



GENERAL ADMINISTRATION SECTION
CANARA BANK, 2ND FLOOR, B WING,
BKC, CIRCLE OFFICE, BANDRA (E), MUMBAI
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Date: 17.10.2023

CIVIL REPAIR AND RENOVATION WORKS OF CANARA BANK RESIDENTIAL QUARTERS AT SANGEETA-CANBANK HOUSE, SANTACRUZ, MUMBAI. SITUATED AT CTS NO. 539, A.A NO. 198/H WEST WARD, NEW HASNABAD LANE, SANTACRUZ W, MUMBAI

CLARIFICATIONS FOR THE PRE BID QUERIES HELD ON 03.10.2023 AND CORRIGENDUM TO TENDER DOCUMENT

This Corrigendum shall form a part of and shall be read with tender/ contract documents and shall become part of the contract and shall be signed on every page and shall be enclosed with the bid.

In case of any discrepancy between this Corrigendum and other tender/ contract documents, the former shall prevail.

All the tender terms and conditions other than those modified in this Corrigendum remain unchanged.

-Sd-
ASSISTANT GENERAL MANAGER

CLARIFICATIONS FOR THE PRE BID QUERIES AND CORRIGENDUM TO TENDER DOCUMENT

S.NO & DETAILS IN TENDER DOCUMENTS	PRE-BID QUERRIES OF THE CONTRACTING AGENCIES	CLARIFICATIONS TO THE PRE-BID QUERRIES
1 , PAGE NO. 4 (POINT NO. 4)	Contracting agency has request for the Definition of Similar Work to be adopted in the Pre-qualification criteria of the tender	Similar works means Civil Repairs, Restoration and Renovation work of Multi storied buildings having minimum 5 storey's executed for preferably Government Departments/Public Sector Undertaking/ Autonomous bodies/ State autonomous bodies. The minimum value of the works as specified in the tender shall be towards the Civil & Structural Repairs, Restoration & Retrofitting works
2, PAGE NO. 9 (POINT NO. 23)	Contracting agency has request that the Running bills shall be considered subject to a minimum bill value of ₹ 40.00 lakhs (Rupees Forty lakhs only) instead of ₹ 60.00 lakhs (Rupees Sixty lakhs only) as specified in the tender	Accepted. The amended clause of the tender wherever applicable shall be read as follows: - Running bills shall be considered subject to a minimum bill value of ₹ 40.00 lakhs (Rupees Forty lakhs only). However the remaining terms and conditions indicated in the said relevant clauses remains unaltered.
3, PAGE NO. 3	Contracting agency has request that the Duration for the completion of the Project shall be increased from 120 Days from the date of issue of work order as specified in the tender to 180Days from the date of issue of work order.	Not Acceptable. The Duration for the completion of the Project shall remain to be 120 Days from the date of issue of work order as specified in the tender.
4, BOQ	Contracting agency has enquired whether the Civil & Structural Repairs, Restoration & Retrofitting works are required to be carried out to the existing Compound / Boundary wall of the property	Yes. The Civil & Structural Repairs, Restoration & Retrofitting works are required to be carried out to the existing Compound / Boundary wall of the property, however depending upon the site conditions and wherever required on case to case basis. However the execution of the said item of works especially Polymer modified mortar works, External Plastering & Exterior Painting etc would be at the

		discretion of the Bank and as per the directions and instructions from the bank and the consultants accorded from time to time.
5, BOQ	Contracting agency has request that the quantities indicated in the price bid document be in S.I units	Accepted. The quantities indicated in the price bid document are in S.I units and the amended BOQ / Price bid is enclosed herewith for reference and necessary perusal.
6, BOQ	Contracting agency have requested to maintain the thickness of Siporex Masonrywall to 150 mm in place of 115 mm as indicated in the BOQ specifications.	Accepted. The specifications for the said line item of the BOQ / Price bid duly enclosed herewith for reference and necessary perusal wherein the thickness of Siporex Masonry wall to be 150 mm in place of the earlier specified 115 mm and the contracting agencies are advised to quote accordingly.
7, BOQ	Contracting agency have requested to recheck the specifications of the Item of M-20 concreting as required for repair works	The specification for the Item of M-20 Concreting shall remain unaltered and same shall prevail upon
8, BOQ	Contracting agency have requested to indicate the makes for the Waterproofing chemicals as required for waterproofing works in wall plastering and terrace water proofing of the tender	The makes for water proofing chemicals shall be read and adopted as follows: - 1. Sunanda Specialty Coatings Pvt Ltd 2. Krishna Conchem 3. Sika Chemical 4. BASF 5. FOSROC
9, BOQ	Contracting agency have requested to recheck and confirm the specifications of scaffolding	The specifications for the Item of scaffolding are self-explanatory and clear. As such the said specifications would remain unaltered and shall prevail upon.

