

BILL OF QUANTITIES
HALL at V.KEYODHOO SCHOOL

CLIENT : MINISTRY OF EDUCATION, GOVERNMENT OF MALDIVES

SUMMARY OF BILLS OF QUANTITIES
HALL at V.KEYODHOO SCHOOL

DESCRIPTION	AMOUNT	%
Bill №: 01 - PRELIMINARIES		
Bill №: 02 - EXCAVATION AND FILLING		
Bill №: 03 - INSITU CONCRETE WORKS		
Bill №: 04 - MASONRY		
Bill №: 05 - STRUCTURAL METAL WORKS		
Bill №: 06 - CARPENTRY		
Bill №: 07 - ROOFING		
Bill №: 08 - WINDOWS, SCREENS & LIGHTS		
Bill №: 09 - DOORS, SHUTTERS & HATCHES		
Bill №: 10 - STAIRS, WALKWAYS AND BALUSTRADES		
Bill №: 11 - FLOOR, WALL, CEILING, AND ROOF FINISHINGS		
Bill №: 12 - SUSPENDED CEILING		
Bill №: 13 - PAINTING & DECORATIONS		
Bill №: 14 - HYDRAULICS AND DRAINAGE		
Bill №: 15 - MECHANICAL & ELECTRICAL SERVICES		
Bill №: 16 - INSULATION, FIRE STOPPING & FIRE PROTECTION		
Bill №: 17 - ADDITIONS AND OMMISIONS		
TOTAL AMOUNT		

BILL OF QUANTITIES

ITEM	DESCRIPTION	UNIT	QTY	MATERIAL RATE	LABOUR RATE	AMOUNT
1.0.00	Bill Nø: 01 - PRELIMINARIES					
1.1.00	GENERAL NOTES <u>Abbreviations</u> m - metre nr - numbers m3 - cubic metres m2 - square metres m - linear metre t - tons inc. - including mm - millimetre SS - stainless steel GI - galvanized iron					
1.2.00	SITE MANAGEMENT COSTS Allow for all on and off site management cost including costs of foreman and assistants, temporary services, telephone, fax, hoardings & similar.	item	1.00			
1.3.00	SIGN BOARD Allow for sign board.	nr	1.00			
1.4.00	CLEAN-UP Allow for clean-up upon completion of works.	item	1.00			
1.5.00	INSURANCE, BONDS, GUARANTEES AND WARRANTIES Insurance as stated in the general conditions.	item	1.00			
1.6.00	TOTAL OF BILL Nø: 01 - Carried Over To Summary					
2.0.00	Bill Nø: 02 - EXCAVATION AND FILLING					

ITEM	DESCRIPTION	UNIT	QTY	MATERIAL RATE	LABOUR RATE	AMOUNT
2.1.00	<u>GENERAL</u>					
	(a) Rates shall include for: leveling, grading, trimming, compacting to faces of excavation, keep sides plumb, backfilling, consolidating, and disposing surplus soil.					
2.2.00	<u>SITE CLEARING</u>					
2.2.01	Clear the area of site from rubbish and vegetable matters, stumps, roots. Rates shall include for removal of trees and tree stumps	m ²	902.38			
2.3.00	<u>EXCAVATION</u>					
	Excavation quantities are measured to the faces of concrete members. Rates shall include for all the additional excavation required to place the formwork. Rates shall include for backfilling.					
2.3.01	Excavation for Foundation pads	m ³	56.96			
2.3.02	Excavation for Foundation beams	m ³	71.97			
2.4.00	<u>FILLING</u>					
	Rate shall include for: levelling, grading, trimming, compacting and similar					
2.4.01	Compacted earth filling under ground slab	m ²	850.00			
2.4.02	150mm thick coarse aggregate layer under foundation	m ²	850.00			
2.5.00	<u>DAMP-PROOF MEMBRANE</u>					
	Rate shall include for: dressing around and sealing to all penetrations.					
2.5.01	Bituminous waterproofing membrane	m ²	850.00			
2.6.00	<u>DE-WATERING</u>					
2.6.01	De-watering the excavation until completion of concrete work as required	item	1.00			
2.7.00	TOTAL OF BILL No: 02 - Carried Over To Summary					
3.0.00	Bill No: 03 - INSITU CONCRETE WORKS					
3.1.00	<u>GENERAL</u>					

