



BILL OF QUANTITIES

PROJECT: DH. KUDAHUVADHOO SCHOOLE

CLIENT: MINISTRY OF EDUCATION

DATE:FEBRUARY 2017

QS: SHAFEEULLA

PROJECT: DH. KUDAHUVADHOO SCHOOL
SUMMARY OF BILL OF QUANTITIES

Bl.no	Item Description	Amount
1	PRELIMINARIES	-
2	GROUND WORKS	-
3	CONCRETE WORKS	-
4	MASONRY & PLASTERING	-
5	FLOORING & TILING	-
6	DOORS & WINDOWS	-
7	CEILING	-
8	PAINTING	-
9	METAL WORK	-
10	HYDRAULICS & DRAINAGE	-
11	ELECTRICAL INSTALLATIONS	-
12	FIRE FIGHTING SYSTEM	-
13	ADDITIONS	-
14	OMISSIONS	-
	TOTAL Mrf	-

PROJECT : DH. KUDAHUVADHOO SCHOOL BUILDING

Item	Description	Unit	Qty	Material Rate	Labour Rate	Total
	<u>BILL No: 01</u> <u>PRELIMINARIES</u>					
1.1	<u>General Notes</u>					
(1)	<u>Abbreviations</u> m - metre no - numbers m ³ - cubic metre m ² - square metre m - metre t - tonnes incl - including mm - millimetre dia - diameter SS - Stainless Steel GI - Galvanised Iron					
1.2	<u>Site Management Costs</u>					
(1)	Allow for all on and off site management cost including costs of foreman and assistants, temporary services, telephone, fax, hoardings, fences, Crane/Concrete pump, Machinaries and similar items	Item	1.00			-
1.3	<u>Sign Board</u>					
(1)	Allow for sign board.	No	1.00			-
1.4	<u>SAFETY</u>					
(1)	Safety - Providing and fixing scaffolding with G.I. pipes and clamps and pvc netting alaround building during construction	Item	1.00			-
1.5	<u>LOGISTICS</u>					
(1)	Charges for transporting material and other logistics expense during construction period.	Item	1.00			-
1.6	<u>CLEAN UP</u>					
(1)	Allow for clean-up of completed works and site upon completion.	Item	1.00			-
BILL No: 01 PRELIMINARIES						
TOTAL OF BILL No: 01 - Carried over to summary						-

Item	Description	Unit	Qty	Material Rate	Labour Rate	Total
	<u>BILL NO : 02</u> <u>GROUND WORK</u>					
2.1	<u>General</u> (a) Rates shall include for: leveling, grading, trimming, compacting to faces of excavation, keep sides plumb, backfilling, consolidating, additional working space and disposing surplus soil.					-
2.2	<u>Back filling</u> (a) Rates shall include for: leveling, grading, trimming and compacting. (b) Ground need to be compacted to the density required by the consultant					-
1)	250mm thick highly compacted hard core from Ground floor to below ground floor slab	m ²	246.40			-
2)	50mm thick Cement/sand blinding layer (1:10 - Cement & Local Sand mix) to receive damp proof membrane below ground floor slab	m ²	246.40			-
2.3	<u>Damp Proof Membrane</u> (a) Rates shall include for: dressing around and sealing to all penetrations, laps and turnups.					-
1)	Polythene damp proof membrane (500 gauge) laid on blinding layer.	m ²	256.10			-
BILL No: 02 GROUND WORKS TOTAL OF BILL No: 02 - Carried over to summary						-

Item	Description	Unit	Qty	Material Rate	Labour Rate	Total
3.0	<u>BILL NO : 03</u> <u>CONCRETE</u> (a) Rates shall include for: placing in position; making good after removal of formwork and casting in all required items; additional concrete required to conform to structural and excavated tolerances. (b) Mix ratio for reinforced concrete shall be 1:2:3 and lean concrete shall be 1:2:6 by volume. (c) Quantity is measured to the edges of concrete foundation members. Rates shall be inclusive for any additional concrete required to place the formwork.					
3.1	<u>LEAN CONCRETE</u>					
a)	<u>75mm thick lean concrete</u> Below Entrance steps.	m ²	9.70			-
3.2	<u>REINFORCED CONCRETE</u>					
1.0	<u>GROUND FLOOR</u>					
1.1	<u>COLUMNS</u>					
	SC, 150 x 150mm x 09nos: (3425mm H)	m ³	0.70			-
1.2	<u>STAIRCASE</u>					-
	R.c.c. Staircase	m ³	1.96			-
1.3	<u>R.C.C. GROUND FLOOR SLAB</u>					-
	100mm thick R.C. slab including Entrance Steps	m ³	25.40			-
2.0	<u>FIRST FLOOR</u>					
2.1	<u>SLAB BEAMS</u>					
	B1 , 200 x 500mm	m ³	5.66			-
	B2 , 200 x 400mm	m ³	2.41			-
2.2	<u>FLOOR SLAB</u>					-
	150mm thick R.c.c. Floor Slab	m ³	33.80			-
2.3	<u>COLUMNS</u>					
	C1, 300 x 200mm x 08nos: (3500mm H)	m ³	1.68			-
	C2, 400 x 200mm x 02nos: (3500mm H)	m ³	0.56			-
	C3, 500 x 225mm x 04nos: (3500mm H)	m ³	1.58			-
	C4, 325mm dia. x 06nos: (3500mm H)	m ³	1.75			-
	SC, 150 x 150mm x 09nos: (3100mm H)	m ³	0.63			-
2.4	<u>STAIRCASE</u>					-
	R.c.c. Staircase	m ³	3.40			-
3.0	<u>SECOND FLOOR</u>					
3.1	<u>SLAB BEAMS</u>					
	B1 , 200 x 500mm	m ³	5.66			-
	B2 , 200 x 400mm	m ³	2.41			-
3.2	<u>FLOOR SLAB</u>					-
	150mm thick R.c.c. Floor Slab	m ³	33.80			-
3.4	<u>COLUMNS</u>					
	C1, 300 x 200mm x 08nos: (3500mm H)	m ³	1.68			-
	C2, 400 x 200mm x 02nos: (3500mm H)	m ³	0.56			-
	C3, 500 x 225mm x 04nos: (3500mm H)	m ³	1.58			-
	C4, 325mm dia. x 06nos: (3500mm H)	m ³	1.75			-
	SC, 150 x 150mm x 09nos: (3100mm H)	m ³	0.63			-
4.0	<u>ROOF LEVEL</u>					
4.1	<u>ROOF BEAMS</u>					
	B1, 200 x 500mm	m ³	2.95			-
	B2, 200 x 400mm	m ³	0.31			-
	B3, 200 x 400mm	m ³	5.66			-
	B4, 225 x 550mm	m ³	2.31			-
4.2	<u>ROOF SLAB</u>					-
	130mm thick R.c.c. Floor Slab	m ³	4.35			-