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Date: 17.10.2023

<u>REVISED BOQ OF EXTERNAL & INTERNAL CIVIL REPAIRS, RENOVATION & RESTORATION WORKS FOR CANARA BANK - RESIDENTIAL QUARTERS AT SANTACRUZ, MUMBAI</u>					
SL. No	DESCRIPTION OF ITEM	UNIT	QTY	Rate	Amount
A	<u>SCHEDULE A: - CIVIL REPAIRS, RENOVATION & RESTORATION WORKS</u>				
	<u>GENERAL NOTES FOR ALL THE BILL OF QUANTITIES FOR VARIOUS WORKS ENNUMERATED IN THIS TENDER: -</u>				
a	<p>The quoted rates for all the items mentioned hereinunder the BOQ's for various works to be executed shall be inclusive of the Demolition / Dismantling / Shifting / Resifting & Refaxing of all the existing items of work including all the internal & exterior areas where the works are to be carried out including the toilets & toilet interiors with respect to any material required to be removed for proper working on site & compliance of all the activities on site including removal of debris from site on day to day basis to avoid inconvenience to the residents / office, stacking the same till the time of removal at the desired location including carting away of debris at the designated MCGM limits including shifting, relocating & refaxing the dismantled items if in good condition & if instructed by the Consultants and Bank's Engineer in charge and making good the same if damaged during shifting etc. complete as per the the instructions and directions. The said item comprises of the following: -</p>				
	Flooring of all types, Tiles of any type, floor finishes, Wall dados, kerbs, Water-proofing, Brick bat coba				
	Walls, Brick works, Platforms, Bunds, Stone work, Counters, tree guards, treads, risers etc.				
	Concrete dismantling, mortar, RCC elements, Steel, structural steel etc				
	Partitions of all types, Paneling of all types				
	Doors, Windows of all types, Steel work, Frames, Grills etc				
	False Ceilings				
	Wiring, Cables, Electrical fittings, fixtures, accessories, Cables, Wires, Cable Trays, Lighting fittings & fixtures,				
	Shifting of tables, chairs, furniture's items of all types such as Beds, Wardrobes, tables, counters, credenzas, TV units, loose furniture's such as sofas, chairs, decorative items etc. complete.				
	Air Conditioning units of all types				
	Miscellaneous items such as Manure, Plants etc.				
	The above dismantling works are to be carried out upto the Terrace Floor level. The debris is to be carted outside the premises and disposed off at the MCGM designated place upto any lead. The serviceable and unserviceable materials excluding debris shall be stacked properly in the designated place and to be secured in safe custody till the disposal of the same. Sufficient manpower shall be provided for movement of furniture from one floor to other during execution.				

b	The rates quoted shall be inclusive of providing temporary plywood, 6mm thk. covering to the existing openings / doors / windows with temporary plywood before starting of the repair works including the removal of the same after completion of the works. The rate shall be also inclusive of temporary wooden partitions, 6mm thk. plywood with door shutters at the desired locations, sealing joints with POP / masking tapes.				
c	The quoted rates shall also include the provision of Props & other necessary temporary supporting arrangements such as bracings, steel angles, plates etc., which shall be provided for the areas in the vicinity in adequate numbers as directed by the Consultants including the safety netting required for the work all around the buildings & structures and removal of the same after completion of the works including all the safety gadgets for the work-force such as Goggles, Hand-gloves, Helmets, Suspending belts & hooks, aprons, shoes & boots etc. complete.				
1	<u>SCAFFOLDING & SITE PREPARATORY WORKS,</u>				
	Providing and fixing double scaffolding system (cup lock type) on the exterior side, upto any height (entire height) of the building structure made out of 40 mm dia. M.S. tubes, 1.5 m center to center, horizontal & vertical tubes joining with cup & lock system with M.S. tubes, M.S. tube challis, M.S. clamps and M.S. staircase system in the scaffolding including & the working platform etc. and maintaining it in a serviceable condition for the entire required duration as approved and directed by the Architect & removing it thereafter. The scaffolding system shall be stiffened with bracings, runners, connection with the building fascia's etc. wherever required & at required locations including the essential safety features for the workmen etc. complete as per directions and approval of Architect or Engineer-in-charge. The elevational area of the scaffolding shall be measured for payment purpose.				
	Note: - This item to be used for maintenance work judiciously & wherever scaffolding is excluded in the respective line item of works. Wherever the same is included in the respective line item & shown as an inclusive item, the necessary deduction for scaffolding in that respective item shall be done.				
	Note: - The payment towards erection of scaffolding shall be made only once irrespective of duration of scaffolding which would be required for the entire duration of the project & from start of work till completion of work & shall be retained in position at site continuously including shifting of scaffolding from one location to another location as many times as required during the execution of the entire work till its completion. The Rate shall also include its maintenance for damages, all incidentals,	Sq.Mts	2,525		

	labour, materials, equipment's and tools required to erect& execute the job. The scaffolding shall not be removed without prior approval of Architect or Engineer-in-Charge.				
2	<u>BARRICADING & SITE PREPARATORY WORKS,</u>				
	Providing and erecting 3.00 metre high temporary barricading at site by means of G.I sheets and as per direction of Architect or Engineer-in-Charge which includes writing and painting, arrangement for traffic diversion such as traffic signals during construction at site for day and night, glow lamps, reflective signs, marking, flags, caution tape as directed by the Engineer-in-Charge. The barricading provided shall be retained in position at site continuously i/c shifting of barricading from one location to another location as many times as required during the execution of the entire work till its completion. Rate include its maintenance for damages, painting, all incidentals, labour, materials, equipment's and tools required to erect& execute the job. The barricading shall not be removed without prior approval of Architect or Engineer-in-Charge.				
	(Note :-One time payment shall be made for providing barricading from start of work till completion of work i/c shifting. The barricading provided shall remain to be the property of the contractor on completion of the work). Barricading shall be in ISLC angles, channels , beams, welding scaffolding includingetc. complete. The rate shall also include Excavation for the M.S. Column be fitted in Existing area, Providing and Fixing anchor Bolts, for M.S. Column supports on all the 4 side, Providing and applying 1:2:4 Cement Concrete for Foundation etc. complete including G.I sheets of approved gauge& thickness etc. complete as per directions of Architect or Engineer in charge.	R. Meters	60		
3	Providing and Fixing Nylon net including Nylon Rope (Minimum 20 mm) for tightening of the net for open areas all around the building about 8 to 10 Mts during construction to control debris & dust from spreading beyond construction work as	Sq.Mts	200		

