberty to forfeit 50% of the said earnest money as aforesaid. Further the bidder shall not be allowed to participate in the re-bidding process of the work.
17. This notice inviting bid shall form a part of the contract document. The successful bidder / 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 IITD Form –7/8 or other Standard IITD Form as mentioned.
18. In case any discrepancy is noticed between the documents as uploaded at the time of submission of the bid online and hard copies as submitted physically in the office of Executive Engineer, then the bid submitted shall become invalid and the IIT Delhi shall without prejudice to any other right or remedy, be at liberty to forfeit 50% of the said earnest money as aforesaid. Further the bidder shall not be allowed to participate in there-bidding process of the work.

INTEGRATY PACT e-TENDERING	I.I.T.D
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To,

.....,

.....,

.....

Subject:- NIT No./IITD/EE(P)/2019-2020 for the work of Special Structural Repair of 72 Nos. A Type Houses (A-7, A-10, A-11 & A-17 Blocks) in East Campus at IIT Delhi. (Sub-Head: Special Structural Repair Work.)

Dear Sir,

It is here by declared that I.I.T.D is committed to follow the principle of transparency, equity and competitiveness in public procurement.

The subject Notice Inviting Tender (NIT) is an invitation to offer made on the condition that the Bidder will sign the integrity Agreement, which is an integral part of tender/bid documents, failing which the tenderer / bidder will stand disqualified from the tendering process and the bid of the bidder would be summarily rejected.

This declaration shall form part and parcel of the Integrity Agreement and signing of the same shall be deemed as acceptance and signing of the Integrity Agreement on behalf of the I.I.T.D.

Yours faithfully

Executive Engineer (P)

Acceptance to execute integrity pact	I.I.T.D
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(To be signed by bidder and upload the scanned copy)

To,
Executive Engineer (P),
 IIT Delhi, HauzKhas,
 New Delhi – 110016.

Subject:- Submission of Bid for the of Special Structural Repair of 72 Nos. A Type Houses (A-7, A-10, A-11 & A-17 Blocks) in East Campus at IIT Delhi. (Sub-Head: Special Structural Repair Work.)

Dear Sir,

I/We acknowledge that I.I.T.D is committed to follow the principles thereof as enumerated in the Integrity Agreement enclosed with the tender/bid document.

I/We agree that the Notice Inviting Tender (NIT) is an invitation to offer made on the condition that I/We will sign the enclosed integrity Agreement, which is an integral part of tender / bid documents, failing which I/We will stand disqualified from the tendering process. I/We acknowledge that **THE MAKING OF THE BID SHALL BE REGARDED AS AN UNCONDITIONAL AND ABSOLUTE ACCEPTANCE** of this condition of the NIT.

I/We confirm acceptance and compliance with the Integrity Agreement in letter and spirit and further agree that execution of the said Integrity Agreement shall be separate and distinct from the main contract, which will come into existence when tender/bid is finally accepted by I.I.T.D. I/We acknowledge and accept the duration of the Integrity Agreement, which shall be in the line with Article 1 of the enclosed Integrity Agreement.

I/We acknowledge that in the event of my/our failure to sign and accept the Integrity Agreement, while submitting the tender/bid, I.I.T.D shall have unqualified, absolute and unfettered right to disqualify the tender / bidder and reject the tender/bid in accordance with terms and conditions of the tender/bid.

Yours faithfully

(Duly authorized signatory of the Bidder)

INTEGRITY PACT e-TENDERING	I.I.T.D
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INTEGRITY AGREEMENT

This Integrity Agreement is made at on this day of..... 20.....

BETWEEN

The Board of Governors, I.I.T. Delhi, HauzKhas, New Delhi - 16 represented through Executive Engineer (E) IIT Delhi.

....., (Hereinafter referred as the
(Address of Division)

‘**Principal/Owner**’, which expression shall unless repugnant to the meaning or context hereof include its successors and permitted assigns)

AND

.....
(Name and Address of the Individual/firm/Company)

through (Hereinafter referred to as the
(Details of duly authorized signatory)

‘**Bidder/Contractor**’ and which expression shall unless repugnant to the meaning or context hereof include its successors and permitted assigns)

Preamble

WHEREAS the Principal / Owner has floated the Tender (NIT No.) (Hereinafter referred to as “**Tender/Bid**”) and intends to award, under laid down organizational procedure, contract for
.....

(Name of work)
hereinafter referred to as the “**Contract**”.

AND WHEREAS the Principal/Owner values full compliance with all relevant laws of the land, rules, regulations, economic use of resources and of fairness/transparency in its relation with its Bidder(s) and Contractor(s).AND WHEREAS to meet the purpose aforesaid both the parties have agreed to enter into this Integrity Agreement (hereinafter referred to as “**Integrity Pact**” or “**Pact**”), the terms and conditions of which shall also be read as integral part and parcel of the Tender/Bid documents and Contract between the parties.

INTEGRATY PACT e-TENDERING	I.I.T.D
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NOW, THEREFORE, in consideration of mutual covenants contained in this Pact, the parties hereby agree as follows and this Pact witnesses as under:

Article 1: Commitment of the Principal/Owner

- 1) The Principal/Owner commits itself to take all measures necessary to prevent corruption and to observe the following principles:
 - (a) No employee of the Principal/Owner, personally or through any of his/her family members, will in connection with the Tender, or the execution of the Contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.
 - (b) The Principal/Owner will, during the Tender process, treat all Bidder(s) with equity and reason. The Principal/Owner will, in particular, before and during the Tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential / additional information through which the Bidder(s) could obtain an advantage in relation to the Tender process or the Contract execution.
 - (c) The Principal/Owner shall endeavour to exclude from the Tender process any person, whose conduct in the past has been of biased nature.
- 2) If the Principal/Owner obtains information on the conduct of any of its employees which is a criminal offence under the Indian Penal code (IPC)/Prevention of Corruption Act, 1988 (PC Act) or is in violation of the principles herein mentioned or if there be a substantive suspicion in this regard, the Principal/Owner will inform the Chief Vigilance Officer and in addition can also initiate disciplinary actions as per its internal laid down policies and procedures.

Article 2: Commitment of the Bidder(s)/Contractor(s)

- 1) It is required that each Bidder/Contractor (including their respective officers, employees and agents) adhere to the highest ethical standards, and report to the Government / Department all suspected acts of **fraud or corruption or Coercion or Collusion** of which it has knowledge or becomes aware, during the tendering process and throughout the negotiation or award of a contract.
- 2) The Bidder(s)/Contractor(s) commits himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the Tender process and during the Contract execution:

- a) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm, offer, promise or give to any of the Principal/Owner's employees involved in the Tender process or execution of the Contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the Tender process or during the execution of the Contract.
 - b) The Bidder(s)/Contractor(s) will not enter with other Bidder(s) into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to cartelize in the bidding process.
 - c) The Bidder(s)/Contractor(s) will not commit any offence under the relevant IPC/PC Act. Further the Bidder(s)/Contractor(s) will not use improperly, (for the purpose of competition or personal gain), or pass on to others, any information or documents provided by the Principal/Owner as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
 - d) The Bidder(s)/Contractor(s) of foreign origin shall disclose the names and addresses of agents/representatives in India, if any. Similarly Bidder(s)/Contractor(s) of Indian Nationality shall disclose names and addresses of foreign agents/representatives, if any. Either the Indian agent on behalf of the foreign principal or the foreign principal directly could bid in a tender but not both. Further, in cases where an agent participate in a tender on behalf of one manufacturer, he shall not be allowed to quote on behalf of another manufacturer along with the first manufacturer in a subsequent/parallel tender for the same item.
 - e) The Bidder(s)/Contractor(s) will, when presenting his bid, disclose any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the Contract.
- 3) The Bidder(s)/Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.
 - 4) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm indulge in fraudulent practice **means a willful misrepresentation or omission of facts or submission of fake/forged documents in order to induce public official to act in reliance thereof, with the purpose of obtaining unjust advantage by or causing damage to justified interest of others and/or to influence the procurement process to the detriment of the Government interests.**

- 5) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm use Coercive Practices (means the act of obtaining something, compelling an action or influencing a decision through intimidation, threat or the use of force directly or indirectly, where potential or actual injury may befall upon a person, his/ her reputation or property to influence their participation in the tendering process).

Article 3: Consequences of Breach

Without prejudice to any rights that may be available to the Principal/Owner under law or the Contract or its established policies and laid down procedures, the Principal/Owner shall have the following rights in case of breach of this Integrity Pact by the Bidder(s)/Contractor(s) and the Bidder/ Contractor accepts and undertakes to respect and uphold the Principal/Owner's absolute right:

- 1) If the Bidder(s)/Contractor(s), either before award or during execution of Contract has committed a transgression through a violation of Article 2 above or in any other form, such as to put his reliability or credibility in question, the Principal/Owner after giving 14 days' notice to the contractor shall have powers to disqualify the Bidder(s)/Contractor(s) from the Tender process or terminate/determine the Contract, if already executed or exclude the Bidder/Contractor from future contract award processes. The imposition and duration of the exclusion will be determined by the severity of transgression and determined by the Principal/Owner. **Such exclusion may be forever or for a limited period as decided by the Principal/Owner.**
- 2) **Forfeiture of EMD/Performance Guarantee/Security Deposit:** If the Principal/Owner has disqualified the Bidder(s) from the Tender process prior to the award of the Contract or terminated/determined the Contract or has accrued the right to terminate/determine the Contract according to Article 3(1), the Principal/Owner apart from exercising any legal rights that may have accrued to the Principal/Owner, may in its considered opinion forfeit the entire amount of Earnest Money Deposit, Performance Guarantee and Security Deposit of the Bidder/Contractor.
- 3) **Criminal Liability:** If the Principal/Owner obtains knowledge of conduct of a Bidder or Contractor, or of an employee or a representative or an associate of a Bidder or Contractor which constitutes corruption within the meaning of IPC Act, or if the Principal/Owner has substantive suspicion in this regard, the Principal/Owner will inform the same to law enforcing agencies for further investigation.

Article 4: Previous Transgression

- 1) The Bidder declares that no previous transgressions occurred in the last 5 years with any other Company in any country confirming to the anticorruption approach or with Central Government or State Government or any other Central/State Public Sector Enterprises in India that could justify his exclusion from the Tender process.

