

Civil & Sanitary Work Estimate ( A ) For Construction of the Public Toilet Block at Siksha Sangh Higher Secondary School Ground Floor ,Ward No-32 (Unit-1) ( Model 'F' )											
No. Of seat - Male - ( W.C. -1 + Urinal -2 ) & Female - (W.C. -1 + Urinal -1) = Total ( W.C. -2 & Urinal -3)											
Rate As per PWD Building Works Schedule ( Volume 1) With effect from 01.11.2017											
Sl. No.	Item Description & Item No.							Quantity	Rate	Unit	Amount (in Rs)
	Details	Side	No.	L	B	H	QNTY.				
1	Earth work in excavation of foundation trenches or drains, in all sorts of soil (including mixed soil but excluding laterite or sandstone) including removing, spreading or stacking the spoils within a lead of 75 m. as directed. The item includes necessary trimming the sides of trenches, levelling, dressing and ramming the bottom, bailing out water as required complete. (a) Depth of excavation not exceeding 1,500 mm. PWD Building Works schedule Page - 1, Item -2.a							18.27	119.27	Cum	2,179.06
	Column		4	1.800	1.800	1.125	14.580				
	Tie Beam		1	15.675	0.350	0.400	2.190				
	Reservior		1	1.000	1.000	1.500	1.500				
							18.270				
2	Single Brick Flat Soling of picked jhama bricks including ramming and dressing bed to proper level and filling joints with local sand. PWD Building Works schedule, Page- 14, Item - 1 ( Corri. Page-01, Date-04-06-2018)							48.63	530.40	Sqm	25,793.35
	Column		4	1.200	1.200		5.760				
	Tie Beam		1	15.675	0.250		3.920				
	Floor 1		1	4.600	2.325		10.700				
	Plinth protection		1	18.400	1.200		22.080				
	Steps		1	0.750	2.350		1.760				
	Reservior Base		1	2.100	2.100		4.410				
							48.630				
3	Supplying and laying Polythene Sheet (150gm / sq m.) over damp proof course or below flooring or roof terracing or in foundation or in foundation trenches. PWD Building Works schedule, Page -47, Item -3							28.61	28.80	Sqm	823.97
	Plinth protection		1	18.400	1.200		22.080				
	Front Stair		1	2.350	0.900		2.120				
	Reservior Base		1	2.100	2.100		4.410				
							28.610				
4	(II) Cement concrete with 30 mm down graded shingles excluding shuttering. N.B. Variety In ground floor (a) 1:3:6 proportion [PWD BUILDING WORKS, Page- 35, It. No- 22,IL a)]							8.40	5398.78	Cum	45,349.75
	Column		4	1.200	1.200	0.150	0.860				
	Tie Beam		1	15.675	0.250	0.125	0.490				
	Floor 1		2	4.600	2.325	0.150	3.210				
	Plinth protection		1	18.400	1.200	0.125	2.760				
	Steps		1	0.900	2.350	0.100	0.210				
	Front Step Top		3	2.350	0.300	0.100	0.210				
	Reservior Base		1	2.100	2.100	0.150	0.660				
							8.400				
5	25mm. thick damp proof course with cement concrete with stone chips (1:1.5:3) [with graded stone aggregate 10 mm nominal size] and admixture of water proofing compound as per manufacturer's specification followed by two coat of polymer based paint, (1st coat after 4 to 5 days of concrete laying and 2 nd coat just before brick masonry work) as directed (cost of water proofing compound & polymer based paint to be paid separately).(Chequering not required over concrete or painted surface). [Note: - Waterproofing as per item 9, polymer based paint as per item 8 (a) of subhead C of Section (C). PWD Building Works schedule, Page -47, Item -1 (Rate Analysis)							4.21	270.00	Sqm	1,136.70
			1	15.675	0.250		3.920				
			1	2.300	0.125		0.290				
							4.210				

Sl. No.	Item Description & Item No.							Quantity	Rate	Unit	Amount (in Rs)
	Details	Side	No.	L	B	H	QNTY.				
6	Brick work with 1st class bricks in cement mortar (1:4) (a) In foundation and plinth PWD Building Works schedule, Page -15, Item-7.a (Rate Analysis)							3.32	8016.68	Cum	26,615.38
	GL 2 PL		1	15.675	0.250	0.600	2.350				
	Front Step-1		1	2.350	0.750	0.150	0.260				
	Front Step-2		1	2.350	0.500	0.150	0.180				
	Front Step-3		1	2.350	0.250	0.150	0.090				
	Platform		1	3.900	0.250	0.450	0.440				
							3.320				
7	Brick work with 1st class bricks in cement mortar (1:4) (b) In superstructure, ground floor PWD Building Works schedule, Page -15, Item-7.b (Rate Analysis)							8.83	8284.28	Cum	73,150.19
	Outer Wall		1	15.675	0.250	2.575	10.090				
	Less Door		-2	0.750	0.250	2.100	-0.790				
	Less Window		-7	0.600	0.250	0.450	-0.470				
							8.830				
8	125 mm. thick brick work with 1st class bricks in cement mortar (1:4) in ground floor. PWD Building Works schedule, Page - 16, Item - 16 ( Corri. Page-03, Date-04-06-2018) (Rate Analysis)							19.43	1030.33	Sqm	20,019.31
	Wall		1	5.000		2.750	13.750				
	Less Door		-2	0.750		2.100	-3.150				
	Spring		1	15.350		0.125	1.920				
	Parapet		1	15.350		0.450	6.910				
							19.430				
9	Earth work in filling in foundation trenches or plinth with good earth, in layers not exceeding 150 mm. including watering and ramming etc. layer by layer complete. (Payment to be made on the basis of measurement of finished quantity of work). (a) With earth obtained from excavation of foundation. PWD Building Works schedule. Page - 1, Item -3.a							12.06	77.54	Cum	935.13
	2/3rd of Earth work			0.660	18.270		12.060				
10	(A) Filling in foundation or plinth by silver sand in layers not exceeding 150 mm as directed and consolidating the same by thorough saturation with water, ramming complete including the cost of supply of sand. (payment to be made on measurement of finished quantity) PWD Building Works schedule, Page - 2, Item -4.a (Cori 5th)							8.81	1764.73	Cum	15,547.27
			1	4.600	4.050	0.450	8.380				
	Platform		1	1.000	0.950	0.450	0.430				
							8.810				
11	Hire and labour charges for shuttering with centering and necessary staging upto 4 m using approved stout props and thick hard wood planks of approved thickness with required bracing for concrete slabs, beams and columns, lintels curved or straight including fitting, fixing and striking out after completion of works (upto roof of ground floor) (f) 25 mm to 30 mm shuttering without staging in foundation PWD Building Works schedule, Page -42, Item- 36.f							43.09	250.80	Sqm	10,806.97
	Foundation		16	1.200		0.300	5.760				
	Tie Beam		2	19.300		0.350	13.510				
	Pedestal		16	0.400		0.300	1.920				
	Coumn upto GL		16	0.250		0.250	1.000				
	Ramp		1	2.750		0.125	0.340				
	Platform		1	2.500		0.125	0.310				
	Reservior Base		4	2.100		0.150	1.260				
	Reservior Wall		2	6.600		1.200	15.840				
	Reservior Slab Soffit		1	1.500	1.500		2.250				
	Reservior Slab Side		4	1.800		0.125	0.900				
							43.090				

