

CANARABANK

PREMISES AND ESTATE SECTION,

CIRCLE OFFICE, CHENNAI

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TENDER DOCUMENT (FINANCIAL BID)

FOR THE PROPOSED

REPAIR, REHABILITATION, RETROFITTING AND
OTHER RELATED CIVIL WORKS OF “CANARA
COURT” APARTMENTS AT GREENWAYS LANE, RA
PURAM, CHENNAI

NOTICE INVITING THE TENDER, GENERAL RULES & INSTRUCTIONS GENERAL CONDITIONS,
SPECIAL CONDITIONS, OFFER LETTER, APPENDICES, SCHEDULE OF QUANTITIES.



Project : BOQ for the Canara Court Building of M/s Canara Bank, Chennai

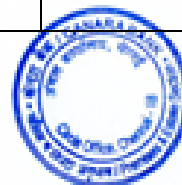
Sl. No	Items	Unit	Quantity	Rate	Amount in INR
1	Scaffolding: Providing, erecting and dismantelling safe Pipe scaffolding and / or H frame including working platform for external and internal area of building to facilitate all works with proper arrangements etc. complete. Measurement for payment shall be made in square meter of Scaffolding carried out.	sqm	1357.00		
2	Surface Preparation: Labor charges for chipping the spalled and old concrete of the column, beam/slab and other elements. Check for the phenolphthalein test and if there is no change in color, chip the same further down until, reaching the good or uncontaminated concrete. Clean the surface and make sure that surface is clean and free from loose particle. The rate shall include the cost of all the operations and etc complete	sqm	409.00		
3	Removal of brick jelly from terrace & Sunken portion : Clean the surface with wet or dry grinding and make sure that surface is clean and free from loose particle.	sqm	365.42		
4	Anchoring Main Reinforcement: Mark the position of holes to be drilled for anchoring the rebar into the floor/slab, column and beam. Drill 20mm dia holes in the marked places using rotary hammer drilling machine of reputed make to a depth of 75mm into the floor/slab, column and beam. Clean the holes neatly and wash the same with jet of water. Allow it to dry and make sure that no fine dust particles are present in the holes. Mix the base and hardener of the polyester resin using a spatula and push the same in to the holes with a proper tool so that the bottom most point of the hole receives the material. The filling is to be done for a minimum portion of 1/3rd of the hole depth. Now insert the rebar to be anchored for the provision of main reinforcement, gently and finish the surface around the rebar area using the same material which comes out of the hole excessively. The rate is inclusive of the steel.	nos.	1436.00		



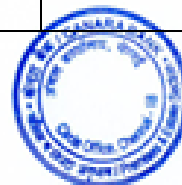
5	<p>Anchoring the Stirrups:. Tie them to the prefixed shear connectors so that the additional rebar acts monolithic with the existing ones and core concrete. In case of the shear reinforcement also, if the diameter of the reabrs are reduced, provide 8mm dia stirrups in the form of 2 "U" shaped. Tie them properly so that it has a tight contact with the main bars.</p>	nos.	225.00		
6	<p>Anti-corrosive Coating: Clean the rebars using the rust remover if there exists any rust, otherwise clean the rebar free of foreign material. Mix the base and hardener of the anti-corrosive coating like Nitozinc Primer of Fosroc or equivalent mechanically using a slow speed heavy duty drilling machine fitted with mixing paddle. Apply the mixed materials to the cleaned rebar and allow it to dry complete. The rate shall include the cost of all the operations etc complete</p>	lit	35.00		
7	<p>Epoxy Jointing Compound: Clean the concrete surface, remove the loose particle, if any. Make sure that the form work is ready for positioning. Mix the base and hardener of the epoxy resin jointing compound and apply the same to the prepared surface. Care should be taken that the micro concrete need to be done within 5 hours maximum from the time of application of epoxy jointing compound Nitobond EP of Fosroc or equivalent. The rate shall include the cost of all the operations and etc complete</p>	Sqm	188.00		
8	<p>Shear Connectors:Drilling 12mm dia holes up to a depth of 75mm maximum and fixing 8mm dia L shaped anchor rods as shear connectors at every 300mm c/c on the surfaces of the columns/beams or any other structural member as the case may be. Clean the same using water and make sure that there are no fine particles present in the hole. Mix the base and hardener of the polyester resin with the spatula thoroughly. Fill the drilled and cleaned holes to a minimum depth of 1/3rd of the hole with the prepared polyester resin. Make sure that the resin has reached till the end of the hole. At this stage push the shear connector gently in to the hole and finish the excess resin which comes out of the hole and allow the shear connectors not to be disturbed for minimum 20 minutes - complete. The rate shall include the cost of all the operations and etc complete</p>	Nos.	600.00		



