

BILL OF QUANTITIES

REMAINING WORKS - TWO STOREY FIRE STATION

MILITARY ENGINEERS

MALDIVES NATIONAL DEFENCE FORCE
MALE', REPUBLIC OF MALDIVES

DATE: 27th MAY 2015

PROJECT: REMAINING WORKS - TWO STOREY FIRE STATION

CLIENT: MINISTRY OF DEFENCE AND NATIONAL SECURITY

LOCATION: GDH.THINADHOO

COST SUMMARY

GROUND FLOOR

MVR

FIRST FLOOR

MVR

PERIMETER WALL

MVR

TOTAL COST OF THE PROJECT

MVR

TOTAL COST OF THE PROJECT / m²

MVR

DURATION: _____ DAYS

MILITARY ENGINEERS

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MALE', REPUBLIC OF MALDIVES

DATE: 27th MAY 2015

PROJECT: REMAINING WORKS - TWO STOREY FIRE STATION

CLIENT: MINISTRY OF DEFENCE AND NATIONAL SECURITY

LOCATION: GDH.THINADHOO

COST SUMMARY

SECTION 01 - GROUND FLOOR

BILL 01	SLAB ON FILL	MVR	<input type="text"/>
BILL 02	CONCRETE WORKS	MVR	<input type="text"/>
BILL 03	MASONRY WORKS	MVR	<input type="text"/>
BILL 04	WALL FINISHES	MVR	<input type="text"/>
BILL 05	FLOOR FINISHES	MVR	<input type="text"/>
BILL 06	CEILING FINISHES	MVR	<input type="text"/>
BILL 07	DOORS & WINDOWS	MVR	<input type="text"/>
BILL 08	SANITARY & WATER SUPPLY	MVR	<input type="text"/>
BILL 09	ELECTRICAL FIXTURES AND FITTINGS	MVR	<input type="text"/>
BILL 10	AIR CONDITIONING SYSTEM	MVR	<input type="text"/>
BILL 11	TELECOMMUNICATION NETWORK	MVR	<input type="text"/>
BILL 12	FIRE FIGHTING SYSTEM	MVR	<input type="text"/>
BILL 13	FURNITURE & KITCHENWARE	MVR	<input type="text"/>
BILL 14	ADDITIONS & OMISSIONS	MVR	<input type="text"/>
TOTAL COST OF WORK FOR GROUND FLOOR		MVR	<input type="text"/>

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ITEM	DESCRIPTION	QTY	UNIT	UNIT PRICE	AMOUNT	REMARKS
	<u>SECTION 01 - GROUND FLOOR</u>					
BILL 01	SLAB ON FILL					
	<u>Clean soil spread, level and compacted not exceeding 0.30 m deep to receive concrete bed as described;</u>					
a.	In sub base	314.13	m ²			
b.	Lay polythene sheet on compacted sub - base	314.13	m ²			
	<u>Reinforced concrete (1:2:3) mixture using Portland cement and imported fine and course aggregates with 40 % water cement ratio;</u> <u>Allow labour for leveling and floating on fresh concrete with provision of slope, expansion grooves and fair finish to floor levels to receive floor screed as described;</u>					
c.	In RCC Floor Slab 100mm thick	31.41	m ³			
	<u>High Tensile Steel Reinforcement fabrication bending and fixing as described;</u>					
d.	Steel Bars T10 - 300 c/c bothways	1292.77	kg			
e.	Allow for anchorage, bend and splice.	193.92	kg			
BILL 02	CONCRETE WORKS					
	<u>Excavate for service trench not exceeding the given depth, get out part deposit, return, fill in and ram in making up levels where directed and remainder load and cart away as described;</u>					
a.	In service trench (6000x1300x1600)	10.62	m ³			
	<u>Lean concrete (1:3:6) 50 mm thick spread and level as described;</u>					
b.	In service trench (6000x1300x1600)	8.17	m ²			
c.	Allow for provision of sloped concrete bed in trench base	6.33	m ²			
	<u>Reinforced concrete (1:2:3) mixture using Portland cement and imported fine and course aggregates with 40 % water cement ratio as described;</u>					
d.	In service trench (6000x1300x1600)	3.27	m ³			
	<u>Sawn formworks inclusive of all shuttering, propping and slope protection as described;</u>					
e.	In service trench (6000x1300x1600)	44.06	m ²			
	<u>High Tensile Steel Reinforcement fabrication bending and fixing as described;</u>					
f.	In service trench (6000x1300x1600)	211.81	kg			
g.	Allow for anchorage, bend and splice.	31.77	kg			

ITEM	DESCRIPTION	QTY	UNIT	UNIT PRICE	AMOUNT	REMARKS
BILL 03	MASONRY WORKS					
	<u>Supply and installation of CHB Blocks 4" x 6" x 12" for both internal and external walls as laid per manufacturer's instruction as described;</u>					
a.	In wall below ground slab	103.11	m ²			
b.	In Exterior Walls (3.3h)	209.91	m ²			
c.	In interior Walls (3.3h)	228.04	m ²			
	<u>Supply and installation of Solid Blocks 2"x4"x8" for internal walls as laid per manufacturer's instruction as described;</u>					
d.	In Service duct, locker wall and planters	14.90	m ²			
BILL 04	WALL FINISHES					
	Cement Plaster					
	<u>Cement and sand mixtures 1:4 applied in 2 coats on masonry surface in fair face finish to receive wall finishing as described;</u>					
a.	25mm plaster steel trowel finished the wall below ground slab	206.22	m ²			
b.	25mm plaster steel trowel finished to walls, beams and columns in external walls	209.91	m ²			
c.	25mm plaster steel trowel finished to walls, beams and columns in internal walls	680.89	m ²			
d.	Allow for PVC/Nylon mesh reinforcement @ all joints between walls and concrete.	-	LS			
e.	Allow expansion grooves in plaster wall up to 12mm wide and deep filled with sealant.	-	LS			
	Paintwork					
	<u>Prepare and apply 1-coat of exterior Wallsealer (Sigma brand or approved equivalent) and 2-coats of Weathershield Emulsion Paint (Sigma brand or approved equivalent) on surface as described; Allow for application of putty and sanding to fair finish;</u>					
f.	In Exterior walls	209.91	m ²			
	<u>Prepare and apply 1 - coat of interior Wallsealer (Sigma brand or approved equivalent) and 2-coats of Interior Paint (Sigma brand or approved equivalent) on surface as described; Allow for application of putty and sanding to fair finish;</u>					
g.	In Interior walls	680.89	m ²			
	Tilework					
	<u>Supply and installation of approved Ceramic tiles (300 x 450) jointed and bedded with approved tile adhesive, 2mm grout and provision of plastic corner bead as described;</u>					
h.	In kitchen (1.8m high)	30.56	m ²			
i.	In Toilet (1.8m high)	24.21	m ²			
j.	In dish washing area (1.8m high)	8.82	m ²			