Item	Description	Unit	Qty	Material Rate	Labour Rate	Total
3.3	FORM WORK					
	(a) Exposed surface shall have fair finish while remaining may have rough finish. (b) Timber used for unexposed concrete surface shall sound dressed and seasoned good quality common timber while for exposed concrete surfaces dressed and matched boards uniformly thick and not more than 251mm wide. (c) Plywood used for forms shall be of commercial standard, moisture resistant concrete form plywood not less than 6mm thick and at least 12mm thick. (d) Rates shall include for; all necessary boarding, supports, erecting, framing, temporary cambering cutting, perforations for reinforcing bars, bolts, straps, ties, hangers, pipes and removal of formwork.					
1.0	GROUND FLOOR					
1.1	COLUMNS					
	SC, 150 x 150mm x 09nos: (3425mm H)	m ²	17.70			-
1.2	STAIRCASE					
	R.c.c. Staircase	m ²	10.65			-
1.3	R.C.C. GROUND FLOOR SLAB					
	100mm thick R.C. slab including Entrance Steps	m ³	8.00			-
2.0	FIRST FLOOR					
2.1	SLAB BEAMS					
	B1, 200 x 500mm	m ²	88.00			-
	B2, 200 x 400mm	m ²	42.15			-
2.2	FLOOR SLAB					
	150mm thick R.c.c. Floor Slab	m ²	229.10			-
2.3	COLUMNS					
	C1, 300 x 200mm x 08nos: (3500mm H)	m ²	28.00			-
	C2, 400 x 200mm x 02nos: (3500mm H)	m ²	8.40			-
	C3, 500 x 225mm x 04nos: (3500mm H)	m ²	20.30			-
	C4, 325mm dia. x 06nos: (3500mm H)	m ²	21.43			-
	SC, 150 x 150mm x 09nos: (3100mm H)	m ²	16.74			-
2.4	STAIRCASE					
	R.c.c. Staircase	m ²	23.95			-
3.0	SECOND FLOOR					
3.1	SLAB BEAMS					
	B1, 200 x 500mm	m ²	88.00			-
	B2, 200 x 400mm	m ²	42.15			-
3.2	FLOOR SLAB					
	150mm thick R.c.c. Floor Slab	m ²	229.10			-
3.3	COLUMNS					
	C1, 300 x 200mm x 08nos: (3500mm H)	m ²	28.00			-
	C2, 400 x 200mm x 02nos: (3500mm H)	m ²	8.40			-
	C3, 500 x 225mm x 04nos: (3500mm H)	m ²	20.30			-
	C4, 325mm dia. x 06nos: (3500mm H)	m ²	21.43			-
	SC, 150 x 150mm x 09nos: (3100mm H)	m ²	16.74			-
4.0	ROOF LEVEL					
4.1	ROOF BEAMS					
	B1, 200 x 500mm	m ²	51.75			-
	B2, 200 x 400mm	m ²	5.46			-
	B3, 200 x 400mm	m ²	77.00			-
	B4, 225 x 550mm	m ²	26.60			-
4.2	ROOF SLAB					
	130mm, 150mm & 170mm thick R.c.c. Floor Slab	m ²	33.50			-

Item	Description	Unit	Qty	Material Rate	Labour Rate	Total
3.4	REINFORCEMENT WORK					
	(a) Main reinforcement steel shall be high tensile steel hot rolled deformed bars complying with BS 1119 or BS 1172 Characteristic strength not less than 160N/mm ² .					
	(b) Stirrups shall be hot rolled mildsteel round bars complying with BS 1119, Characteristic strength not less than 250N/mm ²					
	(c) Rates shall include for; distribution steel, cleaning, fabrication, placing, the provision for all necessary temporary fixings, and supports including chairs and tie wire, laps and wastage.					
4.1	GROUND FLOOR					-
1)	COLUMNS					
	SC, 150 x 150 x 09nos:	t	0.01			-
	6mm dia MS Round bars - 6m	nos	8.00			-
	Binding wire	kg	0.21			-
2)	STAIRCASE	t	0.14			-
	10mm dia deformed bars - 6m	nos	38.00			-
	Binding wire	kg	2.81			-
3)	GROUND FLOOR SLAB	t	1.87			-
	10mm dia MS Round bars - 6m @ 200mm c/c	nos	504.00			-
	Binding wire	kg	37.32			-
4.2	FIRST FLOOR					-
1)	SLAB BEAM					
a)	B1 , 200 x 500mm	t	1.59			-
	16mm dia deformed bars - 6m	nos	136.00			-
	6mm dia MS Round bars - 6m	nos	228.00			-
	Binding wire	kg	31.86			-
b)	B2, 200 x 400mm	t	0.82			-
	16mm dia deformed bars - 6m	nos	72.00			-
	6mm dia MS Round bars - 6m	nos	101.00			-
	Binding wire	kg	16.34			-
2)	FLOOR SLAB	t	3.75			-
	10mm dia deformed bars - 6m	nos	983.00			-
	12mm dia deformed bars - 6m	nos	20.00			-
	Binding wire	kg	56.18			-
3)	COLUMNS					
	C1 , 200 x 300mm x 08nos:	t	0.51			-
	16mm dia deformed bars - 6m	nos	48.00			-
	6mm dia MS Round bars - 6m	nos	42.00			-
	Binding wire	kg	10.22			-
	C2, 400 x 200mm x 02nos	t	0.17			-
	16mm dia deformed bars - 6m	nos	15.00			-
	6mm dia MS Round bars - 6m	nos	21.00			-
	Binding wire	kg	3.40			-
	C3, 500 x 225mm x 04nos	t	0.42			-
	16mm dia deformed bars - 6m	nos	36.00			-
	6mm dia MS Round bars - 6m	nos	56.00			-
	Binding wire	kg	8.32			-
	C4, 325mm dia. x 06nos	t	0.28			-
	12mm dia deformed bars - 6m	nos	48.00			-
	6mm dia MS Round bars - 6m	nos	20.00			-
	Binding wire	kg	5.65			-
	SC, 150 x 150 x 09nos:	t	0.11			-
	10mm dia deformed bars - 6m	nos	27.00			-
	6mm dia MS Round bars - 6m	nos	8.00			-
	Binding wire	kg	2.21			-
4)	STAIRCASE	t	0.34			-
	10mm dia deformed bars - 6m	nos	91.00			-
	Binding wire	kg	6.74			-

