



**KINGDOM OF SAUDIA ARABIA
THE SAUDI FUND FOR
DEVELOPMENT (SFD)**



Project Name

**Reconstruction And Repair Works Of More Than 150 Effected Houses
For Non-Refugees And Rehabilitation And Furniture For Field
Playgrounds And A Culture Center**

Funded By

**Kingdom of Saudia Arabia
Through The Saudi Fund For Development (SFD)**

Implemented By

**United Nations Relief And Works Agency (UNRWA)
Through the United Nations Development Programme (UNDP/PAPP)**



*Empowered lives.
Resilient nations.*

INVITATION TO BID

Invitation to Bid No: ITB- PAL-0000047912

**LOT 8: Rehabilitation, Finishing and Furnishing of the Arab Orthodox Cultural Center
State of Palestine**

**United Nations Development Programme
Programme of Assistance to the Palestinian People
June, 2018**

Bill of Quantities (BOQ)

Rehabilitaion, Fininshing and Furnishing of the Arab Orthodox Cultrural Center

ITB 2018-***

No.	Item	Unit	Qty.	Unit Rate USD	Total USD
	Main Building				
	<p>General: The works include:</p> <p>Supplying, installing, commissioning & testing the following items with all the required materials to complete the job in accordance with the BOQ, drawings, specifications and the engineer's instructions. The prices should include all the materials and accessories needed to complete the job.</p> <p>-The Contractor has to submit Detailed Shop Drawings to be approved by the Engineer before commencement of the work.</p> <p>-All equipment shall be produced by European manufacturers in accordance with the European Standard.</p> <p>-The contractor must submit the original catalogues with technical data sheets, all certified and calculation sheets test for all different systems components according to the required parameters and engineer's instructions in addition to the certificate of origin.</p> <p>- The unit Price will include required demolishing, dismantling any works (concrete , block works, tiles, granite, plastering, paintingetc.) to implement the new design according to drawings and reinstatement of the relevant existing works including supplying , transporting and installing of nessacery materials, equipment, workmanship, testing, removing all surplus materials to places directed by the engineer, handing the dismantled materials to the owner as directed by engineer, and all direct and indirect works in addition to works needed to finalize items according to new design drawings and specifications and engineer's instructions.</p>				
	Bill No. (1) Concrete & Block Works				
	<p>Unit rates of Items shall include:-</p> <ol style="list-style-type: none"> 1. All form works and shuttering (new lumber for shuttering painted by special oil (fuel or burnt oil is not accepted) in any form, shape and size . Making chamfered and curved edges, allowing for and making grooves and sleeves and using Tie Rods (Batant) for concrete walls ; removal of forms and cleaning of all exposed tie wires and rods. Steel forms must be used in shuttering the external decorations. 2. Supplying of materials, Casting, vibrating and curing as per specifications. 3. Approved additives and admixtures. 4. Developing new concrete job mix designs, sampling , testing and providing test results certificates, storing and saving of samples. 5. Painting of exposed surfaces of underground reinforced concrete elements with two coats of hot bituminous paint (75/25) after primer layer , the strokes of each layer to be opposite to each other. 6. Preliminary installations for Electrical, plumbing and floor drainage in all floor slabs including the final floor . 7. Compaction and testing under the foundation, ground beams, ground slabs and Apron. the compaction should not be less than 98% of MDD. 8. Supply, fabricate and fix reinforcement steel ($f_y = 410 \text{ N/mm}^2$) for all the structural elements according to drawings and engineer's instructions for any grade, size and length as detailed in the drawings, storing on site including cutting, bending and fixing in position and providing all tie wires, spacers, shop drawings, testing and bar bending schedules . 9. In rehabilitation works, supply fabricate and fix steel dowels to the existing concrete using special adhesive materials. Cleaning and treatment with special materials of the existing steel reinforcement, will included in Items rates. 10. In case there is intersecting of existing footings with the new proposed ones, the contractor is deemed to have included in his price the cost of required modifications including design , extra works and all needed materials. 11. The works shall include removal of any existing insulation sheets, foam concrete, drilling and fixing reinforcement dwells steel in the existing slab, cleaning rust , treatment with special materials and reinstatement of the insulation layer around the new constructed part inclusive of all needed materials and workmanship. 12- All safety measures, scaffolding and all required by the engineer 				