ITEM	DESCRIPTION	UNIT	QTY	MATERIAL RATE	LABOUR RATE	AMOUNT
	(a) Rates shall include for: placing in position, making good after removal of formwork, mortar touch up to all concrete 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. (c) All structural concrete shall be GRADE C30 and lean concrete shall be GRADE C15 (d) Rates shall include for: concrete, formwork, reinforcement, cleaning, fabrication, placing, the provision for all necessary temporary fixings and supports including tie wires and chair supports, laps, distribution bars and wastage. (e) 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. (f) Rates shall include for: cleaning, fabrication, placing the provision for all necessary temporary fixings and supports including tie wires and chair supports, laps, distribution bars and wastage. (g) All reinforcing bars shall be high strength bars. (h) Slab soffits to be finished fairfaced, use plasteciser and formwork with reducing agent. (i) Waterproofing shall be added to all areas specified.					
3.1.01	Allow for Concrete Testing.	item	1.00			
3.2.00	MASS CONCRETE					
	Quantity is measured to the edges of concrete foundation members. Rates shall be inclusive for any additional concrete required to place the formwork.					
3.2.01	50 mm Lean Concrete (Foundations)	m ³	2.28			
3.3.00	REINFORCED INSITU CONCRETE					
	SUB-STRUCTURE					
	FOUNDATION PADS					
3.3.01	750 x 750 x 250mm Foundation pads, F1	m ³	6.33			
3.3.02	900 x 900 x 300mm Foundation pads, F2	m ³	6.08			
	FOUNDATION BEAMS					
3.3.03	400 x 200 mm Foundation beam, FB1	m ³	23.03			
3.4.00	GROUND FLOOR					
	COLUMNS					
3.4.01	250 x 250 mm Concrete columns C1	m ³	12.22			
3.4.02	450 x 250 mm Concrete columns C2	m ³	11.48			
	SLABS					
3.4.03	100 mm thk Concrete Slab on ground	m ³	85.00			
	STAIRS					
3.4.04	Staircase	m ³	2.95			
3.5.00	FIRST FLOOR					
	BEAMS					
3.5.01	425 x 200 mm Beam B1	m ³	10.81			
3.5.02	350 x 200 mm Beam B2	m ³	12.96			
	COLUMNS					
3.5.03	250 x 250 mm Concrete columns C1	m ³	1.75			
3.5.04	450 x 250 mm Concrete columns C2	m ³	9.45			
	SLABS					
3.5.05	150 mm thk Concrete Slab	m ³	50.14			
3.6.00	ROOF LEVEL 01					
	BEAMS					
3.6.01	300 x 200 mm Beam RB1	m ³	3.00			
	SLABS					
3.6.02	150 mm thk Concrete Slab	m ³	7.32			
3.7.00	ROOF LEVEL 02					
	BEAMS					
3.7.01	300 x 200 mm Beam B1	m ³	5.61			

ITEM	DESCRIPTION	UNIT	QTY	MATERIAL RATE	LABOUR RATE	AMOUNT
3.8.00	OTHER WORKS					
3.8.01	RCC bench 75 mm thk Concrete Slab for vanity at toilet	item	2.00			
3.8.02	RCC capping 150 x 150 mm thk capping beam on top of stage walls	m ³	0.86			
3.9.00	TOTAL OF BILL №: 03 - Carried Over To Summary					
4.0.00	Bill №: 04 - MASONRY					
4.1.00	GENERAL (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, cutting or leavingholes 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 flashing, bedding frames or plates, building in joists, bearers or similar, temporary supports to openings, templates, reinforcement in walls and for all necessary making good.					
4.2.00	BLOCK WORK					
4.2.01	Cement block wall, bricks laid to form alternate courses of headers and stretchers, laid on and inc. mortar. (EXTERNAL WALLS) 150 mm thk full height GROUND FLOOR	m ²	405.05			
4.2.02	FIRST FLOOR	m ²	282.31			
4.2.03	150 mm thk 1000mm height FIRST FLOOR	m ²	94.05			
4.2.04	Cement block wall, bricks laid to form alternate courses of headers and stretchers, laid on and inc. mortar (INTERNAL WALLS). 150 mm thk full height GROUND FLOOR	m ²	199.15			
4.2.05	FIRST FLOOR	m ²	68.13			
4.2.06	150 mm thk 1000mm height FIRST FLOOR	m ²	53.15			
4.2.07	150 mm thk 900mm height STAGE	m ²	66.15			
4.2.08	Cement block wall, bricks laid to form alternate courses of headers and stretchers, laid on and inc. mortar (INTERNAL WALLS). 100 mm thk 2450mm height (toilets) GROUND FLOOR	m ²	20.63			
4.2.09	100 mm thk full planter wall GROUND FLOOR	m ²	15.58			
4.3.00	TOTAL OF BILL №: 04 - Carried Over To Summary					
5.0.00	Bill №: 05 - STRUCTURAL METAL WORKS					
5.1.00	GENERAL (a) Rates shall include for: all fabrication work, welding, marking, drilling for bolts incl. those securing timbers, steel plates, bolts, nuts and any type of washer, riveted work, counter sinking and tapping for bolts or machine screws.					