Item	Description	Unit	Qty	Material Rate	Labour Rate	Total
4.3	<u>SECOND FLOOR</u>					-
1)	<u>SLAB BEAM</u>					
a)	B1 , 200 x 500mm	t	1.59			-
	16mm dia deformed bars - 6m	nos	136.00			-
	6mm dia MS Round bars - 6m	nos	228.00			-
	Binding wire	kg	31.86			-
b)	B2, 200 x 400mm	t	0.82			-
	16mm dia deformed bars - 6m	nos	72.00			-
	6mm dia MS Round bars - 6m	nos	101.00			-
	Binding wire	kg	16.34			-
2)	<u>FLOOR SLAB</u>	t	3.75			-
	10mm dia deformed bars - 6m	nos	983.00			-
	12mm dia deformed bars - 6m	nos	20.00			-
	Binding wire	kg	56.18			-
3)	<u>COLUMNS</u>					
	C1 , 200 x 300mm x 08nos:	t	0.51			-
	16mm dia deformed bars - 6m	nos	48.00			-
	6mm dia MS Round bars - 6m	nos	42.00			-
	Binding wire	kg	10.22			-
	C2, 400 x 200mm x 02nos	t	0.17			-
	16mm dia deformed bars - 6m	nos	15.00			-
	6mm dia MS Round bars - 6m	nos	21.00			-
	Binding wire	kg	3.40			-
	C3, 500 x 225mm x 04nos	t	0.42			-
	16mm dia deformed bars - 6m	nos	36.00			-
	6mm dia MS Round bars - 6m	nos	56.00			-
	Binding wire	kg	8.32			-
	C4, 325mm dia. x 06nos	t	0.28			-
	12mm dia deformed bars - 6m	nos	48.00			-
	6mm dia MS Round bars - 6m	nos	20.00			-
	Binding wire	kg	5.65			-
	SC, 150 x 150 x 09nos:	t	0.11			-
	10mm dia deformed bars - 6m	nos	27.00			-
	6mm dia MS Round bars - 6m	nos	8.00			-
	Binding wire	kg	2.21			-
4.4	<u>ROOF BEAMS</u>					-
1)	<u>SLAB BEAM</u>					
a)	B1 , 200 x 500mm	t	0.75			-
	16mm dia deformed bars - 6m	nos	64.00			-
	6mm dia MS Round bars - 6m	nos	109.00			-
	Binding wire	kg	15.04			-
b)	B2, 200 x 400mm	t	0.14			-
	16mm dia deformed bars - 6m	nos	13.00			-
	6mm dia MS Round bars - 6m	nos	12.00			-
	Binding wire	kg	2.78			-
b)	B3, 200 x 400mm	t	1.09			-
	16mm dia deformed bars - 6m	nos	97.00			-
	6mm dia MS Round bars - 6m	nos	130.00			-
	Binding wire	kg	21.85			-
b)	B4, 225 x 550mm	t	0.40			-
	16mm dia deformed bars - 6m	nos	33.00			-
	6mm dia MS Round bars - 6m	nos	63.00			-
	Binding wire	kg	7.94			-
2)	<u>FLOOR SLAB</u>	t	1.00			-
	10mm dia deformed bars - 6m	nos	270.00			-
	Binding wire	kg	14.99			-

Item	Description	Unit	Qty	Material Rate	Labour Rate	Total
5.0	<u>OTHER CONCRETE WORKS</u>					-
a)	<u>WINDOW SILL & LINTELS</u> Charges for construction of R.c.c. Sills and Lintels for the windows and doors as per details. Rate shall include for shuttering and Reinforcement works complete. 200 x 200mm Lintel & Sill Beam inside the wall and 450 x 100mm Lintel	m ³	9.30			-
b)	<u>PARAPET WALL</u> Charges for construction of 100mm thick R.c.c.Parapet wall at First floor and Second floor as per details. (Refer drawing no:A 14) Rate shall include for Shuttering and Reinforcement work complete.	m ³	2.45			-
c)	<u>GROUND WATER WELL</u> Charges for Construction and Installation of 1200mm dia. R.c.c. Ground water well, Base slab & Top cover slab as per drawing details. Rate shall include for; Excavation, form work, reinforcement, Lifting hooks, gravel filling etc complete.	m ³	To be connected to existing well			-
d)	<u>WASH BASIN COUNTER SLAB</u> Charges for Construction and Installation of 75mm thick R.c.c. Counter slab for washbasin at Toilet block (Ground floor, First floor and Second floor) as per drawing details. Rate shall include for; form work, reinforcement etc complete.	m ³	0.40			-
6.0	<u>WATER PROOFING & ADD MIXTURES</u>					-
(a)	Apply Rubberised bitumin water proofing paint, Moya Shield RBE , 2 coats to all exposed concrete and masonry surface below ground level.	m ²	169.86			-
(b)	Add approved water proofing admixture Mega Add WL1 as per specification to all concrete below ground level.	item	1.00			-
(c)	Add Plasticiser admixture Mega Flow P as per specification to all concrete Substructure and Super structure.	item	1.00			-
BILL No: 03 - CONCRETE WORKS						-
TOTAL OF BILL No: 03 - Carried over to summary						-
	<u>BILL No: 04</u> <u>MASONRY AND PLASTERING</u>					
4.1	<u>General</u> a)Rates shall include for cleaning out cavities, forming rebated reveals and pointing and cleaning down to reveals where necessary; fractional size blocks, all necessary machine cutting, cutting or forming chases or edges of floor slabs. b)Cutting or leaving holes and openings as recesses for and building in pipes, conduits , sleeves and similar as required for all trades; leaving surfaces rough or raking out joints for plastering and flashings, bedding frames or plates, building in joints. c) All external wall and all inetrenal walls shall be 100mm thick Solid cement blocks and for masonry mix ratio 1:5 (cement and river sand)					
4.2	<u>MASONRY</u>					
1.0	<u>BELOW GROUND LEVEL</u>					
	200mm thick Solid block wall 300x150x200mm solid block wall - 200mm thick above all foundation beams.	m ²	84.93			-
2.0	<u>GROUND FLOOR</u>					
1)	<u>External walls</u>					-
a)	300x150x200mm solid blockwall - 200mm thick	m ²	191.00			-
b)	300x150x150mm Solid block wall between SILL and LINTEL at rear side.	m ²	5.45			-
2)	<u>Interior walls</u>					-
a)	300x150x200mm solid blockwall - 200mm thick	m ²	45.30			-
b)	300x150x150mm Solid block wall - 150mm thick	m ²	38.15			-

