

SCHEDULE-B							
10-RD/2022							
<u>Name of work : Strengthening of Residential & Non- Residential Building at New Port Colony, New Kandla.</u>							
Sr. No.	Description of Item	Quantity	Rate		Unit		Amount (In Figures)
			In Figures	In Word	In Figures	In Word	
1	Earth work in surface excavation not exceeding 30 cm in depth but exceeding 1.5 m in width as well as 10 sqm on plan including getting out and disposal of excavated earth upto 50 m and lift upto 1.5 m, as directed by Engineer-in-Charge: All kinds of soil	419.04			m3	Cubic Meter	
2	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	419.04			m3	Cubic Meter	
3	Removal of damaged concrete/plaster: Removing & Cleaning of existing concrete/plaster carefully by low impact high frequency hammer/or by manual chipping without damaging the existing concrete.(Mode of measurement-per Sqmt of breaking area of concrete.)	1924.50			m2	Square Meter	
4	Rust convertor: Clean existing reinforcement with wire/rotary wire brush making the surface free from loose material, dirt, etc. complete, Apply alkaline rust converting primer-Eget ARUP/ Impermo 1002/ Optychem PAR on the rebars, including cleaning the reinforcement wire brushing to remove loose rust spalls. (Mode of measurement: 50 percentage of breaking area of concrete.)	962.25			m2	Square Meter	
5	Additional steel: Providing and fixing in position high yield steel deformed bar reinforcement to replace corroded bars of the existing RCC member or new bars within Microconcrete jacket portion, including cutting, bending, hooking, anchoring links and tying the bars with 10 SWG GI binding wire or welding if required. TMT FE 500 D grade	25962.29			kg	One Kilogram	

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6	Anticorrosive treatment to reinforcement: Application of anticorrosive chemical Eget ACORB / Impermo 1003/ Optychem BOR on exposed reinforcement in two coats with time interval of minimum 4 hours between each coat. The application shall be done by brush. (Mode of measurement: per sqm of application area of concrete.)	1924.50			m2	Square Meter	
7	Shear key connectors: Drilling holes in concrete of suitable diameter, providing and fixing 8 mm diameter High Yield Steel reinforcing bars at 300 mm c/c on the RCC surface projecting out of the concrete surface within the jacket portion.	22308.00			no.	One Number	
8	Bond coat: Providing and applying structural grade epoxy resin bond coat with ShaliBond Concrete/ Catena EB/ Impermo 2004/ Optybond EOB or equivalent prior to building up of section with any type of mortar/concrete to ensure bond between old and new concrete. Application shall be done by brush.	1924.50			m2	Square Meter	
9	Jacketing by micro concrete: Providing, pouring, compacting, levelling precisely micro concrete ShaliFix MC/ Verdhaio MC/Impermo 4003/OptyRE M40 or equivalent of suitable grade upto required thickness, maintaining a minimum clear cover of 30 mm to the outermost reinforcement; including necessary shuttering work.	323603.20			KG	One Kilogram	
10	Polymer Modified Mortar: Providing, applying, levelling ready mix polymer modified mortar ShaliFix FRM/ Verdhaio PMM/Impermo 4005/ OptyRE P25or equivalent of required grade in layers not exceeding 20 mm at a time, to maintain profile of the structural member after chipping and removing the front damaged layer.						
	up to 25 mm thick	1924.50			m2	Square Meter	

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11	Providing and laying vitrified floor tiles in different sizes (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS: 15622, of approved make, in all colours and shades, laid on 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand), jointing with grey cement slurry @ 3.3kg/sqm including grouting the joints with white cement and matching pigments etc., <u>complete</u> Size of Tile 600x600 mm	4580.71			m2	Square Meter	
12	Providing and laying Vitrified tiles in different sizes (thickness to be specified by manufacturer), with water absorption less than 0.08 % and conforming to I.S. 15622, of approved make, in all colours & shade, in skirting, riser of steps, over 12 mm thick bed of cement mortar 1:3 (1 cement: 3 coarse sand), jointing with grey cement slurry @ 3.3kg/sqm including grouting the joint with white cement & <u>matching pigments etc. complete</u> Size of Tile 600x600 mm	601.28			m2	Square Meter	
13	Providing and laying Ceramic glazed floor, skirting, dedo etc. tiles of size 300x300 mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS : 15622 of approved make in colours such as White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick cement mortar 1:4 (1 Cement :4 Coarse sand), jointing with grey cement slurry @ 3.3kg/sqm including pointing the joints with white cement and matching pigment etc., complete.	2543.34			m2	Square Meter	
14	Removing white or colour wash by scrapping and sand papering and preparing the surface smooth including necessary repairs to scratches etc. <u>complete</u>	35029.49			m2	Square Meter	
15	15 mm cement plaster on the rough side of single or half brick wall of mix : 1:4 (1 cement: 4 fine sand)	11871.93			m2	Square Meter	
16	Finishing walls with Acrylic Smooth exterior paint of required shade : New work (Two or more coat applied @ 1.67 ltr/10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/10 sqm)	11664.75			m2	Square Meter	