- 2) If the Bidder makes incorrect statement on this subject, he can be disqualified from the Tender process or action can be taken for banning of business dealings/ holiday listing of the Bidder/Contractor as deemed fit by the Principal/ Owner.
- 3) If the Bidder/Contractor can prove that he has resorted / recouped the damage caused by him and has installed a suitable corruption prevention system, the Principal/Owner may, at its own discretion, revoke the exclusion prematurely.

Article 5: Equal Treatment of all Bidders/Contractors/Subcontractors

- 1) The Bidder(s)/Contractor(s) undertake(s) to demand from all subcontractors a commitment in conformity with this Integrity Pact. The Bidder/Contractor shall be responsible for any violation(s) of the principles laid down in this agreement/Pact by any of its Sub-contractors/sub-vendors.
- 2) The Principal/Owner will enter into Pacts on identical terms as this one with all Bidders and Contractors.
- 3) The Principal/Owner will disqualify Bidders, who do not submit, the duly signed Pact between the Principal/Owner and the bidder, along with the Tender or violate its provisions at any stage of the Tender process, from the Tender process.

Article 6- Duration of the Pact

This Pact begins when both the parties have legally signed it. It expires for the Contractor/Vendor 09 Months after the completion of work under the contract or till the continuation of defect liability period, whichever is more and for all other bidders, till the Contract has been awarded.

If any claim is made/lodged during the time, the same shall be binding and continue to be valid despite the lapse of this Pacts as specified above, unless it is discharged/determined by the Competent Authority, I.I.T.D.

Article 7- Other Provisions

- 1) This Pact is subject to Indian Law, place of performance and jurisdiction is the Headquarters of the Division of the Principal/Owner, who has floated the Tender.
- 2) Changes and supplements need to be made in writing. Side agreements have not been made.
- 3) If the Contractor is a partnership or a consortium, this Pact must be signed by all the partners or by one or more partner holding power of attorney signed by all partners and consortium members. In case of a Company, the Pact must be signed by a representative duly authorized by board resolution.
- 4) Should one or several provisions of this Pact turn out to be invalid; the remainder of this Pact remains valid. In this case, the parties will strive to come to an agreement to their original intensions.
- 5) It is agreed term and condition that any dispute or difference arising between the parties with regard to the terms of this Integrity Agreement / Pact, any action taken by the Owner/Principal in accordance with this Integrity Agreement/ Pact or interpretation thereof shall not be subject to arbitration.

Article 8- LEGAL AND PRIOR RIGHTS

All rights and remedies of the parties hereto shall be in addition to all the other legal rights and remedies belonging to such parties under the Contract and/or law and the same shall be deemed to be cumulative and not alternative to such legal rights and remedies aforesaid. For the sake of brevity, both the Parties agree that this Integrity Pact will have precedence over the Tender/Contact documents with regard any of the provisions covered under this Integrity Pact.

IN WITNESS WHEREOF the parties have signed and executed this Integrity Pact at the place and date first above mentioned in the presence of following witnesses:

.....
(For and on behalf of Principal/Owner)

.....
(For and on behalf of Bidder/Contractor)

WITNESSES:

1.
(signature, name and address)

2.
(signature, name and address)

Place:

Dated :

I.I.T.D – 7/8 e-TENDERING	I.I.T.D
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**INDIAN INSTITUTE OF TECHNOLOGY
HAUZ KHAS, NEW DELHI - 110016**

Percentage Rate Tender/Item Rate Tender & Contract for Works

Tender for the work of Special Structural Repair of 72 Nos. A Type Houses (A7, A-10, A-11 & A-17 Blocks) in East Campus at IIT Delhi. **(Sub-Head: Special Structural Repair Work.)**

(i) To be submitted by **4:00 PM** hours on...**as per tender notice page 3**

.....

...

(ii) To be opened in presence of bidders who may be present at **as per tender notice page 3**

.....

in the office of **D.R. (Store)**

Issued to

Signature of officer issuing the documents

Designation

Date of Issue

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 The Board of Governors, I.I.T. Delhi, HauzKhas, New Delhi - 16 within the time specified in Schedule 'F' viz., schedule of quantities and in accordance in all respect with the specifications, designs, drawing and instructions in writing referred to in Rule-1 of General Rules and Directions and in Clause 11 of the Conditions of contract and with such materials as are provided for, by, and in respect of accordance with, such conditions so far as applicable.

Bid validity shall be 90 days from opening of financial bid.

I.I.T.D – 7/8 e-TENDERING	I.I.T.D
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A sum of **as per tender notice** is hereby forwarded in Banker Cheque or Demand Draft or Fixed Deposit receipt of a schedule bank drawn in favour of IIT Delhias earnest money. If I/We, fail to furnish the prescribed performance guarantee within prescribed period. I/We agree that the said The Board of Governors, I.I.T. Delhi, HauzKhas, New Delhi - 16 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 The Board of Governors, I.I.T. Delhi, HauzKhas, New Delhi - 16 or the successors in office shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the said earnest money and the performance guarantee absolutely, otherwise the said earnest money shall be retained by him towards security deposit to execute all the works referred to in the tender documents upon the terms and conditions contained or referred to those in excess of that limit at the rates to be determined in accordance with the provision contained in Clause 12.2 and 12.3 of the tender form. Further, I/We agree that in case of forfeiture of Earnest Money & 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 I.I.T.D in future forever. Also, if such a violation comes to the notice of Department before date of start of work, the Engineer-in-Charge shall be free to forfeit the entire amount of Earnest Money Deposit/Performance Guarantee.

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

Dated:

Signature of Contractor

Witness:

Postal Address

Address:

Occupation:

ACCEPTANCE

The above tender (as modified by you as provided in the letters mentioned hereunder) is accepted by me for an on behalf of The Board of Governors, I.I.T. Delhi, HauzKhas, New Delhi - 16 for a sum of

(Rupees.....
).

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

- (a)
- (b)
- (c)

For & on behalf of Board of Governors, IIT Delhi

Signature

Dated: Designation

PROFORMA OF SCHEDULES	I.I.T.D
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PROFORMA OF SCHEDULES

(Separate Performa for Civil, Elect.& Hort. Works in case of Composite Tenders) (Operative Schedules to be supplied separately to each intending tenderer)

SCHEDULE 'A'

Schedule of quantities (enclosed)

SCHEDULE 'B'

Schedule of materials to be issued to the contractor.

S.No.	Description of item	Quantity	Rates in figures & words at which the material will be charged to the contractor	Place of issue
1			4	
	← Nil →			

SCHEDULE 'C'

Tools and plants to be hired to the contractor

S.No.	Description	Hire charges per day	Place of Issue
1			
	← Nil →		

SCHEDULE 'D'

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

----- **Nil** -----

PROFORMA OF SCHEDULES	I.I.T.D
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SCHEDULE 'E'

Reference to General Conditions of contract.

(Name of Work :-Special Structural Repair of 72 Nos. A Type Houses (A-7, A-10, A-11 & A-17 Blocks) in East Campus at IIT Delhi. (Sub-Head: Special Structural Repair Work.)

- | | | |
|-----------------------------|---|-----------------------------|
| (i) Estimated cost of work | : | Rs. 3,20,77,984.00/- |
| (ii) Earnest Money | : | Rs. 6,41,560.00/- |
| (iii) Performance Guarantee | : | 5% of tendered value |
| (iv) Security Deposit | : | 5% of tendered value |

SCHEDULE 'F'**GENERAL RULES& DIRECTIONS : Officer inviting tender IITD/ Form – 7/8-2010**

Maximum percentage for quantity of items of work to be executed beyond which rates are to be determined in accordance with Clauses 12.2 & 12.3: See below

Definitions:

- | | | |
|---------|--|---|
| 2(v) | Engineer-in-Charge | Executive Engineer |
| 2(viii) | Accepting Authority | Institute Engineer |
| 2(x) | Percentage on cost of materials and Labour to cover all overheads and profits: | 15% |
| 2(xi) | Standard Schedule of Rates – | DSR 2016with 12.75% cost index andMarket Rate |
| 2(xii) | Department – | Works department at I.I.T Delhi |
| 9(ii) | Standard I.I.T.D Contract Form | GCC 2010, I.I.T.D Form 7/8-2010 modified & Corrected up to date of submission of tender. |

Clause 1

- | | | |
|-----|---|---------------------|
| (i) | Time allowed for submission of Performance Guarantee from the date of issue of letter of acceptance | 15 days |
| (i) | Maximum allowable extension with late fees @ 0.1% per day of performance guarantee amount beyond the period provided in (i) above | 1 to 15 days |

Clause 2**Authority for fixing compensation under clause 2****Institute Engineer**

PROFORMA OF SCHEDULES

I.I.T.D

Clause 2A

Whether Clause 2A shall be applicable **No**

Clause 5

Number of days from the date of issue of letter of award for reckoning date of start 10 (Ten) days

Mile stone(s) as per table given below:-

Sl. No.	Description of Milestone (Financial)	Time allowed in days (from date of start)	Amount to be with-held in case of non-achievement of mile stone
			In the event of not achieving the necessary progress as assessed from the running payment, 1% of the Tender value of work will be withheld for failure of each milestone.
1	1/8 th (of the whole work)	1/4 th (of the whole work)	
2	3/8 th (of the whole work)	1/2 th (of the whole work)	
3	3/4 th (of the whole work)	3/4 th (of the whole work)	
4	Full	Full	

Time allowed for execution of work **As per tender notice.**

Authority to decide:

- (i) Extension of time **Institute Engineer.**
(ii) Rescheduling of mile stones **Institute Engineer.**

Clause 6, 6A

Clause applicable - (6 or 6A) **Clause 6**.....

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. 20.00 Lakhs

Clause 10A

List of testing equipment to be provided by the contractor at site lab.

1..... 2. 3.....
4..... **I.I.T.D** 5. 6.....

PROFORMA OF SCHEDULES	I.I.T.D
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Clause 10B(ii)

Whether Clause 10 B (ii) shall be applicable **No**

Clause 10C

Component of labour expressed as percent of value of work = 25%

Clause 10CA

S.N.	Material covered under this clause	Nearest Materials (other than cement, reinforcement bars and the structural steel) for which All India Wholesale Price Index to be followed	Base Price of all Materials covered under clause 10 CA*
1			
2		I.I.T.D	
3			
4			

* Base price of all the materials covered under clause 10 CA is to be mentioned at the time of approved of NIT.