ITEM	DESCRIPTION	UNIT	QTY	MATERIAL RATE	LABOUR RATE	AMOUNT
	<p>(b) Rates shall include for fabrication and erection and temporary supports and fixing into position.</p> <p>(c) "Welding" is deemed to be in accordance with the specification and for the material to which it is to be used. Gusset plates, shoe plates, ends, caps, cleats, brackets, stiffeners, bolts, etc., are required to be included to the rate of the associated steel work in which they occur.</p> <p>(d) For the description of materials and workmanship refer to the Specification of works, pricing Preambles and Drawings.</p> <p>(e) Contractor shall submit shop drawings for approval prior to fabrication.</p> <p>(f) Unless specified otherwise, rate shall include for: All shop fabrication work, marking, delivery, unloading, hoisting, erecting and fixing as per detail drawings, All welds & allowance for rolling margin, the weight of weld metal in welded constructions, members of any length, cutting to size and shape and joints in the running length, grinding to a smooth finish, unless otherwise required, Machine drilled bolt, holes, bolts, nuts and washers, cleats, shoe and gusset plates and all other connections, Wire brushing to clean all the steel surfaces (except stainless steel) after fabrication and spray painting with two coats of quick drying metal primer zinc phosphate & two coats of matt anti corrosive paint with final paint, all necessary accessories and preparation and submission of Shop Drawings and As Built Drawings as specified.</p>					
5.2.00	STEEL TRUSS					
	TRUSS TR1					
5.2.01	Steel truss with 2.5" GI pipe top and bottom chord and 2" thick GI pipe web members	m	72.20			
	TRUSS TR2					
5.2.02	Steel truss with 2.5" GI pipe top and bottom chord and 2" thick GI pipe web members	m	50.88			
	TRUSS TR3					
5.2.03	Steel truss with 2.5" GI pipe top and bottom chord and 2" thick GI pipe web members	m	53.96			
	STEEL ROOF FRAMING					
5.2.04	50 x 75 'C' Purlins at 1200 c/c	m	800.00			
	STEEL STAGE FRAMING					
5.2.05	75 x 150 RHS at 400 c/c	m	230.05			
5.3.00	TOTAL OF BILL №: 05 - Carried Over To Summary					
6.0.00	Bill №: 06 - CARPENTRY					
6.1.000	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 and screws.</p>					
6.2.00	ROOF FRAMING					

ITEM	DESCRIPTION	UNIT	QTY	MATERIAL RATE	LABOUR RATE	AMOUNT
6.2.01	35 x 50 mm timber battens	m ³	0.28			
6.2.02	50 x 150 mm timber rafters	m ³	1.12			
6.2.03	25 x 200 mm timber fascia board	m ³	0.12			
6.3.00	<u>STAGE</u>					
6.3.01	Staircase to stage	item	2.00			
	Hardwood stage	m ²	93.69			
6.4.00	TOTAL OF BILL №: 06 - Carried Over To Summary					
7.0.00	Bill №: 07 - ROOFING					
7.1.00	<u>GENERAL</u>					
	(a) Rates shall include for: fair edges, dressing over angel fillets, roof sealant, turning into grooves, all other labours, circular edges, nails, screws and other fixings and laps.					
7.2.00	<u>MAIN AND LOWER ROOF COVERING</u>					
7.2.01	Lysaght roofing sheet to specification	m ²	734.21			
7.2.02	50mm mineral wool insulation with reflective layers on both installed as per suppliers specifications with recommended lap length and air gap tape. Rate shall include for BRC mesh over purlins to support insulation layer.	m ²	734.21			
7.3.00	<u>CAPPING</u>					
7.3.01	Lysaght ridge cap as per roofing sheet suppliers assembly	m	55.03			
7.4.00	<u>GUTTER</u>					
7.4.01	200 x 200 mm Zinc Aluminium gutter to dimensions specified	m	99.45			
7.5.00	<u>DOWN PIPE</u>					
7.5.01	Zinc Aluminium downpipes to dimensions specified	item	1.00			
7.6.00	TOTAL OF BILL №: 07 - Carried Over To Summary					
8.0.00	Bill №: 08 - WINDOWS, SCREENS & LIGHTS					
8.1.00	<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, mullions, transoms, trims, glazing, tinting, timber panels, boardings, framing, lining, fastenings and all fixings.					
	(c) Sizes are given overall outside dimensions of actual doors and windows.					
	(d) Thickness and sizes of glass panels are shown on the Drawings and doors and windows schedule					