ITEM	DESCRIPTION	QTY	UNIT	UNIT PRICE	AMOUNT	REMARKS
BILL 05	FLOOR FINISHES					
	<u>40mm cement screed (1:4) mixture using Portland cement and imported fine aggregates with 40 % water cement ratio and leveled (using steel trowel) as described;</u>					
a.	In general flooring	314.13	m ²			
	<u>Supply and installation of approved Homogeneous floor tiles (300x300mm) jointed and bedded with approved tile adhesive and 2mm grout as described; Tile skirting flushed with the wall plaster; and provision of expansion grooves with filler in every 20ft of floor finish;</u>					
b.	In all areas except workshop, stock room, vehicle garage and vehicle washing area	165.72	m ²			
c.	In tile skirting (100mm high)	21.47	m ²			
	<u>Prepare and apply 1-coat of primer and 2- coat of approved heavy duty floor paint on finished floor surface as described;</u>					
d.	In vehicle garage area,work shop, stock room, vehicle washing area and inside the trench	159.32	m ²			
	<u>Apply 2-coats of water proofing compound (Masterseal 550 or an approved equivalent as per manufacture's manual) on floor area and on wall surface 600mm from FFL as described;</u>					
e.	In Toilet	12.08	m ²			
	<u>Supply and installation of approved paving blocks 50mm thick laid on levelled and compacted surface as described.</u>					
f.	In outdoor area	8.19	m ²			
	<u>Fabrication and installation of 6mm thick MS checkered plate cover with 6mm thick GI square hollow section frame as described, supported on 6mm thick 2"x2" GI angle rim, inclusive of cutting, grinding, welding, fixing, application of anticorrosive paint and finish with enamel paint as described;</u>					
g.	Steel grating (735 x 1000)	8.00	nos.			
BILL 06	CEILING FINISHES					
	<u>Supply and installation of timber framed internal ceiling using 9mm thick Gypsum plaster board and 2"x2" kiln-treated timber spaced at 600mm c/c b/w. inclusive of trimming, joining and fixings as required. Allow for application of putty and sanding to fair finish.</u>					
a.	In Interior ceiling	181.04	m ²			
	<u>Provide service opening panels 600x600 using 9mm thick Gypsum plasterboard laid flush with ceiling inclusive of fixing and finishes as described;</u>					
b.	In Interior ceiling	3.00	nos.			
	<u>Supply and installation of timber framed external ceiling using 6mm thick cement board and 2"x2" kiln-treated timber spaced at 600mm c/c b/w. inclusive of sawing, joining and fixing as required. Allow for application of putty and sanding to fair finish.</u>					
c.	In Exterior ceiling and In toilet	23.74	m ²			

ITEM	DESCRIPTION	QTY	UNIT	UNIT PRICE	AMOUNT	REMARKS
	<u>Fixing of approved 6" plasterboard cornice to all the joining lines between wall and ceiling, as per manufacturer's instructions using the cornice compounds for fixing of cornice.</u>					
d.	In cornice	201.00	m			
	<u>Prepare and apply 1 - coat of Alkali Resisting Primer and 2-coats of Emulsion Paint on surface as described;</u>					
e.	In both internal and external ceiling and on cornice.	234.93	m²			
BILL 07	DOORS & WINDOWS					
	<u>Fabrication and installation of doors as described. Prepare and apply 1-coat of wood primer and 2-coats of enamel paint/ varnish on door panel and frame. Rates shall include for timber treatment, trims, joints, screws, nails and SS iron mongery and provision of approved locks and door closers;</u>					
a.	D0 1 - panel solid wooden decorative door w/ fixed glass on top size : 900 x 2500h	2.00	set			
b.	D0V 1 - panel solid wooden decorative door w/ vision glass and fixed glass on top size : 900 x 2500h	2.00	set			
c.	D1 1 - panel solid wooden decorative door size : 850 x 2100h	3.00	set			
d.	D1V 1 - panel solid wooden decorative door w/ vision glass size : 850 x 2100h	1.00	set			
e.	D3 1 - panel solid wooden decorative door w/ fixed glass on top size : 800 x 2100h	2.00	set			
f.	D3V 1 - panel solid wooden decorative door w/ vision glass and fixed glass on top size : 800 x 2100h	1.00	set			
g.	D4 1 - panel solid wooden decorative door w/ vision glass size: 850 x 2500h	1.00	set			
h.	D5 1 - panel solid wooden decorative door w/ vision glass and 1-panel window size: as per drawing <u>Single panel PVC door and frame with approved SS sliding lock, SS hinges and SS screws. Allow for provision of door handle and application of sealant between door frame and wall,</u>	1.00	set			
i.	D2 1 - panel PVC door size : 700 x 2100h	2.00	set			

ITEM	DESCRIPTION	QTY	UNIT	UNIT PRICE	AMOUNT	REMARKS
	<u>Aluminum casement windows with 6mm reflective glass and openable ventilators, inclusive of all required ironmongery in SS, and application of PU sealant at all joints between wall and frame.</u>					
j.	W0 3 - panel side hung w/ top hung size : 1800 x 1600h	2.00	set			
k.	W1 3 - panel sliding w/top hung size : 1800 x 1600h	3.00	set			
l.	W2 2 - panel side hung w/ top hung size : 1200 x 1600h	4.00	set			
m.	W3 1 - panel fixed glass size : 1200 x 1200h	1.00	set			
n.	W4 2 - panel fixed glass size : 1600 x 2000h	1.00	set			
o.	W8 3 - panel fixed glass w/ 3-panel on top size : 2800 x 1900h	1.00	set			
p.	W9 2 - panel sliding w/ 2-panel on top size : 1600 x 2000h	1.00	set			
q.	V0 1- panel top hung size : 600 x 440h	7.00	set			
r.	V1 3- panel louver ventilator size : 1500 x 400h	3.00	set			
s.	Supply and installation of Aluminium Roller in its entirety size : as per description	1.00	set			
t.	<u>Reinforced concrete (1:2:3) as described;</u> In lintel and sill (150 x 150)	2.14	m ³			
u.	<u>Sawn formworks as described;</u> In lintel and sill	28.53	m ²			
v.	<u>Mild steel reinforcement as described;</u> In lintel and sill Steel Bars (4 - T10)	234.71	kg			
w.	(D6 -150)	19.70	kg			

ITEM	DESCRIPTION	QTY	UNIT	UNIT PRICE	AMOUNT	REMARKS
	<u>Supply and installation of vertical blinds of approved design pattern inclusive of rail, pins and necessary items as described;</u>					
	<i>In office area</i>					
x.	W0 size : 1950 x 1750h	2.00	set			
y.	W1 size : 1950 x 1750h	1.00	set			
z.	D5 size : 600 x 1710h	1.00	set			
	<i>In fire control room</i>					
aa.	W4 size : 1750 x 2150h	1.00	set			
ab.	W9 size : 1250 x 1750h	1.00	set			
	<u>Supply and installation of curtain; single, standard pleat design, of approved fabric and design pattern inclusive of rail, pins and necessary items as described;</u>					
	<i>In mess hall</i>					
ac.	W2 size : 1350 x 1900h	2.00	set			
	<i>In Entertainment and recreation room</i>					
ad.	W8 size : 2950 x 2200h	1.00	set			
BILL 08	SANITARY & WATER SUPPLY					
	<u>Installation of pipe fittings & fixtures shall be executed in conformance to local regulation & to adhere with the clients requirement. Inclusive of pressure & leak testing of entire system.</u>					
	<u>Sanitary & water supply fixtures</u>					
a.	Water Closet w/ tank	2.00	nos			
b.	SS Grating Sheet 150x150	3.00	nos			
c.	Mirror 400x600 w/ corner fixing brackets	3.00	nos			
d.	Handshower valve (watertec)	7.00	nos			
e.	Wash basin with pedestal	1.00	nos			
f.	Wash basin without pedestal	2.00	nos			
g.	Wash basin, coner fixing	1.00	nos			
h.	Wasting plug for wash basin	4.00	nos			
i.	Flexible gully	4.00	nos			
j.	Muslim shower	2.00	nos			
l.	Basin tap, PVC (Watertec)	3.00	nos			
m.	Water tap (Watertec)	2.00	nos			
n.	<u>Installation of pipes & fittings for the above including connection of waste water & sewer lines to Main sewer line. Rates shall include for provision of separate greywater and blackwater waste lines, construction and installation of catch basins as described;</u>	-	LS			