Item	Description	Unit	Qty	Material Rate	Labour Rate	Total
3.0	FIRST FLOOR					
1)	External walls					-
a)	300x150x200mm solid blockwall - 200mm thick	m ²	168.40			-
b)	300x150x150mm Solid block wall between SILL and LINTEL at rear side.	m ²	5.45			-
2)	Interior walls					-
a)	300x150x200mm solid blockwall - 200mm thick	m ²	45.30			-
b)	300x150x150mm Solid block wall - 150mm thick	m ²	22.20			-
5.0	ABOVE ROOF BEAM					
1)	External walls 150mm thick					-
	300x150x150mm solid block wall	m ²	24.60			-
4.3	PLASTERING					
	(a) 20mm thick Cement plastering on Exterior surface of External masonry walls and concrete surfaces and 15mm thick plastering on interior walls and concrete surface as specified incl. wire mesh shall be fixed at the joints of concrete surfaces and walls before plastering. Quantity is measured including concrete surfaces - Parapetwalls, Liftwalls, columns & beams. (b) Rates shall include for External plastering shall 20mm thick (12+8mm) 2 coats in 1:4 cement and river sand mix ratio (c) Rates shall include for approved brand water proofing compound shall be mixed with cement mortar for external wall plastering as per manufacturers specifications.					
1.0	BELOW GROUND LEVEL					
1)	15mm thick Plastering					
	Both surface of below ground walls	m ²	169.86			-
2.0	GROUND FLOOR					
1)	External Plastering					-
	External surface of exterior wall & Concrete surfaces	m ²	297.30			-
2)	Internal Plastering					-
	Internal surface of external wall and both surface of Interior walls	m ²	419.35			-
3.0	FIRST FLOOR					
1)	External Plastering					-
	External surface of exterior wall & Concrete surfaces	m ²	282.62			-
2)	Internal Plastering					-
	Internal surface of external wall and both surface of Interior walls	m ²	409.70			-
4.0	SECOND FLOOR					
1)	External Plastering					-
	External surface of exterior wall & Concrete surfaces	m ²	282.62			-
2)	Internal Plastering					-
	Internal surface of external wall and both surface of Interior walls	m ²	429.50			-
5.0	ROOF LEVEL					
1)	External Plastering					-
	External surface of exterior wall	m ²	24.60			-
2)	Internal Plastering					-
	Internal surface of external wall	m ²	24.60			-
BILL No: 04 - MASONRY AND PLASTERING						-
TOTAL OF BILL No: 04 - Carried over to summary						-

Item	Description	Unit	Qty	Material Rate	Labour Rate	Total
	BILL NO: 05 FLOORING & TILING					
5.1	General (a) Rates shall include for laying 50mm thick cement mortar in 1 : 5 mix ratio, cleaning down to reveals where necessary and water proofing of Toilet and Balcony floors & Terrace.					
5.2	FLOORING					
	50mm thick Floor Screeding					
1.0	GROUND FLOOR					-
	Class rooms	m ²	154.40			-
	Corridor & Stair Lobby area and Ramp	m ²	47.40			-
	Staircase	m ²	18.00			-
	Entrance Steps	m ²	10.60			-
2.0	FIRST FLOOR					-
	Class rooms	m ²	154.40			-
	Corridor	m ²	35.55			-
	Toilet & Wash	m ²	9.15			-
	Staircase	m ²	18.00			-
	Stair Lobby area	m ²	6.25			-
3.0	SECOND FLOOR					-
	Class rooms	m ²	154.40			-
	Corridor	m ²	35.55			-
	Toilet & Wash	m ²	9.15			-
	Stair Lobby area	m ²	6.25			-
5.0	ROOF LEVEL					
	Roof slab	m ²	33.50			-
5.3	TILING					
	(a) Rates shall include for: Fixing, bedding, grouting, and pointing materials, making good around pipes, sanitary fixtures, and similar; cleaning & Polishing. (b) All Tiling work in accordance with specifications and finishes schedule. (c) Tiles for bed rooms, offices, Kitchen, Living, Dining, corridors, all general areas shall 600 x 600mm Polished Porcelain/Homogeneous tiles . (d) Toilet wall tiles shall be 300 x 600 mm size ceramic Polished tiles including designed border tiles and Toilet Floor Tiles shall be 300 x 300mm Non- Slip ceramic Tiles.					
1.0	GROUND FLOOR					
A)	FLOOR TILING					
1)	600 x 600mm Polished Porcelain tiles					
	Class rooms	m ²	154.40			-
2)	600 x 600mm Non Slip Porcelain tiles					
	Corridor & Stair Lobby area and Ramp	m ²	47.40			-
3)	Homogeneous/Porcelain Step Tiles					
	Stair case	m ²	18.00			-
	Entrance Steps	m ²	10.60			-
C)	SKIRTING					
1)	Skirting - 600 x 100mm Porcelain Tiles	m	132.00			-

Item	Description	Unit	Qty	Material Rate	Labour Rate	Total
2.0	FIRST FLOOR					
A)	FLOOR TILING					
1)	<u>600 x 600mm Polished Porcelain tiles</u> Class rooms	m ²	154.40			-
2)	<u>600 x 600mm Non slip Porcelain tiles</u> Corridor & Stair Lobby area	m ²	41.80			-
3)	<u>300 x 300mm Non slip Ceramic Tiles</u> Toilets	m ²	9.15			-
4)	<u>Homogeneous/Porcelain Step Tiles</u> Stair case	m ²	18.00			-
B)	WALL TILING					
	<u>300 x 600mm Polished Ceramic Wall Tiles 2.7m height. (Rate shall include for 300 x 100mm Design border tiles @ 1200mm high on toilet walls)</u> Toilet walls @ 3M height	m ²	38.20			-
	Wash room walls @ 1.8m H	m ²	13.40			-
	Vanity Counter	m ²	2.10			-
C)	SKIRTING					
1)	Skirting - 600 x 100mm Porcelain Tiles	m	151.00			-
3.0	SECOND FLOOR					
A)	FLOOR TILING					
1)	<u>600 x 600mm Polished Porcelain tiles</u> Class rooms	m ²	154.40			-
2)	<u>600 x 600mm Non slip Porcelain tiles</u> Corridor & Stair Lobby area	m ²	41.80			-
3)	<u>300 x 300mm Non slip Ceramic Tiles</u> Toilets	m ²	9.15			-
B)	WALL TILING					
	<u>300 x 600mm Polished Ceramic Wall Tiles 2.7m height. (Rate shall include for 300 x 100mm Design border tiles @ 1200mm high on toilet walls)</u> Toilet walls @ 3M height	m ²	38.20			-
	Wash room walls @ 1.8m H	m ²	13.40			-
	Vanity Counter	m ²	2.10			-
C)	SKIRTING					
1)	Skirting - 600 x 100mm Porcelain Tiles	m	151.00			-
5.0	ROOF LEVEL					
A)	FLOOR TILING					
1)	<u>600 x 600mm Non slip Porcelain tiles</u> Roof slab	m ²	33.50			-
6.0	GLASS BLOCK WALL FINISHES					
A)	<u>200 x 200mm Glass block wall</u> Ground floor	m ²	1.85			-
	First floor	m ²	4.70			-
	Second floor	m ²	4.70			-
5.4	WATER PROOFING					
	Apply 2 coats of Water proofing Compound, Moya Proof HF , on wet surfaces - Toilets, Balcony and Terrace Floors. Toilets	m ²	27.45			-
	Corridor & Stair Lobby	m ²	131.00			-
	Roof Slabs	m ²	33.50			-
5.5	TILE ADHESIVE					
1)	Charges for supplying special tiles grout Conmix C800 / Conmix C500 for fixing tiles to all floors.	item	1.00			-
BILL No: 05 -FLOORING AND TILING						
TOTAL OF BILL No: 05 - Carried over to summary						-