	directed by Architect or Engineer In charge. The mode of measurement shall be the elevational area, which would be measured and accordingly paid				
4	Providing & laying External 9" thk brickwork in cement mortar 1:6, in superstructure, compound wall, steps, brick pillars of any size / shape etc. using approved conventional bricks of best available quality in the market including raking out joints or simultaneous pointing, curing, scaffolding etc complete as per the specifications and directions & instructions of the Consultant. Plastering would be paid for seperately under relevant item. 230mm Siporex masonry wall	Cu. Mts.	19.82		
5	Providing and erecting in position, level and plumb Internal 6" thksiporex walls in cement mortar 1:6 (1 cement : 6 coarse sand) etc. complete. Plastering would be paid for seperately under relevant item. 150mm Siporexmasonry wall	Sq. Mts.	60.38		
6	INTERNAL PLASTERING Carefully breaking & removing the existing plaster in patches or long stretches without damaging the plaster, brickwork in the vicinity including cutting a groove first to demarcate exact area & Providing and applying one pack Bonding coat between the concrete members like RCC slabs, columns, beams, Chajjas, pardis and brickwork etc with cement mortar plaster using HACK AID PLAST or equivalent of M/s. SunandaSpeciality Coatings or equivalent. Clean the surface thoroughly to remove dust, dirt, grime, deshuttering oils and rub down to a clean surface. Apply HACK AID PLAST by spray on the entire concrete or brick surface. Provide a lean cement - sand dash coat over the same. Allow the dash coat to set for around 24 hours. Further Providing and applying internal cement plaster in patches or long stretches over the removed plaster portion in C.M. 1:4 upto average 20 mm thickness, including addition of water proof chemicals of Sunanda or equivalent approved make, providing bands, drip moulds, grooves, scaffolding, curing for 7 days, application of Terraco Spray after cement plaster has dried out etc.	Sq. Mts.	1858.06		

	complete.				
	Common ares				
	Staircase well, Parapet, Tank walls				
	Internal Floor areas & floor plates				
	Entrance Lobbies of all floors & All Internal Floor slabs & walls				
	All Floors Internal Walls & Ceiling of Toilet				
7	EXTERNAL CEMENT PLASTER				
	Carefully breaking and removing the existing external plaster of walls, compound walls etc in patches or long stretches without damaging the plaster, brickwork in the vicinity including cutting a groove first to demarcate the exact area, including supplying, providing & erecting in position the necessary scaffolding, disposal & taking away of the debris, cleaning etc. complete & Providing and applying one pack Bonding coat between the concrete members like RCC slabs, columns, beams, Chajjas, pardis and brickwork etc with cement mortar plaster using HACK AID PLAST or equivalent of M/s. Sunanda Speciality Coatings or equivalent. Clean the surface thoroughly to remove dust, dirt, grime, deshuttering oils and rub down to a clean surface. Apply HACK AID PLAST by spray on the entire concrete or brick surface. Provide a lean cement - sand dash coat over the same. Allow the dash coat to set for around 24 hours.				
	Further to the same, Providing and applying 20-25 mm thk cement plaster in two coats with first coat in 12-15 mm thick in 1:4 C.M and second coat in 8-10 mm thick in C.M 1:4 finished in proper line and level including addition in both the coats shrinkage compensating admixture cum plasticizer- "SUNPLEX" or equivalent 330 gms pouch per 50 Kg bag of cement including SUNPLEX or equivalent mix to be in dry machine mix before addition of gauging water. The rate to include providing drip moulds, fibres, wire mesh, grooves, bands, watas at all heights including necessary curing for both the coats etc complete.				
	Note:				
	No extra payment shall be made for extra thickness of plaster carried out to match with existing surface.	Sq. Mts.	3667.14		
8	PATCHWORK CONCRETE (M20)				

	Carefully breaking, removing and exposing the existing loose & damaged concrete in patches or long stretches by means of light chisel including supplying, providing & erecting in position the necessary scaffolding, disposal & taking away of the debris, cleaning etc. complete & providing and laying M-20 concrete in patches with 10 to 20 mm downgraded aggregate as required, including providing the necessary formwork, water tight and removal after prescribed duration, compaction, curing, chipping of excess concrete and bringing it to original profile etc. complete. The rate shall include the usage of appropriate chemicals, setting agents etc of Sunanda or equivalent manufacturer etc complete. (Application area :Elevational Treatments, bands, fascia's)	Cu. Mts.	49.55		
	<u>Note:</u>				
	1. Quoted rate shall be inclusive of additional concreting done and applying protection coat of polymer + cement (1:1 by volume) to existing reinforcement, which will not be paid separately.				
	2. Hammers weighing more than 2 kg shall not be used. The rate shall also include the replacement of the totally corroded and damaged reinforcement steel bars wherever necessary & directed including welding, lapping, cleaning etc. complete.				
9	Breaking & removing the existing surface & base course upto the required surface & levels as directed by the Consultants / Engineer-in-charge & providing & laying 9" thk. Dry Rubble Soling over the existing surface / earth filling including filling the voids with murum, ramming etc. complete. This item shall be provided for road work below the PCC & RCC layers only on the instructions & directions of Consultants / Engineer-in-charge.	Sq. Mts.	32.51		
10	Providing & laying over the freshly laid Dry Rubble Soling, 4" thk. Plain Cement Concrete (PCC), 1:2:4 (M15) (1 Cement : 2 Sand : 4 stone metal) using graded stone aggregate of 30mm & down including necessary formwork, laying, consolidation, finishing, curing, etc. complete as per the directions & instructions of Consultants / Engineer-in-charge. This item shall be provided for road work below the PCC & RCC layers only on the instructions & directions of Consultants / Engineer-in-charge. This item shall be provided for road work below the RCC layer only on the	Cu.Mts.	6.22		