ITEM	DESCRIPTION	QTY	UNIT	UNIT PRICE	AMOUNT	REMARKS
o.	<u>Installation and connection of pipes & fittings for municipal water, fresh water (water tank) and well water supply inclusive necessary valves and appropriate pumps for both fresh and well water supply.</u>	-	LS			
p.	<u>Construction of RCC 6 feet dia underground water well, water level of the well shall be maintained @ 6 feet @ at low tide level. Rates shall include for provision of RCC well cover with service opening.</u>	1.00	nos			
q.	<u>Construction of water tank base 1.5m dia., height 500mm using CHB Blocks 4" x 6" x 12", compacted earth and finished with 50mm 1:3:6 PCC as described. Rate shall include provision of 50mm lean concrete at 0.15m below NGL.</u>	3.00	nos			
r.	<u>Supply and installation of 3nos. 2500 liter SINTEX water tank,lay and connect the tanks with provisions of ball valves as described. Connection of municipal water to water tank and provision of float valve and connecting overflow to well.</u>	-	LS			
s.	<u>Construction and installation of a standard grease trap, lay and connect from the kitchen waste line and outflow to main sewer line as described.</u>	-	LS			
BILL 09	ELECTRICAL FIXTURES AND FITTINGS					
	<u>Supply, Installation and testing, of conduit pipe, fittings & fixtures shall be executed as described in drawings and conformance to local regulation & to adhere with Local Electrical Authority's requirements. Rates shall include for screws, nails, bolts, nuts, brackets, straps, rivets, plugs and all incidental accesories;</u>					
	<i>Electrical Fixtures and Fittings;</i>					
a.	KDK Ceiling fan (Orbital type)	1.00	nos			
b.	KDK 60" Ceiling Fan	10.00	nos			
c.	LED Emergency light (60 LED), Ceiling mount	11.00	nos			
d.	5" Downlight w/ 20w Energy saving light, Daylight	52.00	nos			
e.	Wall Mount, outdoor Light w/ 18W Energy saving Day light	2.00	nos			
f.	Wall Mount, outdoor Light w/ 8W Energy saving warm white	13.00	nos			
g.	50W Energy Saving Day Light E27 w/ batten holder	5.00	nos			
h.	400W Flood Light IP65	3.00	nos			
i.	Exhaust fan 18", with collapsible fins (KDK)	3.00	nos			
j.	Power Outlet 13A x 1gang (Clipsal brand)	21.00	nos			
k.	Power Outlet 13A x 2gang (Clipsal brand)	27.00	nos			
l.	Power Outlet 13A x 2gang w/ waterproof cover (Clipsal brand)	4.00	nos			
m.	Power Outlet 15A x 1gang (Clipsal brand)	6.00	nos			
n.	Fan Dimmer KDK (Clipsal brand)	11.00	nos			
o.	Switch 1 gang (Clipsal brand)	4.00	nos			
p.	Switch 2 gang (Clipsal brand)	8.00	nos			
q.	Switch 3 gang (Clipsal brand)	13.00	nos			
r.	Switch 4 gang (Clipsal brand)	4.00	nos			
s.	<u>Supply & installation of Wire/conduit/boxes/trays for the above encased in walls, beams and columns;</u>	-	LS			
t.	<u>Supply & installation of Main distribution board inclusive of current meters,circuit breakers, connections and any other accessories required;</u>	-	LS			

ITEM	DESCRIPTION	QTY	UNIT	UNIT PRICE	AMOUNT	REMARKS
u.	<u>Assembly wiring & connection of 3-phase main cable from the islands nearest distribution box to the building inclusive any other accessories required.</u>	-	LS			
BILL 10	AIR CONDITIONING SYSTEM <u>Supply, Installation and testing of split-type inverter air-conditioning system as per manufacturer's instruction and roughing in of necessary pipe lines to and from indoor and outdoor units as well as connection of power and commissioning of the whole system.</u>					
a.	In Office (12000 BTU)	2.00	units			
b.	In control room (9000 BTU)	1.00	units			
c.	In Entertainment and recreation room (18000 BTU)	1.00	units			
BILL 11	TELECOMMUNICATION NETWORK <u>Supply, Installation & testing of outlets including encasing of conduits, cables, boxes, & fixtures in walls, beams and columns, to put the system in good operation and to adhere with the owner's requirement</u>					
a.	In telephone network	1.00	item			
b.	In public address system	1.00	item			
c.	In data network	1.00	item			
	<u>Supply, Installation & testing of TV cable outlets including encasing conduits, cables, boxes, & fixtures to put the system in good operation and to adhere with the owner's requirement</u>					
d.	In TV network	1.00	item			
BILL 12	FIRE FIGHTING SYSTEM <u>Supply and install fire fighting equipment as described inclusive of all necessary connections and to suit with item below as per local fire regulation.</u>					
a.	Fire Extinguisher, Carbon Dioxide 2 Kg	2.00	units			
b.	Fire Extinguisher, Wet Chemical 6 Kg	1.00	units			
c.	Fire Extinguisher, Dry Chemical powder 6 Kg	1.00	units			
d.	Fire Extinguisher, Water 9ltr	1.00	units			
e.	Fire Blanket	1.00	nos			
BILL 13	FURNITURE & KITCHENWARE <u>Supply and Installation of approved items stated below;</u>					
a.	High back chair, fabric cover	3.00	nos			
b.	Medium back chair, fabric cover	6.00	nos			
c.	Office table 1500x750x750	1.00	nos			
d.	Office table 1200x750x750	2.00	nos			
e.	Computer table, with keyboard drawer 910x600x750	2.00	nos			
f.	4 Seater bench	1.00	nos			
g.	Book Shelf	2.00	nos			
h.	Filing cabinet	2.00	nos			
i.	2 Stove gas cooker	1.00	nos			
j.	Wood Dining Table 1400 x 900 x 750 w/ 6 chairs	2.00	nos			
k.	Wood Dining Table 1200 x 900 x 750 w/ 4 chairs	1.00	nos			