Item	Description	Unit	Qty	Material Rate	Labour Rate	Total
	<u>BILL NO: 06</u> <u>DOORS AND WINDOWS</u>					
6.1	<u>General</u> (a) Rates shall include for locks, latches, closers, push plates, pull handles, bolts, kick plates, hinges and all door & window hardware. (b) Rates shall include for door frames and window frames, mullions, transoms, trims, glazing, tinting, timber panels, boardings, framing, lining, fastenings and all fixings and installation. (c) All Timber door frames shall be treated timber. Rate shall include for Paint/Varnish finish. (d) All louvres, windows and sliding doors shall be 30 micron powder coated aluminium as per details given in Door/Window schedule. (e) All doors and windows shall be accordance with door/window drawing details.					
1.0	<u>GROUND FLOOR</u>					
	<u>DOOR UNITS</u>					
1)	D1 - Solid Timber framed door with Solid Timber door panel, 950 x 2785mm. All glazed fix panels shall be double glazed panels.	no	6.00			-
2)	D2 - Solid Timber framed door with Solid Timber door panel, 850 x 2000mm.	no	2.00			-
3)	D3 - Solid Timber framed door with Solid Timber door panel, 780 x 2000mm.	no	3.00			-
	<u>WINDOW UNITS</u>					
1)	W1 - Coated Aluminium framed Window with Openable glass panels and Fixed aluminium louvered panels & glass panels at top, 2450 x 1690mm	no	6.00			-
2)	W2 - Coated Aluminium framed Window with Openable glass panels and Fixed double glazed panels at top , 1575 x 1785mm	no	6.00			-
3)	W3 - Coated Aluminium framed Window with Fixed aluminium louvered panels, 700 x 650mm	no	3.00			-
	<u>SHADING DEVICE</u>					
1)	TYPE 01 - Coated Aluminium frame with Louvered aluminium panels, 3000 x 650mm (Refer Elevation)	no	3.00			-
2)	TYPE 02 - Coated Aluminium frame with Louvered aluminium panels, 1800 x 650mm (Refer Elevation)	no	2.00			-
2.0	<u>FIRST FLOOR</u>					
	<u>DOOR UNITS</u>					
1)	D1 - Solid Timber framed door with Solid Timber door panel, 950 x 2785mm. All glazed fix panels shall be double glazed panels.	no	6.00			-
2)	D2 - Solid Timber framed door with Solid Timber door panel, 850 x 2000mm.	no	1.00			-
3)	D3 - Solid Timber framed door with Solid Timber door panel, 780 x 2000mm.	no	3.00			-
	<u>WINDOW UNITS</u>					
1)	W1 - Coated Aluminium framed Window with Openable glass panels and Fixed aluminium louvered panels & glass panels at top, 2450 x 1690mm	no	6.00			-
2)	W2 - Coated Aluminium framed Window with Openable glass panels and Fixed double glazed panels at top , 1575 x 1785mm	no	6.00			-
3)	W3 - Coated Aluminium framed Window with Fixed aluminium louvered panels, 700 x 650mm	no	3.00			-

Item	Description	Unit	Qty	Material Rate	Labour Rate	Total
SHADING DEVICE						
1)	TYPE 01 - Coated Aluminium frame with Louvered aluminium panels, 3000 x 650mm	no	3.00			-
2)	TYPE 02 - Coated Aluminium frame with Louvered aluminium panels, 1800 x 650mm (Refer Elevation)	no	2.00			-
3.0 SECOND FLOOR						
DOOR UNITS						
1)	D1 - Solid Timber framed door with Solid Timber door panel, 950 x 2785mm. All glazed fix panels shall be double glazed panels.	no	6.00			-
2)	D2 - Solid Timber framed door with Solid Timber door panel, 850 x 2000mm.	no	1.00			-
3)	D3 - Solid Timber framed door with Solid Timber door panel, 780 x 2000mm.	no	3.00			-
WINDOW UNITS						
1)	W1 - Coated Aluminium framed Window with Openable glass panels and Fixed aluminium louvered panels & glass panels at top, 2450 x 1690mm	no	6.00			-
2)	W2 - Coated Aluminium framed Window with Openable glass panels and Fixed double glazed panels at top, 1575 x 1785mm	no	6.00			-
3)	W3 - Coated Aluminium framed Window with Fixed aluminium louvered panels, 700 x 650mm	no	3.00			-
SHADING DEVICE						
1)	TYPE 01 - Coated Aluminium frame with Louvered aluminium panels, 3000 x 650mm	no	3.00			-
2)	TYPE 02 - Coated Aluminium frame with Louvered aluminium panels, 1800 x 650mm (Refer Elevation)	no	2.00			-
BILL No: 06 - DOORS AND WINDOWS						-
TOTAL OF BILL No: 06 - Carried over to summary						-
BILL No: 07						
WOOD WORK & CEILING						
7.1	General					
	<p>(a) Rates shall include for: all labour in framing, notching and fitting around projections, pipes, light fittings, hatches, grilles and similar and complete with cleats, packers, wedges and similar and all nails, bolts & screws.</p> <p>(b) Rates shall include for applying approved quality wood preservatives as per manufactures instructions for all Timber structures.</p> <p>(c) Rates shall include for 9mm thick Cement board fixed on 35 x 50mm Timber frame, trimming, nails, screws, hooks, hangers, clips and similar.</p>					
7.2	CEILING					
1.0	SUSPENDED ACOUSTIC CEILING SYSTEM ON ALUMINIUM FRAME					
	Second floor - Class room	m ²	154.40			
2.0	9MM THICK CEMENT BOARD CEILING ON 50 X 35MM THICK TIMBER FRAME					
	Ground floor - Toilet / Wash room	m ²	9.15			-
	First floor - Toilet / Wash room	m ²	9.15			-
	Second floor - Corridor & Toilet / Wash room	m ²	48.00			-
	Roof level - Eave Ceiling	m ²	25.00			-
7.3	WOOD WORK					
1)	Timber Fascia Board: Supply and Fixing 25 x 250mm wide Timber Fascia board complete including Paint finishes.	mtr	39.00			
BILL No: 07 - WOOD WORK & CEILING						-
TOTAL OF BILL No: 07 - Carried over to summary						-