Clause 10CC – Not applicable in this tender

Clause 10 CC to be applicable in contracts with stipulated period of completion exceeding the period shown in next column 18 months

Schedule of component of other Materials, Labour, POL etc. for price escalation.

Component of civil (except materials covered under clause 10CA) /Electrical construction Materials expressed as percent of total value of work. - Xm %

Component of Labour - expressed as percent of total value of work. Y..... %

Component of P.O.L. - expressed as percent of total value of work. Z..... %

Clause 11

Specifications to be followed for execution of work CPWD specifications 2009 Vol-1&2 with upto date correction slips & manufacturers specifications

PROFORMA OF SCHEDULES	I.I.T.D
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Clause 12

Type of work -Maintenance works including works of up-gradation, aesthetic, special repair, addition/ alteration.

12.2. & 12.3	Deviation Limit beyond which clauses 12.2 & 12.3 shall apply for building work	30%
12.5	Deviation Limit beyond which clauses 12.2 & 12.3 shall apply for foundation work	100%

Clause 16

Competent Authority for

deciding reduced rates.

Institute Engineer

Clause 18

List of mandatory machinery, tools & plants to be deployed by the contractor at site:-

1	2	3
4	5	6
7	8	9

PROFORMA OF SCHEDULES

Clause 25

Constitution of Dispute Redressal Committee (DRC)	Competent Authority to appoint DRC
DRC shall constitute one Chairman and two members	I.I.T.D Director Indian Institute of Technology Delhi

Clause 36 (i)

Requirement of Technical Representative(s) and recovery Rate

S. No.	Minimum Qualification of Technical Representative	Discipline	Designation (Principal Technical/ Technical Representative)	Minimum Experience (Years)	Number	Rate at which recovery shall be made from the contractor in the event of not fulfilling provision of clause 36(i)	
						Figures	Words
1.	i. Graduate Engineer	Civil	Principal Technical Representative	5	1	Rs.15,000.00 per month.	Rupees Fifteen Thousand only per month
	ii. Graduate Engineer Or Diploma Engineer		Project Planning/ Site/ billing Engineer	2	1		
				5	1		

Assistant Engineers retired from Government services that are holding Diploma will be treated at par with Graduate Engineers.

PROFORMA OF SCHEDULES

I.I.T.D

Clause 42

- (i) (a) Schedule/statement for determining theoretical quantity of cement & bitumen on the basis of Delhi Schedule of Rates **2016** printed by C.P.W.D.
- (ii) Variations permissible on theoretical quantities:
- (a) Cement
- For works with estimated cost put to tender not more than Rs. 5 lakh. 3% plus/minus.
- For works with estimated cost put to tender more than Rs.5 lakh. 2% plus/minus.
- (b) Bitumen 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

RECOVERY RATES FOR QUANTITIES BEYOND PERMISSIBLE VARIATION

S. No.	Description of Item	Rates in figures and words at which recovery shall be made from the Contractor	
		Excess beyond permissible Variation	Less use beyond permissible variation
1.	Cement	As per CPWD Specification 2009	
2.	Steel Reinforcement		
3.	Structural Sections		
4.	Bitumen issued free		
5.	Bitumen issued at stipulated fixed Price		

BANK GUARANTEE BOND**I.I.T.D****Form of Earnest Money Deposit
Bank Guarantee Bond**

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

KNOW ALL PEOPLE by these presents that we.....(name of bank) having our registered office at.....(hereinafter called "the Bank")

are bound unto

.....

.....
(Name and division of Executive Engineer) (hereinafter called "the Engineer-in-Charge") in the sum of Rs. (Rs. in words) for which payment well and truly to be made to the said Engineer-in-Charge the Bank binds itself, his successors and assigns by these presents.

SEALED with the Common Seal of the said Bank thisday of 20....

THE CONDITIONS of this obligation are:

- (1) If after tender opening the Contractor withdraws, his tender during the period of validity of tender (including extended validity of tender) specified in the Form of Tender;
- (2) If the contractor having been notified of the acceptance of his tender by the Engineer-in-Charge:
 - (a) fails or refuses to execute the Form of Agreement in accordance with the Instructions to contractor, if required;
 - OR
 - (b) fails or refuses to furnish the Performance Guarantee, in accordance with the provisions of tender document and Instructions to contractor,
 - OR
 - (c) fails or refuses to start the work, in accordance with the provisions of the contract and Instructions to contractor,
 - OR
 - (d) fails or refuses to submit fresh Bank Guarantee of an equal amount of this Bank Guarantee, against Security Deposit after award of contract.

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

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

DATE

SIGNATURE OF THE BANK

WITNESSSEAL

(SIGNATURE, NAME AND ADDRESS)

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

PARTICULARS SPECIFICATIONS

C----NIL

I----NIL

O-----NIL

D'Man/AEE(C)

E.E.(P)

The Methodology for the Repair of Columns, Beams And Slabs.

The damages have been classified in the following four categories.

1 Severe:

The members under these categories are badly affected. Multiple very wide structural cracks more than 70 percent were observed. The reinforcement in the members is heavily corroded and visible as the cover at most of the places had fallen out. The NDT result of these structural members also show that strength of concrete has been in the category of heavily deteriorated category.

2 Medium:

The structural members placed in this category are having multiple cracks to the tune of 30 percent. The reinforcement in these members is also corroded causing spalling of concrete at various locations and loose chunks of concrete comes out easily on hitting with a metallic hammer. The NDT result of these members shows the quality of concrete has been in the category of 'Doubtful'.

3 Mild:

Small size Structural and non-structural cracks are observed in these members. The NDT result of these members corresponds quality of concrete to be fair. The corrosion in the reinforcement of these is started and needs attention

4 No Damaged/ Repaired:

No visual damage was observed; the structural members seem to be OK, due to repair by the maintenance division in the past.

Three different repair methodologies are being suggested for the repair of the columns. The '**Repair Methodology-1**' is suggested for the '**Severly**' damaged columns. The '**Repair Methodology-2**' is suggested for the repair of columns in which **Medium** and **Mild** category type of damages. '**Repair Methodology-3**'; is suggested for the repair of externally located damaged beams, and chajjas. These methodologies are as detailed below:

Repair Methodology-1

This repair methodology includes,

- Supporting the Structure,
- Removal of unsound concrete from the Affected area,
- Protective treatment to the existing steel reinforcement,
- Addition of the reinforcement steel where area of the steel is reduced to more than 10 percent,
- Repairs using single component high strength polymer modified mortar or using high strength free flow micro concrete,
- Strengthening of the member using E-Glass or Carbon fiber wrapping,

1. Supporting the Structure.

Providing and erecting steel props (about 14' height, braced at center and supporting a continuous 2'' x 3'' wooden runner, resisting on wedge and block minimum capacity 3 Ton) to support the structure provisionally during repair and jacketing etc. and maintaining them in position till required as directed by IIT Delhi. It is the responsibility of the contractor or applicator to provide appropriate shoring and provide proper jacks to de-stress the structural, before taking up the repair and retrofitting.

2. Removal of Unsound Concrete from Affected Area:

The First step in preparing reinforcing steel for repair or cleaning is removing the deteriorated concrete surrounding the reinforcement. Care should be used to ensure that further damage to the reinforcing steel is not caused by the process of removing the concrete. Impact breakers can heavily damage reinforcing steel if the breaker is used without regard to the location of the reinforcement. For this reason, a cover meter or reinforcing bar locator, should be used to determine the depth, size, quantity and approximate location of the reinforcement in the concrete. Once the larger area of unsound concrete have been removed, a smaller chipping hammer should be used to remove the concrete in the vicinity of the reinforcement. Care should be taken not to vibrate the reinforcement or otherwise cause damage to its bond to concrete adjacent to the repair area. No reinforcing bar is to be cut or removed without the approval of the engineer. All weak, damaged, and easily removable concrete should be chipped away. If the reinforcing bars are only exposed after all unsound concrete is removed, it may not be necessary to remove additional concrete to expose the full circumference of the reinforcement. When the exposed reinforcing steel has loose rust, corrosion products, or is not well bonded to the surrounding concrete, the concrete removal should continue to create a clear space behind the

reinforcing steel of 6 mm (0.25 in.) , plus the dimension of the maximum size aggregate of the repair material.

3) Application of concrete penetrating corrosion inhibitor on concrete surface:

Carry out application of 'Bi-polar migratory corrosion inhibitor on concrete surface by brush in two coats. This inhibitor has migratory kind of property which permits the materials to migrate to a virtual extent of 60 mm, through pores of concrete, inhibiting the corrosion and de-passivating the electro-chemical reaction. It has property to attack anode as well as cathode, which is purely alkaline in nature (pH-9.5), so it has no carcinogen activity with concrete. Material shall have evaluated test reports indicating significant reduction in corrosion rate indicative of its suitability for tropical applications. Grout 50 to 75 mm deep holes at the spacing of 350 mm c/c with the dosing of 100 ml per hole in concrete body.

4) Providing Additional Reinforcing Steel :

Makeup lost steel area due to corrosion by providing additional steel reinforcement. The steel shall confirm to IS 1786 grade Fe500D. Anchor the steel rebar in sound concrete body up to desired depth by structural GRADE adhesive. Fixing of rebars is to be with pre left binding wires with existing steel at regular grid after aligning concrete profile with new mortar up to existing steel face.

4 Strengthening the Columns, Beams & Slabs

i) Making Up Lost Strength of Core Concrete by Low Viscosity Monomer:

Make up to lost strength of core concrete shall be with grouting of low viscosity (2-5cps- as per ASTM-D-2196) monomer. This is a low viscous high molecular weight thermosetting polymer. Due to its low viscosity it effectively fills up all micro-cracks and voids up to full depth of concrete. Beside enhancing existing binding matrix this shall also enhance in ductility property of elements.

Description of Grout:

- Drilling of holes 12 mm dia. And about 1/3 rd of element deep into concrete along the cracks or in honey combed and deteriorated areas, fix the perforated nozzles, and seal the sides with Epoxy sealant.
- Epoxy sealant: This is a non-shrink sealant. It is built in resilience to absorb impact and movements in joints.
- Inject very low viscous injection resin into pre-drilled nozzles at a pressure of 4 kg/cm² using compressed air and injecting gun. Seal the nozzles with epoxy after injection is completed.