ITEM	DESCRIPTION		UNIT	QTY	MATERIAL RATE	LABOUR RATE	AMOUNT
		(e) Rates shall include for all painting as specified (f) Rates shall include all items specified in the door schedule and specification. (g) Frames and sashes to be 25-60 micron black powder coated aluminium other wise specified.					
8.2.00	WINDOWS						
8.2.01	1800 x 1500	W01 - Aluminium window as per drawing	nr	14.00			
8.2.02	1200 x 750	W02 - Aluminium window as per drawing	nr	6.00			
8.2.03	1800 x 750	W03 - Aluminium window as per drawing	nr	2.00			
8.2.04	1800 x 750	W04 - Aluminium fixed window as per drawing	nr	1.00			
8.2.05	1200 x 750	V01 - Aluminium window as per drawing	nr	3.00			
8.2.06	1800 x 550	V02 - Aluminium window as per drawing	nr	28.00			
8.3.00	TOTAL OF BILL №: 08 - Carried Over To Summary						
9.0.00	Bill №: 09 - DOORS, SHUTTERS & HATCHES						
9.1.00	GENERAL	(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, mullions, transoms, trims, glazing, tinting, timber panels, boardings, framing, lining, fastenings and all fixings. (c) Sizes are given overall outside dimensions of actual doors and windows. (d) Thickness and sizes of glass panels are shown on the Drawings and doors and windows schedule. (e) Rates shall include for all painting as specified (f) Rates shall include all items specified in the door schedule and specification. (g) Frames and sashes to be 25-60 micron black powder coated aluminium other wise specified. (g) All solid timber doors are teak timber or equivalent.					
9.2.00	DOORS						
9.2.01	2350 x 2500	D1 - Aluminium panel door on Aluminium frame (double swing)	nr	1.00			
9.2.02	1800 x 2500	D2 - Aluminium panel door on Aluminium frame (double swing)	nr	10.00			
9.2.03	1000 x 2300	D3 - Aluminium panel door on Aluminium frame (single swing)	nr	5.00			
9.2.04	1000 x 2300	D4 - Aluminium panel door on Aluminium frame (single swing)	nr	1.00			
9.2.05	700 x 2100	D5 - PVC frame and panel door (single swing)	nr	7.00			
9.2.06	1800 x 725	D6 - Aluminium panel door on Aluminium frame (double swing)	nr	2.00			
9.3.00	TOTAL OF BILL №: 09 - Carried Over To Summary						
10.0.00	Bill №: 10 - STAIRS, WALKWAYS AND BALUSTRADES						
10.1.00	GENERAL	(a) Rates shall include for: all fabrication work, welding, marking, drilling for bolts incl. those securing timbers, steel plates, bolts, nuts and any type of washer, riveted work, counter sinking and tapping for bolts or machine screws. (b) Rates shall include for fabrication and erection and temporary supports and fixing into position.					
10.2.00	RAMP RAILING	50mm dia SS handrail at 900mm height fixed to 12mm thick toughened glass with SS brackets, clear silicone bead on both sides of glass as per drawing					

