BILL OF QUANTITIES
PENDING WORKS OF CT AND MEMOGRAPHY AREA AT R. UGOOFAARU REGIONAL HOSPITAL. (BALANCE WORK).

Item	Description	Unit	Quantity	Rate/ Unit	Rate/ Unit	Total Unit Rate	Amount
				Material	Labour	Rates per Units	
	BILL No: 01 **PRELIMINARIES**						
1.1	**General Notes**						
(1)	Abbreviations						
	m - meter						
	No - numbers						
	m^3 - cubic meter						
	m^2 - square meter						
	Lm - Linear meter						
	KG - Kilograms						
	incl - including						
	mm - millimeter						
	dia - diameter						
	SS - Stainless Steel						
	GI - Galvanized Iron						
	NOTE: Rate shall include for all materials, items, fittings, accessories & labour. Contractor must refer to drawings, specification before pricing. All the details are provided in drawing. All materials must be approved by the consultant/client representative before commencing the work.						
1.2	**Clean-up**						
(1)	Allow for clean-up of completed works and site upon completion.	Item	1.00				
1.4	**INSPECTION TRIPS**						
(1)	Arrange inspection trips to a consultant, each inspection trip takes 2 days, Ifuru / Ugoofaru/Ifur sea transport (Speed boat) as well as accommodations (2 Air condition room) per trip to be include.	No	2.00				

	BILL No: 01 PRELIMINARIES **TOTAL OF BILL No: 01 - Carried over to summary**						
	BILL No: 02 **MASONRY AND PLASTERING**						
2.1	**General** 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 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 joists, bearers or similar, temporary supports to openings, templates, reinforcement in walls and for all necessary making good. Bedding mortar (mixing ratio 1:4 i.e. cement: manufactured sand) shall be of OPC & fine aggregate shall be imported river sand shall be approved in grading & clean from any harmful substance. Masonry work shall be done with approved Machine compact cement blocks (300X150X150) with no defects. Lay in line and length as per approved working drawing Block making (mixing ratio 1:4 i.e. cement: Local sand, Free from salt) shall be of OPC & Local sand free form salt.						
2.6 (1)	**Trenches.** Making of Trench as per drawing, Rates includes the masonry works for trench and laying shera board as per drawing.	m^2	22.00				
	BILL No: 02 - MASONRY AND PLASTERING **TOTAL OF BILL No: 02 - Carried over to summary**						
	BILL N0: 03 **DOORS AND WINDOWS**						
3.1	**General** **Timber doors,** Fabricate the doorframes and door panel to specified size using recommended timber fix same and other fittings such as locks etc. wood Paint specified and shown in approved working drawings and installation should be as per technical specifications. Rates shall include for locks (i.e. security lock & dead lock), latches, closures, push plates, pull handles, bolts, kick plates hinges, screws, washer and all door and window hardware and these materials should be of ss steel according to drawing and of superior quality.						

	Aluminum Doors and windows, Fabricate and fix in position the aluminum doors and window frame - aluminum doors and window (white powder coated, 60-80 micron, 1.5mm profile thickness) using recommended material with specified fixtures as shown in approved working drawings and installation should be as per technical specifications. Rates shall include for locks, latches, closures, push plates, pull handles, bolts, kick plates hinges, screws, washer and all door and window hardware and these materials should be of ss steel according to drawing and of superior quality. (a) All door and window frames and panels shall be as specified in the drawing and timber boarder to be fixed all timber doors. (b) All glazing shall be 6mm Tinted. **(Profiles to be chosen by client).**						
3.2	**<u>Door / Windows units</u>**						
(1)	Fabricate and Fixing of timber Door with panels (D1) with the frame as per the drawings, the width of the door frame should be the same as wall thickness. also timber border (teak wood) on both sides of the door. Door panel to be fabricated with a timber frame with 6mm thick teak wood plywood on both sides also hand rain to be fixed on both sides of all panel. finishes of the door should be varnish finish.	Item	1.00				
(2)	Fabricate and Fixing of timber Door with panels (D1A) with the frame as per the drawings, the width of the door frame should be the same as wall thickness. also timber border (teak wood) on both sides of the door. Door panel to be fabricated with a timber frame with 6mm thick teak wood plywood on both sides also hand rain to be fixed on both sides of all panel. finishes of the door should be varnish finish.	Item	3.00				
(3)	Fabricate and Fixing of timber Door with panels (D2) with the frame as per the drawings, Lead sheets to be fixed with door frame and panel as per drawing (lead sheets will be provided by the client), the width of the door frame should be the same as wall thickness. and thickness of the door should be 75mm thick also timber border (teak wood) on both sides of the door. Door panel to be fabricated with a timber frame with 6mm thick teak wood plywood on both sides also hand rain to be fixed on both sides of all panel. finishes of the door should be varnish finish.	Item	1.00				
(4)	Fabricate and Fixing of timber Door with panels (D3) with the frame as per the drawings, Lead sheets to be fixed with door frame and panel as per drawing (lead sheets will be provided by the client), the width of the door frame should be the same as wall thickness. and thickness of the door should be 75mm thick also timber border (teak wood) on both sides of the door. Door panel to be fabricated with a timber frame with 6mm thick teak wood plywood on both sides also hand rain to be fixed on both sides of all panel. finishes of the door should be varnish finish.	no	2.00				
(5)	Fabricate and Fixing of timber Door with panels (D4) with the frame as per the drawings, the width of the door frame should be the same as wall thickness. also timber border (teak wood) on both sides of the door. Door panel to be fabricated with a timber frame with 6mm thick teak wood plywood on both sides also hand rain to be fixed on both sides of all panel. finishes of the door should be varnish finish.	no	1.00				
(6)	Fabricate and Fixing of timber Door with panels (D5) with the frame as per the drawings, the width of the door frame should be the same as wall thickness. also timber border (teak wood) on both sides of the door. Door panel to be fabricated with a timber frame with 6mm thick teak wood plywood on both sides also hand rain to be fixed on both sides of all panel. finishes of the door should be varnish finish.	no	2.00				