	instructions & directions of Consultants / Engineer-in-charge. The item can be operated in patches without removing the existing PCC, which is in an acceptable condition.				
11	GAP FILLING WITH WATER PROOF CHEMICAL PASTE				
	Providing & applying sealants with white cement for sealing gaps & joints of various works such as external elevational box cill gaps, kitchen platforms, varying materials gaps etc. including addition of appropriate water proof chemicals in white / matching cement paste as per manufacturers specifications etc. complete.	Sq. Mts.	74.33		
12	WATER SUPPLY PIPES				
	Removing the old damaged pipes, including stacking the same at the desired location & handing over the same to the bank and Supplying, fixing, jointing, testing and commissioning of approved make Chlorinated Polyvinyl Chloride pipes (CPVC) as per IS 15778: 2007 & including fittings as per ASTM D2846 / D2846M - 14, both of approved make up to 50mm dia. and above 50 mm dia. with CPVC Sch 80 Pipes as per ASTM F - 441 & Sch. 80 fittings as per ASTM F439 - 13, both of approved make. The rate shall include all the necessary accessories, fittings, fixtures and special elements such as tees, elbows, couplers, bends, enlargers etc., with CPVC brass threaded combination / transition specials such as male adapter's brass threaded female adapters, brass FPT Tee, Brass FPT elbow etc.				
	The rate shall include necessary drilling holes, chasing walls and making the same good in as directed by the Engineer in-charge. Wherever the pipes are crossing through the walls pipes should have sleeves in the wall and between pipe and sleeve should be sealed with silicone sealent. Annular space between pipe and sleeve provided wherever the pipes are crossing the wall will be sealed with glass wool in between & fire sealent compound at either end. Including necessary supplying, erecting the scaffolding required etc. complete as per the directions of the Consultant. (The fixing arrangements shall protrude slightly from the surface of the walls as directed by the Consultants on site).				

	The rate shall include necessary CPVC fittings such as backnuts, clamps, elbows, junctions at the required degree, offsets, washers, collar, stays, bends, tees, unions, reducers, enlargers, plugs and all the accessories, fittings etc complete. Rate shall also include making the joints water tight, scrapping the walls, applying water proof chemicals to cleaned portion, including necessary drilling of holes in walls, slabs etc., making supporting arrangement etc including remaking good the demolished portion to restore the same in original condition neatly etc. Rate shall be inclusive of all hangers, brackets etc. shall be of galvanized iron unless specified otherwise, including flusing and chemical cleaning of pipes. Charges for Labelling of pipe as per color schedule over painted surface of the pipes. This includes jointing of pipes & fittings with one step CPVC solvent cement, trenching, refilling & testing of joints complete as per direction of Engineer in Charge.				
a	15 mm nominal dia.	R.Mtr.	109.44		
b	20 mm nominal dia.	R.Mtr.	109.44		
c	25 mm nominal dia.	R.Mtr.	86.84		
d	32 mm nominal dia.	R.Mtr.	41.04		
e	40 mm nominal dia.	R.Mtr.	41.04		
f	50 mm nominal dia.	R.Mtr.	18.25		
g	65 mm nominal dia.	R.Mtr.	3.04		
13	SANITARY & DRAINAGE PIPES				
	Removing the old damaged Sanitary and drainage pipes, including stacking the same at the desired location & handing over the same to the bank and providing and fixing approved pipe line with all its fittings, fixtures, accessories, making the joints water tight, scrapping the walls, applying water proof chemicals to cleaned portion, fixing with clamps including necessary drilling of holes in walls, slabs etc., making supporting arrangement etc. including remaking good the demolished portion to restore the same in original condition neatly etc. including necessary supplying, erecting the scaffolding required etc complete as per the directions of the Consultant. (The fixing arrangements shall protrude slightly from the surface of the walls as directed by the Consultants on site.).				

	The rate shall include all the necessary fittings such as backnuts, bat clamps, elbows, heel rests, junctions at the required degree, inverts, offsets, terminal guards, washers, collar, caulked joints, stays, traps, bends, tees, unions, reducers, enlargers, plugs and all the accessories, fittings etc. complete including making connections to the chambers, PCC bedding, cleaning of chambers etc. complete including two coats of oil paint over one coat of primer etc. complete.				
a	Supplying, fixing and testing and commissioning of UPVC soil and waste pipes (SWR) confirming to IS 13592 :1990, type B with solvent cement inclusive of all necessary specials like bends, tees, offsets, door bends, junctions, cowls, etc., laid under floor / fixed on walls, and in pipe shafts etc., complete.				
	Location: Inside Toilet & other exposed pipe				
	40mm dia.	R.Mtr.	49.85		
	50mm dia.	R.Mtr.	10.64		
	75mm dia.	R.Mtr.	45.60		
	110mm dia.	R.Mtr.	72.96		
b	Supplying, fixing and testing and commissioning of UPVC soil, waste and vent pipes (SWR) confirming to IS 13592 :1990, type B with solvent cement inclusive of all necessary specials like bends, tees, offsets, doorbends, junctions, cowls, etc., laid under floor / fixed on walls, and in pipe shafts etc., complete.				
	Location: Shaft				
	63mm dia.	R.Mtr.	91.20		
	75mm dia.	R.Mtr.	183.92		
	110mm dia.	R.Mtr.	92.72		
c	Supplying, fixing, testing and commissioning of PVC pipe confirming to IS 4985 of Agricultural series - 6 kgs / sq.cm pressure rated, for underground soil, waste and vent laid under the soil from manhole to manhole outside the building, to the required slopes, jointing with solvent cement followed by application leak proof adhesives of FRP paste, including haunching / covering only the joints with cement concrete 1:3:6 at all the joints with and testing of joints with water column etc. complete.				
	Location: External sewer				

i	110mm dia.	R.Mtr.	24.32		
ii	200mm dia.	R.Mtr.	41.95		
d	Supplying, fixing and testing uPVC pipe class III pipes (6 Kg/sqcm) confirming to IS:4985:2000 for waste connection from wash basin, kitchen sinks to floor trap / anti syphonage pipe with solvent cement joints, including all the fittings, laid under floor / concealed in wall etc., the work shall include wall chase and making good the same in cement mortar etc., complete.				
	Location: Internal WB & UR connection pipe				
i	50mm dia.	R.Mtr.	16.72		
ii	40mm dia.	R.Mtr.	60.80		
e	Supply, Installation, testing and commissioning Rain water pipe confirming to IS 4985 of SWR Class - III (6 Kg/sqcm) quality pressure rates as mentioned below, including all fittings, like Bends, Tees, Elbows, Collars, junction, inspection doors, cowls, offsets, access pipes, jointing with rubber ring followed by application of leak proof adhesive like FRP paste, fixed to wall vertically in shafts. Rate includes necessary MS angle brackets, hangers, supports as per detail drawing for supporting sewerage water Providing pipes with suitable GI U- clamps, bolts, nuts and washers etc. with MS grip bolts in columns / beams / walls / ceiling for fixing soil, waste and rain water pipe supports. The Brackets / clamps shall be painted with two coats of enamel (approved) paint over a coat of primer etc., complete.				
	Location :Shaft& ceiling (RWP)				
i	75mm dia (Balcony rain water pipe)	R.Mtr.	20.06		
ii	110mm dia	R.Mtr.	95.76		
f	Supplying ,fixing, testing and commissioning of PVC pipe confirming to IS 4985 of Agricultural series - 6 kgs / sq.cm pressure rated, for underground soil, waste and vent laid under the soil from manhole to manhole outside the building, to the required slopes, jointing with solvent cement followed by application leak proof adhesives of FRP paste, including haunching / covering only the joints with cement concrete 1:3:6 at all the joints with and testing of joints with water column etc. complete.				
	Location: External rain water pipe				
	50mm dia	R.Mtr.	27.96		