Sl. No.	Item Description & Item No.							Quantity	Rate	Unit	Amount (in Rs)
	Details	Side	No.	L	B	H	QNTY.				
12	Ordinary Cement concrete (mix 1:1.5:3) with graded stone chips (20 mm nominal size) excluding shuttering and reinforcement, if any, in ground floor as per relevant IS codes. a) Pakur Variety /Chandil Variety PWD Building Works schedule, p-26 Item 10 a (Rate Analysis)							11.28	7898.44	Cum	89,094.40
	Colm foot		4	1.200	1.200	0.200	1.150				
	Hunch		4	0.800	0.800	0.200	0.510				
	Pedestal		4	0.400	0.400	0.300	0.190				
	Column		4	0.250	0.250	4.000	1.000				
	Tie Beam		1	15.675	0.250	0.250	0.980				
	Lintel 125mm thk.		1	5.000	0.125	0.150	0.090				
	Lintel 250mm thk.		1	15.675	0.250	0.200	0.780				
	Chajja for Windows		7	0.900	0.450	0.075	0.210				
	Chajja at Front Enty		1	2.350	0.450	0.075	0.080				
	Slab Beam		1	15.675	0.250	0.175	0.690				
	Slab		1	6.050	4.025	0.125	3.040				
	Wash Basin		2	2.400	0.600	0.075	0.220				
	Reservior Base		1	2.100	2.100	0.150	0.660				
	Reservior Wall		1	6.600	0.150	1.200	1.190				
	Reservior Slab		1	1.800	1.800	0.150	0.490				
							11.280				
13	Hire and labour charges for shuttering with centering and necessary staging upto 4 m using approved stout props and thick hard wood planks of approved thickness with required bracing for concrete slabs, beams and columns, lintels curved or straight including fitting, fixing and striking out after completion of works (upto roof of ground floor) (a) 25 mm to 30 mm thick wooden shuttering as per decision & direction of Engineer-In-Charge. PWD Building Works schedule, Page -42, Item- 36.a							59.47	400.80	Sqm	23,835.58
	Coumn		16	0.250		3.750	15.000				
	Roof Beam		2	16.675		0.175	5.840				
	Lintel		2	20.475		0.150	6.140				
	Lintel btm 250mm		2	0.750		0.250	0.380				
	Lintel btm 125mm		2	0.750		0.125	0.190				
	Chajja for Windows Soffit		7	0.900	0.450		2.840				
	Chajja for Windows Face		7	1.800		0.075	0.950				
	Chajja at Front Enty Soffit		1	2.350	0.450		1.060				
	Chajja at Front Enty		1	2.650		0.075	0.200				
	slab with b btm		1	6.050	4.025		24.350				
	Slab Side		1	20.150		0.125	2.520				
							59.470				
14	Reinforcement for reinforced concrete work in all sorts of structures including distribution bars, stirrups, binders etc initial straightening and removal of loose rust (if necessary), cutting to requisite length, hooking and bending to correct shape, placing in proper position and binding with 16 gauge black annealed wire at every intersection, complete as per drawing and direction. (a) For works in foundation and upto roof of ground floor/upto 4 m. (i) Tor steel/Mild Steel, (JSW/SHYAM/JSPL/SRMB) PWD Building Works schedule, Page - 43, Item - 40.a.i.1( Corri. 10th Page-01, Date-23-01-2020) (Rate Analysis)							1.195	71762.99	M.T.	85,756.77
			11.280	0.0135	7.850		1.195				

Sl. No.	Item Description & Item No.							Quantity	Rate	Unit	Amount (in Rs)
	Details	Side	No.	L	B	H	QNTY.				
15	Artificial stone in floor, dado, staircase etc with cement concrete (1:2:4) with stone chips, laid in panels as directed with topping made with ordinary or white cement (as necessary) and marble dust in proportion (1:2) including smooth finishing and rounding off corners including raking out joints or roughening of concrete surface and application of cement slurry before flooring..... 25 mm. thick For roofing PWD Building Works schedule, P-48, It-6.ii (Rate Analysis)							24.35	340.83	Sqm	8,299.21
	roof		1	6.050	4.025		24.350				
							24.350				
16	Neat cement punning about 1.5mm thick in wall, dado, window sill, floor etc. NOTE:Cement 0.152 cu.m per100 sq.m. PWD Building Works schedule, P-192, It. No. 15 (Rate Analysis)							25.53	39.52	Sqm	1,008.95
	Below Plinth		1	15.350		0.600	9.210				
	Front step Side		2	0.375		0.450	0.340				
	Front step Top		3	1.750		0.250	1.310				
	Reservior Base and Slab		3	1.500	1.500		6.750				
	Reservior Wall		1	6.600		1.200	7.920				
							25.530				
17	Labour for Chipping of concrete surface before taking up Plastering work. PWD Building Works schedule, P-192, It-1							59.47	21.00	Sqm	1,248.87
	Same as shuttering sl no. 12					59.470					
18	Plaster (to wall, floor, ceiling etc.) with sand and cement mortar including rounding off or chamfering corners as directed and raking out joints including throating, nosing and drip course, scaffolding/staging where necessary (Ground floor).[Excluding cost of chipping over concrete surface] (i) With 1:4 cement mortar (c) 15 mm thick plaster PWD Building Works schedule, P-189, It-1(ii)(b) 3rd corrigenda & addenda ) (Rate Analysis)							88.07	207.35	Sqm	18,261.31
	Outer wall		1	15.350		2.875	44.130				
	on Iner 250mm Wall		1	18.000		0.775	13.950				
	on Iner 125mm Wall		2	3.800		0.775	5.890				
	Less Door and front Entry		-4	0.750		2.100	-6.300				
	Parapet wall		1	15.350		1.025	15.730				
	Reservior Base and Slab		3	1.500	1.500		6.750				
	Reservior Wall		1	6.600		1.200	7.920				
							88.070				
19	Plaster (to wall, floor, ceiling etc.) with sand and cement mortar including rounding off or chamfering corners as directed and raking out joints including throating, nosing and drip course, scaffolding/staging where necessary (Ground floor).[Excluding cost of chipping over concrete surface] (ii) With 1:4 cement mortar (c) 10 mm thick plaster PWD Building Works schedule, P-189 It- No. 1 (ii)(c) (Rate Analysis)							29.40	164.28	Sqm	4,829.83
	Slab bottom		1	6.050	4.025		24.350				
	Chajja for Windows Soffit		7	0.900	0.450		2.840				
	Chajja for Windows Face		7	1.800		0.075	0.950				
	Chajja at Front Enty Soffit		1	2.350	0.450		1.060				
	Chajja at Front Enty		1	2.650		0.075	0.200				
							29.400				
20	Supplying, fitting and fixing fibre reinforced polymer (FRP) Composite door frame as per approved section with glass fibre reinforced plastic moulded skins and a special sandwich core, so as to impart monolithic composite structure as per approved technology of Department of Science and Technology (DST) to satisfy IS: 4020 door testing performance criteria.. (i) 66mm x 90mm PWD Building Works schedule, P-115, It - 3 (i)							9.90	624.00	Mtr	6,177.60
			2	4.950			9.900				

Sl. No.	Item Description & Item No.							Quantity	Rate	Unit	Amount (in Rs)	
	Details	Side	No.	L	B	H	QNTY.					
							9.900					
21	Supplying, fitting & fixing fibre reinforced polymer (FRP) Composite door shutters as per approved design with glass fibre reinforced plastic moulded skins and a special sandwich core, so as to impart monolithic composite structure as per approved technology of Department of Science and Technology (DST) to satisfy IS:4020 door testing performance criteria. In ground floor. ii) 25 mm thick P-125, It- 14(ii)							2.78	3241.20	Sqm	9,010.54	
			2	2.034	0.684		2.780					
							2.780					
22	Anodised aluminium barrel / tower / socket bolt (full covered) of approved manufactured from extruded section conforming to I.S. 204/74 fitted and fixed with cadmium plated screws . (vii) 225mm long x 10mm dia. bolt. PWD Building Works schedule, P-144, It No. 26 (vii)							4.00	102.00	Each	408.00	
			2	2.000			4.000					
23	Iron butt hinges of approved quality fitted and fixed with steel screws, with ISI mark. (viii) 100mm X 75mm X 3.50mm. PWD Building Works schedule, P-140, It No. -5 (viii)							8.00	79.20	Each	633.60	
			2	4.000			8.000					
24	Anodised aluminium decorative handle (hexagonal / fluted) of approved quality fitted and fixed complete. (i) 150mm plate x 10mm dia rod x 12mm hexagonal/fluted. PWD Building Works schedule, Page -146 . Item no-31,(i)							4.00	130.80	Each	523.20	
			2	2.000			4.000					
25	Iron hasp bolt of approved quality fitted and fixed complete (oxidised) with 16mm dia rod with concrete bolt and round fitting. b)250mm long. PWD Building Works schedule, Page -141 . Item no-10 b)							2.00	195.60	Each	391.20	
			2	1.000			2.000					
26	(A) Supplying Aluminium casted body hydraulic door closer as per I.S.I. SOR, PWD, P- 244, I - 13(a)							4.00	768.00	Each	3,072.00	
			4	1.000			4.000					
27	Rendering the Surface of walls and ceiling with White Cement base WATER PROOF wall putty of approved make & brand.(1.5 mm thick) In Ground Floor PWD Building Works schedule, PWD, P- 198, I - 5							117.47	146.40	Sqm	17,197.61	
	Same as Plaster Item - Plaster											
							117.470					
28	(b) Priming one coat on timber or plastered surface with synthetic oil bound primer of approved quality including smoothening surfaces by sand papering etc. PWD Building Works schedule, Page -200 . Item no- 1 (b)							117.47	45.60	Sqm	5,356.63	
	Same as Plaster Item - Plaster											
							117.470					