- ii) **Grouting of Structural Cracks by Low Viscosity Epoxy Grout:** Grout the wide structural cracks in the concrete by grouting of low viscosity grout (200 cpc as per ASTM-D-2196). Cut a V-groove along the crack of proportionate size. Drill the holes along the crack at desired spacing. Seal the remaining portion by no-shrink epoxy putty to avoid any leakages of grout material. Grout the low viscosity material through epoxy injection gun under pressure of 3 to 4 kg/ cm². Cut and seal the nozzles after 24 hrs of application of grouting.

iii) Sectional Reconstruction in Excessively Damaged Concrete in Structural Elements

a.) Bonding Coat:

Bond between new and old concrete is important aspect for effective participation of total cross sectional area of concrete. Selection of type of bond coat is based on, type of stresses bond strata is expected to go, and prevailing area where application is to be carried. After the various pre-treatment apply liberal quantity of bond coat on cleaned concrete surfaces as per the detailed manufacture's procedure. Ensure that the application of new concreting is carried out during the pot life of material.

b.) Making up lost- section with free flow micro concrete:

For replacing the carbonated part of concrete and repairing the damaged surface of concrete, fix the form work across the profile of damaged structural element. Pour the free flow concrete mix in the form work. Makeup concrete is based on type of structural element and its location. For large replacement of damaged concrete the free flow type of micro-concrete can be used. For small patch works the latex modified mortars can be used.

c.) Making up lost- section with latex modified mortar:

Makeup mortar is based on type of structural element and its location. Here following type of modified mortars are recommended.

Modified mortar:

For replacing the carbonated part of concrete and repairing the damaged surface of concrete usage of following formulated mortar is recommended.

Mix:

- Cement: 50 Kg

- Sand: 150 Kg
- Monobond: 2.5 to 5 kg
- Water: 15-20 Liters.

5. Strengthening of the member using E-Glass or Carbon fiber wrapping: Methodology for wrap System- Fiber Wrapping Technique:

The fiber wrapping technique of retrofitting is relatively new technique. It has got certain wrapping technique of retrofitting is relative ease for application, high strength to weight ratio, energy, and time saving, clean and noise free application, high strength to weight ratio, energy, and time saving, clean, and noise free application. The fiber wrapping system offers resistance to corrosion of reinforcement also. The fiber wrap skin acts as a deterrent to environmental degradation. It also has tailorability to adapt to any shape of substrate concrete.

The following are the steps taken for Fiber Wrapping:

1. The contact surface of concrete element shall not have free moisture at the time of application.
2. All bare concrete surfaces to be strengthened shall be primed with epoxy primer using a roller brush. Any surface concavity is to be filled by epoxy or other suitable putty.
3. Apply saturate epoxy on the surface.
4. Stretch unidirectional glass fiber over the surface and press by rollers to squeeze out the saturant through the fabric. Air bubbles are also removed due to this operation. ... indicated the general direction of fiber for beams in flexure and shear, and columns in confinement. The wrapping around the beam-column joints are shown....
5. The fibers of the composite shall be lapped at least 150 mm in the direction of fiber between adjacent layers.
6. The process is repeated (steps 6- 7) for application of second layer.
7. For the elements exposed to sun light, a sealer coat may be applied on the wrap.

Protective Measure against Deterioration of building due to corrosion of Reinforcement:

The following treatment is general is recommended for the affected concrete members:

- The loose and disintegrated concrete be removed.
- The concrete surface should be thoroughly scrubbed by hard steel wire brush to ensure that no loose mortar, disintegrated concrete or concrete lumps are left. The scrubbed surface should then be cleaned by washing with water and made free of dust particles. Preferably by blowing air under pressure.
- Apply the bond coat of Epoxy coating on the entire surface, to have proper bond in between the old concrete and mortar.
- Make the column with polymer modified cement mortar when the bond coat is tacky. Cement: sand mortar (1:3) used shall have 20% acrylic emulsion by weight of cement. It shall be cured for 7 days by sprinkling water.
- In case the concrete member is in good condition but there are small cracks or undulations, the cracks, joints, or undulations are repaired using epoxy sealant .

The Following is the Detailed Procedure for Fiber Wrapping:

1. Structure Preparation:

Basic repairs must be made to the structure prior to strengthening with FRP. Spelled concrete removed, Corroded or damaged steel addressed major cracks injected. Build the surface with polymer modified mortar or micro concrete.

2. Surface Preparation:

The surface to be repaired is typically rubbed off to smooth out irregularities remove contaminants and radius sharp corners. This can be performed by shot or sand blasting, water jet or grinder

3. Primer:

In order to promote adhesion and prevent the surface from drawing resin from the FRP, a low viscosity epoxy primer is applied with a roller until the substrate is locally saturated.

4. Putty

Adhesive, high viscosity putty is applied when necessary to the surface to fill in 'bug holes' offset or voids.

5. Cutting Fabric:

In a clean area away from the resins, the fabric is carefully measured and cut in accordance with the specifications.

6. Saturating Fabric:

On large, high volume projects, the fabric can be saturated using custom saturator. For lower volumes and

shorter strips, the fabric can be either saturated on a table, or the surface can be coated with resin and the dry fabric applied.

7. Applying Fabric:

The pre-wetted, or dry, fabric is carefully laid onto the surface and smoothed out to remove air bubbles and ensure that the fibers are straight.

8. Quality Control Monitoring:

During the cure, 2 to 6 hours depending on ambient conditions, the fabric is checked to ensure that all air bubbles are removed and that the fabric is not sagging.

9. Applying Second Saturate Coat & Sand Pasting:

After inspection of wrapped fiber apply second coat of saturate on wrap and apply subsequent layer as per design. Apply coarse river sand if wrapping is followed by plastering or POP when second coat becomes tacky.

10. Applying Bond Coat & Plastering:

Apply compatible bond coat on wrapped surfaces and carrying out plastering with rich cement mortar.

11. Applying Top Coat For Exposed Surface:

Apply compatible UV resistant polyurethane top coat on wrapped surfaces in case of wrapping surfaces are exposed to direct sun light and wrapped surfaces are not plastered.

Repair Methodology-2:

This repair methodology is for the columns whose damage level is classified as ‘‘Mild’’ and ‘‘Moderate’’, which includes:

1. Supporting the structure.
2. Removal of unsound concrete from the affected area,
3. Protective treatment to the existing steel reinforcement.
4. Addition of the reinforcing steel, if required.
5. Building up the columns with high strength free flow micro concrete,
 1. In the above methodology the steps: I, ii, iii and iv are the same as that explained in Repair ‘‘Methodology-1’’,
 2. Here jacketing of the columns is recommended with high strength free flow micro-concrete (strength not less than 50 MPa) right from the foundation level to make up the concrete that lost due delamination or chipping.
 3. The specification for this micro-concrete are explained in
 4. Fiber wrapping is not required for the columns whose damaged is classified as ‘‘Mild’’ and ‘‘Moderate’’.

LIST OF APPROVED MAKES FOR CIVIL WORK

S. No.	Description	Approved Makes
1.	Cement (Grey) OPC/ PPC	ACC / Ultratech/ J.K. / BIRLA/ J.P./ Vikram
2.	Cement (White)	J.K. / BIRLA
3.	Reinforcement Steel	PRIMARY MANUFACTURERS APPROVED BY MINISTRY OF STEEL / SECONDARY MANUFACTURERS HAVING VALID BIS LICENSE (to be as per latest BIS provisions)
4.	Structural Steel	PRIMARY MANUFACTURERS APPROVED BY MINISTRY OF STEEL / SECONDARY MANUFACTURERS HAVING VALID BIS LICENSE (to be as per latest BIS provisions)
5.	Stainless steel (Grade 304)	Jindal / SAIL / Salem
6.	Bricks	COMMERCIALY AVAILABLE OR REQUIRED STRENGTH
7.	Aluminum Sections	HINDALCO / JINDAL / MAHAVIR
11.	Stainless Steel Nuts Bolts / Screws	KUNDAN / PUJA / ATUL / GKW
12.	Paint / primer / oil bound distemper Acrylic paint	1 st QUALITY PAINTS OF ASIAN / BERGER / NEROLAC / AKZONOBAL INDIA (ICI)
13.	Water Proof. Cement Paint	SNOWCEM / ASIAN PAINTS / BERGER / NEROLAC / ICI / Sika
14.	CI Pipes / Fittings & Manhole covers	RIF / NECO / BENGAL IRON WORKS / BC / SKF
15.	CI Pipes "Class LA"	NICO / KESORAM / ELECTRO STEEL / KAPILANSH
16.	Water proofing compound	FOSROC/ Sika/ BASF/ PIDILITE/ Krishna Conchem
17.	Polymer Compound	FOSROC/ Sika/ BASF/ PIDILITE/ Krishna Conchem
18.	Rust Remover / Rust converting primer	FOSROC/ Sika/ BASF/ PIDILITE/ Krishna Conchem
19.	Polymer based zinc rich primer	FOSROC/ Sika/ BASF/ PIDILITE/ Krishna Conchem
20.	Anticorrosive Treatment	FOSROC/ Sika/ BASF/ PIDILITE/ Krishna Conchem
21.	Concrete penetrating Hi-tech corrosion inhibitor system	FOSROC/ Sika/ BASF/ PIDILITE/ Krishna Conchem
22.	Thixotropic Epoxy repair mortar	FOSROC/ Sika/ BASF/ PIDILITE/ Krishna Conchem
23.	Latex	FOSROC/ Sika/ BASF/ PIDILITE/ Krishna Conchem
24.	Low Viscous epoxy resin grout	FOSROC/ Sika/ BASF/ PIDILITE/ Krishna Conchem
25.	Epoxy Resin for concrete Bond coat	FOSROC/ Sika/ BASF/ PIDILITE/ Krishna Conchem
26.	Pre-batched non-shrink polymer modified mortar	FOSROC/ Sika/ BASF/ PIDILITE
27..	Non- Shrink Micro Concrete	FOSROC/ Sika/ BASF/ PIDILITE
28.	Non metallic compiste fiber wrapping system	FOSROC/ Sika/ BASF/ PIDILITE
29.	Epoxy for Rebar/ Shear Anchor	FOSROC/ Sika/ BASF/ Hilti/ Fischer
30.	Tile Adhesive	PIDILITE / BALENDURA / FERROUSCRETE/ Sika
31.	Wall Putty	BIRLA / JK / FERROUSCRETE/ Sika
32.	Epoxy Grout/	FOSROC/ Sika/ BASF/ PIDILITE/ Krishna Conchem