	110mm dia	R.Mtr.	6.99		
	160mm dia	R.Mtr.	6.99		
g	Supplying and fixing of Leaf trap with kurra made out of PVC with flange and grating for rain water outlets on terrace etc., complete.				
	b) 110 mm dia	Nos	7		
h	Supplying installing testing and commissioning of the balcony floor drain of 110 x 75 with a grating of size 110 dia SS grade, to be fixed over 110 drain pipe, properly supported underneath slab, etc. complete satisfaction to the engineer incharge.	Nos	90		
i	Supply, fixing and testing PVC floor- trap (6 Kg/sqcm) 110 dia. with necessary of multitrap connection (heavy duty hinged type trap of 100 mm dia inlet and 75 mm dia. outlet fixed on a bed of cement concrete etc.complete. The rate shall include Supplying and fixing of SS heavy grating cover (Cockroach trap) (150 mm x 150 mm). etc., complete. (The frame and grating shall be approved by Architects - Chilly Make grating)	Nos	144		
14	WATERPROOFING OF TERRACE				
DS R 14. 91	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 manufacture 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 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:	Sq. Mts.	380.90		

	Extra for covering top of membrane with Geotextile 120 gsm.non woven, 100% polyester of thickness 1 to 1.25 mm bonded to the membrane with intermittent touch by heating the membrane by Butane Torch as per manufactures recommendation.				
15	WATERPROOFING OF CHAJJAS, FINS, PADADIS ETC				
	Carefully removing the entire water proofing treatment on the chajjas, fins, paradis etc. of any thickness including disposal & citing away of the debris, cleaning etc. and Providing and applying water proofing treatment of up to any thickness with average 150mm thickness for chajjas, fins, padadisetc consisting of 12mm thick layers in 1:4 cement mortar with water proofing compound comprising of the following operations: - Two coats of "POLYALK WP" or equivalent of M/s. SunandaSpecialty Coatings Pvt. Ltd or equivalent and cement in 1:1.25 ratio, constructing and laying brick bat coba in cement mortar 1:5 including the water proofing compound up to the desired thickness as directed at an interval of 24 hours on the surfaces and extending it up to 1'0" over the side walls. Air cures the same for 24 hours and damp cure for next 4-5 days. Providing and applying single coat of bonding agent HACK-AID-PLAST or equivalent of M/s. SunandaSpecialty Coatings Pvt. Ltd or equivalent on the POLYALK WP coating by spray and providing wet on wet a chat/dash coat of 1:4 cement mortar in 12 mm thickness including all leads, lifts and laid to proper slope to drain off water entirely.	Sq. Mts.	174.65		
	The rate shall include watta at the junction of wall as directed and including finishing the top layer of water proofing treatment with IPS or as directed and covering the whole waterproofing treatment with ten year's guarantee on requisite stamp paper etc. complete as directed by Consultant in line with the technical specifications.				
	All mortar mix to be necessarily added with "SUNPLEX" or equivalent 330 gms.pouch per 50 Kg bag of cement. All coats of POLYALK WP or equivalent to be inspected using a Magnifying glass by the EIC to satisfaction to ensure pinhole free coating. Ensure mechanical mixing of "POLYALK WP" or equivalent and cement slurry using stirrers and check that cement particles do not settle down in the prepared mix. Consume the prepared mix within 30 minutes. Payment will be made as per the plan area. Lay small				

	<p>sized well soaked brick bat metal coba in cement mortar 1:3 to proper level and slope as per instructions adding "SUNPLEX" - 330 gms pouch per 50 Kg bag of cement to the mortar mix.</p>				
	<p>Fill up the joints adding SUNPLEX or equivalent 330 gms pouch per 50 Kg bag of cement to the cement mortar 1:3 mixed and finished smooth with neat cement on top so as to drain water smoothly. Provide about 9" to 12" watta along the walls with cement mortar 1:3 small brick bats. Rate to include for making border at the junction of watta and wall plaster, ponding for seven days by closing the RW outlets and making watas etc. complete to the satisfaction of the EIC.</p>				
16	<p>POLYMER MODIFIED MORTAR/CONCRETE</p>				
	<p>Carefully breaking & removing the existing damaged / corroded R.C.C. Columns, beam, slabs, chajjas, paradis, fins etc including disposal & cating away of the debris, cleaning etc in the patches or long stretches by means of light chisel upto 50mm depth, upto the level of reinforcement without damaging brickwork, plaster in the vicinity, including supplying, providing & errecting in position the necessary scaffolding, cleaning, disposing of debris etc complete & then providing and applying polymer modified cementatious mortar treatment upto 50 mm thk. comprising of following operations:</p>	Sq. Mts.	1091.61		
	<p>a) Reinforcement treatment coat</p>				
	<p># Scrapping reinforcement with wire brush and cleaning the same from all sides by light tapping, wire brushing and emery paper.</p>				
	<p># applying RusticideRustprime/Ruskill A or approved equivalent in one or more coats as directed as per manufacturers specification, washing with water.</p>				
	<p>b) Bond coat</p>				
	<p># Providing & applying PolyalkFixoprime or equivalent and Cement (1:1.25) to exposed steel bars in two coats as per manufacturer's specifications and brushable consistency for bonding old and new concrete surfaces.</p>				
	<p>Providing and applying bonding coat of POLYALK EP or equivalent and Cement (1: 1.25) to the entire concrete surface.</p>				
	<p>c) Mortar application</p>				
	<p>Applying Polymer modified mortar/concrete treatment as per manufacturer's instructions in layers of thickness not exceeding 20 mm (applying bonding coat at every layer) upto</p>				

