VJTI MUMBAI
वीरमाता जिजाबाई तंत्रज्ञान संस्था
Veermata Jijabai Technological Institute
Erstwhile: Victoria Jubilee Technical Institute (estd.1887)
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H. R. Mahajani Road, Matunga (East), Mumbai - 400 019
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Invitation for Budgetary Quotation for appointing Structural Consultant Services for Structural Assessment, of D Block Hostel Building at VJTI, Mumbai. Last date of Submission: 12.11.2026.

Please send the quotation to the email address mentioned below:

1. **knpetkar@vjti.ac.in.**
2. **jgsolanki@st.vjti.ac.in.**
3. **assoc_dean_idm1@vjti.ac.in.**
4. **dean_infra@vjti.ac.in.**

If any quarry regarding the scope of work please contact:
Name: Kaushik N. Petkar
Designation: Civil Engineer.
Mobile No: 7977836673

Sr.No.	Description of Work	Estimated Cost (Including GST)
1	Project**:** For appointing Structural Consultant Services for Structural Assessment, of D Block Hostel Building at VJTI, Mumbai. **Building Details:** • **Carpet Area:** 1,637.05 Sq. m. • **Built-up Area:** 4,017 Sq. m. • **Building Configuration:** Existing G+4 Structure **1. Structural Inspection, Investigation and Mapping** a. Conduct a detailed floor-wise and member-wise visual inspection of all structural elements, including columns, beams, slabs, staircases, and foundations, wherever accessible. b. Prepare **structural distress and distance mapping** indicating the exact location, dimensions, extent, and severity of cracks, spalling, exposed reinforcement, corrosion, deflection, leakage, dampness, and other defects, with reference to grid lines, floor levels, and member identification numbers. c. Prepare a detailed photographic record and mark all identified defects directly on the existing floor plans and structural drawings.	**(Including GST)**

d. Conduct a detailed inspection considering the proposed/existing propping arrangement and prepare a **propping layout and inspection plan**, indicating the locations, spacing, sequence, load-transfer arrangements, and safety requirements for temporary supports.

e. Carry out necessary Non-Destructive Testing (NDT) and other investigations, including rebound hammer, Ultrasonic Pulse Velocity (UPV), reinforcement detection, cover measurement, and other tests as required.

3. Immediate Structural Safety and Strengthening Plan

a. Identify and mark all structurally distressed or potentially unsafe columns, beams, slabs, and other members requiring immediate attention.

b. Prepare a **floor-wise immediate structural strengthening drawing** clearly identifying affected members using unique member numbers, colour coding, and priority classifications.

c. Recommend immediate safety measures, including barricading, restriction of access, temporary propping, unloading, and other necessary precautions based on the structural assessment.

d. Prepare a detailed temporary propping and load-transfer methodology, including installation sequence, support arrangement, inspection requirements, and safe removal procedure.

e. Submit an immediate intervention report identifying critical structural members, recommended remedial measures, execution priorities, and the sequence of repair and strengthening works.

f. No repair, strengthening, removal of concrete, or alteration of temporary supports shall be undertaken without the approval of the structural consultant and the prescribed safety arrangements.

4. Detailed Column Repair and Strengthening Methodology

a. Inspect each column for concrete deterioration, cracks, spalling, reinforcement corrosion, inadequate concrete cover, deformation, and other structural deficiencies.

b. Prepare column-wise condition assessment sheets indicating column identification number, dimensions, floor/location, distress observations, photographs, test results, and recommended remedial action.

c. Prepare detailed drawings showing the exact location and extent of column repair, concrete removal, reinforcement treatment, additional reinforcement, and proposed strengthening.

d. Develop suitable repair methodologies, including removal of unsound concrete, cleaning and treatment of reinforcement, replacement or supplementation of reinforcement where designed, application of bonding agents where specified, and reinstatement using approved repair mortar or micro-concrete.

e. Where required, design and detail RCC column jacketing or other suitable strengthening systems, specifying jacket dimensions, reinforcement details, ties, anchorage, interface preparation, concrete grade, and construction sequence.

f. Assess the adequacy of columns for existing and proposed loads and provide strengthening details wherever the structural analysis indicates inadequate capacity.

g. Specify inspection, quality-control, curing, and acceptance requirements for all column repair and strengthening works.