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INDIAN INSTITUTE OF TECHNOLOGY: NEW DELHI
HAUZ KHAS: NEW DELHI
ADDITIONAL CONDITIONS

1. Non Judicial stamp paper worth Rs. 10/- (Ten Rupees only) will be submitted by contractor which will have to be signed as token of acceptance.
2. No T & P would be supplied by the Institute and contractor will have to make his own arrangement.
3. The contractors are advised to get acquainted with the proposed work including specifications & its site and additional conditions carefully before quoting. No claim of any sort shall be entertained or account of any site conditions and ignorance of specifications & additional conditions. The work shall be carried out as per the availability of site.
4. The work shall be carried out as per CPWD specifications for civil and electrical work with up – to date correction slips unless otherwise specified in the nomenclature of individual item or in the specification, additional conditions where specifications are silent, the decision of Engineer-in-Charge shall be final and binding on contractor.
5. The rates quoted by the contractor shall be taken as net and nothing extra shall be paid on any account i.e Royalty, Cartage, GST & stacking of material required at places etc. The rates for different items of work shall apply for Heights & Depths, Leads & Lifts unless otherwise specified in the agreement or specifications applicable in the agreement. Scaffolding, Jhula, ladders etc. to carryout works at all heights/Lifts shall be arranged by the contractor at his own cost. Nothing extra shall be paid on these accounts.
6. Any damage done by the contractor to any existing item / any part of the building during the course of execution of work shall be made good by at his own cost.
7. Articles manufactured by the reputed firms and approved by Engineer-in-Charge shall only be used. Only articles classified as “**First quality**” by the manufacturer shall be used unless otherwise specified.
8. The sample of material required in the work brought at site shall be got approved from Engineer –in-Charge before use in execution of work.
9. The sample of material required for Testing shall be provided at free of cost by the contractor. Testing charges if any shall be borne by the IITD if satisfactory report and if test results are unsatisfactory than testing charges shall be deducted from bills of contractor. All other expenditure to be incurred for taking sample, conveyance, packing etc. shall be borne by the contractor.
10. The contractor shall submit a detailed program of work within 7 days of the date of award of work. The Engineer – in- Charge can modify the program and the contractors have to work accordingly.
11. The contractor shall make his own arrangement for getting the permission with respect to trucks from the Traffic Police.
12. No payment shall be made to contractor for any damage caused by the rain, snowfall or any other natural causes what so ever during the execution of work.
13. Some restrictions may be imposed by the security staff of IIT Delhi etc. on the working and or movement of labour& material. **No labour camp/ huts shall be allowed in IIT Campus. The contractor shall make his own arrangement for labour huts outside the campus.** However constructions of cement godown and Chowkidar’s hut in the Campus shall be permitted. The contractor shall be bound to follow all such restrictions/ instructions and nothing shall be payable on this account.
14. The contractor shall be fully responsible for the safe custody of the material issued or brought at site by him for doing the work.
15. The Malba / Garbage generated at site due to construction activities shall be removed from the site immediately & shall be disposed off by the contractor to the approved dumping site of MCD and all statutory approvals from local bodies shall be a sole responsibility of contractor.
16. The contractor shall clean the site thoroughly of scaffolding materials, rubbish, equipment’s left out of his work & dress the site around the building to the complete satisfaction of the Engineer-in-Charge before the work is treated as completed.
17. Contractor has to quote against the item of schedule of credit of material. The contractor cannot quote either minus rate or Zero rate for these items.
18. Income tax and other taxes as applicable shall be deducted from the bills of contractor.
19. 1% labourcess or as applicable will be deducted from the bills of contractor.
20. Water charges @1% and Electricity charges @0.50% of gross work done shall be deducted from bills of contractor if electricity and water provided by IIT Delhi.
21. Agency has to take proper safety major during the execution of work.

22. **GCC for 7/8 shall form part of NIT and the bidder shall go through GCC before quoting rates and the same shall be deemed to be accepted by bidder if he participates in the tender.**
23. ESI & EPF shall be reimbursed as per norms on production of original receipt of ESI & EPF from contractor specific to this work. .
24. The contractor shall submit the programmer of execution of work as per clause 5 of GCC of IIT form 7/8 of NIT including list of workers to be deployed by contractor for this work.
25. GST Registration.
26. Contractor shall be responsible for keeping site free of any kind of mosquito breeding. If it is found that breeding is taking place the entire responsibility shall be of contractor to bear challan etc. done by local bodies.
27. Work shall be executed as per the Architectural drawings and instructions of retainer Architect or his representatives. The Architectural drawing and instruction of Architect shall be strictly adhered.
28. For item of water proofing Guarantee Bond shall be submitted by contractor as per format provided by IIT Delhi.

SPECIAL TERMS& CONDITONS FOR STRUCTURAL REPAIR

1. The contractor shall give performance test for the entire installation (S) as per the specifications in presence of Engineer-in-charge or his authorized representative before the work is finally accepted and nothing extra what-so-ever shall be payable to the contractor on this account.
2. A Performance guarantee is to be given by contractor for its satisfactory performance for 5yrs as per format attached.
3. Chemicals from specified companies only should be used and precautions and mix proportions specified by the manufacturer should be adhered to.
4. All the chemical to be used shall have shelf life of one year. Old/expiry date material shall not be used for any repair.
5. Contractor shall depute technically competent person for executing the job at site.
6. The rate of each item shall include, clearing the existing treatment, surface preparation, and application of fresh treatment, as per the relevant procedure.
7. All the malba shall be disposed by the contractor to the dumping ground approved by the MCD/NDMC or as directed by the Engineer-in-charge. The site shall be kept neat and clean during and after the completion of the work.
8. The dismantling/demolishing where required shall be done in manner that no other portion of the building or its fixture or the existing flooring is damaged. In the event of any such damage, the same shall be made good by the contractor at his own cost and no claim whatsoever will be entertained on this account.
9. The contractor has to submit fortnightly labour reports mandatory.
10. The contractor shall conduct his work, so as not to interfere with or hinder the progress for completion of the work being perform by other contractor (S) or by The Engineer-in-charge.

GUARANTEE TO BE EXECUTED BY CONTRACTOR FOR REMOVAL OF DEFECTS AFTER

C----NIL

I----NIL

O-----NIL

D'Man/AEE(C)

E.E.(P)

COMPLETION IN RESPECT OF RETROFITTING WORKS

The Agreement made this day of Two thousands and between
 Son of of(hereinafter called the Guarantee of the part) and the BOG IITD
 (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 building and structures in the sid contract recited
 completely rehabilitated.

NOW THE GUARANTOR hereby guarantees that repair and rehabilitated given by him will render
 the structures completely in sound condition and the minimum life to such rehabilitation work shall be ten
 years to be reckoned from the date after the maintenance period prescribed in the contract.

Provided that the guarantor will not be responsible for damaged caused by earthquake or structural
 defects or misuse of building or alteration and for such purpose.

- a) Misuse of building shall mean any operation which will damage rehabilitation work, like chopping of;
- b) Alteration shall mean construction of an additional storey or a part of the roof or construction
 adjoining to existing building whereby:

During this period of guarantee the guarantor shall made good all defects and in case of any defect being
 found, render the building in good condition 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 it GUARANTOR fails to executed the repair and rehabilitation work or commits breach
 thereunder then the GURANTOR will indemnify the Principal and his successors against all loss, damage
 cost expence or otherwise which may be incurred by him by reason of any default on the part of the
 GUARANTOR in performance and observance of this supplementary agreement. As to the amount of loss
 and / or damage and / or cost incurred by the Government the decision of the Engineer-in-charge will be final
 and binding on the parties.

IN WITNESS WHERE OF these present have been executed by the obligator..... and by
 And for the and behalf of the BOG IITD on the day, month and year first above writer,
 Signed, sealed and delivered by OBLIGOR in the presence of-

- 1.
- 2.

Singed for and on behalf of THE BOG IITD by in the presence of –

- 1.
- 2.

WATER PROOFING GURANTEE BOND.

THE AGREEMENT made this day of Two thousands..... between..... son of(hereinafter called the Guarantor of the one part) and the B.O.G IIT Delhi (hereinafter called the Government of the other part).

WHEREAS THIS agreement is supplementary to the contract (hereinafter called the Contract) Dated..... and made between the Guarantor of the one part and Government of the other part, whereby the Contractor, inter alia, undertook to render the buildings and structures in the said Contractor recited, completely water and leak-proof.

AND WHEREAS THE GUARANTOR agreed to give a guarantee to the effect that the said structure will remain water and leak-proof for Five years from expiry of maintenance period.

PROVIDED 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 of 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 may defect being found he shall render the building water-proof to the satisfaction of the Engineer-in-charge at his cost and shall commence the works of such rectification within seven days from date of issuing notice from the Engineer-in-charge calling upon him to rectify the defects, failing which the work will 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 fail to execute the water proofing or commits breaches hereunder 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 on the part of the GUARANTOR in performance and observance of this supplemental 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 present have been executed by the Obligorand by), IIT Delhi and for and on behalf of the **B.O.G. IIT Delhi** 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 B.O.G. IIT Delhi by in the presence of.

- 1.