Item	Description	Unit	Qty	Material Rate	Labour Rate	Total
BILL No: 08 PAINTING						
8.1	General (a) Rates shall include for: the provision, erection and removal of scaffolding, preparation, rubbing down between coats and similar work, the protection and/or masking floors, fittings and similar work, removing and replacing door and window furniture. (b) All painting work shall be carried in accordance with the Specifications (c) Rate shall include for weather proof paint finish for exterior surfaces of the wall complete including application of two coats of oil based wall sealer and two coats of weather bond paint (d) Rate shall include for putty and paint finish for interior surfaces of the wall and ceilings complete including application of two coats of wall sealer, two coats of putty finish and two coats of emulsion paint finish on top for Interior painting.					
1.0	GROUND FLOOR					
	Painting exterior surfaces of External Wall, Columns & beams.	m ²	297.30			-
	Painting interior surfaces Wall, Columns & beams)	m ²	419.35			-
	Painting Soffit of slab (Ceiling)	m ²	223.35			-
2.0	FIRST FLOOR					
	Painting exterior surfaces of External Wall, Columns & beams.	m ²	282.62			-
	Painting interior surfaces Wall, Columns & beams)	m ²	409.70			-
	Painting Soffit of slab (Ceiling)	m ²	223.35			-
3.0	SECOND FLOOR					
	Painting exterior surfaces of External Wall, Columns & beams.	m ²	282.62			-
	Painting interior surfaces Wall, Columns & beams)	m ²	429.50			-
	Painting Soffit of slab (Ceiling)	m ²	102.30			-
4.0	ROOF LEVEL					
	Painting exterior surfaces of External Wall, Columns & beams.	m ²	24.60			-
	Painting interior surfaces Wall, Columns & beams)	m ²	24.60			-
	Eave Ceiling	m ²	25.00			-
BILL No: 08 - PAINTING TOTAL OF BILL No: 08 - Carried over to summary						-
BILL No: 09 METAL WORK						
9.1	General (a) Rates shall include for ; all labour in framing, cutting, welding, cleats, baseplates, flanges, screws, nails, bends, and similar complete with grinding, surface smoothening and polish finishes.					
9.2	RAILING					
1.0	GROUND FLOOR					
1)	S.S. Railing - Staircase					
a)	Supply, Fabrication and Fixing S.S.Railing - Fixed at Center of the Staircase between two flights as per details	m	7.40			-
b)	Supply, Fabrication and Installation of 40mm dia. S.S.Pipe Fixed at both Sides of the Staircase as per details	m	6.00			-
2.0	FIRST FLOOR					
1)	S.S. Railing - Staircase					
a)	Supply, Fabrication and Fixing S.S.Railing - Fixed at Center of the Staircase between two flights as per details	m	7.40			-
b)	Supply, Fabrication and Installation of 40mm dia. S.S.Pipe Fixed at both Sides of the Staircase as per details	m	6.00			-

Item	Description	Unit	Qty	Material Rate	Labour Rate	Total
2)	<u>S.S. Railing - BALCONY</u> Supply, Fabrication and Installation of S.S.Railing - Staircase as per details (Refer drawing - A13)	m	17.60			-
4.0	<u>SECOND FLOOR</u>					
1)	<u>S.S. Railing - BALCONY</u> Supply, Fabrication and Installation of S.S.Railing - Staircase as per details (Refer drawing - A13)	m	17.60			-
9.2	<u>ROOFING</u>					
1)	Roof Truss - Supply, Fabrication and Fixing Roof Trusses complete with Base plates, Gussette plates, Bolts, nuts, Washers etc including Paint Finishes. Refer drawing detail S 09. TR1 - 6.5mtr length	no	14.00			- -
2)	Connection Pipes: Supply and Fixing 60.3 x 2.5mm thick CHS (G.I) to be welded at the bottom of the Trusses as connection member.	Mtr	19.40			-
3)	Supply and Fixing C - Purlins 100 10 (GI) @ 900mm spacing	Mtr	326.00			-
4)	Roof Covering - Supply and Fixing BHP Lysaght Roofing sheet	m ²	249.30			-
5)	50mm thick double side Aluminium Foiled Rock wool Insulation laid as heat resistant below roofing sheet.	m ²	249.30			-
6)	25mm grid G.I. mesh laid as support to under the Rock wool insulation	m ²	249.30			-
7)	Capping - Supply and Fixing 600mm wide Lysaght Ridge Capping	mtr	20.00			-
8)	Capping - Supply and Fixing 600mm wide Lysaght Flashing at Gable ends	mtr	27.00			-
9)	Gutter - Supply and Fixing 150 x 200mm Lysaght Gutter complete including brackets and clips.	mtr	39.60			-
BILL No: 09 - METAL WORK						-
TOTAL OF BILL No: 09 - Carried over to summary						-