Sl. No.	Item Description & Item No.							Quantity	Rate	Unit	Amount (in Rs)
	Details	Side	No.	L	B	H	QNTY.				
29	(A) Painting with best quality synthetic enamel paint of approved make and brand including smoothening surface by sand papering etc. including using of approved putty etc. on the surface, if necessary : Page -200 . Item no- 1 (b) (a) On timber or plastered surface : With super gloss (hi-gloss) - (iv) Two coats (with any shade except white) PWD Building Works schedule, Page -200 . Item no- 2(A)(a)(iv)							117.47	98.40	Sqm	11,559.05
	Same as Plaster Item - Plaster						117.470				
30	Collapsible gate with 40mm x 40mm x 6mm Tee as top and bottom guide rail, 20mm x 10mm x 2mm vertical channels 100mm apart in fully stretched position 20mm x 5mm M.S. flats as collapsible bracings properly rivetted and washed including 38mm steel rollers including locking arrangements, fitted and fixed in position with lugs set in cement concrete and including cutting necessary holes, chasing etc. in walls, floors etc. and making good damages complete. In ground floor. P-106 Item-18 (3rd Corrigendam Page No 92)							4.410	5271.60	Sqm	23,247.76
	gate		2	1.050		2.100	4.410				
31	(a) M.S. or W.I. Ornamental grill of approved design joints continuously welded with M.S, W.I. Flats and bars of windows, railing etc. fitted and fixed with necessary screws and lugs in ground floor.. (i) Grill weighing above 10 Kg./sq.mtr and up to 16 Kg./sq. mtr. PWD Building Works schedule, P-104 Item-13 A (i) (3rd Corrigendam Page No 91)							0.47	12343.20	Qntl	5,801.30
	Grill		7	0.600	0.450	0.160	0.300				
	Box for pump		3	0.600	0.600	0.160	0.170				
							0.470				
32	(ii) Grill weighing above 16 Kg./sq.mtr and above PWD Building Works schedule. P-104 Item-13 A (ii) (3rd Corrigendam Page No 91)							0.65	12111.60	Qntl	7,872.54
	Railing		1	4.000	0.900	0.180	0.650				
33	a) Priming one coat on steel or other metal surface with synthetic oil bound primer of approved quality including smoothening surfaces by sand papering etc. PWD Building Works schedule, P/200 Item-1(a)							30.42	36.00	Sqm	1,095.12
	gate	2	2	1.200	2.100		10.080				
	Grill	2	7	0.600	0.450		3.780				
	Box for pump	2	3	0.600	0.600		2.160				
	Railing	2	2	4.000	0.900		14.400				
							30.420				
34	(A) Painting with best quality synthetic enamel paint of approved make and brand including smoothening surface by sand papering etc. including using of approved putty etc. on the surface, if necessary : (b) On steel or other metal surface : (iv) Two coats (with any shade except white) PWD Building Works schedule, P-200 Item-2(b)(iv)							30.42	96.00	Sqm	2,920.32
	Same as primeing on grill						30.420				

Sl. No.	Item Description & Item No.							Quantity	Rate	Unit	Amount (in Rs)
	Details	Side	No.	L	B	H	QNTY.				
35	<p>Supplying and laying true to line and level vitrified tiles of approved brand (size not less than 600 mm X 600 mm X 10 mm thick) in floor, skirting etc. set in 20 mm sand cement mortar (1:4) and 2 mm thick cement slurry back side of tiles using cement @ 2.91Kg./sqM or using polymerised adhesive (6 mm thick layer applied directly over finished artificial stone floor/Mosaic etc without any backing course) laid after application slurry using 1.75 Kg of cement per sqM below mortar only, joints grouted with admixture of white cement and colouring Pigment to match with colour of tiles / epoxy grout materials of approved make as directed and removal of wax coating of top surface of tiles with warm water and polishing the tiles using soft and dry cloth upto mirror finish complete including the cost of materials, labour and all other incidental charges complete true to the manufacturer's specification and direction of Engineer-in-Charge. (White cement, synthetic adhesive and grout material to be supplied by the contractor) I (I) With application slurry @1.75 kg/ Sq.m, 20 mm sand cement mortar (1:4) &amp; 2 mm thick cement slurry at back side of tiles, 0.2 kg/ Sq.m white cement for joint filling with pigment.</p> <p>(A) Deep Colour &amp; White</p> <p>PWD Building Works schedule, Page-66 Item-36 (A) ( 3rd Corrigendam , Page -36)</p>							10.13	2055.60	Sqm	20,823.23
	floor		1	1.600	2.325		3.720				
	floor		1	2.500	2.325		5.810				
			2	1.200	0.250		0.600				
							10.130				
36	<p>Supplying, fitting &amp; fixing 1st quality Ceramic tiles in walls and floors to match with the existing work &amp; 4 nos. of key stones (10mm) fixed with araldite at the back of each tile &amp; finishing the joints with white cement mixed with colouring oxide if required to match the colour of tiles including roughening of concrete surface, if necessary or by synthetic adhesive &amp; grout materials etc.</p> <p>B) Wall</p> <p>b) Area of each tile above 0.09 Sq.m</p> <p>ii) Other than Coloured decorative including white</p> <p>PWD Building Works schedule, page-64, Item:35.(B.) (b).(ii)</p> <p>(3rd Corrigendam ,Page 36)</p>							121.83	1426.80	Sqm	1,73,827.04
	Inner		1	61.800	2.100		129.780				
	Less Door		-4	0.750	1.950		-5.850				
			-1	1.000	2.100		-2.100				
							121.830				
37	<p>a) 25 mm thick Tiles as per IS: 1237-2012 for footpath,ramp,staircase of public building(over 25 mm thick (Avg) Cement mortar (1:3) &amp; Cement Slurry @ 4.4 kg/Sq.m at back side of Block. Cement for Mortar &amp; Slurry to be supplied by Department). (ii) Coloured Decorative</p> <p>PWD Building Works schedule, page-74, Item:48(a)-ii ( 3rd Corrigendam ,Page 37)</p>							45.19	1098.00	Sqm	49,618.62
	Open Space		1	18.400	1.500		27.600				
	Ramp		1	2.750	1.200		3.300				
			1	2.750	0.225		0.620				
	Platform		1	1.950	1.200		2.340				
	Front steps		3	2.350	0.300		2.120				
			3	0.900	0.225		35.980				
38	<p>Supplying, fitting &amp; fixing granite slabs 15mm to 18 mm. thick with uniform texture &amp; without decorative veins in columns, wall, fascia, rise etc. with 15 mm thick [avg] cement mortar (1:2) including making suitable arrangements to hold the stones properly by brass / copper hooks including pointing in cement mortar (1:2) (1 white cement : 2 marble dust) with admixture of pigment matching the stone shades all complete as per direction of the Engineer-in-charge including cost of all materials, labours, scaffolding, staging, curing and roughening of concrete surface complete.</p> <p>[Using cement slurry at back side of granite @ 4.4 kg/sq.m &amp; white cement slurry for joint filling @ 1.8 kg/sq.m]</p> <p>In ground floor</p> <p>(a) Area of each Granite slab 0.6 to 1.0 Square meter.</p> <p>PWD Building Works schedule, page-63, Item:33(a)- ( 3rd Corrigendam ,Page 37)</p>							3.83	4428.00	Sqm	16,959.24