Executive Engineer (P)
For & on behalf of the Board of Governors, IIT Delhi

IITD -2010 CORRECTION SLIPS

	Existing	Modified
Reference	Existing Provision	Modified Provision
Clause 3 (vii)	If the contractor shall obtain a contract with Government as a result of wrong tendering or other non-bonafide methods of competitive tendering.	If the contractor had secured the contract with Government as a result of wrong tendering or other non-bonafide methods of competitive tendering or commits breach of Integrity Agreement.
Reference	Existing Provision	Modified Provision
<u>Deviations /variation extent and pricing</u>	<u>CLAUSE 12</u> The Engineer-in-Charge shall have power (i) to make alteration in, omissions from, additions to, or substitutions for the original specifications, drawings, designs and instructions that may appear to him to be necessary or advisable during the progress of the work, and (ii) to omit a part of the works in case of non-availability of a portion of the site or for any other reasons and the contractor shall be bound to carry out the works in accordance with any instructions given to him writing signed by the Engineer-in-Charge and such alterations, omissions, additions or substitutions shall form part of the contract as if originally provided therein and any altered, additional or substituted work which the contractor may be directed to do in the manner specified above as part of the works, shall be carried out by the contractor on the same conditions in all respects including price on which he agreed to do the main works except as hereafter provided.	<u>CLAUSE 12</u> The Engineer-in-Charge shall have power (i) to make alteration in, omissions from, additions to, or substitutions for the original specifications, drawings, designs and instructions that may appear to him to be necessary or advisable during the progress of the work, and (ii) to omit a part of the works in case of non-availability of a portion of the site or for any other reasons and the contractor shall be bound to carry out the works in accordance with any instructions given to him writing signed by the Engineer-in-Charge and such alterations, omissions, additions or substitutions shall form part of the contract as if originally provided therein and any altered, additional or substituted work which the contractor may be directed to do in the manner specified above as part of the works, shall be carried out by the contractor on the same conditions in all respects including price on which he agreed to do the main works except as hereafter provided. The completion cost of any agreement for Maintenance works including works of upgradation, aesthetic, special repair, addition/ alteration shall not exceed 1.25 times of Tendered amount.
<u>Deviations /,Extra items, pricing</u>	12.2 In the case of extra items (items that are completely new and are in addition to the items contained in the contract), the contractor may within 15 days of receipt of order or occurrence of the item(s) claim rate, supported by proper analysis, for the work and the Engineer-in-charge shall within one month of the receipt of the claims supported by analysis after giving considerations to the analysis of the rates submitted by the contractor, determined the rates on basis of market rates and the contractor shall be paid in accordance with the rates so determined.	12.2 A. For Project and original works: In the case of extra items (items that are completely new and are in addition to the items contained in the contract), the contractor may within 15 days of receipt of order or occurrence of the item(s) claim rate, supported by proper analysis, for the work and the Engineer-in-charge shall within one month of the receipt of the claims supported by analysis after giving considerations to the analysis of the rates submitted by the contractor, determined the rates on basis of market rates and the contractor shall be paid in accordance with the rates so determined. B. For Maintenance ^{F.F.(P)} including works of upgradation, aesthetic, special repair, addition/ alteration: In the case of Extra Item(s) being the
C----NIL	I----NIL	O-----NIL
	D'Man/AEE(C)	

		<p>schedule items (Delhi Schedule of Rates items), these shall be paid as per the schedule rate plus cost index (at the time of tender) plus/minus percentage above below quoted contract amount. Payment of Extra items in case of non-schedule items (Non-DSR items) shall be made as per the prevailing market rate.</p>
<p><u>Deviations, Substituted items, pricing</u></p>	<p>In the case of substituted items (items that are taken up with partial substitution or lieu of items of work in the contract), the rate for the agreement item (to be substituted) and substituted item shall also be determined in the manner as mentioned in the following Para.</p> <p>(a) If The market rate for the substituted item so determined is more than the market rate of the agreement item (to be substituted), the rate payable to the contractor for the substituted item shall be the rate for the agreement item (to be substituted).</p> <p>(b) If the market rate for the substituted item so determined is less than the market rate of the agreement item (to be substituted), the rate payable to the contractor for the substituted item shall be the rate for the agreement item (to be substituted) so decreased to the extent of the difference between the market rates of substituted item and the agreement item (to be substituted)</p>	<p>A. For Project and original works: In the case of substituted items (items that are taken up with partial substitution or lieu of items of work in the contract), the rate for the agreement item (to be substituted) and substituted item shall also be determined in the following Para.</p> <p>(a) If The market rate for the substituted item so determined is more than the market rate of the agreement item (to be substituted), the rate payable to the contractor for the substituted item shall be the rate for the agreement item (to be substituted).</p> <p>(b) If the market rate for the substituted item so determined is less than the market rate of the agreement item (to be substituted), the rate payable to the contractor for the substituted item shall be the rate for the agreement item (to be substituted) so decreased to the extent of the difference between the market rates of substituted item and the agreement item (to be substituted)</p> <p>B. For Maintenance including works of upgradation, aesthetic, special repair, addition/ alteration: In the case of Substitute Item(s) being the schedule items (Delhi Schedule of Rates items), these shall be paid as per the schedule rate plus cost index (at the time of tender) plus/minus percentage above below quoted contract amount. Payment of Extra items in case of non-schedule items (Non-DSR items) shall be made as per the prevailing market rate.</p>
<p><u>Deviations, Deviated Quantities, pricing</u></p>	<p>In the case of contract items, substituted items, contract cum substituted items, which exceed the limits laid down in schedule F, the contractor may within fifteen days of receipt of order or occurrence of the excess, claim revision of the rates, supported by proper analysis for the work in excess of the above mentioned limits, provided that if the rates so claimed are in excess of the rates specified in the schedule of quantities, the Engineer-in-Charge shall within one</p>	<p>A. For Project and original works: In the case of contract items, substituted items, contract cum substituted items, which exceed the limits laid down in schedule F, the contractor may within fifteen days of receipt of order or occurrence of the excess, claim revision of the rates, supported by proper analysis for the work in excess of the above mentioned limits, provided that if the</p>

	<p>month of receipt of the claims supported by analysis, after giving consideration to the analysis of the rates submitted by the contractor, determine the rates on the basis of the market rates and the contractor shall be paid in accordance with the rates so determined.</p>	<p>rates so claimed are in excess of the rates specified in the schedule of quantities, the Engineer-in-Charge shall within one month of receipt of the claims supported by analysis, after giving consideration to the analysis of the rates submitted by the contractor, determine the rates on the basis of the market rates and the contractor shall be paid in accordance with the rates so determined.</p> <p>B. For Maintenance including works of upgradation, aesthetic, special repair, addition/ alteration:</p> <p>In the case of contract items, which exceed the limit laid down in schedule F, the contractor shall be paid rates specified in the schedule of quantities.</p>
	<p>12.3 The provisions of the preceding paragraph shall also apply to the decrease in the rates of items for the work excess of the limits laid down in Schedule F, and the Engineer-in-Charge shall after giving notice to the contractor within one month of occurrence of the excess and after taking into consideration any reply received from him within fifteen days of the receipt of the notice, revise the rates for the work in question within one month of the expiry of the said period of fifteen days having regard to the market rates.</p>	<p>12.3 A. For Project and original works:The provisions of the preceding paragraph shall also apply to the decrease in the rates of items for the work excess of the limits laid down in Schedule F, and the Engineer-in-Charge shall after giving notice to the contractor within one month of occurrence of the excess and after taking into consideration any reply received from him within fifteen days of the receipt of the notice, revise the rates for the work in question within one month of the expiry of the said period of fifteen days having regard to the market rates.</p> <p>B. For Maintenance including works of upgradation, aesthetic, special repair, addition/ alteration:</p> <p>In the case of decrease in the rates Prevailing in the market of items for the the work excess of the limits laid down in Schedule F, and the Engineer-in-Charge shall after giving notice to the contractor within one month of occurrence of the excess and after taking into consideration any reply received from him within fifteen days of the receipt of the notice, revise the rates for the work in question within one month of the expiry of the said period of fifteen days having regard to the market rates.</p>
	<p>14.The Tender of the work shall remain open for acceptance for a period of ninety (90) days from the date of opening of tenders / ninety days from the date of opening of financial bid in case Tenders are invited on 2/3 envelope system (strike out as case may be) if any Tenderer withdraws his tender before the said period or issue of letter of acceptance of acceptance, whichever is earlier or makes any modifications in the terms and conditions of the tender which are not acceptable to th department, then the Government shall, without prejudice to any other right or remedy, if the said earnest money as aforesaid, Further the tenderer shall not be allowed to participate in the retendering process of the work.</p>	<p>CPWD-6</p> <p>14.The Tender of the work shall remain open for acceptance for a period of ninety (90) days from the date of opening of tenders / Ninety days from the date of opening of Technical bid in case Tenders are invited on 2 envelope system / 120 days from the date of opening of Technical bids bids in case tenders are invited for specialized works on 3 envelope system (strike out as case may be) if any Tenderer withdraws his tender before the said period or issue of letter of acceptance of acceptance, whichever is earlier or makes any modifications in the terms and conditions of the tender which are not acceptable to the department, then</p>

		the Government shall, without prejudice to any other right or remedy, if the said earnest money as aforesaid, Further the tenderer shall not be allowed to participate in the retendering process of the work.
	<p>11. The contractor whose bid is accepted will be required to furnish performance guarantee of 5% (Five Percent) of the bid amount within the period specified in Schedule F. This guarantee shall be in the form of cash (in case guarantee amount is less than Rs. 10000/-) or Deposit at call receipt of any scheduled bank /Banker's cheque of any scheduled bank/ Demand Draft of any scheduled bank/ Pay Order of any Scheduled Bank of any Scheduled bank (in case guarantee amount is less than Rs. 1,00,000/-) or Government Securities or Fixed Deposit Receipts or Guarantee Bonds of any Scheduled Bank or the State Bank of India in accordance with the prescribed form. In case the contractor fails to deposit the said performance guarantee within the period as indicated in Schedule 'F', including the extended period if any, the Earnest Money deposited by the contractor shall be forfeited automatically without any notice to the contractor. The earnest money deposited along with bid shall be returned after receiving the aforesaid performance guarantee.</p>	<p>11. The contractor whose bid is accepted will be required to furnish performance guarantee of 5% (Five Percent) of the bid amount within the period specified in Schedule F. This guarantee shall be in the form of cash (in case guarantee amount is less than Rs. 10000/-) or Deposit at call receipt of any scheduled bank /Banker's cheque of any scheduled bank/ Demand Draft of any scheduled bank/ Pay Order of any Scheduled Bank of any Scheduled bank (in case guarantee amount is less than Rs. 1,00,000/-) or Government Securities or Fixed Deposit Receipts or Guarantee Bonds of any Scheduled Bank or the State Bank of India in accordance with the prescribed form. In case the contractor fails to deposit the said performance guarantee within the period as indicated in Schedule 'F', including the extended period if any, the Earnest Money deposited by the contractor shall be forfeited automatically without any notice to the contractor. The earnest money deposited along with bid shall be returned after receiving the aforesaid performance guarantee.</p> <p>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 and Programme Chart (Time and Progress) Within the period specified in schedule in Schedule F.</p>
	No Provision	No Running Account Bill shall be paid for the work till the applicable labour licenses, registration with EPFO, ESIC and BOCW Welfare Board, Whatever applicable are submitted by the contractor to the Engineer-in-Charge.
	The contractor shall obtain a valid license under the Contract Labour (R&A) Act, 1970 and the Contract Labour (Regulation and Abolition) Central Rules, 1971 before the commencement of the work, and continue to have a valid license until completion of the work.	The contractor shall obtain a valid license under the Contract Labour (R&A) Act, 1970 and the Contract Labour (Regulation and Abolition) Central Rules, 1971 before the commencement of the work, and continue to have a valid license until completion of the work.