ITEM	DESCRIPTION	QTY	UNIT	UNIT PRICE	AMOUNT	REMARKS
	<u>Construction of R.C.C Mess Counter, with counter top finished with 2mm thk SS sheet , fabrication of tray conveyor using 25mm & 37.5mm SS bar and SS shelves as described. Rates shall include supply and installation of approved Ceramic tiles jointed and bedded with approved tile adhesive, 2mm grout and provision of plastic corner bead as described;</u>					
l.	In Mess Hall Counter	1.00	nos			
	<u>Design, fabrication and installation of approved, SS worktop tables with shelves, drawers and single bowl kitchen sink and long neck faucet. Rates shall include installation of pipes & fixtures for the above including connection of water & waste water line.</u>					
m.	In Kitchen worktop table with sink	-	LS			
	<u>Design, fabrication and installation of approved, SS worktop table with shelves and drawers;</u>					
n.	In Kitchen Counter	-	LS			
	<u>Fabrication and installation of counter table as described using approved material as described;</u>					
o.	In Fire Control room	-	LS			
	<u>Design, Fabrication and installation of approved, 3-Bowl stainless-steel sink as described. Rates shall include installation of pipes & fixtures for the above including connection of water & waste water line.</u>					
p.	In dishwashing area	1.00	nos			
	<u>Design,fabrication and installation of kitchen cupboards using approved materials as per description.</u>					
q.	Kitchen cupboard, 8 panel, wall hung <i>in Mess Hall</i>	1.00	nos			
r.	Kitchen cupboard, 7 panel, wall hung <i>in Kitchen</i>	1.00	nos			
s.	Kitchen cupboard, 6 panel, wall hung <i>in Kitchen</i>	1.00	nos			
BILL 14	ADDITIONS & OMISSIONS					

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COST SUMMARY

SECTION 02 - FIRST FLOOR

BILL 15	CONCRETE WORKS	MVR	<input type="text"/>
BILL 16	MASONRY WORKS	MVR	<input type="text"/>
BILL 17	WALL FINISHES	MVR	<input type="text"/>
BILL 18	FLOOR FINISHES	MVR	<input type="text"/>
BILL 19	CEILING FINISHES	MVR	<input type="text"/>
BILL 20	STAIRCASE	MVR	<input type="text"/>
BILL 21	DOORS & WINDOWS	MVR	<input type="text"/>
BILL 22	SANITARY & WATER SUPPLY	MVR	<input type="text"/>
BILL 23	ELECTRICAL FIXTURES AND FITTINGS	MVR	<input type="text"/>
BILL 24	AIR CONDITIONING SYSTEM	MVR	<input type="text"/>
BILL 25	TELECOMMUNICATION NETWORK	MVR	<input type="text"/>
BILL 26	FIRE FIGHTING SYSTEM	MVR	<input type="text"/>
BILL 27	ROOFING	MVR	<input type="text"/>
BILL 28	FURNITURE & KITCHENWARE	MVR	<input type="text"/>
BILL 29	ADDITIONS & OMISSIONS	MVR	<input type="text"/>
TOTAL COST OF WORK FOR FIRST FLOOR		MVR	<input type="text"/>

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ITEM	DESCRIPTION	QTY.	UNIT	UNIT PRICE	AMOUNT	REMARKS
	<u>SECTION 02 - FIRST FLOOR</u>					
BILL 15	CONCRETE WORKS					
	<u>Chip off cracked concrete, wire brush application on existing column steel, treat and repair with approved anticorrosive chemical, bonding chemical and concrete repair mortar;</u>	1.00	item			
a.	<u>Reinforced concrete (1:2:3) mixture using Portland cement and imported fine and course aggregates with 40 % water cement ratio as described;</u>					
	<i>In Columns</i>					
b.	C1 (250 x 200 x 3000), 4nos.	0.75	m ³			
c.	C2 (200 x 200 x 3000), 16nos.	2.04	m ³			
	<i>In roof beams</i>					
d.	B2 (200 x 300)	3.12	m ³			
e.	B4 (200 x 350)	4.59	m ³			
f.	CB1 (250 x 200)	0.09	m ³			
g.	B8 (250 x 600) @3500 from NGL	1.20	m ³			
h.	B2 (250 x 300) @3500 from NGL	0.42	m ³			
i.	RCC Counter 100 thk in toilet & shower area	0.27	m ³			
j.	RCC Parapet wall 100 thk, in balcony	0.43	m ³			
	<u>Sawn formworks inclusive of all shuttering, propping and slope protection as described;</u>					
	<i>In columns</i>					
k.	C1 (200 x 250 x 3000) 4 nos	10.80	m ²			
l.	C2 (200 x 200 x 3000) 16 nos	38.40	m ²			
	<i>In roof beams</i>					
m.	B2 (200 x 300)	41.60	m ²			
n.	B4 (200 x 350)	58.95	m ²			
o.	CB1 (250 x 200)	1.17	m ²			
p.	B8 (250 x 600) provided @3500 from NGL	11.60	m ²			
q.	B2 (250 x 300) provided @3500 from NGL	5.95	m ²			
r.	RCC Counter 100 thk in toilet & shower area	3.10	m ²			
s.	RCC Parapet wall 100 thk in balcony	8.52	m ²			
	<u>High Tensile Steel Reinforcement fabrication bending and fixing as described;</u>					
	<i>In columns</i>					
t.	C1 (250 x 200 x 3000), 4nos.					
	Steel Bars (8-T12)	90.93	kg			
u.	(2-R6 @ 150)	35.52	kg			

ITEM	DESCRIPTION	QTY.	UNIT	UNIT PRICE	AMOUNT	REMARKS
v.	C2 (200 x 200 x 3000), 16nos	181.86	kg			
w.	Steel Bars (4-T12) (2-R6 @ 150)	127.87	kg			
	<i>In roof beams</i>					
x.	B2 (200 x 300).	184.70	kg			
y.	Steel Bars (4-T12) (R6 @ 150)	390.72	kg			
	B4 (200 x 350)					
z.	Steel Bars (6-T16)	663.18	kg			
aa.	(R6 @ 150)	87.91	kg			
	CB1 (250 x 200)					
ab.	Steel Bars (6-T16)	20.84	kg			
ac.	(2-R6 @ 150)	5.59	kg			
	B8 (250 x 600)					
ad.	Steel Bars (7T-20)	155.36	kg			
ae.	Steel Bars (2T-16)	28.42	kg			
af.	(2R6 @ 150)	29.30	kg			
	B2 (200 x 300)					
ag.	Steel Bars (4T-12)	28.42	kg			
ah.	(R6 @ 150)	19.98	kg			
	<i>In RCC Counter 100 thk in toilet & shower area</i>					
ai.	Steel Bars (T10 @ 150) bothways	36.23	kg.			
	<i>In RCC Parapet wall 100 thk in balcony</i>					
aj.	Steel Bars (T10 @ 150) bothways	2.01	kg.			
BILL 16	MASONRY WORKS					
	<u>Supply and installation of CHB Blocks 4" x 6" x 12" for both internal and external walls as laid per manufacturer's instruction as described;</u>					
a.	In Exterior Walls (3.1h)	195.40	m ²			
b.	In interior Walls (3.1h)	119.07	m ²			
c.	In interior Walls (2.1h) <i>in toilet and shower area</i>	28.98	m ²			
	<u>Supply and installation of Solid Blocks 2"x4"x8" for internal walls as laid per manufacturer's instruction as described;</u>					
d.	In Service duct, locker wall and planters	3.72	m ²			
BILL 17	WALL FINISHES					
	Cement Plaster					
	<u>Cement and sand mixtures 1:4 applied in 2 coats on masonry surface in fair face finish to receive wall finishing as described;</u>					
a.	25mm plaster steel trowel finished to walls, beams and columns in external walls	199.94	m ²			
b.	25mm plaster steel trowel finished to walls, beams and columns in internal walls	299.82	m ²			
c.	Allow for PVC/Nylon mesh reinforcement @ all joints between walls and concrete.	1.00	LS			
d.	Allow expansion grooves in plaster wall up to 12mm wide and deep filled with sealant.	1.00	LS			