Sl. No.	Item Description & Item No.							Quantity	Rate	Unit	Amount (in Rs)
	Details	Side	No.	L	B	H	QNTY.				
	For Wash Basin		2	2.550	0.750		3.830				
39	Supplying, fitting and fixing 18 mm thick marble partition slab with chawk doongri marbel square cut, both sides polished with two front corners rounded and edges polished. <b>Sanitary and plumbing work schedule P-81, It-13</b>							0.72	1711.20	Sqm	1,232.06
			1	1.200		0.600	0.720				
40	Supplying profiles of required section made of Aluminium Alloy Extrusions conforming to IS: 732-1983 and IS: 1285- 1975; Anodized (with required film thickness and specified colour / natural) matt finished conforming to IS: 1868-1983 for fabrication of composit door, sliding & casement windows, partitions, formed of basic sections of any ISI embossed / certified make and brand as per direction of Engineer - In- Charge. (Payment will be made on finished length of the work). (A) In 10-12 Micron thickness Anodizing film I) Natural white h) Louvered window. i) Top, bottom and side member. PWD Building Works schedule, PWD, P-233, I- 1(h) i							14.70	229.20	M	3,369.24
			7	2.100			14.700				
41	ii) Louvered Section.							12.60	820.80	M	10,342.08
			21	0.600			12.600				
42	iii) Cleat angle ( Non-anodized).							11.34	328.80	M	3,728.59
			21	0.540			11.340				
43	Labour charge for fabrication and installation of composite door, window, partitions made from anodized extruded alloy aluminium sections for the following units:- (A) Glazed aluminium sliding windows made of extruded and anodized alloy aluminium sections, fabrications, including cutting to proper shape and size, drilling and aligning of window shutter frame fitted with in built locking arrangements, sliding rollers and other necessary fittings, fixture, adhesives and joineries along with extruded neoprine or EPDM gasketing in between window frame and masonry work (walls, column, beam lintels etc ) as well as between glass and shutter frame for fixing glass and Polysulphide sealant and in between shutter and window frame where necessary including cutting to requisite size and fixing glass as per drawing, specification and direction of EIC. The rate includes the hire charge of all tools and plants, including all incidental charges, adhesive, joineries such as screw, cleat angle etc. but excluding the cost of extruded aluminium sections, glass, neoprene / EPDM gasket, locking arrangement and rollers. v ) Louvered window. PWD Building Works schedule SOR, PWD, P-239, I- 2 (v)							1.89	730.00	Sqm	1,379.70
			7	0.600	0.450		1.890				
44	Supplying bubble free float glass of approved make and brand conforming to IS: 2835-1987. iv) 5mm thick coloured / tinted / smoke glass. PWD Building Works schedule, P-243, I-9							1.89	702.00	Sq.M.	1,326.78
			7	0.600	0.450		1.890				
45	Painting block letters or digits in Black Japan or any approved paint as per direction. e) Size above 7.5 cm. and upto 10 cm. PWD Building Works schedule, P-268, It-17(e)							650.00	14.40	Each	9,360.00
46	Supply and Fixing of 2 mm Polyvinyl glow sign board made of 22 SWG GI sheet box with 1"X1" aluminum channel for fixing the vinyl board after necessary cutting the letter as required & s/f LED tube light fittings along with all accessories UDMA Electrical shdule P-14, It NO. 4							15.00	495.00	Sq.F.	7,425.00
			1	5.000	3.000		15.000				

Sl. No.	Item Description & Item No.							Quantity	Rate	Unit	Amount (in Rs)
	Details	Side	No.	L	B	H	QNTY.				
47	Supplying and Planting of different plant / trees ( Supplying well grown plants bushy and healthy, minimum height as specified i.e. exposed height including all leads & lift, carriage, handling, manuring, applying pesticide and fertilizer etc. . i) Furcaria variegated 10-12 leaves in height 20-30cm in earthen pots of size 25cm. PWD Building Works schedule, Page -261, It- 9 (i)							12	194.40	Each	2,332.80
48	x) Ficus blakii (F. Vivicon) well branched (Bushy) of height 120cm - 135 cm in earthen pot of size 30cm. PWD Building Works schedule, Page -261, It- 9 (x)							9	224.40	Each	2,019.60
49	xxvi) Areca Palm 4 - 5 suckers of height 90 cm to 105 cm in earthen pots of size 25 cm. PWD Building Works schedule, Page -261, It- 9 (xxvi)							6	152.40	Each	914.40
50	Supplying, fitting and fixing Anglo-Indian W.C. in white glazed vitreous china ware of approved make complete in position with necessary bolts, nuts etc. a) With 'P' trap (with vent) PWD S&P Schedule, page-79, item no -3 (a)							2	3724.80	Each	7,449.60
51	Supplying, fitting and fixing Closet seat of approved make with lid and C.P. hinges, rubber buffer and brass screws complete .(b) Anglo Indian (i) Plastic (hallow type) White PWD S&P Schedule, page-81,item no 10.b.i							2	582.00	Each	1,164.00
52	Supplying, fitting and fixing Flat back urinal (half stall urinal) in white vitreous chinaware of approved make in position with brass screws on 75 mm X 75 mm X 75 mm wooden blocks complete (ii) 470 mm X 280 mm X 340 mm PWD S&P Schedule, page.80,item no-6/(ii)							2	1134.00	Each	2,268.00
53	Supplying, fitting and fixing Squating plate with integral flushing in white vitreous chinaware of approved make in cement concrete (6:3:1) with jhama chips complete. (Payment of concrete will be paid seperately). (i) 450 mm X 350 mm PWD S&P Schedule, (P - 80, Item. No. - 7 ,							1	1057.20	Each	1,057.20
54	Supplying, fitting and fixing 10 litre P.V.C. low-down cistern conforming to I.S. specification with P.V.C. fittings complete,C.I. brackets including two coats of painting to bracket etc. PWD S&P Schedule, Page No.-36 Item No.-2,							2	1218.00	Nos	2,436.00
55	Supplying,fitting and fixing 32 mm dia. Flush Pipe of approved make with necessary fixing materials and clamps complete. i) Polythene Flush Pipe PWD S&P Schedule, Page no 81. Item no. 11(i)							2	186.00	Each	372.00
56	Supplying, fitting and fixing urinal flush pipe fittings of approved brand. (a) C.P. urinal flush pipe fittings range of one PWD S&P Schedule, S.P.81,item-12/a							2	496.80	Each	993.60
57	Supplying, fitting and fixing white vitreous china best quality approved make wash basin with C.I. brackets on 75 mm X 75 mm wooden blocks, C.P. waste fittings of 32 mm dia., mending good all damages and painting the brackets with two coats of approved paint. (ii) 550 mm X 400 mm size PWD S&P Schedule, P-41, It 2 (ii)							2	2649.60	Each	5,299.20
58	Supplying,fitting and fixing approved brand P.V.C. CONNECTOR white flexible, with both ends coupling with heavy brass C.P. nut, 15 mm dia., (iii) 600 mm long PWD S&P Schedule, Page No.-43 Item No.-9-iii PWD,							5	128.40	Each	642.00
59	Supplying,fitting and fixing approved brand 32 mm dia.P.V.C. waste pipe, with PVC coupling at one end fitted with necessary clamps. (iv) 1050 mm long each PWD S&P Schedule, Page No.-43 Item No. 10-iv							2	109.20	Each	218.40