(7)	Fabrication of Timer frame for W1, Lead sheets to be fixed with the frame (lead sheets will be provided by the client),	no	1.00				
	BILL N0: 03 - DOORS AND WINDOWS **TOTAL OF BILL No: 03 - Carried over to summary**						
	BILL N0: 04 **TILING**						
4.1	**General** Prepare surface for approved bedding tiles with reach bedding materials as per the technical specifications & approved working drawings, fix tiles with ct grout in a precise manner to maintain correct alignment, applying tile grout and wiping any excess grout to ensure the required standards of finished works. Rates shall include for: fixing, bedding, grouting, and pointing materials; making good around pipes, sanitary fixtures, and similar; cleaning down and polishing any other similar works to ensure the required finish. All tiles shall be White ceramic / Homogeneous or equivalent.						
4.2	**Floor finish**						
4.2.1	**Vinyl Floring** Supply and complete installation of Industrial quality Vunyl planks to be installed with Consultant instruction, Rates include supply and complete installation, preparation of floor as per manufactures standards. Vinyl planks to be installed as per manufactures instructions. Size of planks: 920X180mm. Thickness: Minimum 3mm Anti wear layer: Minimum 0.3mm						
(1)	Supply and Complete installation of Vinyl flooring,	m^2	113.00				
	BILL No: 4 - TILING **TOTAL OF BILL No: 4 - Carried over to summary**						
	BILL No: 5 **PAINTING**						
6.1	**General** **Interior walls** ***Must be putty finish with texture painting(Scandinavian finishing), Terraco decorative paint or equivalent paint.*** Rates includes Erection of scaffolding, preparing working platforms, applying sealer and two coats of paint as specified in the working drawings. Removal of scaffolding if any after completion of work. 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 and including soffits and sides of beams.						