ITEM	DESCRIPTION	QTY.	UNIT	UNIT PRICE	AMOUNT	REMARKS
	Paintwork <u>Prepare and apply 1-coat of exterior Wallsealer (Sigma brand or approved equivalent) and 2-coats of Weathershield Emulsion Paint (Sigma brand or approved equivalent) on surface as described; Allow for application of putty and sanding to fair finish;</u>					
e.	In Exterior walls	199.94	m ²			
	<u>Prepare and apply 1-coat of interior wall putty , 1 - coat of interior Wallsealer (Sigma brand or approved equivalent) and 2-coats of Emulsion Paint (Sigma brand or approved equivalent) on surface as described;</u>					
f.	In Interior walls	299.82	m ²			
	Tilework <u>Supply and installation of approved Ceramic tiles (300 x 450) jointed and bedded with approved tile adhesive, 2mm grout and provision of plastic corner bead as described;</u>					
g.	In Toilet and showers (2.1m high)	98.26	m ²			
h.	In RCC counter in toilet and shower area	7.52	m ²			
BILL 18	FLOOR FINISHES					
	<u>25mm cement screed (1:4) mixture using Portland cement and imported fine aggregates with 40 % water cement ratio and leveled to a smooth finish (using steel trowel) as described;</u>					
a.	In all flooring	185.50	m ²			
	<u>Supply and installation of approved Homogeneous floor tiles (300x300mm) jointed and bedded with approved tile adhesive and 2mm grout as described; Tile skirting flushed to wall plaster & 10mm expansion grooves with filler in every 20ft of floor finish;</u>					
b.	In all areas except toilet & showers and balcony	131.26	m ²			
	<u>Supply and installation of approved non-skid Homogeneous floor tiles (300x300mm) jointed and bedded with approved tile adhesive and 2mm grout as described. Provision of 10mm expansion grooves with filler in every 20ft of floor finish;</u>					
c.	In Toilets & shower area and drying space	38.70	m ²			
d.	In balcony	4.50	m ²			
	<u>Apply 2-coats of water proofing compound (Masterseal 550 or an approved equivalent as per manufacture's manual) on floor area and on wall surface 600mm from FFL as described;</u>					
e.	In Toilets & shower area and in balcony	44.10	m ²			
BILL 19	CEILING FINISHES					
	<u>Supply and installation of timber framed internal ceiling using 9mm thick Gypsum plaster board and 2"x2" kiln-treated timber spaced at 600mm c/c b/w. inclusive of trimming, joining and fixings as required. Allow for application of putty and sanding to fair finish.</u>					
a.	In Interior Ceiling	130.87	m ²			

ITEM	DESCRIPTION	QTY.	UNIT	UNIT PRICE	AMOUNT	REMARKS
	<u>Supply and installation of timber framed external ceiling using 6mm thick cement board and 2"x2" kiln-treated timber spaced at 600mm c/c b/w. inclusive of sawing, joining and fixing as required. Allow for application of putty and sanding to fair finish.</u>					
b.	In Toilets & shower area, drying space and in balcony	43.25	m ²			
	<u>Fixing of plasterboard cornice to all the joining lines between wall and ceiling, as per manufacturer's instructions using the special compounds for fixing of cornice.</u>					
c.	In cornice	158.17	m			
	<u>Prepare and apply 1 - coat of Alkali Resisting Primer and 2-coats of Weathershield Emulsion Paint on surface as described;</u>					
d.	In ceiling surface.	197.85	m ²			
BILL 20	STAIRCASE					
	<u>Mortar screed (1:4) 20mm thick on concrete surface finished with steel trowel. Supply and installation of approved homogeneous tiles jointed and bedded with approved tile adhesive, 2mm grout and provision of nosing tiles as described; Rates shall include for plasterwork required to finish fair on sides/surfaces of staircase;</u>					
a.	In riser, tread and landing	26.67	m ²			
	<u>Fabrication and installation of SS railing with 1 numbers of 50mm dia SS pipe as top rail and 40mm dia SS pipe as balusters and 20mm dia SS pipes as intermediate members placed as described, inclusive of grinding, cutting, polishing, screws, flanges and fixing as described;.</u>					
b.	In Stair case railing	1	item			
BILL 21	DOORS & WINDOWS					
	<u>Fabrication and installation of doors as specified in drawings. Rates shall be inclusive of approved hinges, locks and door closers</u>					
a.	D0 1 - panel solid wood decorative door w/ fixed glass on top size : 900 x 2500h	3.00	set			
b.	D0V 1 - panel solid wooden decorative door w/ frosted vision glass and fixed glass on top size : 900 x 2500h	1.00	set			
c.	D1 1 - panel solid wooden decorative door size : 850 x 2100h	1.00	set			
d.	D7 2 - panel solid wood decorative door size: 1480 x 2100h	1.00	set			

ITEM	DESCRIPTION	QTY.	UNIT	UNIT PRICE	AMOUNT	REMARKS
e.	<p><u>Single panel PVC door and frame with approved SS sliding lock, SS hinges and SS screws. Allow for provision of door handle and application of sealant between door frame and wall.</u></p> <p>D2 1 - panel PVC door size : 700 x 2100h</p> <p><u>Aluminum casement windows with 6mm reflective glass and openable ventilators, inclusive of all required ironmongery in SS, and application of PU sealant at all joints between wall and frame.</u></p>	7.00	set			
f.	<p>W0 3 - panel side hung w/ top hung size : 1800 x 1600h</p>	4.00	set			
g.	<p>W2 2 - panel side hung w/ top hung size : 1200 x 1600h</p>	2.00	set			
h.	<p>W5 20 - panel top hung window set size : 3000 x 2400h</p>	1.00	set			
i.	<p>W6 24- panel top hung window set size : as per description</p>	1.00	set			
j.	<p>W7 9- panel top hung window set size : 1800 x 1600h</p>	1.00	set			
k.	<p>W10 12- panel top hung window set size : 2380 x 1600h</p>	1.00	set			
l.	<p>V0 1- panel top hung size : 1500 x 400h</p>	9.00	set			
m.	<p><u>Reinforced concrete (1:2:3) as described;</u> In lintel and sill (150 x 150)</p>	1.93	m ³			
n.	<p><u>Sawn formworks as described;</u> In lintel and sill</p>	25.79	m ²			
o.	<p><u>Mild steel reinforcement as described;</u> In lintel and sill</p>	212.14	kg			
p.	<p>Steel Bars (4 - T10) (D6 -150)</p>	17.81	kg			
q.	<p><u>Supply and installation of vertical blinds of approved design pattern inclusive of rail, pins and necessary items as described;</u> <i>In Conference Hall</i> W5 size : 3000 x 2400h</p>	1.00	set			
r.	<p>W6 size : as described</p>	1.00	set			