Sl. No.	Item Description & Item No.							Quantity	Rate	Unit	Amount (in Rs)
	Details	Side	No.	L	B	H	QNTY.				
60	(f) Hand Shower(Health Faucet) with Imtr Flexible Tube with Wall Hook(Equivalent to Code No.573 & Model -ALLIED of Jaquar or similar). PWD S&P Schedule, Page No.-3 Item No.- 3 f,							2	1501.20	Each	3,002.40
61	(a) (i) Chromium plated Bib Cock short body (Equivalent to Code No. 511 & Model - Tropical / Sumthing Special of ESSCO or similar brand). PWD S&P Schedule, Page No.-6 Item No.-7-a-i							5	646.80	Each	3,234.00
62	(b) (i) Chromium plated Stop Cock (Equivalent to Code No. 513(A) & 513(B) & Model - Tropical / Sumthing Special of ESSCO or similar PWD S&P Schedule, Page No.-6 Item No.-7-b-i							3	591.60	Each	1,774.80
63	Supplying, fitting and fixing shower of approved brand and make. (ii) Chromium plated round shower with revolving joint (Equivalent to Code No. 541(N) & Model - Tropical / Sumthing Special of ESSCO or similar brand). PWD S&P Schedule, Page No.-3 Item No.-3- a-ii							2	432.00	Each	864.00
64	(iii) Chromium plated shower arm 240 mm long (Equivalent to Code No. 536(A) & Model - Tropical / Sumthing Special of ESSCO or similar brand). Page No.-3 Item No.-3-a-(iii), PWD,VOL-II , 2017-18							2	370.80	Each	741.60
65	Chromium plated angular Stop Cock with wall flange (Equivalent to Code No. 5053 & Model - Florentine of Jaquar or similar brand). PWD S&P Schedule, Page No.-6 Item No.-7-d-i,							4	978.00	Each	3,912.00
66	Supplying, fitting and fixing pillar cock of approved make. a) (i) CP Pillar Cock - 15 mm. (Equivalent to Code No. 507 & Model - Tropical / Sumthing Special of ESSCO or similar brand). (P. No. - 45, Item. No. - 19(a)i, Pwd Sanitary Plumbing Schedule 2017)							2	666.00	Each	1,332.00
67	Supplying, fitting and fixing PVC pipes of approved make of Schedule 80 (medium duty) conforming to ASTM D - 1785 and threaded to match with GI Pipes as per IS : 1239 (Part - I). with all necessary accessories, specials viz. socket, bend, tee, union, cross, elbo, nipple, longscrow, reducing socket, reducing tee, short piece etc. fitted with holder bats clamps, including cutting pipes, making threads,fitting, fixing etc. complete in all respect including cost of all necessary fittings as required, jointing materials and two coats of painting with approved paint in any position above ground. (Payment will be made on the centre line measurements of total pipe line including all specials. No separate payment will be made for accesories, specials. Payment for painting will be made seperately) (a) For Exposed Work PVC Pipes, 25 mm Page No.-12 Item No.-19-i(a), PWD,VOL-II , 2017-18							25	212.40	Mtr	5,310.00
68	(a) (a) For Exposed Work PVC Pipes, 15 mm Page No.-12 Item No.-19-i(a), PWD,VOL-II , 2017-18							10	121.20	Mtr	1,212.00
69	(b) For Concealed Work PVC Pipes, 15 mm Page No.-12 Item No.-19-i(b), PWD,VOL-II , 2017-18							10	164.40	Mtr	1,644.00
70	Supplying and fitting fixing of gunmetal wheel valve of approved brand and make tested to 21 Kg per sq. cm. 25 mm dia(E5) PWD S&P Schedule, P-5 It-5,vii),							2	933.60	Each	1,867.20
71	Supplying P.V.C. water storage tank of approved quality with closed top with lid (Black) - Multilayer (b) 1000 litre capacity PWD S&P Schedule, page.37,item no-6 (b)							2	6153.60	Each	12,307.20
72	Labour for hoisting plastic water storage tank. (i) Upto 1500 litre capacity. (a) Upto 1st story from G.L. PWD S&P Schedule, page.37,item no-10 (i)(a)							2	96.00	Each	192.00

Sl. No.	Item Description & Item No.							Quantity	Rate	Unit	Amount (in Rs)
	Details	Side	No.	L	B	H	QNTY.				
73	Labour for punching hole in plastic water storage tank upto 50 mm dia. PWD S&P Schedule, (P. No. - 38, Item. No. - 13							4	19.00	Each	76.00
74	Supply of UPVC pipes (B Type) & fittings conforming to IS-13592-1992.(A) (i) Single Socketed 3 Meter Length, (b) 110 mm PWD S&P Schedule, Page No.-68 Item No. 23,(A)(i)(b)							30	350.40	Mtr	10,512.00
75	(B) Fittings (i) Coupler, (b) 110 mm							12	102.00	Each	1,224.00
76	(ii) Plain Tee, (b) 110 mm							10	102.00	Each	1,020.00
77	(iii) Door Tee, (b) 110 mm							9	234.00	Each	2,106.00
78	ix) Bend 45°, (b) 110 mm							9	106.80	Each	961.20
79	xi) Door Bend (T.S.), (b) 110 mm							7	176.40	Each	1,234.80
80	xvi) Pipe Clip, (b) 110 mm							30	25.20	Each	756.00
81	xvii) W.C. Connector (150 mm long) 125 X 110(W/WC Ring) 75 mm							4	170.40	Each	681.60
82	xxxii) Plain Floor Trap with Top tile & Strainer 75 mm							6	172.80	Each	1,036.80
83	L) Rubber Ring, (b) 110 mm							20	20.40	Each	408.00
84	C)Rubber Lubricant 500 ML							2	224.40	500 ML	448.80
85	D)Solvent Cement 250 ML							2	123.60	250 ML	247.20
86	Labour for fitting and fixing U.P.V.C. pipes for above ground work including cost of jointing materials etc. fitting and fixing all necessary specials, cutting pipes, cutting holes in total pipeline including specials. (B) Under ground, (ii) 110 mm dia. PWD S&P Schedule, (P. - 74, Item. No. - 24 (B)							30	84.00	Mtr	2,520.00
87	Supplying, fitting & fixing UPVC pipes A- Type and fittings conforming to IS:13592-1992 with all necessary clamps nails, including making holes in walls, floor etc. cutting trenches in any soil through masonry concrete structures etc if necessary and mending good damages including joining with jointing materials (Spun Yarn, Valamoid/Bitumen/M-Seal etc) complete. A) UPVC Pipes: (i) 75 mm. Dia. (P. - 212, Item. No. - 21 (A)(i), (B),(c),(i) & (B), (d),(i), Pwd volume-i, 2017)							20	237.60	Mtr	4,752.00
88	B) UPVC Fittings: c) Bend 87.5 degree (i) 75 mm. Dia.							2	106.80	Mtr	213.60
89	B) UPVC Fittings: d) Shoe (i) 75 mm. Dia.							2	98.40	Mtr	196.80
90	Constructing Inspection pit of inside measurement 600mm X 600mm X upto 600mm (depth) with 250 mm thick 1st. class brick work in cement mortar (1:4) on all sides, bottom of the pit consisting of 100 mm thick cement concrete (1:3:6) with stone chips over a layer of jhama brick flat soling, 15 mm thick (1:4) cement plaster to inside walls and out-side walls upto G.L. and 20 mm.thick (1:4) plaster to bottom of the pit, providing necessary invert with cement concrete (1:3:6) with stone chips as per direction, neat cement finishing to entire internal surfaces, top of the pit covered with 100 mm thick R.C.C. slab (1:1.5:3) with stone chips and necessary reinforcements upto 1% and shuttering including 6 mm thick cement plaster (1:4) in all external surfaces of the slab and one 560 mm dia. R.C.C. manhole cover of approved make supplied, fitted and fixed in the slab with necessary fittings, necessary earthwork in excavation in all sorts of soil, filling sides of the pit with earth and removing spoils after work complete in all respect with all costs of labour and materials. i) With Pakur variety (Other than SAIL/TATA/RINL). PWD S&P Schedule, S.P.87,Item No-1/(i), 7th Corrigenda Volume ii							3	9276.13	Each	27,828.40