ITEM	DESCRIPTION	UNIT	QTY	MATERIAL RATE	LABOUR RATE	AMOUNT
10.2.01	GROUND to FIRST FLOOR	m	3.60			
10.2.02	STAGE	m	13.54			
10.3.00	STAIRCASE RAILING					
	50mm dia GI pipe hand railing with 25mm dia GI pipe as per drawing					
10.3.01	GROUND to FIRST FLOOR	m	6.72			
10.4.00	TOTAL OF BILL №: 10 - Carried Over To Summary					
11.0.00	Bill №: 11 - FLOOR, WALL, CEILING, AND ROOF FINISHINGS					
11.1.00	GENERAL					
	(a) Rates shall include for: fixing, bedding, grouting, and pointing materials; making good around pipes, sanitary fixtures, and similar; cleaning down and polishing.					
11.2.00	PLASTERING					
	16 mm thk cement plaster on external surface as specified on the drawing. Waterproofed with Sika product or equivalent.					
11.2.01	GROUND FLOOR	m ²	436.21			
	FIRST FLOOR	m ²	470.41			
	16 mm thk cement plaster on internal surface as specified on the drawing					
11.2.02	GROUND FLOOR	m ²	976.91			
	FIRST FLOOR	m ²	524.87			
11.3.00	CEMENT SCREED					
	50 mm thk cement screed waterproofed with SIKa product or equivalent					
11.3.01	GROUND FLOOR	m ²	850.00			
11.3.02	FIRST FLOOR	m ²	334.25			
11.4.00	FLOOR TILING					
	600 x 600 mm Homogenous Non-slip tiles					
11.4.01	GROUND FLOOR	m ²	15.09			
11.4.02	FIRST FLOOR	m ²	42.93			
	300 x 300 mm Homogenous Non-slip tiles					
11.4.03	GROUND FLOOR	m ²	53.84			
11.5.00	WALL TILING					
	600 x 300 mm Homogenous tiles					
11.5.01	GROUND FLOOR	m ²	105.78			
11.6.00	FLOOR PAINTING					
	Epoxy floor paint					
11.6.01	GROUND FLOOR	m ²	781.08			
11.6.02	FIRST FLOOR	m ²	79.73			
	Elastometric paint					
11.6.03	GROUND FLOOR	item	1.00			
11.7.00	TOTAL OF BILL №: 11 - Carried Over To Summary					
12.0.00	Bill №: 12 - SUSPENDED CEILING					
12.1.00	GENERAL					
	(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 and screws.					
12.2.00	SUSPENDED CEILING					
	Suspended acoustic ceiling system with aluminium framing					
12.2.01	FIRST FLOOR	m ²	506.10			
	Cement board ceiling					
12.2.02	GROUND FLOOR	m ²	72.07			

ITEM	DESCRIPTION	UNIT	QTY	MATERIAL RATE	LABOUR RATE	AMOUNT
12.3.00	TOTAL OF BILL №: 12 - Carried Over To Summary					
13.0.00	Bill №: 13 - PAINTING & DECORATIONS					
13.1.00	<u>GENERAL</u> (a) Rates shall include for: the provision, erection and removal of scaffolding, preparation, wall putty application, rubbing down between coats and similar work, the protection and/or masking floors, fittings and similar work, removing and replacing door & window furniture. (b) All painting work shall be carried in accordance with the Specifications.					
13.2.00	<u>WALL PAINTING</u>					
13.2.01	Weatherbound paint finish as specified (EXTERNAL SURFACES) GROUND FLOOR	m ²	436.21			
13.2.02	FIRST FLOOR	m ²	470.41			
13.2.03	Emulsion paint finish including putty application on brick walls as specified (INTERNAL SURFACES) GROUND FLOOR	m ²	871.13			
13.2.04	FIRST FLOOR	m ²	524.87			
13.3.00	<u>CEILING PAINTING</u>					
13.3.01	Emulsion paint finish including putty application on slab soffit GROUND FLOOR	m ²	334.25			
13.3.02	FIRST FLOOR	m ²	42.75			
13.4.00	TOTAL OF BILL №: 13 - Carried Over To Summary					
14.0.00	Bill №: 14 - HYDRAULICS AND DRAINAGE					
14.1.00	<u>GENERAL</u> (a) Rates shall include for: sockets, running joints, connectors, elbows, junctions, valves, reducers, expansion joints; backnuts and similar; incidental fittings, clips, saddles, brackets, straps, hangers, screws, nails and fixing complete including cutting and forming holes; excavating, laying pipes and backfilling trenches. (b) All pipe work and fittings shall be uPVC.					
14.2.00	<u>COLD WATER SUPPLY SYSTEM</u>					
14.2.01	<u>Internal Piping</u> 16 mm Dia. PPR PN 10	item	1.00			
14.2.02	25 mm Dia. PPR PN10	item	1.00			
14.2.03	<u>Cold water main Piping (From existing supply)</u> 32 mm Dia. PPR PN10	item	1.00			

