

SCHEDULE OF WORK

Name of Work: Construction of toilet blocks at Sports ground

Tender Ref No. NITT/COW/EMD/CIVIL WORKS/ EN.NO.108(117)/13-14 DATE 02.01.2014

Name of the Contractor/ Firm :

Address

SLNo	Description	Qty	Unit	Rate (Rs)	Rate(In Words)	Amount (Rs)
1	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30cm in depth. 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead upto 50m and lift upto 1.5m, disposed earth to be levelled and neatly dressed.					
1.1	All kinds of soil	16.00	cum			
2	Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth upto 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m :					
2.1	All kinds of soil					
2.1.1	Pipes, cables etc. exceeding 80 mm dia. but not exceeding 300 mm dia	29.00	metre			
3	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :					
3.1	1:4:8 (1 cement : 4 fine sand : 8 graded stone aggregate 40 mm nominal size)	7.00	cum			

SLNo	Description	Qty	Unit	Rate (Rs)	Rate(In Words)	Amount (Rs)
4	Centering and shuttering including strutting, propping etc. and removal of form work for :					
4.1	Foundations, footings, bases for columns	3.00	sqm			
5	Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. up to floor five level, excluding cost of centering, shuttering, finishing and reinforcement :					
5.1	1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size)	2.50	cum			
6	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 up to floor five level, excluding the cost of centering, shuttering, finishing and reinforcement, with 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size).	10.00	cum			
7	Centering and shuttering including strutting, propping etc. and removal of form for :					
7.1	Foundations, footings, bases of columns, etc. for mass concrete	12.00	sqm			
7.2	Suspended floors, roofs, landings, balconies and access platform	70.00	sqm			
7.3	Lintels, beams, plinth beams, girders, bressumers and cantilevers	32.00	sqm			
7.4	Columns, Pillars, Piers, Abutments, Posts and Struts	8.50	sqm			

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8	Providing, hoisting and fixing up to floor five level precast reinforced cement concrete in shelves, including setting in cement mortar 1:3 (1 cement : 3 coarse sand), cost of required centering, shuttering and finishing with neat cement punning on exposed surfaces but excluding the cost of reinforcement, with 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 12.5 mm nominal size).	1.00	cum			
9	Providing precast cement concrete Jali 1:2:4 (1 cement : 2 coarse sand: 4 graded stone aggregate 6 mm 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.					
9.1	40 mm thick	5.00	sqm			
10	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level.					
10.1	Cold twisted bars	1150.00	kilogram			
11	Half brick masonry with common burnt clay modular bricks of class designation 3.5 in foundations and plinth in :					
11.1	cement mortar 1:4 (1 cement : 4 coarse sand)	29.00	sqm			
12	Providing and fixing 18 mm thick gang saw cut, mirror polished, premoulded and prepolished, machine cut for kitchen platforms, vanity counters, window sills , facias and similar locations of required size, approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 (1 cement : 4 coarse sand), joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing, moulding and polishing to edges to give high gloss finish etc. complete at all levels.					

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12.1	Granite of any colour and shade					
12.1.1	Area of slab over 0.50 sqm	7.20	sqm			
13	Providing edge moulding to 18 mm thick marble stone counters, Vanities etc., including machine polishing to edge to give high gloss finish etc. complete as per design approved by Engineer-in-Charge.					
13.1	Granite work	11.00	metre			
14	Providing and fixing ISI marked aluminium butt hinges anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade with necessary screws etc. complete:					
14.1	125x75x4 mm	18.00	each			
15	Providing and fixing aluminium tower bolts, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade, with necessary screws etc. complete :					
15.1	150x10 mm	6.00	each			
16	Providing and fixing aluminium handles, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade, with necessary screws etc. complete :					
16.1	125 mm	6.00	each			
17	Providing and fixing factory made P.V.C. door frame of size 50x47 mm with a wall thickness of 5 mm, made out of extruded 5mm rigid PVC foam sheet, mitred at corners and joined with 2 Nos of 150 mm long brackets of 15x15 mm M.S. square tube, the vertical door frame profiles to be reinforced with 19x19 mm M.S. square tube of 19 gauge, EPDM rubber gasket weather seal to be provided through out the frame. The door frame to be fixed to the wall using M.S. screws of 65/100 mm size, complete as per manufacturer's specification and direction of Engineer- in-Charge.	31.00	metre			