Sl. No.	Item Description & Item No.							Quantity	Rate	Unit	Amount (in Rs)
	Details	Side	No.	L	B	H	QNTY.				
91	<p>Construction of septic tank of different capacities as per approved drawing with 1st class brick work in cement mortar (1:4) including two 560 mm dia. R.C.C. manhole cover (heavy type) of approved make supplied, fitted and fixed in the 100mm thick R.C.C (1:1.5:3) top slab with necessary fittings, 20mm thick cement plaster (4:1) with neat cement finish to the internal surfaces and 15 mm thick cement plaster (4:1) to outside wall upto 200 mm below G.L. floor finished with 25 mm thick grey artificial stone over 100 mm thick R.C.C(1:1.5:3) bottom slab including supplying, fitting and fixing all necessary specials, fittings, S.W. tees, C.I. foot rest etc. including excavation earth in all sorts of soil, shoring, bailing out and pumping out water as necessary, ramming, dressing the bed and refilling the sides of the tanks with earth, removing spoils, filling up the chamber with clear water, removing foreign materials from the chamber and including constructing attached inspection pit as per approved drawing and connecting all necessary pipes, joints etc. with internal plaster work and artificial stone flooring is to be done with admixture of water proofing compound @ 0.5% by weight of cement with all costs of labour and materials.</p> <p>(iv) For 30 users A) With Pakur variety (JSW/JSPL/SHYAM/SRMB/ELECTROSTEEL/SSL) PWD S&amp;P Schedule, S P 88, Item No-3(iv)(A) 7th Corrigenda Volume ii</p>							1	79838.34	Each	79,838.34
92	<p>Construction of circular soak well 2.5 metre deep in all types of sandy soils with dry brick work upto 1.6 metre from the bottom having 150 mm intermediate cement brick work (1:4) and all round and cement brick work (1:4) upto 0.90 metre from top with 20mm thick cement plastering (1:4) to inside face upto the depth of cement brick work, 15mm thick cement plaster (1:4) on outer face from top of the well upto G.L. and 6 mm thick cement plaster (1:4) on top of the R.C.C. cover slab including filling bottom 1.00 metre of inside of the well with brick metal (50 mm to 63 mm size) including R.C.C. cover slab of 100 mm thick with cement conc (1:1.5:3) with stone chips with necessary reinforcement and shuttering including one 560 mm dia. R.C.C. manhole cover (heavy type) of approved make supplied, fitted and fixed in the cover slab with necessary fittings, making necessary arrangements for pipe connections, excavation of well including shoring, dewatering and removing the excess earth from the premises as per direction complete in all respect with all costs of labour and materials. With 250 mm thick dry brick work and 250 mm thick cement brick work (1:6) and 1.00m inside dia. (Other than SAIL/TATA/RINL) S.P.89, Item No-4 7th Corrigenda Volume ii</p>							1	22739.68	Each	22,739.68
93	<p>Supplying, fitting and fixing towel rail with two brackets. (a) C.P. over brass (ii) 25 mm dia. and 600 mm long PWD S&amp;P Schedule, p No 82 1 No- 22 (a)(ii)</p>							6	516.00	Each	3,096.00
94	<p>Supplying, fitting and fixing cast iron raised rain proof tank cover 500 mm dia. with locking arrangements (weighing not less than 12 kg). PWD S&amp;P Schedule, . page-37, item no -8</p>							1	1515.60	Each	1,515.60
95	<p>Supplying, fitting and fixing bevelled edged mirror 5.5 mm thick silver red as per I.S. 3438 / 1965 together with brass C.P. hinges. (ii) 600 mm X 450 mm PWD S&amp;P Schedule, P-81, It-15(ii)</p>							2	580.80	Each	1,161.60
96	<p>Supplying, fitting and fixing soap holder (b) Fibre glass and plumbing work schedule P-82, It-18(b) Sanitary</p>							5	69.60	Each	348.00
97	<p>Supplying, fitting and fixing porcelain toilet paper holder of approved make with wooden spindle as necessary. (i) Roll type size 250 mm X 125 mm (A5) Sanitary &amp; Plumbing works p No 83 1 No- 23 9i)</p>							3	351.60	Each	1,054.80
98	<p>Supplying, fitting and fixing glass shelf with aluminium guard rails (a) Ordinary type with 5.5 mm sheet glass (i) 450 mm X 125 mm Sanitary and plumbing work schedule P-81, It-16(a)(i)</p>							4	409.20	Each	1,636.80
<b>Sub Total Of (A)</b>									<b>10,81,524.07</b>		

Sl. No.	Item Description & Item No.							Quantity	Rate	Unit	Amount (in Rs)
	Details	Side	No.	L	B	H	QNTY.				
	Add S.G.S.T. @								9%		97,337.17
	Add C.G.S.T. @								9%		97,337.17
	Cost Of Civil & Sanitary Work										<b>12,76,198.41</b>
	Add L.W.C. @								1%		12,761.98
	Total payable Amount Including L.W.C.										<b>12,88,960.39</b>
	Add Contengency @3%										38,285.95
	Total payable Amount Including L.W.C. and contengency										<b>13,27,246.34</b>
	Say Rs.										<b>13,27,246.00</b>

*Trisanta Das*

*Nikhil Chatterjee*

Sub-Assistant Engineer  
Darjeeling Municipality

**MUNICIPAL ENGINEER**  
Darjeeling Municipality  
Darjeeling

*[Signature]*  
**Chairman**  
Darjeeling Municipality  
Darjeeling

*[Signature]*  
23/05/2025

Junior Engineer  
Darjeeling Sub Division, M.E. Dte  
Govt. Of West Bengal

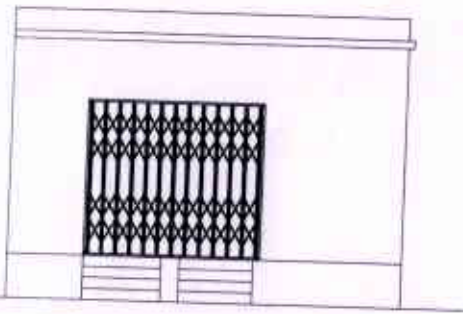
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*[Signature]*  
Assistant Engineer  
Darjeeling Sub Division, M.E. Dte.  
Govt. Of West Bengal

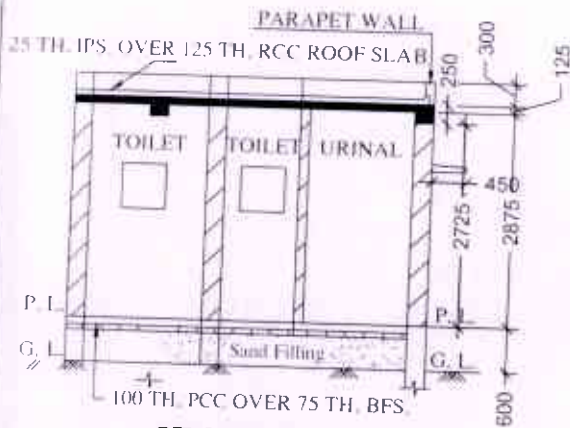
**Vetted**

*[Signature]*  
Executive Engineer  
Siliguri Division, M.E. Dte  
Govt. of West Bengal

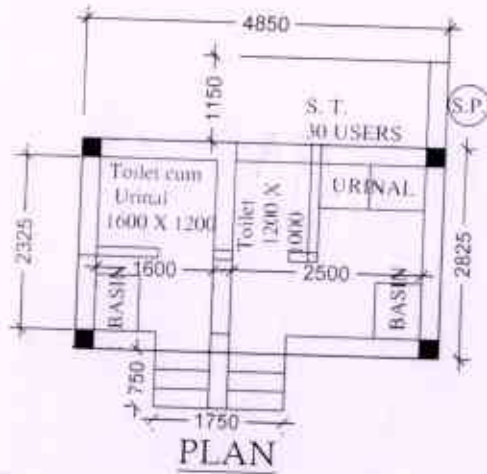
MODEL DRAWING FOR CONSTRUCTION OF C. T./P.T.  
TOILET SEATS 2 NOS URINAL 3 NOS  
MODEL NO.- F



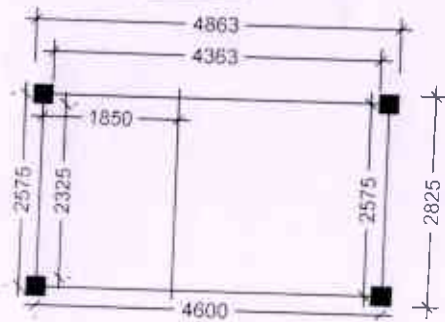
FRONT ELEVATION



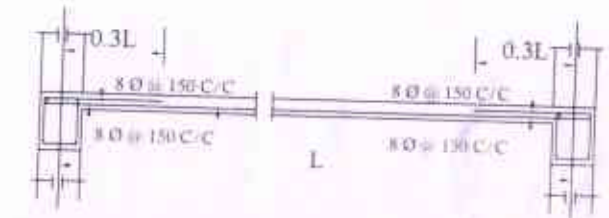
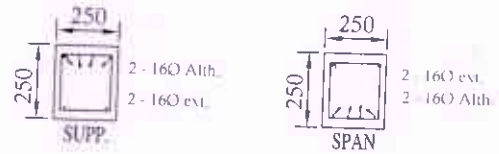
SECTION - 'A - A'