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			In Figures	In Word	In Figures	In Word	
17	Providing and applying white cement based putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete.	24001.06			m2	Square Meter	
18	Distempering with oil bound washable distemper of approved brand and manufacture to give an even shade :						
	New work (two or more coats) over and including water thinnable priming coat with cement primer	24001.06			m2	Square Meter	
19	Kota stone slabs 20 mm thick in risers of steps, skirting, dado and pillars laid on 12 mm (average) thick cement mortar 1:3 (1 cement: 3 coarse sand) and jointed with grey cement slurry mixed with pigment to match the shade of the slabs, including rubbing and polishing complete.	1131.34			m2	Square Meter	
20	Providing and fixing Galvanised wire mesh of average width of aperture 1.4 mm and nominal dia. of wire 0.63 mm in aluminum door, window & ventilation with EPDM rubber / neoprene gasket etc. including cost of required alluminium frame work complete as per the architectural drawings and the directions of Engineer-in-charge.	1973.69			m2	Square Meter	
21	Renewing glass panes and refixing existing wooden fillets: Float glass panes of thickness 4 mm	617.29			m2	Square Meter	
22	Providing and fixing doors of Pre-laminated with decorative lamination one side and other side balancing lamination exterior Grade-I MDF Board 25 mm thick confirming to IS: 14587 including cost of fittings	1390.96			m2	Square Meter	
23	Finishing with Deluxe Multi surface paint system for interiors and exteriors using Primer as per manufacturers specifications :						

Sr. No.	Description of Item	Quantity	Rate		Unit		Amount (In Figures)
			In Figures	In Word	In Figures	In Word	
	Painting Steel work with Deluxe Multi Surface Paint to give an even shade. Two or more coat applied @ 0.90 ltr/ 10 sqm over an under coat of primer applied @ 0.80 ltr/ 10 sqm of approved brand and manufacture	643.21			m2	Square Meter	
24	Providing and fixing Stainless Steel pipe and fitting of grade AISI 304 as per JIS standard 3448 complete with press type fitting i/c fixing of the pipe with clamps at 1.00 m spacing including cutting and making good the walls including testing of joints complete as per direction of Engineer-in-charge. (The pipe length inserted in the fitting shall not be measured for payment)						
	34.00 mm outer dia Pipe	301.253			m	Meter	
25	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level : 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size).	12.12			m3	Cubic Meter	
26	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level : 1:4:8 (1 Cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size)	30.31			m3	Cubic Meter	
27	Demolishing R.C.C. work by mechanical means and stockpiling at designated locations and disposal of dismantled materials up to a lead of 1 kilometre, stacking serviceable and unserviceable material separately including cutting reinforcement bars.	436.99			m3	Cubic Meter	
28	Steel reinforcement for R.C.C. work including straightening, cutting,bending, placing in position and binding all complete upto plinth level. Thermo-Mechanically Treated bars of grade Fe-500 D or more.	48436.20			KG	KG	

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29	Reinforced cement concrete work in beams, suspended floors, roofs having slope up to 15° landings, balconies, shelves, chajjas, lintels,bands, plain window sills, staircases and spiral stair cases above plinth level up to floor five level, excluding the cost of centering, shuttering,finishing and reinforcement, with M-30 design mix concrete with minimum cement content at 403 kg/m3	353.99			m3	Cubic Meter	
30	Providing and fixing on wall face unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10 mm gap for thermal expansion,(i) Single socketed pipes (including removing of old pipe and fittings)						
	110 mm diameter	2195.00			m	Meter	
31	Providing and fixing factory made Fiberglass Reinforced plastics (F.R.P.) chajja 4 mm thick of required colour, size and design made by Resin Transfer Moulding (RTM) Machine Technology, resulting in void free compact laminate in single piece, having smooth gradual slope curvature for easy drainage of water and duly reinforced by 2 nos vertically and 1 nos horizontally 50x2 mm thick M.S. flat with 12 mm in built hole for grouting on the existing wall along with the 50 mm flanges duly inserted and sealed in the wall complete in one single piece casted monolithically,including all necessary fittings .						
	The FRP Chajja should be manufactured using unsaturated Polyester resin as per IS: 6746, duly reinforced with fibre glass chopped strand mat (CSM) as per IS: 11551 complete with protective Gel coat U/V coating on Top for complete resistance from the extreme of temperature, weather & sunlight.	340.80			m2	Square Meter	