		The contractor shall also comply with provisions of the Inter-State Migrant Workmen (Regulation of Employment and Conditions of Service) Act, 1979.
	(i)Time allowed for submission of performance Guarantee from the date of issue of letter of acceptance.....days.	(i)Time allowed for submission of performance Guarantee , Programme Chart (Time and Progress) and applicable labour licenses, registration with EPFO, 'ESIC and BOCW Wefare Board or proof of applying thereof from the date of issue of letter of acceptance.....days.
	No Provision	Whether Clause 7A Shall be Applicable Yes
	14. The Tender of the work shall remain open for acceptance for a period of ninety (90) days from the date of opening of tenders / ninety days from the date of opening of financial bid in case Tenders are invited on 2/3 envelope system (strike out as case may be) if any Tenderer withdraws his tender before the said period or issue of letter of acceptance of acceptance, whichever is earlier or makes any modifications in the terms and conditions of the tender which are not acceptable to th department, then the Government shall, without prejudice to any other right or remedy, if the said earnest money as aforesaid, Further the tenderer shall not be allowed to participate in the retendering process of the work.	<u>CPWD-6</u> 14. The Tender of the work shall remain open for acceptance for a period of ninety (90) days from the date of opening of tenders / Ninety days from the date of opening of Technical bid in case Tenders are invited on 2 envelope system / 120 days from the date of opening of Technical bids bids in case tenders are invited for specialized works on 3 envelope system (strike out as case may be) if any Tenderer withdraws his tender before the said period or issue of letter of acceptance of acceptance, whichever is earlier or makes any modifications in the terms and conditions of the tender which are not acceptable to the department, then the Government shall, without prejudice to any other right or remedy, if the said earnest money as aforesaid, Further the tenderer shall not be allowed to participate in the retendering process of the work.

BID SUBMISSION

ONLINE BID SUBMISSION

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

Envelope – 1 (Following documents to be provided as single PDF file)			
Sl. No.	Documents	Content	File Types
1.	Technical Bid	Scanned copy /Online Payment of EMD	.PDF
2.		Certificate of authorized applicator ship of approved construction chemical manufacturing company	.PDF
3.		Attested certificate of work experience.	.PDF
4.		Certificate of Registration of GST and acknowledgment of up to date field return of GST.	.PDF
5.		Affidavit as per Notice Inviting Tender condition 1.2.2 of IITD-6 of NIT to be submitted on stamp paper.	.PDF
6.		Acceptance to execute INTEGRITY PACT.	.PDF
7.		Undertaking as per tender notice on firm's letter head if the scan copy of EMD uploaded.	.PDF
8.		ESI and EPF Registration.	PDF
9		Proof of Tender Fee of Rs.1500/-	.PDF
10.		FORM "F" (Duly filled with all required details	.PDF
11.		Affidavit/ Certificate from C.A of last 3 years(2015-16, 2016-17, 2017-18) financial turn over.	.PDF
12		Solvency certified his banker.	.PDF
13		Manufacturer undertaking as per serial No. 7/Page-5	PDF
Envelope – 2			
Sl. No.	TYPES	Content	
1.	Financial Bid	Price bid should be submitted in BOQ format.	.Xls

All above documents shall be as per Tender Notice.

Name of Work :- Special Structural repair 72 Nos. A Type Houses (A-7, A-10, A-11 & A-17 Blocks) in East Campus at IIT Delhi.

Sub Head :- Special Structural Repair

S. No.	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
1	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.				
1.1	All kinds of soil.	105.00	Cum		
2	Filling available excavated earth (excluding rock) in renches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	88.00	Cum		
3	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :				
3.1	1:4:8 (1 Cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size)	1.50	Cum		
4	Centering and shuttering including strutting, propping etc. and removal of form for :				
4.1	Foundations, footings, bases of columns, etc. for mass concrete	52.00	Sqm		
5	Providing and laying damp-proof course 40 mm thick with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 12.5 mm nominal size).	6.00	Sqm		
6	Extra for providing and mixing water proofing material in cement concrete work in doses by weight of cement as per manufacturer's specification.	2.00	Per 50 Kg. Cement		

7	Reinforced cement concrete work in beams, suspended floors, roofs having slope up to 15° landings, balconies, shelves, chajjas, lintels, bands, plain window sills, staircases and spiral stair cases above plinth level up to floor five level, excluding the cost of centering, shuttering, finishing and reinforcement, with 1:1.5:3 (1 cement : 1.5 coarse sand (zone-III) : 3 graded stone aggregate 20 mm nominal size).	12.00	Cum		
8	Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work, including pumping of R.M.C. from transit mixer to site of laying , excluding the cost of centering, shuttering finishing and reinforcement, including cost of admixtures in recommended proportions as per IS : 9103 to accelerate/ retard setting of concrete,improve workability without impairing strength and durability as per direction of the Engineer-in-charge. (Note :- Cement content considered in this item is @ 330 kg/cum. Excess/less cement used as per design mix is payable/recoverable separately)				
8.1	All works above plinth level upto floor V level	100.00	Cum.		
9	Centering and shuttering including strutting, propping etc. and removal of form for : (Note :- For pouring micro concrete special water proff shuttering will be used and joint will be sealed with the help of tape & POP putty rate of the shuttering shall be inclusive of all above and nothing Shall be paid extra for making special arrangement for pouring micro concrete in RC members)				
9.1	Suspended floors, roofs, landings, balconies and access platform	641.00	Sqm		
9.2	Lintels, beams, plinth beams, girders, bressumers and cantilevers	622.00	Sqm		
9.3	Columns, Pillars, Piers, Abutments, Posts and Struts	466.00	Sqm		
10	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete above plinth level.				
10.1	Thermo-Mechanically Treated bars	20359.00	Kg.		
11	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundation and plinth in:				

11.1	Cement mortar 1:4 (1 cement : 4 coarse sand)	9.00	Cum		
12	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level in all shapes and sizes in :				
12.1	Cement mortar 1:4 (1 cement : 4 coarse sand)	126.00	Cum		
13	Making khurras 45x45 cm with average minimum thickness of 5 cm cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate of 20 mm nominal size) over P.V.C. sheet 1 m x1 m x 400 micron, finished with 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) and a coat of neat cement, rounding the edges and making and finishing the outlet complete.	18.00	Each		
14	12 mm cement plaster of mix :				
14.1	1:4 (1 cement: 4 fine sand)	1629.00	Sqm		
14	15 mm cement plaster on the rough side of single or half brick wall of mix :				
14.1	1:4 (1 cement: 4 fine sand)	510.00	Sqm		
15	6 mm cement plaster of mix :				
15.1	1:3 (1 cement : 3 fine sand)	442.00	Sqm		
16	Pointing on brick work of brick flooring with cement mortar 1:3 (1 Cement: 3 Fine Sand)				
16.1	Flush/ Ruled/ Struck or weathered pointing	475.00	Sqm		
17	Providing and fixing double scaffolding system (cup lock type) on the exterior side, up to seven story height made with 40 mm dia M.S. tube 1.5 m centre to centre, horizontal & vertical tubes joining with cup & lock system with M.S. tubes, M.S. tube challies, M.S. clamps and M.S. staircase system in the scaffolding for working platform etc. and maintaining it in a serviceable condition for the required duration as approved and removing it there after .The scaffolding system shall be stiffened with bracings, runners, connection with the building etc wherever required for inspection of work at required locations with essential safety features for the workmen etc. complete as per directions and approval of Engineerin- charge .The elevational area of the scaffolding shall be measured for payment purpose .The payment will be made once irrespective of duration of scaffolding.	2814.00	Sqm		
18	Demolishing cement concrete manually/ by mechanical means including disposal of material within 50 metres lead as per direction of Engineer - in - charge.				

18.1	Nominal concrete 1:4:8 or leaner mix (i/c equivalent design mix)	21.00	Cum		
19	Demolishing R.C.C. work manually/ by mechanical means including stacking of steel bars and disposal of unserviceable material within 50 metres lead as per direction of Engineer - in- charge.	121.00	Cum		
20	Demolishing brick work manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge.				
20.1	In cement mortar	95.00	Cum		
21	Demolishing mud phaska in terracing and disposal of material within 50 metres lead.	112.00	Cum		
22	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.	700.00	Cum		
23	Chipping of unsound/weak concrete material from slabs, beams, columns etc. with manual Chisel and/ or by standard power driven percussion type or of approved make including tapering of all edges, making square shoulders of cavities including cleaning the exposed concrete surface and reinforcement with wire brushes etc. and disposal of debris for all lead and lifts all complete as per direction of Engineer-In-Charge				
23.1	75mm average thickness	492.00	Sqm.		
23.2	50mm average thickness	1630.00	Sqm.		
24	Cleaning of reinforcement from rust from the reinforcing bars to give it a total rust free steel surface by using alkaline chemical rust remover of approved make with paint brush and removing loose particles after 24 hours of its application with wire brush and thoroughly washing with water and allowing it to dry, all complete as per direction of Engineer-In-Charge.				
24.1	Bars upto 12 mm diameter	3097.00	Meter		
24.2	Bars above 12 mm diameter	1836.00	Meter		
25	Providing, erecting, maintaining and removing temporary protective screens made out of specified fabric with all necessary fixing arrangement to ensure that it remains in position for the work duration as required by the Engineer-in-charge.				
25.1	Wooven PVC cloth	2814.00	Sqm.		