PLAN

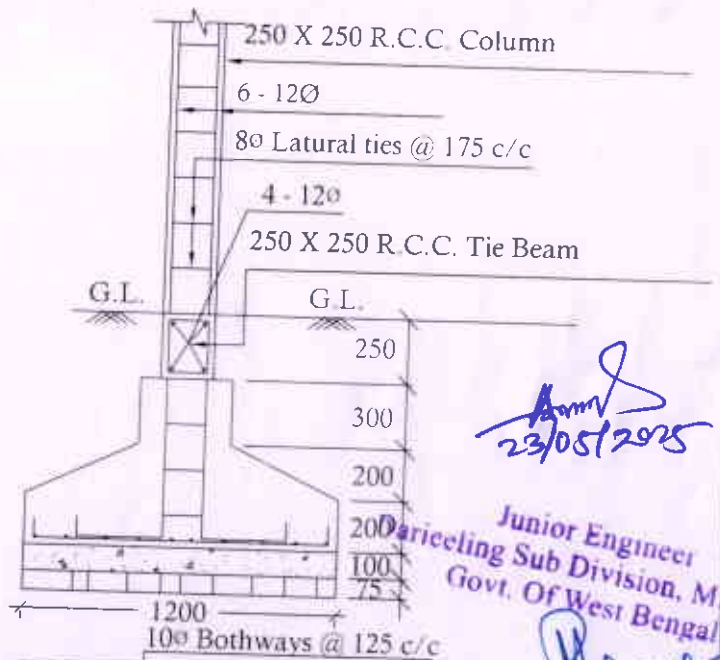


LAYOUT PLAN



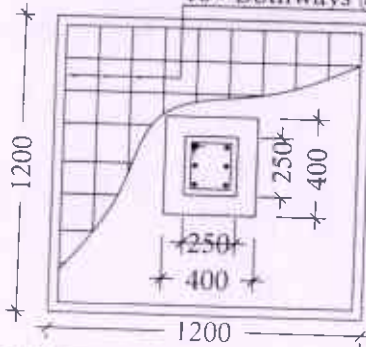
Details Of R.C.C Roof Slab & Beam

(SCALE - 1 : 25)



DETAILS OF R. C. C COLUMN

(SCALE - 1 : 25)



*Amrita*  
23/05/2015

Junior Engineer  
Darjeeling Sub Division, M.E.D.  
Govt. Of West Bengal  
*[Signature]*  
Assistant Engineer  
Darjeeling Sub Division, M.E.D.  
Govt. Of West Bengal

Executive Engineer  
Siliguri Division, M.E.D.  
Govt. Of West Bengal

*[Signature]*  
Sub- Assistant Engineer  
Darjeeling Municipality

*[Signature]*  
MUNICIPAL ENGINEER  
Darjeeling Municipality  
Darjeeling

*[Signature]*  
Chairman  
Darjeeling Municipality  
Darjeeling

**Municipal Girls High School ,Ward No-15 (Unit-1) ( Model 'F' )**

**ESTIMATE FOR HIGH HILL SLOPE PROTECTION R.C.C CANTILEVER RETAINING WALL OF 4.50m HEIGHT (For Model 'F' )**

As Per PWD Schedule of Rates Volume I: Building Works With effect from 01.11.2017 and Volume III: Road & Bridge Works 2018 With effect from 30.08.2018 [Incorporation of GST Act, 2017 & All addenda & Corrigenda of SOR, Upto 14.03.2023]

Estimate No:

Sl. no	PWD (W.B.), Schedule of Rates Ref.	Description of work	Quantity	Unit	Rate (Rs.-Ps.)	Amount (Rs.-Ps)
1	Road & Bridge Works 2017 Page-284 It-12.01.1.a (iv)	Earth work in excavation of foundation of structures as per drawing and technical specification, including setting out, removing, spreading or stacking of spoils within a lead of 150 m. as directed and including trimming the sides of the trenches, leveling, dressing and ramming the bottom, and backfilling with approved material complete as per direction of the Engineer-in-Charge . I. In all sorts of soil excluding marshy soil & rocks (soft or hard) by manual means. a) upto 3 m depth (iv) Without pumping out water and shoring	25.964	Cum	114.00	2,959.90
2	Building works 2017 Page no-229, Item no-12 + Rate Analysis	Supplying and laying 150 mm to 200 mm boulder soling including rough dressing hand packing and ramming down small pieces and preparing the bed to proper level and filling up all joints with sandy clay or earth.	25.73	Sqm	240.80	6,195.78
3	Building works 2017 Page no-24, Item no-4 b + 3rd corrigenda + Rate Analysis	Ordinary cement concrete (mix 1:2:4) with graded stone chips (20 mm nominal size) excluding shuttering and reinforcement, if any, in ground floor as per relevant IS codes. (b ) River bazree	2.573	Cum	6,186.32	15,917.40
4	Building Works-2017 Page-26 It-10 (ii) + Rate analysis	Ordinary Cement concrete (mix 1:1.5:3) with graded stone chips (20 mm nominal size) excluding shuttering and reinforcement if any, in ground floor as per relevant IS codes. (i) N.B variety stone aggregate	18.101	Cum	6,998.57	126,681.12
5	Building works Page No 322 Item No 18.05	Hire and labour charges for Shuttering with or without staging upto 4.0 m height using approved stout props with wooden planks/ply wood/steel sheet plate with required bracing for any kind of plain or reinforced concrete works in all sorts of minor structure including culvert, box culvert, crossdrain etc. The rate is inclusive of fitting, fixing and striking out after completion of work as per specification and direction. (b) Where staging is not required.	87.83	Sqm	214.00	18,795.62
6	Building works 2017 Page no-43, Item no-a.(i).II + 10th corrigenda & addenda	Reinforcement for reinforced concrete work in all sorts of structures including distribution bars, stirrups, binders etc initial straightening and removal of loose rust (if necessary), cutting to requisite length, hooking and bending to correct shape, placing in proper position and binding with 16 gauge black annealed wire at every intersection, complete as per drawing and direction. (a) For works in foundation and upto roof of ground floor /upto 4 m (i) Tor steel/Mild Steel (JSW/SHYAM/JSPL/SRMB)	2.059	MT	71,762.99	147,760.00
7	Road & Bridge Works Page-297, Item-13.03	Providing weep holes in Brick masonry / Plain / Reinforced concrete abutment, wing wall / return wall with 100 mm dia AC pipe, extending through the full width of the structure with slope of 1V:20H towards drawing face. Complete as per drawing and Technical specifications.	25	Each	117.00	2,925.00

**ESTIMATE FOR HIGH HILL SLOPE PROTECTION R.C.C CANTILEVER RETAINING WALL OF 4.50m HEIGHT (For Model 'F')**

As Per PWD Schedule of Rates Volume I: Building Works With effect from 01.11.2017 and Volume III: Road & Bridge Works 2018 With effect from 30.08.2018 [Incorporation of GST Act, 2017 & All addenda & Corrigenda of SOR, Upto 14.03.2023]

Estimate No:

Sl. no	PWD (W.B.), Schedule of Rates Ref.	Description of work	Quantity	Unit	Rate (Rs.-Ps.)	Amount (Rs.-Ps)
8	Road & Bridge Works Page no-285 Item no-12.02	Earthwork in filling in foundation trenches with good earth in layers not exceeding 15cm including watering and ramming layer by layer complete with earth obtained from excavation of foundation or from fresh excavation of land arranged by Department within a lead of 150 m.	10.630	Cum	92.00	977.96
<b>Total Cost of works=</b>						<b>322,212.78</b>
<b>18% GST</b>						<b>57,998.30</b>
<b>Cost of Civil works excluding labour welfare cess but including GST</b>						<b>380,211.08</b>
<b>Labour Welfare cess @ 1%</b>						<b>3,802.11</b>
<b>Cost of Civil works including labour welfare cess and GST</b>						<b>384,013.19</b>
<b>3% Contingencies</b>						<b>11,406.33</b>
<b>Grand Total</b>						<b>395,419.52</b>
<b>Say</b>						<b>395,420.00</b>