	<p>profile of concrete in the vicinity by applying Hand pack Polymer Modified Mortar by mixing 1 part by weight of "POLYALK EP" or equivalent with 5 parts by weight of cement and 15 parts by weight of well graded sand and water to achieve the desired consistency [Sand Grading IS383, Zone II, Silt content <6%]</p>				
	Including curing, scaffolding, cleaning etc. complete				
	Note:				
	If the depth of polymer modified mortar/concrete exceeds 50 mm, then quantity shall be paid by considering multiplication factor = (actual depth) / 50mm for additional thickness.				
	At a time apply mortar layer not more than 20 mm thick. The mortar should be prepared using mechanical mixers / stirrers & should be well compacted and finished using appropriate methods. The rate to include for necessary compaction with mechanical plate vibrator etc. complete to the satisfaction of the EIC.				
17	CRACK FILLING WITH PMCM				
	<p>Carefully removing the existing plaster / mortar / loose concrete, chasing the cracks, including supplying, providing & erecting in position the necessary scaffolding, disposal & taking away of the debris, cleaning etc. & sealing the separation cracks between R.C.C. and brickwork by raking, open the crack by electrically operating groove cutter as directed, insertion of 20 mm downgraded aggregates by hammering as per the instructions of the consultant, sealing with polymer modified cementations mortar (25mm width x 25mm depth) using Polyalk EP or equivalent as per the specification of item polymer modified cementations mortar/concrete, application of chicken mesh (200mm wide, 200mm overlapping length) along the crack by 'U' nails spaced at 300 mm c/c, including necessary breaking plaster, concrete, brickwork, washing with water, curing, cleaning etc. complete.</p>	R.Mtr.	608.00		
18	PAINTING (EXTERNAL IN ACRYLIC EMULSION PAINT) INCLUDING CRACK FILLING				

	<p>Scrapping the existing paint and finishes & Providing and applying 100% acrylic, heat insulating & thermal resistant, high quality, decorative, weather proof exterior acrylic emulsion paint coating "Apex" grade or equivalent approved make including a priming coat on the surface and applying by brush two subsequent coats of paint of approved shade, color, texture & design. The rate shall include erection of scaffolding at all levels, applying three coats at an interval of 4-6 hours between each coat etc all complete as per the satisfaction of the consultant / engineer-in-charge. The rate shall be inclusive of external surface crack filling with cutting of V-Groove, coat of POLYALK WP or equivalent & cement in 1:1 proportion by weight in slurry form on the crackfilled area so as to avoid moisture through cracks including preparing the surface even and sand papered smooth etc. & applying two coats of Birla White putty to seal the Cracks etc. and for receiving the coats of paint etc. complete as directed at site including 7 years guarantee. (Mode of measurements: Flat surface area shall be measured for all kind of surfaces)</p>	Sq. Mts.	5574.18		
19	<p>PAINTING (DOORS, GRILLS, PIPES, WINDOWS, CUPBOARDS ETC ITEMS IN ENAMEL PAINT)</p>				
	<p>Providing and applying premium enamel or approved equivalent grade gloss/ stain paint to all type of smooth steel/ wood etc. surface The surface to be painted shall be made free from any loose paint, dust, grease and any fungus, algae or moss, on it shall be removed thoroughly by vigorous wire brushing and cleaning with water. Then one coat of exterior grade wall primer be applied after which any surface imperfection such as holes, dents, fine cracks shall be corrected by filling with synthetic grade putty. Thereafter sand the surface with emery paper 180 and wipe clean and apply second coat of interior grade primer and again surface imperfection to be corrected and again surface imperfection to be corrected. Thereafter again sand the surface with emery paper 320 and wipe clean and then apply the premium enamel in two coats. All materials shall be of Asian/ British/ Nerolac make. The color and pattern/ color combination of the paint shall be got approved from Engineer in charge. The rate includes cost of all materials, labour, and scaffolding, ladders charges, storing & safeguarding the labour in all heights.</p>	Sq. Mts.	325.16		

20	PAINTING (INTERNAL IN TRACTOR EMULSION PAINT)				
	Preparing the surface of walls and ceiling by rubbing by sand paper, removing all dirt, smoke, grease, loose plaster etc. and providing and applying Two or more coats of approved quality Tractor Emulsion Paint of Asian Paints etc. of approved color, shade and pattern over approved primer for all internal walls & ceilings etc. complete including necessary putty work with Birla putty to ensure smooth plain surface, scaffolding complete as per the direction and to the satisfaction of the consultant / engineer-in-charge..	Sq. Mts.	4459.34		
21	Providing and fixing 35mm thk. water-proof ready made heavy duty solid flush doors for Main Doors and the doors of habitable spaces in 1.0 mm thk. laminate including 2nd class BTC frame of 100 X 50mm to be finished with approved melamine polish finish for all exposed surfaces including t.w designer moulding, heavy duty Mortice dead bolt locking Latch (Only for the main door), 75 mm long brass handles both ways, SS 304 Satin finished Aldrop 300 mm long with 16mm shoot, 4No. Heavy duty brass hinges, 90 mm SS 304 Satin finished Door stopper, SS 304 Satin finished Oval Door Chain (Only for the main door), cylindrical lock, knobs, 1No. SS 304 Satin finished heavy quality Tower bolt 300mm long. etc. complete as per the directions of Architect.	Sq. Mts.	170.84		
22	Providing and fixing fully glazed UPVC windows, ventilators etc. with clear float glass made of UPVC extruded sections reinforced with galvanized M.S sections 2 mm + 0.2 mm thickness for main frame and with galvanized M.S. sections 1.5mm + 0.2 mm thickness for other members with UPVC section wall thickness 2.0 mm + 0.2 mm. The corners of the frames to be mitered and welded of plastic, galvanized brackets, to be fixed using stainless steel screws / fasteners, standard accessories such as hinges, standard handles with locking system, swinging hardware including the UPVC frames of standard dimensions, fittings, fixtures etc. complete as per manufacturers specifications and directions of E-I-C. Necessary shop drawings showing all details including UPVC section size to be prepared by the agency in consultation with manufacturers as per				