ITEM	DESCRIPTION	QTY.	UNIT	UNIT PRICE	AMOUNT	REMARKS
	<u>Supply and installation of curtain; single, standard pleat design, of approved fabric and design pattern inclusive of rail, pins and necessary items as described;</u>					
s.	<i>In Accomodation</i> W0 size : 1950 x 1900 h	3.00	set			
t.	W7 size : 1950 x 1900h	3.00	set			
u.	<i>In Sitting room</i> W0 size : 1950 x 1900h	1.00	set			
v.	<i>In NCO Accomodation</i> W2 size : 1350 x 1900h	1.00	set			
w.	<u>Fabrication and installation of safety sliding gate using 40 mm SS square hollow section(SHS) and 20mm SS SHS , inclusive of grinding, cutting, polishing, screws, flanges and fixing as described;</u> Safety sliding gate	1.00	item			
x.	<u>Fabrication and installation of Fireman slide using 3" SS pipe, inclusive of grinding, cutting, polishing, screws, flanges and fixing as described;</u> Firemen's slide	1.00	item			
BILL 22	SANITARY & WATER SUPPLY					
	<u>Installation of pipe fittings & fixtures shall be executed in conformance to local regulation & to adhere with the clients requirement. Inclusive of pressure & leak testing of entire system.</u>					
	<u>Sanitary & water supply fixtures as described</u>					
a.	Water Closet w/ tank	4.00	nos			
b.	SS Grating Sheet 150x150	12.00	nos			
c.	Mirror 400x600 w/ corner fixing brakets	4.00	nos			
d.	Wash basin Counter sunk	3.00	nos			
e.	Wash basin with pedestal	1.00	nos			
f.	Wasting plug for wash basin	4.00	nos			
g.	Flexible gully	4.00	nos			
h.	Muslim shower	4.00	nos			
i.	Basin tap, PVC (Watertec)	4.00	nos			
j.	Water tap	7.00	nos			
k.	<u>Installation of pipes & fittings for the above including connection of waste water & sewer lines to main sewer line. Rates shall include for providing separate greywater and blackwater waste lines as described;</u>	1.00	item			
l.	<u>Installation and connection of pipes & fittings for municipal water, fresh water (water tank) supply and well water connection inclusive necessary valves as described;</u>	1.00	item			

ITEM	DESCRIPTION	QTY.	UNIT	UNIT PRICE	AMOUNT	REMARKS
BILL 23	ELECTRICAL FIXTURES AND FITTINGS					
	<u>Supply, Installation and testing, of conduit pipe, fittings & fixtures shall be executed as described in drawings and conformance to local regulation & to adhere with Local Electrical Authority's requirements. Rates shall include for screws, nails, bolts, nuts, brackets, straps, rivets, plugs and all incidental accesories;</u>					
	<i>Electrical Fixtures and Fittings;</i>					
a.	KDK Ceiling fan (Orbital type)	13.00	nos			
b.	KDK 60" Ceiling Fan	6.00	nos			
c.	LED Emergency light (60 LED), Ceiling mount	5.00	nos			
d.	5" Downlight w/ 20w Energy saving light, Daylight	38.00	nos			
e.	Wall Mount, outdoor Light w/ 8W Energy saving, warm white	1.00	nos			
f.	Power Outlet 13A x 1gang (Clipsal brand)	7.00	nos			
g.	Power Outlet 13A x 2gang (Clipsal brand)	19.00	nos			
h.	Power Outlet 13A x 1gang w/ waterproof cover (Clipsal brand)	2.00	nos			
i.	Power Outlet 15A x 1gang (Clipsal brand)	6.00	nos			
j.	Fan Dimmer KDK (Clipsal brand)	19.00	nos			
k.	Switch 1 gang (Clipsal brand)	2.00	nos			
l.	Switch 2 gang (Clipsal brand)	2.00	nos			
m.	Switch 3 gang (Clipsal brand)	5.00	nos			
n.	Switch 4 gang (Clipsal brand)	6.00	nos			
o.	<u>Supply & installation of Wire/conduit/boxes/trays for the above encased in walls, beams and columns;</u>	-	LS			
p.	<u>Supply & installation of Distribution board inclusive of circuit breakers, connections and any other accessories required;</u>	-	LS			
BILL 24	AIR CONDITIONING SYSTEM					
	<u>Supply, Installation and testing of split-type inverter air-conditioning system as per manufacturer's instruction and roughing in of necessary pipe lines to and from indoor and outdoor units as well as connection of power and commissioning of the whole system.</u>					
a.	In Conference hall (12000 BTU)	2.00	units			
b.	In Sitting room (12000 BTU)	1.00	units			
c.	In NCO accomodation (12000 BTU)	1.00	units			
BILL 25	TELECOMMUNICATION NETWORK					
	<u>Supply, Installation & testing of outlets including conduits, cables, boxes, & fixtures to put the system in good operation and to adhere with the owner's requirement</u>					
a.	In telephone network	1.00	item			
b.	In public address system	1.00	item			
c.	In data network	1.00	item			
	<u>Supply, Installation & testing of TV cable oulets including conduits, cables, boxes, & fixtures to put the system in good operation and to adhere with the owner's requirement</u>					
d.	In TV network	1.00	item			

ITEM	DESCRIPTION	QTY.	UNIT	UNIT PRICE	AMOUNT	REMARKS
BILL 26	FIRE FIGHTING SYSTEM					
	<u>Supply and install fire fighting equipment as described inclusive of all necessary connections and to suit with item below as per local fire regulation.</u>					
a.	Fire Extinguisher, Carbon Dioxide, 2 Kg	1.00	units			
b.	Fire Extinguisher, Water 9ltr	1.00	units			
BILL 27	ROOFING					
	<u>Extension of columns and providing beam for supporting roofing trusses</u>					
	<u>Reinforced concrete (1:2:3) mixture using Portland cement and imported fine and course aggregates with 40 % water cement ratio as described;</u>					
	<i>In Columns (on grid A4, A3,B3,D3,D2,D1,E5,E4,E3,E2,E1)</i>					
a.	C1 (250 x 200 x 1200), 1nos.	0.06	m ³			
b.	C2 (200 x 200 x 1200), 10nos.	0.48	m ³			
	<i>In Columns (on grid B2,B1)</i>					
c.	C1 (250 x 200 x 1550), 1nos.	0.08	m ³			
d.	C2 (200 x 200 x 1550), 1nos.	0.06	m ³			
	<i>In Beam (on grid A3 to E3)</i>					
e.	B2 (200 x 300)	1.02	m ³			
	<u>Sawn formworks inclusive of all shuttering, propping and slope protection as described;</u>					
	<i>In Columns (on grid A4, A3,B3,D3,D2,D1,E5,E4,E3,E2,E1)</i>					
f.	C1 (250 x 200 x 1200), 1nos.	1.08	m ²			
g.	C2 (200 x 200 x 1200), 10nos.	9.60	m ²			
	<i>In Columns (on grid B2,B1)</i>					
h.	C1 (250 x 200 x 1550), 1nos.	1.40	m ²			
i.	C2 (200 x 200 x 1550), 1nos.	1.24	m ²			
	<i>In Beam (on grid A3 to E3)</i>					
j.	B2 (200 x 300)	13.60	m ²			
	<u>High Tensile Steel Reinforcement fabrication bending and fixing as described;</u>					
	<i>In Columns (on grid A4, A3,B3,D3,D2,D1,E5,E4,E3,E2,E1)</i>					
k.	C1 (250 x 200 x 1200), 1nos.					
l.	Steel Bars (8-T12)	8.52	kg			
	(2-R6 @ 150)	2.84	kg			
	<i>In Columns (on grid B2,B1)</i>					
m.	C1 (250 x 200 x 1550), 1nos.					
n.	Steel Bars (4-T12)	42.62	kg			
	(2-R6 @ 150)	17.76	kg			
	<i>In Columns (on grid B2,B1)</i>					
o.	C1 (250 x 200 x 1550), 1nos.					
p.	Steel Bars (8-T12)	11.01	kg			
	(2-R6 @ 150)	3.55	kg			
	<i>In Beam (on grid A3 to E3)</i>					
q.	C2 (200 x 200 x 1550), 1nos.					
r.	Steel Bars (4-T12)	5.51	kg			
	(2-R6 @ 150)	1.78	kg			
	<i>In Beam (on grid A3 to E3)</i>					
s.	B2 (200 x 300)					
t.	Steel Bars (4-T12)	60.38	kg			
	(2-R6 @ 150)	22.38	kg			
u.	Allow for anchorage, bend and splice.	9.06	kg			