26	Providing and erecting steel props (about 14' height, braced at centre and supporting at continuous 2" x 3" wooden runner, resting on wedge and block minimum capacity 3 ton) to support the structure provisionally during repair and jaketing etc. and maintaining them in position fill required and as direction by the Engineer-in-charge.	760.00	Each		
27	Providing and laying anticorrosive Treatment of Reinforcement by any approved make rebar corrosion protection system to existing reinforcement (The application shall be by brush). Process is to be complete as per the recommendation of manufacturer and direction of Engineer-in-charge. for payment exposed length of reinforcement will be measured. (Product - NITAZINC PRIMER of FOSROC / Friazinc® R of Sika/ MasterEmaco P 130 of BASF or equivalent of pidilite& Krishna Conchem).				
27.1	Bars Upto 12 mm diameter	3097.00	Mtr		
27.2	Bars above 12 m diameter	1836.00	Mtr		
28	Providing and applying of concrete penetrating Hi-tech corrosion inhibitor system of approved make that works on the Bipolar inhibition Mechanism (B.I.M.). B.I.M. inhibits corrosion of steel in concrete at the poles, catholic and anodic simultaneously on concrete surface. The process should be complete as per direction of Engineer-in-charge for payment area of finished concrete surface will be measured (Product - FOSROC/ Sika® FerroGard-903/ BASF/ Pidilite/ Krishna Conchem).	1016.00	Sqm		
29	Making 'V' groove of 5mm wide and 5mm deep over crack line by electrically operated angle grinder with diamond concrete saw blade and cleaning it by air blower as directed by Engineer-in-charge.	420.00	RM		
30	Sealing of exposed 'V' groove of 5mm deep and 5mm wide with solvent-free, moisture tolerant, thixotropic, two part structural adhesive and epoxy repair mortar cum surface levelling mortar the compressive strength of the epoxy repair mortar shall be ≥ 60 N/mm ² (14 Days) and Bond strength ≥ 10 N/mm ² (7 Days). (Product -NITOMORTAR S OF FOSROC/ Sikadur®- 31 of Sika/ MasterBrace 2200 BASF or equivalent of Pidilite) .	420.00	RM		
31	Driling and fixing NRV nozzles in RC members, including (fixing material : Renderoc Plug of Fosroc / Sikadur-31 of Sika/ MasterBrace 2200 of BASF or equivalent of Pidilite& Krishna Conchem).				

	Drilling Holes: Drilling 12 mm dia, 50 to 75 mm deep holes or upto required depth in structural members of the intervals of 350 mm in staggered manner or as directed by the Engineer-in-charge in RC structural elements.				
	Cleaning of holes: Clean the holes by air blower prior to fixing nozzles.				
	Fixing of Nozzles: Insert 12mm dia. NRV nozzles in cleaned holes. External end of nozzles to be machine to receive outlet of grouting gun. Fix it inside the holes by applying thytrotrophic epoxy putty to ensure complete sealing. Cure the system for min. 12 hrs.				
31.1	Cutting of Nozzles: Cut the nozzles by chisel after completion of grouting without damaging structural elements:	12656.00	Each		
32	Injecting/Grouting shrinkage free low viscosity epoxy resin grout in structural cracks, wherever required by pressure and using mechnaized injector gun with accessories till nozzles refused to accept the grout. Epoxy grout material should be conforming to ASTM-881-87 type I, grade I, class B & C and compressive strength of the material shall be ≥ 55 Mpa, (7 Days), Tensile strength ≥ 20 Mpa (14 Days) & Bond strength 10 Mpa (14 Days). (Low Viscous epoxy grout : conbextra EP10 of Fosroc/ Sikadur®-52 of Sika/ MasterInject 1315 of BASF or equivalent of Pidilite& Krishna Conchem).				
	Mixing of material : Mixing material components in required quantities as per manufacture's instruction.				
	Grouting : Fill the grouting gun with low viscosity epoxy resin. Maintain desired pressure in the gun by air compressor: maintain the required pressure at exit. Grout the material through prefixed nozzles in structural elements till its refusal, seal the nozzles with epoxy putty after the refusal, monitor leakages through other nozzles while grouting and seal them as per the requirement, repeat the process for all the nozzles. complete the operation within pot life of the material.				
32.1	Cleaning the gun and accessories: Clean the gun and accessories (valves, pipes and other fixture) with thinner after the operation to avoid jamming of the gun.	10000.00	Kg		
33	Supply and apply a polymer modified cementious bond coat. Ratio polymer: Water : cement of 1:4:6 (1 Polymer : 4 Water: 6 Cement) by weight. Apply the patching mortar when the bond coat is tacky (Nito Bond SBR Latex of Fosroc/ Sika® latex of Sika/ MasterEmaco SBR2 of BASF or equivalent of Pidilite)	347.42	sqm		

34	Providing , mixing & applying two comonent Epoxy resin concrete Bonding coat on prepared RCC surface as per manufacture specification including preparation of surface by chipping and throughly cleaning of surface complete wherever required and as per direction of Engineer-in-charge.Epoxy material should be conforming to A S T M-881-887 Type 1,Grade 1, class B or C (Prouduct: MasterBrace1414 of BASF/ Sikadur 32LP OF SIKA/Nitobond EP Of fosroc or equivalent of pidilite).	1701.00	Sqm		
35	Providing mixing & applying pre-batched one component polymer modified dual shrinkage compensated thixotropic cementious patch repair mortar as per the manufacturer specifications and as per the direction the Engineer-in-charge. The comperressive strength of polymer modified mortar shall be ≥ 45 Mpa (28 Days) according to ASTM C109. (Product :- Renderock S2 of Fosroc/ SikaTop® 122 HS of Sika / MasterEmaco S 348 of BASF or equivalent of Pidilite)				
35.1	For 20 mm thickness over slab, beams, columns and stair case slabs	1573.00	Sqm		
35.2	Add/ deduct for every 10 mm thickness	472.00	Sqm		
36	Providing and laying ready to use non shrink. Cementious free flow micro concrete of Compressive strength ≥ 50 MPa (28 days) according to ASTM C 109 of approved make and manufacture complete as per direction of Engineer-in-charge for replacing the carbonated part of concrete and repairing the damaged surface of concrete after fix the form work across the profile of damaged structural element. Pour the free flow non shrink. Cementious free flow micro concrete mix in the form work. Payment shall be made on the basis of consumed dry material of micro concrete mix. (Product :- Renderock RG of Fosroc/ SikaRep® Microcrete -4 of Sika / MasterEmaco S-346 of BASF or equivalent of Pidilite)				
36.1	a) Without addition of aggregate	115.00	Ton		
36.2	b) With addition of 6 mm down aggregate in 3:1 (3 Micro concrete: 1 aggregate 6 mm & down)	44.00	Ton		
37	Strengthening structural elements with non metallicompistefiber wrapping system comprise of uni-directional glass fiber, sheet (900 GSM) and compatible saturate, by dry/ wet layup system including the following and as per the direction of Engineer-in-charge (Min Tensile Strength 3400 N/sqmm, Tensile E-Modulus 70000 N/sqmm, Fabric design thickness = 0.30 mm.) (Product :- Nitowrap EP (GF) of Fosroc, Sikawrap® 930 G of Sika / MasterBrace FIB 73/900 of BASF)				

	Surface preparation: Grinding/ moulding concrete substrate cleaning it with wire brush removing oil, laitance if present, rounding sharp edges to min 25mm radius etc. complete.				
	Profiling : Applying compatible primer of approved make and brand on prepared substrate, filling the holes and uneven surface with thixotropic putty etc. complete.				
	Wrapping : Wrapping the fiber sheet with recommended overlapping to structural element at desired orientation using tamping roller to avoid any air voids etc. repeat the same procedure for multiple layer with the interval of 8 hrs.				
	Sand Pasting : Applying second coat of saturated after 12 hrs. rectify air voids if any, paste the coarse sand on it to make surface rough to take any further finishes				
37.1	(Mode of measurement : Per sqm surface area of application per layer).	1017.00	Sqm		
38	Rebaring/ fixing of shear connectors of new reinforcement bars for structural connections in RCC columns including power drilling holes of appropriate diameter in reinforced or plain cement concrete upto standard depth or as per specification of manufacturer, fixing the reinforcement in position using epoxy of approved make at all height level. (Rate shall include cost of labour, T & P for power drilling in concrete, epoxy cartridges, plastic nozzle etc. complete including the drilling holes and loose dust by blowing air. Reinforcement for rebar shall be paid extra.) (Product :- Lockfix of Fosroc/ AnchorFix ® -3+ of Sika/ RE-500 of Hilti/ MasterFlow 935 AN of BASF/ Fischer)				
38.1	a) Rebar 10 mm Dia x 14 mm holes	568.00	Nos.		
38.2	b) Rebar 12 mm Dia x 16 mm holes dia x 120 mm depth	304.00	Nos.		
38.3	c) Rebar 16 mm Dia x 20 mm holes dia x 160 mm depth	432.00	Nos.		

Total**Condition:-**

1. No labour huts shall be allowed in IIT campus and nothing shall be paid extra on this account.
2. The contractor should visit the site of work before quoting the rates.
3. No labour to stay in IIT Campus nothing shall be paid extra on this account.
4. Site shall be made available as and when available.
5. The rates for different items of work shall apply for all Heights & Depths, Leads & Lifts and nothing extra shall be paid on these accounts.
6. Materials to be used as per approved makes as per NIT.
7. Site shall be available in parts or phases as per direction of Engineer-in-charge & nothing extra on this amount shall be paid to contractor. Contractor must visit site before quoting rates.
8. Quoted rates of agency shall be inclusive of GST.
9. Video grapy shall be done by agency of all site operations at its own cost & shall be provided to IIT Delhi before release of payment.
10. As per site provided to agency, agency shall deposit all water proofing & Retro fitting materials proportionate to site provided in advance with IIT Delhi before stating execution of work with proper invoices, challan, manufacturing test certificates copies of which to be submitted by agency to IIT Delhi duly self-attested by agency. No secured advance shall be paid on above material to agency.