Item	Description	Unit	Qty	Material Rate	Labour Rate	Total
BILL No: 10						
HYDRAULICS & DRAINAGE						
10.1	General (a) Design provide and install plumbing network for the entire building complete in accordance to standard set by the local governing body MWSC (b) The following items and description and the plumbing drawings are given as guidance as to the nature of the information to be returned by the contractor. (c) Ground water connection shall be made as specified in the drawings. (d) The cost shall include for; sockets, running joints, connectors, elbows, junctions, reducers, expansion joints, back nuts and similar, incidental fittings, clips, saddles, brackets, straps, hangers, screws, nails , pvc glues, threadseals and fixing complete, including cutting and forming holes, excavating, laying pipes , backfilling trenches. (e) All pipes shall be High Pressure uPVC "Mutha" or equivalent brand.					
1.0	GROUND FLOOR					-
1)	HYDRAULICS					
a)	Charges for Piping for fresh water Pipe work	item	1.00			-
b)						
c)	Charges for Piping for Ground water supply pipe work.	item	1.00			-
	Charges for Providing and Fixing Heavy duty water pump Davey brand for Ground water supply to all floors - ground water net work.	no	1.00			-
2)	SANITARY FIXTURES & ACCESSORIES					
1)	WC with basin	no	3.00			-
2)	Wash basin with trap including counter slab	no	2.00			-
3)	Wash basin tap	no	2.00			-
4)	Toilet paper holder	no	3.00			-
5)	Mirror set	no	3.00			-
6)	Muslim Shower	no	3.00			-
7)	S.S.Floor drain with trap	no	4.00			-
8)	Water taps	no	3.00			-
9)	Stop valves	no	4.00			-
10)	Angle valves	no	3.00			-
3)	DRAINAGE					
1)	SEWERAGE & DRAINAGE: Charges for piping for all discharge pipes, sewerage and drainage pipes including connection Main junctions from the Fixtures.	item	1.00			-
2)						
	INSPECTION CHAMBERS: Charges for construction and Pipe connection of Inspection chambers as per drawing	item	1.00			-
3)	SOAK PIT : Charges for Construction and Installation of 1800mm dia. R.c.c. Soak Pit as per drawing details. Rate shall include for; Excavation, form work, reinforcement, Lifting hooks, gravel filling etc complete.	m ³	1.80			-
2.0	FIRST FLOOR					
1)	HYDRAULICS					
a)	Charges for Piping for fresh water Pipe work	item	1.00			-
b)						
	Charges for Piping for Ground water supply pipe work.	item	1.00			-
2)	SANITARY FIXTURES & ACCESSORIES					
1)	WC with basin	no	3.00			-
2)	Wash basin with trap including counter slab	no	2.00			-
3)	Wash basin tap	no	2.00			-
4)	Toilet paper holder	no	3.00			-
5)	Mirror set	no	3.00			-
6)	Muslim Shower	no	3.00			-
7)	S.S.Floor drain with trap	no	4.00			-
8)	Water taps	no	3.00			-
9)	Stop valves	no	4.00			-
10)	Angle valves	no	3.00			-

Item	Description	Unit	Qty	Material Rate	Labour Rate	Total
3)	<u>DRAINAGE</u>					-
1)	<u>SEWERAGE & DRAINAGE</u> : Charges for piping for all discharge pipes, sewerage and drainage pipes including connection Main junctions from the Fixtures.	item	1.00			-
3.0	<u>SECOND FLOOR</u>					
1)	<u>HYDRAULICS</u>					
a)	Charges for Piping for fresh water Pipe work	item	1.00			-
b)	Charges for Piping for Ground water supply pipe work.	item	1.00			-
2)	<u>SANITARY FIXTURES & ACCESSORIES</u>					
1)	WC with basin	no	3.00			-
2)	Wash basin with trap including counter slab	no	2.00			-
3)	Wash basin tap	no	2.00			-
4)	Toilet paper holder	no	3.00			-
5)	Mirror set	no	3.00			-
6)	Muslim Shower	no	3.00			-
7)	S.S.Floor drain with trap	no	4.00			-
8)	Water taps	no	3.00			-
9)	Stop valves	no	4.00			-
10)	Angle valves	no	3.00			-
3)	<u>DRAINAGE</u>					-
1)	<u>SEWERAGE & DRAINAGE</u> : Charges for piping for all discharge pipes, sewerage and drainage pipes including connection Main junctions from the Fixtures.	item	1.00			-
4.0	<u>ROOF LEVEL</u>					
1)	<u>DRAINAGE</u>					-
1)	<u>RAINWATER DOWN PIPES</u> : Charges for piping for all discharge pipes and Drainage pipes including fittings and fixtures from the Gutter to Ground floor.	item	1.00			-
BILL No: 10 - HYDRAULICS AND DRAINAGE						-
TOTAL OF BILL No: 10 - Carried over to summary						-

Item	Description	Unit	Qty	Material Rate	Labour Rate	Total
BILL No: 11						
ELECTRICAL INSTALLATIONS						
11.1	General					
	(a) Rates shall include for: screws, nails, bolts, nuts, standard cable fixing or supporting clips, brackets, straps, rivets, plugs and all incidental accessories					
	(b) Rates for work in trench shall include for: excavation, maintaining faces of excavations, backfilling, compaction, appropriate cable covers, warning tape and disposal of surplus spoil					
	(c) Rates shall include for electrical conduits, fittings, equipment and similar all fixings to various building surfaces and also all electrical work shall be carried out according to STELCO standards and specifications.					
	(d) Each Light/ light fixture and its switch is measured as one one point; similarly each fan or each socket outlet is measured as one point;					
	(e) Rates shall include for supply and complete installation of fittings and fixtures.					
1.0	GROUND FLOOR					
1)	ELECTRIC BOARDS					-
a)	Supply and Installation of STELCO approved Main Panel board with 4nos KWH meters.	nos	1.00			-
b)	Supply and Installation of STELCO approved brand Distribution board	nos	1.00			-
2)	ELECTRIC FIXTURES					-
	Ceiling Light - L 07	nos	24.00			-
	Ceiling Light - L10	nos	13.00			-
	Wall mount weather proof light - L17	nos	6.00			-
	Ceiling Fan, dia. 1200	nos	12.00			-
	Mechanical Ventilator	nos	3.00			-
	1 x 13A Power Socket - P01	nos	2.00			-
	2 x 13A Power Socket - P02	nos	15.00			-
	1 x 13A Power Socket (WP) - P17	nos	3.00			-
	1 x 15A Power Socket - P15 & P16	nos	12.00			-
	1 Gang 1 way Switch - P19	nos	5.00			-
	2 Gang 1 way Switch - P20	nos	1.00			-
	3 Gang 1 way Switch - P21	nos	2.00			-
	4 Gang 1 way Switch - P22	nos	6.00			-
	Fan Dimmer Switch - P23	nos	12.00			-
	Telephone Socket outlet - T01	nos	3.00			-
	Computer Network Socket outlet - T02	nos	3.00			-
	TV Socket outlet - T10	nos	3.00			-
	Sound system - Speaker - T11	nos	4.00			-
	VGA Sockets - VGA 01 & VGA 02	nos	6.00			-
	Multimedia Projector with Stand - MP01	nos	3.00			-
3)	ELECTRICAL WIRING					-
1)	2.5mm ² Wiring to Light Points	points	58.00			-
2)	2.5mm ² Wiring to Power Points	points	32.00			-
3)	16mm ² Cabling to DBs	no	1.00			-
4)	Cabling - TV points	no	3.00			-
5)	Cabling - Telephone points	no	3.00			-
6)	Cabling - Data Network points (Cat 06)	no	3.00			-
7)	Cabling - Multi media Projectors VGA 01 to VGA 02	no	3.00			-
8)	Cabling - Speaker System	no	4.00			-
2.0	FIRST FLOOR					
1)	ELECTRIC BOARDS					-
a)	Supply and Installation of STELCO approved brand Distribution board	nos	1.00			-
2)	ELECTRIC FIXTURES					-
	Ceiling Light - L 07	nos	24.00			-
	Ceiling Light - L10	nos	12.00			-
	Ceiling Fan, dia. 1200	nos	12.00			-
	Exhaust Fan (Mechanical Ventilator)	nos	3.00			-
	1 x 13A Power Socket - P01	nos	1.00			-
	2 x 13A Power Socket - P02	nos	15.00			-
	1 x 13A Power Socket (WP) - P17	nos	3.00			-
	1 x 15A Power Socket - P15 & P16	nos	12.00			-

