

	VEENA CGHS LTD, DWARKA, NEW DELHI				
	BILL OF QUANTITIES (BOQ)				
	<u>BASEMENT STRENGTHENING AND REPAIR BOQ</u>				
	Budgetory Quote				
S.No.	Description of Item	Quantity	Unit	Rate, (Rs)	Amount, (Rs.)
1.0	Removing / chipping up to 40mm average depth and cleaning of existing loose concrete carefully by manual or low impact frequency hammer without damaging the existing concrete including cleaning the surfaces by compressed air jet complete including removing loose concrete around the reinforcement. The debris will be disposed off to a safe ground outside society premises. The entire surface will be checked with hammer for detection of loose concrete edged of chipped patch will bear vertical/ reverse cut with minimum depth at edges as 40mm. All loose / sound concrete around corroded bars has to be removed to prepare well defined patch.	-			
		200.00	Sqm		
2.0	Clean the surface and remove any dust, unsound material, from reinforcement etc Roughen the surface and remove any laitance by light scrubbing. The concrete surfaces shall be thoroughly cleaned with wire brushes/cleaning brushes. Cleaning the existing reinforcement with wire brushes and cleaning burshes application of rust remover Rebakleen RR @ 0.25 Ltr/10sqm and, Application of Nitozinc rich Primer @ 5 Sqm/Ltr after 24 hrs.	-			
		200.00	Sqm		
3.0	Drilling 14mm dia 150 mm deep holes as per site requirement. Cleaning the holes with cleaning burshes and wire brushes, blow air. Removing the all laitance, loose materials dust etc from the holes. Fixing Specialty designed NRV packers for <u>epoxy grouting</u> add sunderies for electricity charges carriage of machinery and materials etc with Nitocote VF putty. Cutting the packer and repair the surface with Nitocote VF putty after comletion of grouting . Including cost of materials, hire charges of machineries etc but excluding the cost of scaffolding and strutral supporting system for columns and beams.	-			
		200.00	Nos		
4.0	Injecting Conbextra EP-10 M low viscosity epoxy resin into the packer at the desired pressure with auto cutt off Electric Epoxy grout pump. Injecting the material up till refusal or comes out form the other nipple. Repeating the process for	15.00	Litre		

	form the other mppro. Repeating the process for all the packers.				
5.0	Providing and placing in position micro-concrete which shall be cement based pre packed single component chloride free non shrink free flow self compacting ready to use after mixing water in specified proportion obtained from approved manufacturer as per specification and direction of Engineer-in-charge. self flowing non shrink micro concrete, Grade not less than M-25 with 40% usage of 8mm stone aggregate and coarse aggregate, including cost of leak proof	-			
		9.00	Cum		
6.0	Providing, mixing and applying bonding coat of approved adhesive on chipped portion of RCC as per specifications and direction of Engineer-In-charge complete in all respect.	-			
		200.00	Sqm		
	a) Epoxy bonding adhesive having coverage 2.20 sqm / kg of approved make.				
7.0	Reinforcement for RCC work i/c straightening, cutting, bending, placing in position and binding				
		2,500.00	kg		
	a) Thermo-Mechanically Treated bars(make Kamdhenu)				
8.0	Shotcreting R.C.C. columns, beams and slabs etc. in layers with approved design mix concrete having the specified minimum characteristic compressive strength [with ordinary portland cement, coarse sand and graded stone aggregate of 10 mm maximum size in proportion as per design criteria] including the cost of centering and shuttering at edges and corners etc. as directed by Engineer-in-Charge.				
		150.00	Sqm		
	a) 25mm thick in Grade M 25 with cement content not less than 330 kg per cum				
9.0	Providing and fixing hard drawn steel wire fabric of size 75 x 25 mm mesh or other suitable size wire mesh to be fixed & firmly anchored to the concrete surface by means of "L" shaped mild steel shear key welded with existing reinforcement including the cost of materials, labour, tool & plants as approved by Engineer-in-				
	Slab Area - Shotcreting				
10.0	Shear Key: Providing and fixing of L-shaped 150mm long, 10mm dia mild steel shear key after drilling suitable holes in reinforced or plain cement concrete with power driven drill machine to a minimum depth of 100mm to 200mm in RCC Beam Lintels Columns and Slabs to				
		400.00	Nos		

	introduce steel bars in position using epoxy resin anchor grout of approved make but excluding the cost of reinforcement, all complete as per direction of Engineer-in-charge.				
	(As per site requirement - in Column, Beam & Slab)				
11.0	Drilling suitable holes in reinforced or plain cement concrete with power driven drill machine to a minimum depth of 100mm upto 200mm in RCC beams, lintels, columns and slabs to introduce steel bars including fixing the steel bars in position using epoxy resin anchor grout of approved make but excluding the cost of reinforcement, all complete as per direction of Engineer-In-Charge.				
	b) For 16 mm dia reinforcement bar	200.00	Nos		
	(Beam & Column)				
12.0	P/I planks and steel jacks on beams columns and slab of existing structure to provide safety to building wherever required.	50.00	Nos		
13	Water proofing of Basement Roof through Guniting and cement plaster 1:4 thereof, to maintain proper slope on the roof. Removal of earth etc from roof of basement and dumping up to a distance of 50 mts Or less, cleaning the surface clean of all dirt etc and putting back the required earth in the required slope on the basement roof as per directions of engineer in charge, including disposal of malba outside society premises to a safe dumping ground	700	Sqm		
14	Earth work in excavation in all kinds of soil by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5m in width as well as 10sqm on plan) including getting out and disposal of excavated earth within society area as directed by the authorized representative(s) of the society.	Rate Only	Cum		

15	Backfilling of available excavated earth to the required depth in green area which should be adequately consolidated including surface dressing of its top to the required slope and removing inequalities etc. so as to maintain lawn thereon.	Rate Only	Sqm		
16	Providing and laying APP (Atactic Polypropylene Polymer) modified prefabricated five layer, 3 mm thick water proofing membrane, black finished reinforced with non-woven polyester matt consisting of a coat of bitumen primer for bitumen membrane @0.40 litre/sqm by the same membrane manufactured of density at 25° C, 0.87-0.89 kg/litre and viscosity 70-160 cps. Over the primer coat the layer of membrane shall be laid using Butane Torch and sealing all joints etc, and preparing the surface complete. The vital physical and chemical parameters of the membrane shall be as under: Joint strength in longitudinal and transverse direction at 23° C as 650/450N/5cm. Tear strength in longitudinal and transverse direction as 300/250N. Softening point of membrane not less than 150° C. Cold flexibility shall be upto -2° C when tested in accordance with ASTM, D-5147. The laying of membrane shall be got done through the authorised applicator of the manufacturer of membrane:	Rate Only	Sqm		
	3mm thick				
17	Extra for covering top of membrane with geotextile 120gsm non woven, 100% polyester of thickness 1 to 1.25mm bonded to the membrane with intermittent touch by heating the membrane by Butane Torch as per manufacturers recommendation	Rate Only	Sqm		

[illegible]

F	GREEN AREA	WATERPROOFING
31	Earth work in excavation in all kinds of soll by mechanical means (Hydraulic excavator)/manual means overareas (exceeding 30 cm in depth, 1.5m in width as well as 10sqm on plan) including getting out and disposal of excavated earth within society area as diorected by the authorized representative (s)of the	223
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	TOTAL F	
G	ROOFING	