ITEM	DESCRIPTION	QTY.	UNIT	UNIT PRICE	AMOUNT	REMARKS
	<u>Masonry work, plastering and painting</u> <u>Supply and installation of CHB blocks 4" x 6" x 12" for walls as laid per manufacturer's instruction as described;</u>					
v.	In Wall above roof beam	125.22	m ²			
	<u>Cement and sand mixtures 1:4 applied in 2 coats on masonry surface in fair face finish to receive wall finishing as described; Rates shall include for encasing conduit/ boxes/ trays in walls;</u>					
w.	25mm plaster steel trowel finished to walls, beams and columns in wall above roof beam	250.44	m ²			
	<u>Prepare and apply 1-coat of exterior Wallsealer (Sigma brand or approved equivalent) and 2-coats of Weathershield Emulsion Paint (Sigma brand or approved equivalent) on surface as described; Allow for application of putty and sanding to fair finish;</u>					
x.	In Wall above roof beam	250.44	m ²			
	<u>Roof Tusses & covers</u> <u>Fabrication and installation of fully welded GI pipe roof trusses as described inclusive of plates, bolts and necessary items required for fixing truss on RCC beam;</u>					
y.	Roof Truss (TR1)	68.10	m			
z.	Roof Truss (TR2)	31.50	m			
aa.	<u>Galvanized Lip "C" purlins bolted on MS angle cleats with slotted holes, fully welded on top chords. including fixing of sag rods at 1000mm spacing as per manufacturer's instructions</u>	402.00	m			
ab.	<u>Prepare and apply 1 - coat of red-oxide & 2 coats of aluminum paint to all surface of steel works.</u> <u>Roof Covers & Accessories;</u> <u>Specified for Lysaght " Trim Deck" roofing sheets, fixed in accordance to manufacturer's instruction, inclusive of all necessary accessories as described.</u>	1.00	item			
ac.	Lysaght Roofing sheets	279.99	m ²			
ad.	Heat Insulation	279.99	m ²			
ae.	PVC Mesh	279.99	m ³			
af.	Lysaght Gutter inclusive of clips and straps spaced 600 c/c	37.10	m			
ag.	25 x 180 mm Fascia board	37.10	m			
ah.	<u>Fabrication and installation of Lysaght apron, end and wall flashings where required; Rates shall include for sealant, roofing tape, screws and necessary items;</u> <u>Supply and installation of Rainwater Down pipe inclusive of fittings & brackets</u>	1.00	item			
ai.	PVC Down pipe 75mm dia.	9.00	nos.			
aj.	Down spout	9.00	nos.			
ak.	<u>Connection of rain water down pipes from building rear to sintex tanks inclusive of fittings and necessary connections;</u>	1.00	item			
al.	<u>Construction and installation of soak pits (300 x 400 x600) with solid blocks 2"x4"x8" , filled with gravel for downspouts at front of building.</u>	1.00	item			

ITEM	DESCRIPTION	QTY.	UNIT	UNIT PRICE	AMOUNT	REMARKS
BILL 28	FURNITURE & KITCHENWARE					
	<u>Supply and Installation of approved items stated below;</u>					
a.	High back chair, fabric cover	12.00	nos			
b.	Conference Table	1.00	nos			
c.	Medium back chair, fabric cover	1.00	nos			
d.	Office table 1200x750x750	2.00	nos			
e.	3 Seater Sofa	2.00	nos			
f.	Coffee Table	1.00	nos			
g.	TV rack	1.00	nos			
h.	Wood round Table 700 x 600h	1.00	nos			
i.	2-Tap water cooler	1.00	nos			
j.	2-Tub semi-automatic washing machine	1.00	nos			
BILL 29	ADDITIONS & OMISSIONS					

MILITARY ENGINEERS

MALDIVES NATIONAL DEFENCE FORCE
MALE', REPUBLIC OF MALDIVES

DATE: 27th MAY 2015

PROJECT: REMAINING WORKS - TWO STOREY FIRE STATION

CLIENT: MINISTRY OF DEFENCE AND NATIONAL SECURITY

LOCATION: GDH.THINADHOO

COST SUMMARY

SECTION 03 - PERIMETER WALL

BILL 30	SITE PREPARATION	MVR	<input type="text"/>
BILL 31	FOUNDATION	MVR	<input type="text"/>
BILL 32	CONCRETE FRAMES	MVR	<input type="text"/>
BILL 33	MASONRY WORKS	MVR	<input type="text"/>
BILL 34	WALL FINISHES	MVR	<input type="text"/>
BILL 35	DOORS & WINDOWS	MVR	<input type="text"/>
BILL 36	ELECTRICAL FIXTURES AND FITTINGS	MVR	<input type="text"/>
BILL 37	ADDITIONS & OMISSIONS	MVR	<input type="text"/>
TOTAL COST OF WORK FOR PERIMETER WALL		MVR	<input type="text"/>