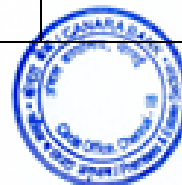
9	<p>Additional Reinforcement: Check the diameter of the existing rebars and if the diameter is less than 30% of the original diameter, provide additional reinforcement. Cut the required bars as main reinforcement to the required length with proper development length. Tie them to the prefixed shear connectors so that the additional rebar acts monolithically with the existing ones and core concrete. In the case of the shear reinforcement also, if the diameter of the rebars are reduced, provide 8mm dia stirrups in the form of 2 "U" shaped bars. Tie them properly so that it has a tight contact with the main bars. The rate shall include the cost of all the operations and etc complete</p>	kg	4450.00		
10	<p>Core Cutting: Mark the core holes along the beam to facilitate for the pouring of micro concrete. The core cutting need to be done with an electrically operated core drilling machine fitted with diamond tool of dia not less that 69 mm and to the entire depth of the slab portion. Care to be taken to minimize the cutting of the rebar as reinforcements are expected at the negative bending moment zone.</p>	nos.	50.00		
11	<p>Formwork: Centering and shuttering including strutting, propping, etc, as per the required line and length at all different floor levels as per the standard specification-complete. Form work should be rigid to prevent loss of grout or mortar concrete from concrete at all stages & appropriate to the methods of placing & compacting as per standard specification. It should be made of suitable material i.e., timber, plywood, plastic depending upon the type of finish specified. The rate shall include the cost of all the operations and etc complete</p>	sqm	462.00		
12	<p>Micro- Concrete: Stock sufficient quantity of micro concrete and 12mm downgraded chips on site to enable the completion of the pouring in a continuous operation. An approved concrete mixer or a slow speed heavy duty drilling machine fitted with mixing paddle shall be used. Mix the micro concrete and the 12mm down grade chips in the ratio of 1: 0.5 by weight with required quantity of water as per the data sheet and place the same to the prefixed formwork well before the epoxy jointing compound dries up. Remove the formwork after 24 hours in the case of columns and after a period of 72 hours in the case of slab and beam</p>	cu.m	13.00		



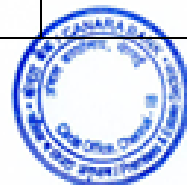
	and check for any surface defects and if so apply the polymer modified mortar - complete. The rate shall include the cost of all the operations and etc complete				
13	Concreting: Providing & laying RCC for sunshades, Cantileaver slab of M25 grade including the cost of cement, aggregate, etc. & finishing, the concrete admixture conforming to IS: 9103 to improve workability without affecting the strength and durability as directed by the engineer-in-charge but excluding the cost of centering, shuttering and reinforcement. The rate shall include the cost of all the operations and etc complete	cum	27.00		
14	Polymer Modified Mortar: Chip off the corrosion damaged areas on the beam/ column/ slab/wall or any other structural members. Clean reinforcement using Reebaklens RR of Fosroc or equivalent and make sure that there are no traces of rust on the surface of existing rebars. Check for the depth of carbonation using the phenolphthalein indicator and make sure that the contaminated concrete is removed completely. Wet the surface with potable water and make sure that the surface is kept moist so that the water cement ratio in the polymer modified mortar is maintained. Supply and application of Nitobond SBR or equivalent soon after the finishing is over, apply the curing compound complete. The rate shall include necessary scaffolding and platform and cost of all the operations and etc complete.	sqm	188.00		
15	Provision of Galavanic Anode: Prior to installation of the self-sacrificial anode Galvashield XPI units, check the continuity of the steel reinforcement. Any loss of continuity will require additional electrical connections or restoration of continuity by effective means. Select a location for the Galvashield XPI as close as practical to the edge of the repair zone. Galvashield XPI units should be positioned around/along the repair boundary. In addition to standard substrate preparation, the Galvashield XPI anode(s) shall be thoroughly pre-soaked in clean water for a minimum of 10 minutes and a maximum of 20 minutes, prior to the application of the repair mortar. Tighten tie wires using Galvashield Fixing Tool so that no free movement is possible, thus ensuring good electrical continuity. To test electrical continuity between tie wires and reinforcement bar, a continuity meter like electrical	Nos.	457.00		