ITEM	DESCRIPTION	UNIT	QTY	MATERIAL RATE	LABOUR RATE	AMOUNT
14.3.00	<u>SEWER AND WASTE WATER DRAINAGE SYSTEM</u>					
	<u>Sewer and Waste Piping</u>					
14.3.01	40 mm Dia. uPVC pipe - type 600	item	1.00			
14.3.02	82 mm Dia. uPVC pipe - type 600	item	1.00			
14.3.03	110 mm Dia. uPVC pipe - type 600	item	1.00			
14.3.04	110 mm Dia. uPVC pipe - type 600 Under ground installation	item	1.00			
14.4.00	<u>SANITARY FITTINGS</u>					
	All the sanitary fittings & fixtures installed under this contract shall be Client/Architecture specified					
14.4.01	Installation of ceramic Normal wash basin wall mounted on counter complete with brackets, chromium plated mixer tap, waste outlet, waste plug, chromium plated chain, chromium plated bottle trap, flexible hose and angle valve inclusive of all the connections.	nr	2.00			
14.4.02	Installation of ceramic Disable wash basin wall mounted with out semi pedestal complete with brackets, chromium plated mixer tap, waste outlet, waste plug, chromium plated chain, chromium plated bottle trap, flexible hose and angle valve inclusive of all the connections.	nr	1.00			
14.4.03	Installation of ceramic, floor mounted type Normal Water Closet complete with 'S or P' (accordingly) traps and cistern of approved make and inclusive of flexible hose & all connections and accessories to the working order.	nr	4.00			
14.4.04	Installation of ceramic, floor mounted type Disable water closet complete with 'S or P' (accordingly) traps and cistern of approved make and inclusive of horizontal & vertical straight Grab Bar, flexible hose & all connections and accessories to the working order.	nr	1.00			
14.4.05	(600X600)mm mirror with 4 hole nails, silver cap screwed fixed to wall with back board.	nr	3.00			
14.4.06	Installation of uPVC trapped floor gulley , 150 x 150mm stainless steel cover flushed with floor level, inclusive of necessary water proofing work including material.	nr	5.00			
14.5.00	TOTAL OF BILL №: 14 - Carried Over To Summary					
15.0.00	Bill №: 15 - MECHANICAL & ELECTRICAL SERVICES					
15.1.00	<u>GENERAL</u>					
	(a) Design, provide and install electrical network for the entire building complete in accordance to standards set by the local governing body STELCO.					
	(b) The following items and description and the drawings are given as a guidance as to the nature of the information required to be returned by the contractor. Should they not be appropriate the contractor should provide a similar BOQ using the Additions/Omissions sheets provided at the back of this BOQ.					
	(c) The cost shall include for: screws, nails, bolts, nuts, standard cable fixing or supporting clips, brackets, straps, rivets, plugs and all incidental accessories.					
	(d) Rate shall include for necessary chasings, trenching, conduits, cables, cable trays, fittings and clips, cutting holes and chases in brick work/ block work/ concrete work complete with all necessary accessories such as sockets, connections, cable glands and boxes, hardware clips, soldering and jointing materials etc., for proper installing and laying of cables.					