5. Beam Inspection, Repair and Strengthening

a. Inspect all beams for flexural and shear cracks, concrete spalling, exposed or corroded reinforcement, excessive deflection, leakage-related deterioration, and beam-column joint distress.

b. Prepare beam-wise defect mapping and drawings indicating beam identification numbers, crack locations, dimensions, damage extent, and recommended repair measures.

c. Assess the flexural, shear, and load-carrying capacity of distressed beams through structural analysis and necessary investigations.

d. Provide detailed repair methodology, including removal of deteriorated concrete, reinforcement cleaning and treatment, repair mortar/micro-concrete application, crack treatment, and reinstatement of the concrete section, as applicable.

e. Design and provide strengthening details wherever required, including RCC jacketing, additional reinforcement, steel strengthening, FRP systems, or other technically suitable methods.

f. Assess and detail the strengthening of the beam-column connection and adjoining column region wherever required to ensure adequate load transfer and structural continuity.

g. Prepare detailed drawings showing reinforcement arrangement, anchorage, development length, shear reinforcement, interface preparation, and construction sequence for the proposed strengthening system.

6. Detailed Slab Inspection, Repair and Strengthening Methodology

a. Inspect floor slabs, toilet slabs, balconies, passages, and other accessible slab areas for cracks, leakage, dampness, concrete spalling, exposed reinforcement, corrosion, excessive deflection, and deterioration.

b. Prepare floor-wise slab distress mapping showing the exact affected locations, dimensions, crack patterns, damage extent, slab thickness where verified, and member identification references.

c. Assess the structural adequacy of affected slabs based on their condition, reinforcement details, loading, and necessary testing or investigation.

d. Prepare a detailed repair methodology specifying the sequence of temporary propping, removal of loose or deteriorated concrete, reinforcement inspection and treatment, repair material application, curing, and quality checks.

e. Where reinforcement is damaged or the slab capacity is inadequate, design appropriate strengthening measures, such as additional reinforcement, RCC overlay, steel strengthening, FRP strengthening, or other suitable systems, supported by detailed drawings and calculations.

f. Specify the methodology for repairing cracks, treating corroded reinforcement, reinstating concrete cover, and addressing leakage-related deterioration. Waterproofing and drainage improvements shall be included wherever required.

g. Provide detailed slab repair drawings and method statements indicating the affected area, repair depth, reinforcement treatment, strengthening details, material specifications, and execution sequence.

h. Specify requirements for formwork, temporary supports, concrete or repair material placement, curing, quality control, and safe removal of props after achieving the required strength and obtaining approval.

7. Repair and Strengthening Drawings

a. Prepare floor-wise structural drawings marking all defective and critical members, including columns, beams, slabs, staircases, and other affected structural components.

b. Provide detailed member-wise repair drawings, sections, reinforcement details, jacketing details, anchorage, connections, and strengthening arrangements.

c. Clearly distinguish between immediate safety interventions, routine structural repairs, and major strengthening or rehabilitation works.

d. Provide drawings and details in a coordinated format suitable for execution, quantity measurement, tendering, and site supervision.

8. BOQ, Cost Estimate and Technical Specifications

a. Prepare a detailed item-wise BOQ and quantity calculations for column repairs, beam repairs, slab repairs, structural strengthening, propping, scaffolding, NDT, and allied civil works.

b. Provide floor-wise and member-wise quantities based on approved drawings and verified site measurements.

c. Prepare detailed technical specifications and method statements for each repair and strengthening system, including materials, workmanship, testing, inspection, and acceptance criteria.

d. Prepare the cost estimate using applicable PWD/SSR rates and market rates, including rate analysis for non-schedule items wherever required.

9. Site Supervision and Quality Control

a. Conduct periodic site inspections to verify that repair and strengthening work is carried out in accordance with approved drawings and method statements.

b. Inspect reinforcement and concrete surfaces before repair material application, and verify the adequacy of propping and temporary supports.

c. Monitor material quality, reinforcement treatment, concrete or micro-concrete placement, curing, and other critical construction stages.

d. Issue written instructions for rectification of deviations and maintain inspection records, test reports, and photographic documentation.

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	e. Certify completed structural repairs and strengthening works based on inspections, test results, and compliance with approved specifications. **10. Completion and Structural Fitness Documentation** a. Submit a comprehensive structural audit and condition assessment report covering all inspected structural members. b. Provide approved repair and strengthening drawings, final quantity records, test reports, and before-and-after photographs. c. Submit a structural repair completion report detailing the work executed, materials used, strengthening measures adopted, and quality-control observations. d. Provide as-built drawings and a structural stability/fitness certificate wherever justified by the completed assessment and required under applicable regulation.	
	Total Amount (Including GST) =	