	manufacturer standards.				
a	Operable / Sliding arrangement for windows as per manufacturer's specifications including 5.5 mm thk.clear float glass	Sq. Mts.	257.80		
b	Providing & fixing in position powder coated aluminum louvered window mechanically assembled at corners with frame size 62mm X 45mm (bottom frame with gutter section, bottom frame 0.90 kg/m & top and side frames 0.838 kg/m) shutters with section of 18mm X 40mm (wt. 0.56 kg/m) & interlocking sections 18mm X 40mm (wt. 0.625 kg/m) including 5 mm thk.plain sheet glass, glazing clips/rubber/PVC gasket/roller bearing encased in nylon casing & self Locking catch filled in vertical section with all other accessories etc. complete as directed by E-I-C. Rate shall also factor providing and fixing louvered windows in toilets including channels, swing arrangements etc complete.	Sq. Mts.	10.49		
23	ANTI-TERMITE TREATMENT TO THE BUILDINGS (ENTIRE BUILT-UP AREA)				
	Supplying Aldrex 30 E.C.of NOCIL or equivalent emulsifiable concentrate confirming to IS-1307 at site & injecting the same with dilution as per manufacturer's specification for post-constructional anti-termite treatment and erecting a chemical barrier under / around the column pits, walls, trenches, basements, excavation top surface of plinth filling, exposed surfaces etc. as directed at site all complete.	Sq. Mts.	297.28		
24	Removing the existing MS Grills of the windows, louvers etc., repairing, cutting, replacing the damaged portion of the grills, modifications by providing extension up to the desired level etc. including removing & scrapping the existing paint & applying red oxide primer and two coats of approved enamel paint of approved shade & color including refaxing the same with necessary clamps for the actual size available etc. complete during the course of execution of work on site.	Sq. Mts.	19.50		

25	Removing the existing MS Grills of the windows if any & Providing & fixing new M.S grills box type with a projection up to the desired level beyond the window level of approved pattern & design made using M.S. flats, square or round bars, angles, tees etc.& to be anchored to the external walls using rawl plugs, screws, bolts, hold fast including necessary surface preparation, priming coat with approved Zinc oxide steel primer all complete & including applying two or more coats of enamel paint. The rate shall include all the necessary hardware, fittings, fixtures, welds, clamps for the actual size available etc. complete.	Kgs.	3,500		
26	CORROSION PROTECTION TO STEEL WITH SACRIFICIAL ANODE Clean the existing steel surface by scrubbing, chipping etc. so as to remove all the existing loose rust. Using cotton waste swab apply "RUSTICIDE" after 24 hours remove the free / loose rust particles by simple dusting with brush, etc. complete to the satisfaction of the EIC.				
	Providing and fixing in position zinc based sacrificial anode- SUNSHILED or equivalent over the cleaned steel surface. Fixing to be done using anode connectors or tack welding to steel surface. The rate includes cleaning, applying, fixing in position, welding at all heights etc. complete to the satisfaction of the EIC.	Nos.	150		
27	INTEGRAL CORROSION INHIBITING ADMIXTURE FOR RCC MEMBERS Providing and laying R.C.C of grade M-25 at all heights and levels on well compacted/sound surfaces using a mechanical mixer including dewatering, shuttering, vibrating, curing and finishing as required. Admix integral corrosion inhibitor POLYALK CP293 or equivalent @ 1% by weight of cement. The rate to include for storage, handling, transportation of materials, equipment's etc. using appropriate methods etc. complete.	Cu.Mts.	33.98		
28	Providing and fixing in position - M.S / H.Y.S.D / T.M.T bar reinforcement of various diameters for slabs, beams, columns, canopies, staircases, newels, chajjas, lintels, parades, coping, fins, arches etc. as per detailed designs, drawings and schedules, including cutting, bending, hooking the bars, binding with wires or tack welding and				

	supporting as required etc. complete. The item shall also include anchoring reinforcement bar in existing RCC member in holes of minimum 10d depth for 8 to 12 mm dia. bars and grouting in position with lacfix (fosroc), including drilling of holes, cleaning etc. complete.				
	With HYSD bars / Tor steel bars conforming to IS1786 (TMT Steel)	Tonne's.	4.5		
29	<u>JACKETING</u>				
	Providing & fixing shear keys up to 12 mm dia and 175 mm long bent to required shape at regular intervals including drilling holes in concrete, dipping ends in epoxy, fixing etc. complete for column jacketing etc. as directed.				
	Providing and laying ready mixed Reinforced cement concrete of M-25 grade for jacketing using approved plasticizer etc., including waterproof shuttering, mixing, pouring, temping, consolidation, curing, chemicals & compounds of approved make etc complete. Reinforcement shall be paid for separately under relevant item.	Cu.Mts.	62.29		
30	<u>FIBRE WRAPPING TECHNIQUE</u>				
	Preparing the surface to be wrapped, free from fins, protrusions, depressions, spalls, cracks, moisture and honeycombed / segregated concrete patches. Rounding off the corners of the elements around which the high strength composite system is to be wrapped to a minimum radius of 20 mm, by mechanical or other approved means including preparing the surface with a bedding coat in cement mortar as required to form rounded edges to receive pre-cut fabric.	Sq. Mts	139.35		
	Supplying & Installing Fibrewrap system in conformance to the approved manufacturers specifications and as per the design, fibre orientation, number of layers as detailed in approved drawings or as directed by the Consultant or Engineer-in-charge in accordance with the manufacturers specifications and without any appreciable dead loads on the structure in accordance with ACI 440 code for structural strengthening of RCC elements etc complete.				