ITEM	DESCRIPTION	UNIT	QTY	MATERIAL RATE	LABOUR RATE	AMOUNT
	<p>(e) Rates for electrical isolators, conduits, fittings, equipment and similar items shall include for: all fixings to various building surfaces.</p> <p>(f) A light fixture is measured as one point; switch end of wire is not included in the quantity.</p> <p>(g) A point wiring for power points is measured (regardless of 1 gang, 2 gang etc) as one point for each socket outlet; other end of wire is not included in the quantity.</p> <p>(h) All under ground cables directly buried in ground/run in trenches to be properly laid and covered with cable tiles/trench covers. Rate for under ground cables shall include for all necessary excavation, sand layers, concrete tiles, warning strips and back filling with approved quality earth properly compacted, hot dipped galvanized brackets for trenches, accessories, etc as applicable.</p> <p>(i) The contractors are requested to refer Conditions of Contract, Special Conditions of Contract, Drawings and Specification and other relevant documents related to this tender prior to pricing of the following items</p> <p>(j) The contractor shall provide a schedule of all builder's work in connection with details of such items as necessary, along with the tender.</p> <p>(k) Rates for materials/ plants/ equipments not approved for duty free facilities to be quoted on duty paid basis.</p> <p>(l) All equipments shall be guaranteed for a period of 12 months from the date of commissioning or date of practical completion of the project which ever later</p> <p>(m) The rate shall include for insurance during handling, rehandling, transport, storage until ready for installation, delivery of equipments up to the point of installation and until handing over.</p> <p>(n) The rates shall include for comprehensive maintenance during defects liability period of 12 months from the date of handing over</p> <p>(o) The tenderer shall submit the following information on the items/equipments quoted for together with the tender.</p> <ol style="list-style-type: none"> make model No. technical data country of manufacture delivery period lead time for manufacturing. port of shipping CIF value of each item in foreign currency. Optional items and their additional cost. (additional cost to be submitted separately) Schedule of items to be carried out by others connected to installation of generators/transformers/Electrical panels such as some builders work and electrical connection. Details of all special features schedule attached to specification. 					
	<p>(p) Rate for all electrical panels shall include for supply and installation of all necessary MCCBs, MCBs, EFRs, ELCBs, auxiliary contacts, Voltmeters, ammeters, Digital analyser,kWh meters, indicator lamps, selector switches, copper bus bars, inter locks, aligning and grounding of the panel, inter connectors, internal wiring connections to switch gear,steel channels and necessary hardware fixing insulating materials,all in fully enclosed metal clad panels and distribution boards completed as shown in drawing. They shall comply with the specifications and I.E.E.regulations and be complete to working order to the approval of local authorities.</p> <p>(q) Rate shall include for supply, installation, maintaining, testing and commissioning of the system for power and lighting according to drawings and specifications to working order.</p> <p>(r) All materials, equipment wiring shall confirm to local codes, specifications, standards/latest I.E.E. regulations (BS 7671).</p>					
15.2.00	MAIN DISTRIBUTION, SUB DISTRIBUTION AND DISTRIBUTION SYSTEM					
	<p><u>Distribution Boards (DB)</u></p> <p>Distribution Panel for each floor as shown on the drawing, complete with all incoming and outgoing MCBs, RCCBs, etc any other item required to working order, wall mounted wall mount steel powder coated, IP44 encloser with neutral link, earth bar and required accessories, all complete as per the specifications & drawings.</p>					
15.2.01	DB	nr	3.00			
	<p><u>MAIN / SUB CABLING</u></p> <p>All under ground cables directly buried in ground/ in the trenches as applicable, to be laid properly and covered with cable tiles, protection tapes, etc for mechanical protection, PVC sleeves may use if required. Rate shall include for all necessary works/accessories such as excavation, sand layers, cable tiles, warning strips and back filling with approved quality earth,properly compacted, to the satisfaction of the Engineer.</p>					

ITEM	DESCRIPTION	UNIT	QTY	MATERIAL RATE	LABOUR RATE	AMOUNT
	All above ground cables shall be laid on cable tray/ trunking /conduits as applicable and covered by tray covers, etc. for mechanical protection. PVC sleeves may use if required. Rate shall include for all necessary works/ accessories such as galvanized brackets, supporting materials, fittings, nails, cable ties, earthing, etc, trays shall be of required sizes, GI powder coated, and shotted, to the satisfaction of Engineer					
15.2.02	<u>GROUND FLOOR</u> Cabling from main supply to DB	item	1.00			
15.3.00	<u>POINT WIRING AND FITTINGS</u>					
	Rate shall include for supply & installation of cable, conduits for point wiring in concealed installations including switches, power outlet, isolators, etc, all as specified					
15.3.01	Supply and Installation of 2 x 1C 1.5mm ² PVC/PVC/Cu + 2.5mm ² PVC/Cu earth cable c/w uPVC conduit, junction boxes etc. for light point wiring	nr	169.00			
15.3.02	Supply and Installation of 2 x 1C 2.5mm ² PVC/PVC/Cu + 2.5mm ² PVC/Cu earth cable c/w uPVC conduit, junction boxes etc. for following Socket outlet/isolator point wiring	nr	33.00			
15.3.03	13 A Twin Socket Outlet Speaker	nr	8.00			
15.4.00	<u>FIXTURES</u>					
	Rate shall include supply and installation of following lighting fixtures, socket outlets as specified and detailed, fixed in position including all fixing accessories, supports and connect to power.					
15.4.01	Outdoor wall light	nr	16.00			
15.4.02	Ceiling Down light (18W)	nr	21.00			
15.4.03	4 x 55W PLL lamps	nr	45.00			
15.4.04	Ceiling Fan (52" - 54")	nr	48.00			
15.4.05	Single gang Light switch	nr	18.00			
15.4.06	2gang Light switch	nr	8.00			
15.4.07	4gang Light switch	nr	3.00			
15.4.08	Ceiling fan switch	nr	10.00			
15.5.00	TOTAL OF BILL №: 15 - Carried Over To Summary					
16.0.00	Bill №: 16 - INSULATION, FIRE STOPPING & FIRE PROTECTION					
16.1.00	<u>GENERAL</u>					
	(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 cable conduits, fittings, equipment and similar items shall include for: all fixings to various building surfaces					
	(c) Rates shall include for all necessary electrical wiring and accessories required for completion					
	(d) All items shall be supply and complete installation					
16.2.00	<u>FIRE ALARM SYSTEM</u>					
16.2.01	Supply and installation of Fire alarm control panel	nr	1.00			
16.2.02	Supply and installation of smoke detector	nr	6.00			
16.2.03	Supply and installation of Manual call point	nr	5.00			
16.2.04	Supply and installation of sounder	nr	4.00			
16.2.05	Supply and installation of bell	nr	4.00			
16.2.06	Supply and installation of exit sign light	nr	17.00			
16.2.07	Supply and installation of emergency light	nr	9.00			