SLNo	Description	Qty	Unit	Rate (Rs)	Rate(In Words)	Amount (Rs)
18	Providing and fixing factory made panel PVC door shutter consisting of frame made out of M.S. tubes of 19 gauge thickness and size of 19 mm x 19 mm for styles and 15x15 mm for top & bottom rails. M.S. frame shall have a coat of steel primers of approved make and manufacture . M.S. frame covered with 5 mm thick heat moulded PVC 'C' channel of size 30 mm thickness, 70 mm width out of which 50 mm shall be flat and 20 mm shall be tapered in 45 degree angle on both side forming styles and 5 mm thick, 95 mm wide PVC sheet out of which 75 mm shall be flat and 20 mm shall be tapered in 45 degree on the inner side to form top and bottom rail and 115 mm wide PVC sheet out of which 75 mm shall be flat and 20 mm shall be tapered on both sides to form lock rail. Top, bottom and lock rails shall be provided both side of the panel. 10 mm (5 mm x 2) thick, 20 mm wide cross PVC sheet be provided as gap insert for top rail & bottom rail, paneling of 5 mm thick both side PVC sheet to be fitted in the M.S. frame welded/ sealed to the styles & rails with 7 mm (5 mm+2 mm) thick x 15 mm wide PVC sheet beading on inner side, and joined together with solvent cement adhesive. An additional 5 mm thick PVC strip of 20 mm width is to be stuck on the interior side of the 'C' Channel using PVC solvent adhesive etc. complete as per direction of Engineer-in-charge, manufacturer's specification & drawing.					
18.1	30 mm thick plain PVC door shutters	11.00	sqm			
19	Providing and fixing Ist quality ceramic glazed wall tiles conforming to IS: 15622 (thickness to be specified by the manufacturer), of approved make, in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge, in skirting, risers of steps and dados, over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm, including pointing in white cement mixed with pigment of matching shade complete.	120.00	sqm			

SLNo	Description	Qty	Unit	Rate (Rs)	Rate(In Words)	Amount (Rs)
20	Providing and laying Ceramic glazed floor 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), including pointing the joints with white cement and matching pigment etc., complete.	47.00	sqm			
21	Providing and fixing to the inlet mouth of rain water pipe cast iron grating 15 cm diameter and weighing not less than 440 grams.	4.00	each			
22	12 mm cement plaster of mix :					
22.1	1:6 (1 cement: 6 fine sand)	210.00	sqm			
23	15 mm cement plaster on the rough side of single or half brick wall of mix :					
23.1	1:6 (1 cement: 6 fine sand)	20.00	sqm			
24	6 mm cement plaster of mix :					
24.1	1:3 (1 cement : 3 fine sand)	50.00	sqm			
25	Applying one coat of water thinnable cement primer of approved brand and manufacture on wall surface :					
25.1	Water thinnable cement primer	285.00	sqm			
26	Finishing walls with Premium Acrylic Smooth exterior paint with Silicone additives of required shade :					
26.1	New work (Two or more coats applied @ 1.43 ltr/ 10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/ 10 sqm)	170.00	sqm			
27	Wall painting with acrylic emulsion paint of approved brand and manufacture to give an even shade :					
27.1	Two or more coats on new work	120.00	sqm			
28	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade :					
28.1	Two or more coats on new work	7.00	sqm			

SLNo	Description	Qty	Unit	Rate (Rs)	Rate(In Words)	Amount (Rs)
29	Providing and fixing water closet squatting pan (Indian type W.C. pan) with 100 mm sand cast Iron P or S trap, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever) conforming to IS : 7231, with all fittings and fixtures complete, including cutting and making good the walls and floors wherever required :					
29.1	White Vitreous china Orissa pattern W.C. pan of size 580x440 mm with integral type foot rests	2.00	each			
30	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 :					
30.1	W.C. pan with ISI marked white solid plastic seat and lid	2.00	each			
31	Providing and fixing white vitreous china flat back or wall corner type lipped front urinal basin of 430x260x350 mm and 340x410x265 mm sizes respectively with automatic flushing cistern with standard flush pipe and C.P. brass spreaders with brass unions and G.I clamps complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required :					
31.1	One urinal basin with 5 litre white P.V.C. automatic flushing cistern	5.00	each			
32	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 :					
32.1	White Vitreous China Wash basin size 630x450 mm with a pair of 15 mm C.P. brass pillar taps	6.00	each			