Item	Description	Unit	Qty	Material Rate	Labour Rate	Total
	1 Gang 1 way Switch - P19	nos	4.00			-
	2 Gang 1 way Switch - P20	nos	1.00			-
	3 Gang 1 way Switch - P21	nos	2.00			-
	4 Gang 1 way Switch - P22	nos	6.00			-
	Fan Dimmer Switch - P23	nos	12.00			-
	Telephone Socket outlet - T01	nos	3.00			-
	Computer Network Socket outlet - T02	nos	3.00			-
	TV Socket outlet - T10	nos	3.00			-
	Sound system - Speaker - T11	nos	4.00			-
	VGA Sockets - VGA 01 & VGA 02	nos	6.00			-
	Multimedia Projector with Stand - MP01	nos	3.00			-
3)	<u>ELECTRICAL WIRING</u>					-
	2.5mm ² Wiring to Light Points	points	51.00			-
	2.5mm ² Wiring to Power Points	points	31.00			-
	16mm ² Cabling to DBs	no	1.00			-
	Cabling - TV points	no	3.00			-
	Cabling - Telephone points	no	3.00			-
	Cabling - Data Network points (Cat 06)	no	3.00			-
	Cabling - Multi media Projectors VGA 01 to VGA 02	no	3.00			-
	Cabling - Speaker System	no	4.00			-
3.0	<u>SECOND FLOOR</u>					
1)	<u>ELECTRIC BOARDS</u>					-
a)	Supply and Installation of STELCO approved brand Distribution board	nos	1.00			-
2)	<u>ELECTRIC FIXTURES</u>					-
	Ceiling Light - L 07	nos	24.00			-
	Ceiling Light - L10	nos	12.00			-
	Ceiling Fan, dia. 1200	nos	12.00			-
	Exhaust Fan (Mechanical Ventilator)	nos	3.00			-
	1 x 13A Power Socket - P01	nos	-			-
	2 x 13A Power Socket - P02	nos	15.00			-
	1 x 13A Power Socket (WP) - P17	nos	3.00			-
	1 x 15A Power Socket - P15 & P16	nos	12.00			-
	1 Gang 1 way Switch - P19	nos	4.00			-
	2 Gang 1 way Switch - P20	nos	1.00			-
	3 Gang 1 way Switch - P21	nos	2.00			-
	4 Gang 1 way Switch - P22	nos	6.00			-
	Fan Dimmer Switch - P23	nos	12.00			-
	Telephone Socket outlet - T01	nos	3.00			-
	Computer Network Socket outlet - T02	nos	3.00			-
	TV Socket outlet - T10	nos	3.00			-
	Sound system - Speaker - T11	nos	4.00			-
	VGA Sockets - VGA 01 & VGA 02	nos	6.00			-
	Multimedia Projector with Stand - MP01	nos	3.00			-
3)	<u>ELECTRICAL WIRING</u>					-
	2.5mm ² Wiring to Light Points	points	51.00			-
	2.5mm ² Wiring to Power Points	points	30.00			-
	16mm ² Cabling to DBs	no	1.00			-
	Cabling - TV points	no	3.00			-
	Cabling - Telephone points	no	3.00			-
	Cabling - Data Network points (Cat 06)	no	3.00			-
	Cabling - Multi media Projectors VGA 01 to VGA 02	no	3.00			-
	Cabling - Speaker System	no	4.00			-
BILL No: 11 - ELECTRICAL INSTALLATIONS						-
TOTAL OF BILL No: 11 - Carried over to summary						-

Item	Description	Unit	Qty	Material Rate	Labour Rate	Total
BILL No: 12						
FIRE FIGHTING SYSTEM						
12.1 GENERAL						
	a) Rates shall include for: sockets, running joints, connectors, elbows, junctions, reducers, expansion joints, back nuts, and similar incidental fittings, clips, saddles, brackets, straps, hangers screws nails and fixing complete including cutting and forming holes. b) Rate shall include for pipe works and inner and outer surface of all pipe work shall be galvanized steel. c) All wiring and pipe work shall be done as specified in the drawing. d) Shop drawings of the system shall be prepared to the standard of the government's relevant authority and submitted to the Consultant for approval.					
12.2	FIRE ALARM SYSTEM					
	Heat Resistant cable shall be laid for connecting the detectors.					
1.0 GROUND FLOOR						
a)	FIRE ALARM SYSTEM					-
1)	CONVENTIONAL FIRE ALARM PANEL	no	1.00			-
2)	JUNCTION BOX	no	1.00			-
3)	EXIT SIGN LIGHT - L12	no	6.00			-
4)	RESETABLE BREAK GLASS MANUAL CALL POINT - F02	no	1.00			-
5)	FIRE ALARM BELL - F05	no	1.00			-
6)	SMOKE DETECTOR - F03	no	12.00			-
7)	PORTABLE EXTINGUISHER (H2O)	no	1.00			-
8)	PORTABLE EXTINGUISHER (CO2)	no	1.00			-
2.0 FIRST FLOOR						
a)	FIRE ALARM SYSTEM					-
1)	EXIT SIGN LIGHT - L12	no	7.00			-
2)	RESETABLE BREAK GLASS MANUAL CALL POINT - F02	no	1.00			-
3)	FIRE ALARM BELL - F05	no	1.00			-
4)	SMOKE DETECTOR - F03	no	12.00			-
5)	PORTABLE EXTINGUISHER (H2O)	no	1.00			-
6)	PORTABLE EXTINGUISHER (CO2)	no	1.00			-
3.0 SECOND FLOOR						
a)	FIRE ALARM SYSTEM					-
1)	EXIT SIGN LIGHT - L12	no	7.00			-
2)	RESETABLE BREAK GLASS MANUAL CALL POINT - F02	no	1.00			-
3)	FIRE ALARM BELL - F05	no	1.00			-
4)	SMOKE DETECTOR - F03	no	12.00			-
5)	PORTABLE EXTINGUISHER (H2O)	no	1.00			-
6)	PORTABLE EXTINGUISHER (CO2)	no	1.00			-
BILL No: 12 - FIRE FIGHTING SYSTEM						-
TOTAL OF BILL No: 12 - Carried over to summary						-

[illegible]

[illegible]