

BEAM AND COLUMN REPAIRS & STRENGTHENING AT HO. MUNICIPAL BANK BHAVAN, P.D'MELLO ROAD, FORT, MUMBAI-400 001**STRUCTURAL CONSULTANT****ENTECH ENGINEERS**

CONSULTING CIVIL AND STRUCTURAL ENGINEERS

DOCUMENT TITLE :- BILL OF QUANTITIES**PROJECT TITLE :- PROPOSED STRUCTURAL BEAM AND COLUMN REPAIRING AND STRENGTHENING**

SR. NO.	ITEM DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT
A	EXISTING BEAM REPAIR WORKS (3 nos.)				
A.1	Providing necessary scaffolding for the duration of the works including necessary safety and precautionary measures for beam and column works (Projected area to be measured).	1000.00	SFT		
A.2	Removing & Cleaning of existing loose plaster & concrete carefully by manual chipping without damaging the existing concrete, including cleaning the surfaces by air jet etc. (Mode of measurement- per sqft of breaking area of concrete)	150.00	SFT		
A.3	Clean existing reinforcement with wire/ rotary wire brush, making the surfaces free from loose material dirt etc. complete, Applying two coats of alkaline rust converting primer-FEOVERT or equivalent confirming to ASTM-B-117, on the rebar, including cleaning the reinforcement, wire brushing to remove loose rust spalls, with time interval of 1 hour between the coats. Anticorrosive Treatment to Reinforcement by IPNET RB Application of two coats of IPNET RB on exposed reinforcement in two coats with time interval of minimum 4 hours between each coat. The application shall be by brush. (Mode of measurement- per sft of breaking area of concrete)	150.00	SFT		
A.4	Providing & applying structural grade epoxy bond coat prior to building up of section with any type of mortar/ concrete to ensure bonding between old concrete & new concrete application by brush & applying of polymer modified mortar as per the manufacturer's specifications. (Mode of measurement- per sqft of application of concrete surface)	150.00	SFT		
	BEAM PLASTERING WORK				
A.5	Bond Coat Application:- Providing and applying an epoxy based bonding coat such as Epibond 21 from Krishna-Conchem or equivalent for achieving a good bond between the existing surface and the new plaster	220.00	SFT		
A.6	Providing and applying sand faced plaster consisting of 2 coats upto 25mm thk, first coat in CM 1:4 & finishing coat 4 days after the first coat in CM 1:3 with approved water proofing admixtures such as Supercon 100 from Krishna Conchem or equivalent, including fibres (125 gms/bag of cement) in both the coats, & curing the same for minimum 7 days.	220.00	SFT		
A.7	JK White Cement + Polymers paint on Newly Plastered Surface	220.00	SFT		

SR. NO.	ITEM DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT
B	REINFORCEMENT AND M.S CHANNEL IN BEAM(3 NOS.)				
B.1	Providing & Fixing TMT steel 16 mm bottom side reinforcement (2nos).& 10 mm top side reinforcement (2nos) stirrups 8 mm 200 c/c distance. M.S plate 16 mm thickness fixing on existing structure in opposite direction(2nos) size of (400X600mm) anchored to wall by 16mm dia. bolts using HILTI RE 500.Fixing of M.S Channel ISMB 400. M.S Angles (75X75X6 mm) fixing on M.S plate. (as shown in drawing)	1200.00	KG		
B.2	Encasing and Casting of I-Beam with Microconcrete at all levels with all leads & lift or as directed including formwork, centering, scaffolding, & mixing , laying, levelling, and finishing including curing etc. complete (excluding steel reinforcement)	800.00	KG		
C	COLUMN REPAIR AND STRENGTHENING (10 NOS.)				
C.1	Breaking of brick wall on either sides of Steel Columns not more than 600mm width. Providing support with 2 steel props on either sides with 300mm centre to centre.	450.00	SFT		
C.2	Providing 4nos. 10mm rebar on 4 corners of each I-section as per drawing. Providing 2nos. of C-section MC200 on either side of each I-section column by weld connection. Encasing each column using M20 concrete by providing formwork (Installation of MC-200 requirement shall be determined after opening of columns for repair works)	10.00	CUM		
C.3	Welding of column - Beam connections, if required	20.00	Nos		
C.4	Re building of brickwork and first coat plaster on either side of column	450.00	SFT		
	TOTAL AMOUNT				
	Contengencies @5% of Total Amount				
	GST AS APPLICABLE				
	GRAND TOTAL				
TERMS AND CONDITIONS					
Quantities are probable and may vary					
Unless otherwise mentioned rates shall be inclusive of access scaffolding & related protection, platform etc					
Rates for breaking / removing to be inclusive of removing debris out of the Owner's Complex					