ITEM	DESCRIPTION	UNIT	QTY	MATERIAL RATE	LABOUR RATE	AMOUNT
16.3.00	FIRE EXTINGUISHERS (Confirming to BS EN 3-10)					
16.3.01	Supply and installation of 2Kg CO2 Extinguishers	nr	6.00			
16.3.02	Supply and installation of 9 Lt. water Extinguishers.	nr	6.00			
16.4.00	TOTAL OF BILL No: 16 - Carried Over To Summary					
17.0.00	Bill No: 17 - ADDITIONS AND OMISSIONS					
17.1.00	<u>ADDITIONS</u>					
17.1.01	Bill No: 01 - PRELIMINARIES					
17.1.02	Bill No: 02 - EXCAVATION AND FILLING					
17.1.03	Bill No: 03 - INSITU CONCRETE WORKS					
17.1.04	Bill No: 04 - MASONRY					
17.1.05	Bill No: 05 - STRUCTURAL METAL WORKS					
17.1.06	Bill No: 06 - CARPENTRY					
17.1.07	Bill No: 07 - ROOFING					
17.1.08	Bill No: 08 - WINDOWS, SCREENS & LIGHTS					
17.1.09	Bill No: 09 - DOORS, SHUTTERS & HATCHES					
17.1.10	Bill No: 10 - STAIRS, WALKWAYS AND BALUSTRADES					
17.1.11	Bill No: 11 - FLOOR, WALL, CEILING, AND ROOF FINISHINGS					
17.1.12	Bill No: 12 - SUSPENDED CEILING					
17.1.13	Bill No: 13 - PAINTING & DECORATIONS					
17.1.14	Bill No: 14 - HYDRAULICS AND DRAINAGE					
17.1.15	Bill No: 15 - MECHANICAL & ELECTRICAL SERVICES					
17.1.16	Bill No: 16 - INSULATION, FIRE STOPPING & FIRE PROTECTION					
	TOTAL					
17.2.00	<u>OMISSIONS</u>					
17.2.01	Bill No: 01 - PRELIMINARIES					
17.2.02	Bill No: 02 - EXCAVATION AND FILLING					
17.2.03	Bill No: 03 - INSITU CONCRETE WORKS					
17.2.04	Bill No: 04 - MASONRY					
17.2.05	Bill No: 05 - STRUCTURAL METAL WORKS					
17.2.06	Bill No: 06 - CARPENTRY					
17.2.07	Bill No: 07 - ROOFING					
17.2.08	Bill No: 08 - WINDOWS, SCREENS & LIGHTS					
17.2.09	Bill No: 09 - DOORS, SHUTTERS & HATCHES					
17.2.10	Bill No: 10 - STAIRS, WALKWAYS AND BALUSTRADES					
17.2.11	Bill No: 11 - FLOOR, WALL, CEILING, AND ROOF FINISHINGS					
17.2.12	Bill No: 12 - SUSPENDED CEILING					
17.2.13	Bill No: 13 - PAINTING & DECORATIONS					
17.2.14	Bill No: 14 - HYDRAULICS AND DRAINAGE					
17.2.15	Bill No: 15 - MECHANICAL & ELECTRICAL SERVICES					
17.2.16	Bill No: 16 - INSULATION, FIRE STOPPING & FIRE PROTECTION					
	TOTAL					
17.3.00	TOTAL OF BILL No: 17 - Carried Over To Summary					