SLNo	Description	Qty	Unit	Rate (Rs)	Rate(In Words)	Amount (Rs)
33	Providing and fixing P.V.C. waste pipe for sink or wash basin including P.V.C. waste fittings complete.					
33.1	Flexible pipe					
33.1.1	32 mm dia	6.00	each			
34	Providing and fixing 100 mm sand cast Iron grating for gully trap.	2.00	each			
35	Providing and fixing 600x450 mm beveled edge mirror of superior glass (of approved quality) complete with 6 mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washers complete.	10.00	each			
36	Providing and fixing toilet paper holder :					
36.1	C.P. brass	4.00	each			
37	Providing and fixing soil, waste and vent pipes :					
37.1	100 mm dia					
37.1.1	Sand cast iron S&S pipe as per IS: 1729	2.00	metre			
38	Providing and fixing PTMT towel rail complete with brackets fixed to wooden cleats with CP brass screws with concealed fittings arrangement of approved quality and colour.					
38.1	600 mm long towel rail with total length of 645 mm, width 78 mm and effective height of 88 mm, weighing not less than 190 gms	12.00	each			
39	Providing and fixing G.I. pipes complete with G.I. fittings and clamps, i/c cutting and making good the walls etc.					
39.1	20 mm dia nominal bore	37.00	metre			

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40	Providing and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc.					
40.1	32 mm dia nominal bore	50.00	metre			
41	Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end) :					
42	Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end) :					
42.1	25 mm nominal bore	1.00	each			
42.2	32 mm nominal bore.	1.00	each			
43	Providing and fixing uplasticised PVC connection pipe with brass unions :					
43.1	45 cm length					
43.1.1	15 mm nominal bore	17.00	each			
44	Painting G.I. pipes and fittings with two coats of anti-corrosive bitumastic paint of approved quality :					
45	Painting G.I. pipes and fittings with two coats of anti-corrosive bitumastic paint of approved quality :					
45.1	32 mm diameter pipe	55.00	metre			
46	Providing and filling sand of grading zone V or coarser grade, all-round the G.I. pipes in external work :					
47	Providing and filling sand of grading zone V or coarser grade, all-round the G.I. pipes in external work :					
47.1	32 mm diameter pipe	55.00	metre			
48	Providing and fixing G.I. Union in G.I. pipe including cutting and threading the pipe and making long screws etc. complete (New work) :					
48.1	25 mm nominal bore	2.00	each			

SLNo	Description	Qty	Unit	Rate (Rs)	Rate(In Words)	Amount (Rs)
49	Providing and placing on terrace (at all floor levels) polyethylene water storage tank, ISI : 12701 marked, with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fittings and the base support for tank.	2000.00	per litre			
50	Providing and fixing C.P. brass long nose bib cock of approved quality conforming to IS standards and weighing not less than 810 gms.					
50.1	15 mm nominal bore	6.00	each			
51	Providing and fixing C.P. brass long body bib cock of approved quality conforming to IS standards and weighing not less than 690 gms.					
51.1	15 mm nominal bore	6.00	each			
52	Providing and fixing C.P. brass angle valve for basin mixer and geyser points of approved quality conforming to IS:8931 a) 15 mm nominal bore					
52.1	15mm nominal bore	12.00	each			
53	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 :					
53.1	100x100 mm size P type					
53.1.1	With common burnt clay modular) bricks of class designation 3.5	2.00	each			

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54	Constructing brick masonry manhole in cement mortar 1:4 (1 cement : 4 coarse sand) with R.C.C. top slab with 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), foundation concrete 1:4:8 mix (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement complete as per standard design :					
54.1	Inside size 90x80 cm and 45 cm deep including C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover and frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg) :					
54.1.1	With common burnt clay modular) bricks of class designation 3.5	1.00	each			
55	Constructing soak pit 1.20x1.20x1.20 m filled with brickbats including S.W. drain pipe 100 mm diameter and 1.20 m long complete as per standard design.	1.00	each			
56	Providing and fixing Polyvinyl Chloride (PVC) pipes, having thermal stability for hot & cold water supply including all PVC plain & brass threaded fittings. This included jointing of pipes & fittings with one step PVC solvent cement, trenching, refilling & testing of joints complete as per direction of Engineer in Charge. - External work - 160 mm Dia PVC Pipes(10kg/cm2) -Details of cost for 10 metre	15.00	Meter			
57	Brick work with common burnt clay modular bricks of class designation 3.5 in superstructure above plinth level up to floor V level in all shapes and sizes in Cement Mortar 1:6	32.00	Cum			

CONTRACTOR

SD
CHIEF OF WORKS