	Providing and installing approved, non intrusive, impervious and wet wrapping type high strength composite wrapping system comprising of bi-directional fabric reinforcement and high strength fibres interwoven in the desired orientation & direction, priming the prepared surface with fabric reinforcement saturating the fabric with approved two component high strength saturate resin that is compatible to the fabric reinforcement and wrapping the prepared surface in accordance to the designed main fibre orientation including removing / drawing out the entrapped air etc complete as per the manufacturers specifications.				
	Mode of Measurements for High Strength Composite Wrapping System: -				
	The High strength composite wrapping system shall be measured in terms of the surface area per layer of the composite material installed onto the RCC element. Laps provided in the main and secondary directions shall additionally be considered for measurements. No allowances shall be considered for wastages in the reinforcement fabric and epoxy resins as the same shall be included in the rate quoted. The rate shall also include supplying, providing & erecting in position the necessary scaffolding, disposal & taking away of the debris, cleaning etc. complete.				
	Item shall comprise of the following heads:-				
a	600 GSM Bi-directional glass fiber sheet for slab.				
b	900GSM Uni-directional galss fiber shet for column & beam.				
c	415 GSM (45/45) Bi-directional Glass fiber sheet for beams.				
31	READY MADE RCC JALI				
	Providing precast cement concrete Jali 1:2:4 (1 cement:2 coares sand: 4 graded stone aggregate 6mm nominal size), reinforced with 1.6 mm dia mild steel wire, including centering and shuttering, roughening cleaning, fixing and finishing in cement mortar 1:3(1 cement: 3 fine sand) etc. complete, excluding plastering of the jambs, sills and soffits.				
	50 mm thick	Sq. Mts.	23.22		
32	RCC WORKS IN M20				

	Providing, hoisting and fixing reinforced cement concrete work in string courses, bands, copings, bed plates, anchor blocks, plain window sills, fins, padadis& other RCC elements and the like, including the cost of required centering, shuttering but excluding cost of reinforcement, with M 20 grade of concrete.	Cu.Mts.	24.06		
33	GROUTING				
	Drill the holes of 12mm dia for depth upto 30mm to 50mm inside the damaged or honey combed concrete areas at spacing as instructed by consultants. Clean the holes by blast of air or by jet of wate. Insert the PVC nipples into pre drilled holes and seal peripherally by "M Seal". After 24 hours, injet the "Polymer Cementaceous slurry mix" in the proportion as under into the nipples, at a pressure of 2 kg / Sq. cm using gum pumps of capacity not less than 30 PSI in the rato of (1 kg polymer EP: 3 KG cement: 2 litres of water). After two days of curing, cut the nipples and seal it with polymer modified mortar.	Nos	75		
34	MICRO CONCRETE				
	Micro Concrete - Same item as stated in 8a, b.c Shall be included in addition to the following specifications. Providing and laying of 75 mm thk. prepacked dual shrinkage compensated polymer modified microconcrete like Master Emaco S346 of BASF /Renderoc LA55 of Fosroc/ SikarepMicrocrete -4 of sika or equivalent material, Pouring in narrow location for column, beam, slab. (Rate includes scaffolding,shuttering with the marine plywood/M.S. sheets/plates to be fixed in true line and level as required as per site condition. materials, labour etc. Measurement on the basis of actual consumption of micro concret on square feet area) The rate is inclusive of chipping of the loose concrete and its disposal away from the site. (The rate should include 8a,b,c and 10) AVERAGE THICKNESS 75 MM (Polymer treatment for damaged R.C.C column/ beams/ slabs/ chajja etc. only upto 50 mm thicknes and microconcrete for entire thickness of damaged area upto only 75 mm-100 mm), core cutting, bond coatetc complete the work as per instruction of the architect / Bank's Engineer.	Kgs	3,800		

35	HACK AID PLASTER FOR OLD RCC SURFACE				
	Clean the surface with water jet thoroughly to remove dirt, loose, particles etc. Moisten the surface with water. On the entire clean moist surface, apply a coat of HACK AID PLAST by spray. When surface becomes tacky, apply a chat / dash-coat of cement mortar say in 10 minutes. Tacky period may vary depending on external atmospheric conditions, saturation degree of substrate etc. Check and ensure that the surface is tacky prior to application. Plaster the surface or place the concrete in the usual manner after setting of the chat/ dash coat. Complete as specified by company and directed by Architect / Bank's Engineer.	Sq. Mts.	122.64		
36	COMPOUND GRILL &/OR MAIN ENTRANCE GATE				
	Carefully removing the existing Grill &/or Main Entrance Gates pertaining to the compound wall, stacking the same in the compound and Providing & fixing in position new Ornamental type M.S Grills & Entrance Gates in structural steel work welded in built up sections / framed work including squares, bars, rounds, tees, angles, flats, plates, ready designer pointed spikes and other ornamental designer shapes, profiles, components & elements etc including tubular sections wherever applicable & instructed (round, square or rectangular hollow tubes of any shapes & sizes etc) {Such as Ornagrills or equivalent} including cutting, binding, hoisting, fixing in position in required shape, size and pattern as per directions including priming coat with approved red oxide primer and painting the grill with approved shade of enamel paint (3 coats) etc complete as per the drawing and to the satisfaction of the Architect & Engineer in charge. The rate to include cost towards welding and bolting with special shaped washers, all accessories required for erection etc complete	Kgs	380		
A	TOTAL COST : - CIVIL REPAIRS, RENOVATION & RESTORATION WORKS (ALL ITEMS MENTIONED ABOVE)				

GST EXTRA AS APPLICABLE

-Sd-
ASSISTANT GENERAL MANAGER