MILITARY ENGINEERS

MALDIVES NATIONAL DEFENCE FORCE
MALE', REPUBLIC OF MALDIVES

DATE: 27th MAY 2015

PROJECT: REMAINING WORKS - TWO STOREY FIRE STATION

CLIENT: MINISTRY OF DEFENCE AND NATIONAL SECURITY

LOCATION: GDH.THINADHOO

BILL OF QUANTITIES

ITEM	DESCRIPTION	QTY.	UNIT	UNIT PRICE	AMOUNT	REMARKS
	<u>SECTION 03- PERIMETER WALL</u>					
BILL 30	SITE PREPARATION					
a.	<u>Clear site generally, whenever necessary cutting down trees, irrespective of sizes, grubbing roots, stumps etc. dispose of and carting debris, loose boulders, waste materials away from the site.</u>	78.35	m ²			
BILL 31	FOUNDATION					
	<u>Excavate for concrete footing not exceeding the given depth, get out part deposit, return, fill in and ram in making up levels where directed and remainder load and cart away as described;</u>					
a.	In stiffner column foundation (450 x 450 x 300) 46nos	9.04	m ³			
b.	In ground beam (200x 250)	7.99	m ³			
c.	In gate column foundation (1000 x 850 x 300) 2nos	1.23	m ³			
d.	In pedestrain gate column foundation (850 x 850) 2nos	1.05	m ³			
	<u>Lean concrete (1:3:6) 50 mm thick spread and level as described;</u>					
e.	In stiffner column foundation (450 x 450 x 300) 46nos	13.92	m ²			
f.	In ground beam (200x 250)	31.98	m ²			
g.	In gate column foundation (1000 x 850 x 300) 2nos	2.00	m ²			
h.	In pedestrain gate column foundation (850 x 850) 2nos	1.81	m ²			
	<u>Reinforced concrete (1:2:3) mixture using Portland cement and imported fine and course aggregates with 40 % water cement ratio as described;</u>					
i.	In stiffner column foundation (450 x 450 x 300) 46nos	2.79	m ³			
j.	In ground beam (200x 250)	6.40	m ³			
k.	In gate column foundation (1000 x 850 x 300) 2nos	0.51	m ³			
l.	In pedestrain gate column foundation (850 x 850) 2nos	0.43	m ³			
	<u>Sawn formworks inclusive of all shuttering, propping and slope protection as described;</u>					
m.	In stiffner column foundation (450 x 450 x 300) 46nos	24.84	m ³			
n.	In ground beam (200x 250)	63.95	m ³			
o.	In gate column foundation (1000 x 850 x 300) 2nos	2.22	m ³			
p.	In pedestrain gate column foundation (850 x 850) 2nos	2.04	m ³			

ITEM	DESCRIPTION	QTY.	UNIT	UNIT PRICE	AMOUNT	REMARKS
	<u>High Tensile Steel Reinforcement fabrication bending and fixing as described;</u>					
q.	In stiffner column foundation (450 x 450 x 300) 46nos Steel Bars (3- T10 @175 c/c, b/w)	93.70	kg			
r.	In ground beam (200x 250) Steel Bars (4 - T12) (D6 @150 c/c)	455.11 117.71	kg kg			
s.	In gate column foundation (1000 x 850 x 300) 2nos Steel Bars (7 - T12 @150 c/c, b/w)	13.69	kg			
t.	In pedestrain gate column foundation (850 x 850) 2nos Steel Bars (6 - T12 @150 c/c, b/w)	10.13	kg			
	<u>Prepare and apply bituminous damp proofing compound/damp proof membrane as per manufacturer's instructions;</u>					
u.	In stiffner column foundation (450 x 450 x 300) 46nos	30.02	m ²			
v.	In ground beam (200x 250)	63.95	m ²			
w.	In gate column foundation (1000 x 850 x 300) 2nos	3.72	m ²			
x.	In pedestrain gate column foundation (850 x 850) 2nos	3.36	m ²			
BILL 32	CONCRETE FRAMES					
	<u>Reinforced concrete (1:2:3) mixture using Portland cement and imported fine and course aggregates with 40 % water cement ratio as described;</u>					
a.	In stiffner column (150 x 150 x 2900) , 46nos	3.00	m ³			
c.	In gate column (250 x 400 x 3500), 2nos	0.70	m ³			
d.	In pedestrain gate column (250 x 250 x 3500), 2nos	0.31	m ³			
e.	In capping beam 150thk, Length 135m	3.04	m ³			
	<u>Sawn formworks inclusive to all shuttering propping and scaffolding as described;</u>					
e.	In stiffner column (150 x 150 x 2900) , 46nos	80.04	m ²			
f.	In gate column (250 x 400 x 3500), 2nos	9.10	m ²			
g.	In pedestrain gate column (250 x 250 x 3500), 2nos	7.00	m ²			
h.	In capping beam 150thk, Length 135m	40.50	m ²			
	<u>High Tensile Steel Reinforcement fabrication bending and fixing as described;</u>					
i.	In stiffner column (150 x 150 x 2900) , 46nos Steel Bars (4T-10)	329.23	kg			
j.	(R6 @ 150) In gate column (250 x 400 x 3500), 2nos	118.59	kg			
k.	Steel Bars (6T-12)	24.86	kg			
l.	(R6 @ 150) In pedestrain gate column (250 x 250 x 3500), 2nos	13.76	kg			
m.	Steel Bars (4T-10)	17.28	kg			
n.	(R6 @ 150) In capping beam 150thk, Length 135m	11.64	kg			
o.	Steel Bars (4T-10)	333.33	kg			
p.	(R6 @ 150)	120.01	kg			
BILL 33	MASONRY WORKS					
	<u>Supply and installation of CHB Blocks blocks 4" x 6" x 12" for both internal and external walls as laid per manufacturer's instruction as described;</u>					
a.	In Exterior Walls	350.90	m ²			

ITEM	DESCRIPTION	QTY.	UNIT	UNIT PRICE	AMOUNT	REMARKS
BILL 34	WALL FINISHES					
	Cement Plaster <u>Cement and sand mixtures 1:4 applied in 2 coats on masonry surface in fair face finish to receive wall finishing as described; Allow for provision of 50mm chamfer on wall top surface</u>					
a.	25mm plaster steel trowel finished to walls, beams and columns in external walls	857.05	m ²			
c.	Allow for PVC/Nylon mesh reinforcement @ all joints between walls and concrete.	1.00	item			
d.	Allow expansion grooves in plaster wall up to 12mm wide and deep filled with sealant.	1.00	item			
	Paintwork <u>Prepare and apply 1-coat of exterior Wallsealer (Sigma brand or approved equivalent) and 2-coats of Weathershield Emulsion Paint (Sigma brand or approved equivalent) on surface as described; Allow for application of putty and sanding to fair finish;</u>					
e.	In Boundary wall	842.41	m ²			
BILL 35	DOORS & WINDOWS					
	<u>Fabrication and installation of steel gates as specified in drawings. Rates shall be inclusive of hinges,locks, guides, rails and all incidental accessories.</u>					
a.	In Pedestrian gate 2 - panel swing open steel door size: as per drawing	1.00	item			
b.	In Vehicle Gate 2- panel sliding steel door size: as per drawing	1.00	item			
	<u>Provide 1 coat of Red Oxide and 2 Coats of Enamel Paint to all surface of pipe, angle, clip, plates and other metal surfaces</u>					
c.	In Steel gates	1.00	item			
BILL 36	ELECTRICAL FIXTURES AND FITTINGS					
	<u>Supply, installation and testing, of conduit pipe, fittings & fixtures shall be executed as described in drawings and conformance to local regulation & to adhere with Local Electrical Authority's requirements. Rates shall include for screws, nails, bolts, nuts, brackets, straps, rivets, plugs and all incidental accessories;</u>					
	<i>Electrical Fixtures and Fittings;</i>					
a.	Out door Globe Light	4.00	nos			
b.	Photocell switch	1.00	nos			
c.	<u>Supply & installation of Wire/conduit/boxes/trays of the above inclusive of necessary connections. Conduit encased in walls, columns & beams;</u>	1.00	item			
BILL 37	ADDITIONS & OMISSIONS					

- 1) The contractor shall ascertain that the work characters stipulated herein shall complete the whole of the work. No changes or variation whatsoever shall be entertained unless otherwise the written instruction from the owner or owner's originated changes order.
- 2) All materials shall be of approved quality delivered and fixed in first class workmanship.