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32	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge. (including removing of old pipe and fittings)						
	25 mm nominal outer dia Pipes	902.00			m	Meter	
33	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge. (including removing of old pipe and fittings)						
	20 mm nominal outer dia Pipes	635.00			m	Meter	
34	Providing and laying water proofing treatment on roofs of slabs by applying cement slurry mixed with water proofing cement compound consisting of applying:						
	a) after surface preparation, first layer of slurry of cement @ 0.488 kg/sqm mixed with water proofing cement compound @ 0.253 kg/sqm.						
	b) laying second layer of Fibre glass cloth when the first layer is still green. Overlaps of joints of fibre cloth should not be less than 10 cm.						
	c) third layer of 1.5 mm thickness consisting of slurry of cement @ 1.289 kg/sqm mixed with water proofing cement compound @ 0.670 kg/sqm and coarse sand @ 1.289 kg/sqm. This will be allowed to air cure for 4 hours followed by water curing for 48 hours. The entire treatment will be taken upto 30 cm on parapet wall and tucked into groove in parapet all around.						

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	d) fourth and final layer of of CC Flooring (which will be paid for separately under item no 44.For the purpose of measurement the entire treated surface will be measured.	2241.19			m2	square Meter	
35	Providing and placing on terrace (at all floor levels) polyethylene water storage tank, IS : 12701 marked, with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes with fittings and the base support for tank.	117600.00			Liter	Liter	
	Circular tank						
36	Providing and fixing PTMT extension nipple for water tank pipe, fittings of approved quality and colour.						
	25mm nominal bore, weighing not less than 62 gms	182.00			Each	Each	
37	Dismantling W.C. Pan of all sizes including disposal of dismantled materials i/c malba all complete as per directions of Engineer-in-Charge.	120.00			Each	Each	
38	Providing and fixing white vitreous china pedestal type water closet (European type) with seat and lid, 10 litre low level white vitreous china flushing cistern & C.P. flush bend with fittings & C.I. brackets, 40 mm flush bend, overflow arrangement with specials of standard make and mosquito proof coupling of approved municipal design complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required :						
	W.C. pan with ISI marked white solid plastic seat and lid	120.00			Each	Each	
39	Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require:						
	White Vitreous China Wash basin size 630x450 mm with a pair of 15 mm C.P. brass pillar taps	120.00			Each	Each	
40	Providing and fixing P.V.C. waste pipe for sink or wash basin including P.V.C. waste fittings complete.						
	40 mm dia	240.00			Each	Each	

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41	Providing and fixing C.P. brass long body bib cock of approved quality conforming to IS standards and weighing not less than 690 gms. 15 mm nominal bore	360.00			Each	each	
42	Providing and fixing PTMT pillar cock of approved quality and colour 15 mm nominal bore, 125 mm long foam flow, weighing not less than 120 gms	120.00			Each	Each	
43	Providing and fixing square-mouth S.W. gully trap class SP-1 complete with C.I. grating brick masonry chamber with water tight C.I. cover with frame of 300 x300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design 180x150 mm size P type	120.00			Each	Each	
44	Cement concrete flooring 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate) finished with a floating coat of neat cement, including cement slurry, but excluding the cost of nosing of steps etc. complete. 40 mm thick with 20 mm nominal size stone aggregate	2013.93			m2	Square Meter	
45	Providing and fixing Stainless Steel A ISi 304 (18/8) kitchen sink as per IS: 13983 with C.I. brackets and stainless steel plug 40 mm, including painting of fittings and brackets, cutting and making good the walls wherever required : Kitchen sink without drain board 610x510 mm bowl depth 200 mm	120.00			Each	Each	
46	Providing and fixing trap of self cleansing design with screwed down or hinged grating with or without vent arm and with Steel Jalli of Nahni Trap(15 cm X15 Cm) complete, including cost of cutting and making good the walls and floors : 100 mm inlet and 100 mm outlet Sand cast iron S&S as per IS: 3989	360.00			Each	Each	

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			In Figures	In Word	In Figures	In Word	
47	Centering and shuttering including strutting, propping etc. and removal of form for all heights :	1214.62			m2	Square Meter	
	Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.						
48	Centering and shuttering including strutting, propping etc. and removal of form for all heights :	2148.58			m2	Square Meter	
	Suspended floors, roofs, landings, balconies and access platform						
49	Finishing with Deluxe Multi surface paint system for interiors and exteriors using Primer as per manufacturers specifications :	1973.69			m2	Square Meter	
	Painting wood work with Deluxe Multi Surface Paint of required shade. Two or more coat applied @ 0.90 ltr/10 sqm over an under coat of primer applied @0.75 ltr/10 sqm of approved brand and manufacture						
Total Rs.							
Contractor				Executive Engineer (R) Deendayal port Authority			