*Nikhil Chakraborty*  
Sub-Assistant Engineer  
Darjeeling Municipality

*Trananta Das*  
**MUNICIPAL ENGINEER**  
Darjeeling Municipality  
Darjeeling

*[Signature]*  
Chairman  
Darjeeling Municipality  
Darjeeling

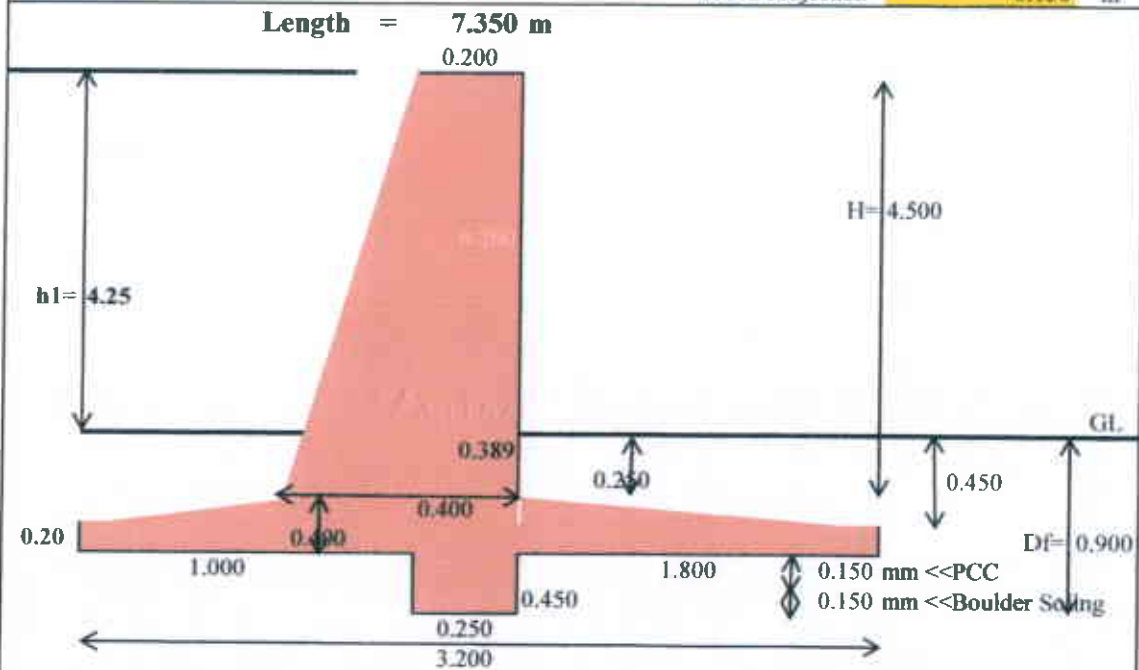
Junior Engineer  
**May be Vetted**  
Govt. Of West Bengal  
*[Signature]*  
23/05/2015  
Junior Engineer  
Darjeeling Sub Division, M.E. Div  
Govt. Of West Bengal

**May be Vetted**  
*[Signature]*  
26/05/15  
Assistant Engineer  
Darjeeling Sub Division, M.E. Div  
Govt. Of West Bengal

**Vetted**  
*[Signature]*  
Executive Engineer  
Siliguri Division, M.E. Div  
Govt. of West Bengal

## Calculation of RCC Cantilever 4m Height Wall

Length of the wall (L)=	7.350	m
Stem Height of the wall (H)=	4.500	m
Depth of The Foundation (Df)=	0.900	m
Wall Stem Thickness at Top (t1)=	0.200	m
Wall Stem Thickness at base (t2)=	0.400	m
Base Slab Thickness at end (d1)=	0.200	m
Base Slab Thickness near stem (d2)=	0.400	m
Toe Projection (b1)=	1.000	m
Heel Projection (b2)=	1.800	m
Base Width of Wall (B)=	3.200	m
Depth of Shear Key (d2)=	0.450	m
Thickness of Shear Key (h3)=	0.250	m
Excavation Projection=	0.300	m
Soling Projection=	0.150	m
P.C.C Projection=	0.150	m



Sl No	Description	No	Length	Width	Height/ Thickness	Qty	Unit		
1	E/W in Cutting								
			0 to 3M Height	1	7.350	3.500	0.900	23.153	Cum
				1	7.350	0.850	0.450	2.811	Cum
						<b>Total Qty=</b>	<b>25.964</b>	<b>Cum</b>	
2	Boulder Soling	1	7.350	3.500		25.73	Sqm		
3	PCC (1:2:4)	1	7.350	3.500	0.100	2.573	Cum		
4	RCC (1:1.5:3)								
	Upto 4.0M								
	Shear Key	1	7.350	0.250	0.450	0.827	Cum		
	Base Raft	1	7.350	0.400	0.400	1.176	Cum		
	Toe Side	1	7.350	1.000	0.300	2.205	Cum		
	Heel Side	1	7.350	1.800	0.300	3.969	Cum		
	Stem upto GL	1	7.350	0.395	0.250	0.725	Cum		
	Stem Gl to 4.0m Height	1	7.350	0.295	4.250	9.199	Cum		
						<b>Total Qty=</b>	<b>18.101</b>	<b>Cum</b>	
5	Shuttering								
	Upto 4.0M								
	Shear Key	1	7.350	0.250	0.550	8.36	Sqm		
	Base Raft	1	7.350	0.400	0.400	6.20	Sqm		

*Niketa Chatterjee*

Sub-Assistant Engineer  
Darjeeling Municipality

*Tranvanta Das*

MUNICIPAL ENGINEER  
Darjeeling Municipality  
Darjeeling

Page 1 of 2

*Chaitanya*  
Darjeeling Municipality  
Darjeeling

Sl No	Description	No	Length	Width	Height/ Thickness	Qty	Unit
	Toe Side	1	7.350	1.000	0.300	2.21	Sqm
	Heel Side	1	7.350	1.800	0.300	2.21	Sqm
	Stem upto GL	1	7.350	0.395	0.250	3.87	Sqm
	Stem Gl to 4.0m Height	1	7.350	0.295	4.250	64.98	Sqm
					<b>Total Qty=</b>	<b>87.83</b>	<b>Sqm</b>
<b>6</b>	<b>Reinforcement</b>						
	Sub-Structure		@ of 1.5% of Conc. Vol. 8.902 Cum			1.0480	MT
	Super-Structure		#REF!			1.011	MT
					<b>Total Qty=</b>	<b>2.0590</b>	<b>MT</b>
<b>7</b>	<b>Weep Hole</b>						
	C/C Horizontal		1.20	M C/C			
	C/C Vertical		1.00	M C/C			
					<b>Total Qty=</b>	<b>25</b>	<b>Nos</b>
<b>8</b>	<b>E/W in Filling</b>						
	Excavated Qty					25.964	Cum
	Deduction:						
	Boulder Soling	-1	7.35	3.50	0.150	-3.859	Cum
	PCC (1:2:4)	-1	7.350	3.500	0.100	-2.573	Cum
	Shear Key	-1	7.350	0.250	0.450	-0.827	Cum
	Base Raft	-1	7.350	0.400	0.400	-1.176	Cum
	Toe Side	-1	7.350	1.000	0.300	-2.205	Cum
	Heel Side	-1	7.350	1.800	0.300	-3.969	Cum
	Stem upto GL	-1	7.350	0.395	0.250	-0.725	Cum
					<b>Total Qty=</b>	<b>10.630</b>	<b>Cum</b>

*Nikhil Ghosh*  
Sub- Assistant Engineer  
Darjeeling Municipality

*T. Manoj Das*  
MUNICIPAL ENGINEER  
Darjeeling Municipality  
Darjeeling

*[Signature]*  
Chairman  
Darjeeling Municipality  
Darjeeling

*[Signature]*  
23/05/2028  
Junior Engineer  
Darjeeling Sub Division, M.E.Dte.  
Govt. Of West Bengal

*[Signature]*  
Assistant Engineer  
Darjeeling Sub Division, M.E.Dte.  
Govt. Of West Bengal

*[Signature]*  
Executive Engineer  
Siliguri Division, M.E.Dte  
Govt. of West Bengal