	Exterior & Exterior Ceiling (interior and exterior) shall be of 2 coats of (interior paint over 1 coat of primer or equivalent. Erection of scaffolding, preparing working platforms, applying sealer and two coats of paint as specified in the working drawings. Removal of scaffolding if any after completion of work. Rates shall include for the provision 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 window furniture. All painting work shall be carried in accordance with the Specifications For internal painting must be putty finish with texture painting(Scandinavian finishing), Terraco decorative paint or equivalent paint						
6.2	**Interior Wall painting**						
(1)	Internal painting as per specification given above. (putty finish with texture painting (Scandinavian finishing), Terraco decorative paint or equivalent paint)	m^2	320.00				
6.3	**Exterior Wall painting**						
(1)	External painting as per specification given above. (putty finish with texture painting (Scandinavian finishing), Terraco decorative paint or equivalent paint)	m^2	30.00				
6.4	**Interior Ceiling painting**						
6.4.1	Interio paint putty finish on ceiling and beams, Gypsum board of all internal surfaces. 1 coat of primer & 2 coats of paints.						
(1)	Interior paint with putty paint finish	m^2	114.00				
6.5	**Wall paper**						
	Design supply and complete installation of Firenze or equivalent Vinyl Wallpaper, Rates include to the preparation of walls, Edge of doors and windows, supply, and complete installation of wallpaper, at the proposed areas,						
6.5.1	the weight of wallpaper must be minimum 350g per m^2, All wallpaper must be scrubbable Very good lightfastness and peelable/easy to remove. The wallpaper must be installed with a water-soluble wall covering adjustive. wallpaper selection and design to be finalized by the consultant. Supply and completion of custom designed wall paper show in the Material selection and pictures. (Pantone 15-4020 Cerulean).						
(1)	CT Room and Radiology department walls	m^2	320.00				
	BILL No: 5 - PAINTING **TOTAL OF BILL No: 5 - Carried over to summary**						
	BILL No: 6 **ELECTRICAL INSTALLATIONS**						
7.1	**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 (d) Each Light/ light fixture and its switch is measured as one point; similarly each fan or each socket outlet is measured as one point; (e) Rates shall include for supply and complete installation (f) Point wiring including cables, socket outlets, patch codes and all the other necessary arrangements to complete to working order as per the detailed drawings and specifications. Cable shall be laid in PVC conduits when laid inside the ceiling.						
7.2	**Electrical Boards**						
(1)	Three phase electrical distribution board **(wall embedded)**: Supply and installation of D-Board . Rates Shall include all required Brackets and other electrical appliance as per drawings and Maldivian Regulations (wall embedded). All the light circuit should be one DB Sockets to be one DB. Rates to be included to connect main cable from nearest DB to hall area DB and complete all the works.	no					
(2)	Completion of main connection from hospital panel board, size of cable should be 16m2 foru core cable, Rates includes to laying cable as per MEB regulatios. Length of cable and how to lay the cable to be check by contractor before bidding.	Item	1.00				
7.3	**Electrical Wire Testing**						
	Testing three phase Electrical wiring in walls as specified to:						
(1)	Wiring with 2.5 mm^2 cable to Power points (single sockets)	points	13.00				
(2)	Wiring with 2.5 mm^2 cable to Power points (Double sockets)	points	14.00				
(3)	Wiring with 2.5 mm^2 cable to 1 x 15 Amp Power points	points	3.00				
(4)	Wiring with 6 mm^2 cable to 1 x 15 Amp Power points (for AC)	points	7.00				
(5)	Wiring with 2.5 mm^2 cable to lights and fan	points	22.00				
7.4	**Lighting / Fan**						
(1)	Ceiling diffusing embedded down light 150mm dia with 19W LED bulb, (Philips) E27, Cool day light, (not crystal light or not Stellar bright) Total lumen 2300. or equivalent,	no	22.00				
7.5	**Socket outlets**						
	(a) All socket outlets shall be "Legrand" or equivalent.						
(1)	1x15Amp wall socket outlet,	no	3.00				
(2)	1x15Amp wall socket outlet, for AC	no	7.00				
7.6	**Data, Network**						
	Design, Supply and Complete Installation of computer networking, including CAT6 Cabling, Sockets and double layer switches, Allow for the provision of a completed and detailed set of shop drawings						
(1)	Completion of Data Network points (Data outlet (single gang))	No	6.00				
(2)	Completion of Telephone points (Telephone outlet (single gang)	No	5.00				
(3)	Suply and completion of 16 port network switch, double layer switch, Dlink or equivalent	No	1.00				
7.9	**Finger print scanner**						

	(a) Finger printing scanner should be fixed on both side of the door at Main entrance to get excess IN and OUT (b) Finger scan reader brand ZKFR 1200 with both card and finger reading (c) A controller should come with a back-up battery in case power loss.						
(1)	Supply and complete installation of Access control unit, specification mentioned above. Readers on both side. (Main entrance of Dialysis, CT room)	Item	2.00				
7.10	**<u>Distribution Boards</u>**						
(1)	Design, Supply and Complete Installation of distribution board for **UPS Incommer (Breaker in UPS Room).** Rates include to supply and complete installation as per the following requirements. - Incoming :200A MCCB - Metering: Multifunction Power Meter (A/V/Hz/KW) - Indicators: LEDs per phase on incoming and outgoing - Enclosure: Should be included - Cable terminals Should be included	Item	1.00				
(2)	Design, Supply and Complete Installation of distribution board for **200A PDB (inside CT room)** Rates include to supply and complete installation as per the following requirements. - Incoming :200A MCCB - Outgoing : 3 pole, 160A MCCB x 01 Nos - Metering: Multifunction Power Meter (A/V/Hz/KW) - Indicators: LEDs per phase on incoming and outgoing - Enclosure: Should be included - Cable terminals Should be included	Item	1.00				
7.10	**<u>Main Cable</u>**						
(1)	Supplying of 90sqm unarmed cable to the site to connect UPS to CT Genset and Gantry.	m	20.00				
(2)	Supplying of 70sqm earth cable to the site .	m	25.00				
7.11	**<u>Earthing</u>**						
(1)	Three earth pits with resistance less than 2 ohms Distance betwwen each pit must be 3 meters 3/4 earth rods must be used and must have clamps at the end Erthing cable must be 50sqmm and length of erting cable is 15M. 3 of the earth pit should be covered junction with cover. Completion of 3 earth pit with earthing cable and completion of earthing as per the above requirements.	Item	1.00				
	BILL No: 6 - ELECTRICAL INSTALLATIONS **TOTAL OF BILL No: 6 - Carried over to summary**						
	<u>BILL No: 7</u> **<u>PARTITION WORKS.</u>**						