	multi meter should be used. The rate shall include the cost of all the operations and etc complete				
16	Curing Compound: Immediately after striking the form work or after completion of the repair works, the surface should be sprayed with water once and followed by application of membrane based curing compound like Concure WB of Fosroc or equivalent diluted with water in the ratio of 1: 1 as a curing membrane - Complete. The rate shall include the cost of all the operations and etc complete	Sqm	409.00		
17	Protective Plastering: Providing & applying sand faced plaster of 20 to 25 mm thickness including curing, Prepare cement sand mortar 1:4. Finish the same as per the line and length required. Rate shall include painting also.	sqm	119.00		
18	Relaying of Screed Concrete: Providing and filling cement concrete 1:5:10 (1 Cement : 5 Coarse sand : 10 broken brick bats 40 to 80 mm Nominal size) including watering, ramming etc. complete as directed. The light weight filling course needed to consolidated fully and a vent ppe of 20mm dia with required perforated holes with sponge needs to be provided with proper gradient so that water drains off immediately in case of water penetration if any. - complete. The rate shall include the cost of all the operations and etc complete	Cu.m	27.00		
19	Injection of Microfine cement: Prepare the micro fine cement slurry by adding the micro fine cement with water with minimum of 0.5 water cement ratio. Mixing to be done mechanically and expandable grout additive like Cebex 100 of Fosroc or equivalent at 225 gms per bag of cement need to be added to compensate the shrinkage. Inject the same using a positive displacement pump until the nipple refuses the grout or the grout comes out in the near by points. Cut the nipple and finish the same using polymer modified mortar - complete.	Nos.	145.00		
20	Water Proofing: All the surfaces which are to receive the waterproofing coating like Brushbond of Fosroc or equivalent, must be free from dirt or any other form of foreign matter which might affect adhesion. Acid wash and water wash the surface and allow it to surface dry condition. Mix the part A and part B of the polymer modified cementitious coating mechanically using an electrical operated drilling machine fitted with mix paddle. Apply the same in two coats over the prepared	Sq.m	565.00		



	surface one after the other dries up with a minimum interval of 4 hours between the coats. Providing pressure grouting in all the vertical and horizontal joint including the suspected areas.				
21	Relaying of Tiles: Prepare bed mortar with CM 1:6 added with waterproofing liquid like Conplast X 421 IC or equivalent at 150ml per bag of cement. Prepare cement slurry and pour the same on the surface as cement punning. Place the verified tiles of approved make and size followed by release of entrapped air. Fill the tile joint with polymer based tile filling compound - complete. The rate shall include the cost of all the operations and etc complete	Sq.m	145.00		
22	Supplying & applying of heat resistant plaster silicon PP : Providing the primer and heat proofing & climate control plaster by mixing silicon PP with cement with required water powder ratio and apply the same over the water proofing area in the terrace complete.	sq.m	365.42		
23	Demolishing of Brickwork: Demolishing brick work including stacking of serviceable material and placing of unserviceable material. Carting away the material from the spot to the ground level.	Cu.m	25		
24	Redoing of Brickwork: Supplying first class bricks and prepare cement sand mortar 1:6. Making the brick wall using the cement mortar with required bond followed by doing the pointing with break lines, as per the standard specification - complete.	Cu.m	25		
25	Plastering: Clean the brick wall surface thoroughly and make sure that the surface is free from loose particle if any. Prepare cement mortar 1:4 added with waterproofing liquid Conplast WL of Fosroc or equivalent and apply the same to the prepared surface followed by a smooth finish.	sq.m	78		
26	Floor Removing: Removing the flooring including the bed mortar followed by bringing it down manually and carting it away to the ground level.	sq.m	23		
27	Demolishing Floor PCC: Demolishing floor PCC by manually including disposal of material and disposal of unserviceable material outside the premises to a distance as per the instruction of the Engineer in charge.	Cu.m	3		
28	Earthwork Excavation: Earth work excavation manually over the depth not exceeding 1.5m, including disposal of excavated earth, lead upto 50m and lift	Cu.m	32		



	upto 1.5m, disposal earth to be levelled and neatly dressed.				
29	Earth Backfilling: Supplying and filling in plinth with pit sand or equivalent under floors, including watering, ramming, consolidating and dressing complete.	Cu.m	32		
30	Redoing Floor PCC: Providing and laying in position cement concrete of M-10 grade up to plinth level (with maximum aggregate size of 40mm).	Cu.m	3		
31	Demolishing RCC slab: Mark the sunshade slab and cutting the same to isolate. Chip off the middle portion carefully including cutting the rebar. Bring down the cut portion either as full piece or as loose concrete.	sq.m	46		
32	PVC Pipe: Providing and fixing the 100mm dia PVC pipe from the terrace to drain the rain water and the cost including the clamps - complete.	Rm	97		
33	Debris Removing: Remove the debris from the spot followed by stacking at the ground floor and carting away the same from the site complete. The cost including the loading the debris to the vehicle.	Cu.m	124		
Total Amount in Rs					

(Rupees _____ only)

Date:
Place

Signature of the Tenderer

Note:

1. The rates quoted shall be including all taxes **except GST**.
2. The quantities mentioned are approximate. Based on present site conditions, quantities may vary. Contractor has to visit the site previous hand before quoting the rates. Final bill will be settled based on actual measurement only.
3. Bank reserves the right to alter / modify the scope of work any time during the course of execution of work.
4. 8% of the total bill Amount (Rs.) will be retained as retention money for a period of 12 months from the date of settlement of bill, during which period any defect shall be rectified at free of cost.
5. The materials that are used should be of the specified make and quality.
6. Premises should be cleaned by the contractor, after completion of work and day end.
7. Any additional type of work and quantity of work over and above the bill of quantity should be got approved before carrying out such works.