8.1	**Partition Works.**						
8.1.1	General						
	(a) Rates shall include for: insect treatment, all labor 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, screws and the necessary fixing cleats, putting and painting.						
8.2	**Closing of existing windows**						
(1)	Closing of existing windows at the inside of the room, Rates included Design and fixing the frame with shera board with both side painting, and completion of the task. Size of windiws is 1250X1860mm, No of windows is 2.	m^2	4.65				
8.4	**Registration counter**						
(1)	Design and Fabrication of Registration counter as per Floor plan, Length of counter is 1.5 Meter, Fabrication of counter to be timber and appropriate thick plywood with PVC fomica. Top oc counter and table to be use granite top.	No	1.00				
	BILL No: 7 - WOOD WORKS						
	TOTAL OF BILL No: 7 - Carried over to summary						
	BILL No: 08						
	AIR CONDITIONING SYSTEM						
9.1	**General**						
	(a) Rates shall include for detail design, supply and complete installation of A/C units pipework, insulation, fixings, electrical wiring, drain pipes etc.						
	(b) The Contractor shall provide detailed and complete set of shop drawings						
9.2	**Air Condition**						
9.2.1	Design, supply and complete installation of indoor unit, with 40Ø drop in water (type) 25ø extended as Cd drop in 32 flex conduit 18ø Cd drain (typ0 run above FC insulated, All AC unit shall be ceiling cassette split type full set (INVERTER TYPE).						
	(b) All the Air conditions are Inverter type, LG or equivalent brand, All indoor unit should be ceiling cassette type.						
(1)	CT Room, 36000BTU with 1 wired remote connect both AC.	Item	2.00				
(2)	Control Room, 12000BTU with 1 wired remote.	Item	1.00				
(3)	Memography, 12000BTU with 1 wired remote.	Item	1.00				
(4)	Radiologist, 12000BTU with 1 wired remote.	Item	1.00				
(5)	UPS Room, 18000BTU with 1 wired remote connect both AC.	Item	2.00				

(6)	Waiting area, 12000BTU with 1 wired remote connect both AC.	Item	1.00				
	BILL No: 8 -AIR CONDITIONING SYSTEM **TOTAL OF BILL No: 8 - Carried over to summary**						
	BILL No:09 **TENDERER'S ADJUSTMENTS** (a) Provide detail description of work items under each bill and insert extra pages if required.						
10.1	**Additions**						
(1)	PRELIMINARIES, Bill no. 01						
(2)	MASONRY AND PLASTERING, Bill no. 02						
(3)	DOORS AND WINDOWS, Bill no. 03						
(4)	TILING, Bill no. 04						
(5)	PAINTING, Bill no. 06						
(6)	ELECTRICAL INSTALLATIONS, Bill no. 7						
(7)	WOOD QWORKS, Bill no. 8						
(8)	AIR CONDITIONING SYSTEM, Bill no. 10						
(9)	TENDERER'S ADJUSTMENTS, Bill no. 11						
	ADDITIONS TOTAL						
10.2	**Omissions**						
(1)	PRELIMINARIES, Bill no. 01						
(2)	MASONRY AND PLASTERING, Bill no. 02						
(3)	DOORS AND WINDOWS, Bill no. 03						
(4)	TILING, Bill no. 04						
(5)	PAINTING, Bill no. 06						
(6)	ELECTRICAL INSTALLATIONS, Bill no. 7						
(7)	WOOD QWORKS, Bill no. 8						
(8)	AIR CONDITIONING SYSTEM, Bill no. 10						
(9)	TENDERER'S ADJUSTMENTS, Bill no. 9						
	OMISSIONS TOTAL						
	BILL No: 09 - TENDERER'S ADJUSTMENTS **TOTAL OF BILL No: 09 - Carried over to summary**						