No.	Item	Unit	Qty.	Unit Rate USD	Total USD
	13- Columns are to be measured from the top level of the slab to the bottom level of the bottom upper slab or the bottom of drop beam. 14- The concrete surface of slabs must be finished with mechanical steel trowel machine. 15-Contractor shall submit shop drawings for a approval by the Engineer before executing the work. As-built drawings shall be submitted after completing the work.				
1.1	Supply & cast ready mix reinforced concrete (B250) for doors & windows lintels, sills and canopies including all the required materials as shown in the drawings.	M ³	25		
1.2	Supply and cast ready mix reinforced concrete B(250) kg/cm2 for the ground slab 10cm thick with steel mesh 8mm diameter every 20cm including polythene sheets below concrete slab and supply and compact 25cm clean(Safia sand) to 98% of MDD.as per specifications.	M2	300		
1.3	Supply and cast ready mix reinforced concrete B (300) kg/cm2 for columns as per specifications and drawings.	M3	3		
1.4	Supply & cast ready mix reinforced concrete (B250) for elevators slabs and walls with steel mesh 12mm diameter @ 20cm in two layers including all the required materials as per specification, drawings and engineer's instructions.	M ³	22		
1.5	Supply and cast ready mix concrete B (300) kg/cm2 for suspended slab 25cm thick, concrete parapet, concrete hollow block 40*25*17 cm all drop and inverted beams and all other materials as per specifications and approved shop drawings.	M2	30		
1.6	Ditto but for various reinforced concrete elements such as internal and external stair parapets, edge beams, internal ramps and any other required concrete element to apply the new design as per specification, drawings and engineer's instructions.	M ³	15		
	B- Block Works: - The unit rates include : 1- Supplying and testing hollow or solid cement and Etong block from good and approved factory in perfect dimension and build it in good manner with a compressive strength 35 kg/cm ² for hollow block and 60 kg/cm ² for solid block and Etong density 450-550 kg/m3 2- Cement mortars, galvanized steel ties, reinforced concrete infill (B250) between columns & concrete or Etong, block walls (10-20 cm wide) and steel with 1Ø8mm/40cm horizontally and 2Ø8mm vertically according to drawings, pipes encasement, false columns 20x20 cm/4.0m of the walls with 4Ø12mm and 1Ø8mm /20cm 3-Supplying and installing bituminous paper between block work and drop beams and testing as well as all requirements needed to finish the works. 4-New walls to be cured as per specifications. 5-Contractor shall submit shop drawings for a approval by the Engineer before executing the work. As-built drawings shall be submitted after completing the work.				
1.7	Supply and build hollow cement blocks 40x20x20cm	M ²	1,300		
1.8	Ditto but 40x20x 10 cm thick	M ²	500		
1.9	Supply & build ETONG block wall (block size 40 x 20 x 20cm).	M ²	100		
1.10	Supply and install high quality natural stone (to match the existing) of Jammaien west bank molatash stone (Band Ardi layer depth 1.6 m) 5.0 cm thick with concrete backing filling 5.0cm (Grade B-200) with steel mesh 6mm dia @ 20cmm for the main building parapet. The price includes scaffolding, cleaning, pointing, galvanized steel anchors to walls / columns, wooden piles, adhesive materials to fix the stone, galvanized steel plate making any required decoration, shapes ,colours, and other required materials to complete the work as per specifications and the engineer's instructions.	M ²	130		
1.11	Ditto but smooth polished stone for decoration, copping and where needed.	M ²	70		
1.12	Cleaning the existing natural stone façade mechanically. the price includes scaffolding, complete polishing and cleaning for the existing curtain walls, windows, doors, and existing external marble and granite stairs . the price also includes maintenance, replacement of defected items by new one, pointing, adhesive materials , and other required materials to complete the work as per specifications and the engineer's instructions.	L.S	1		
Total of Bill No. (1)					

No.	Item	Unit	Qty.	Unit Rate USD	Total USD
Bill No. (2) Finishing Works					
	<p>A- Plaster works : Unit rates shall include :</p> <p>1-Supply of all needed materials, including galvanized angles for the corners, windows and external decoration as well as the use of galvanized wire mesh between concrete and block work.</p> <p>2-Preparation works of all surfaces by covering all gaps, openings and covering conduits of electricity, water supplies , etc., with a galvanized wire mesh at least 20cm width filled by mortar (1:1) cement : sand and the work includes trimming of concrete surfaces and removal of wires and nails and cleaning of surfaces to be ready for plastering.</p> <p>3- Contractor shall take into consideration that all – direct and indirect works and expenses required for the completion of the following items are included in the unit price.</p> <p>4- Checking out and testing all of the preliminary installation in ceilings and walls such as electrical, water supply and waste water pipes and repairing the damages if any wether new or existing.</p> <p>5- Curing with water for at least three days for each coat.</p> <p>This should be done prior to commencement of plastering and after obtaining a written approval from the supervision engineer.</p> <p>6- Scaffolding, removal of any defectd existing plaster layer, maintenance all existing plaster after removal specified area, repairing cracks, preparing the surface to install the new layer, covering the windows by polyethene sheets and any other required works to complete the job according to specifications, and engineer instruction.</p> <p>7- The contractor should keep the high quality of the works including the verticality of the existing walls and plastering works and shall maintain and replace the defectd surfaces of the existing plastering to match the specifications.</p> <p>8- Mock up for approval of the engineer before starting the works.</p> <p>9-Contractor shall submit shop drawings for a approval by the Engineer before executing the work. As-built drawings shall be submitted after completing the work.</p> <p>B- Tiles works Unit rates shall include :</p> <p>1. Samples for approval and all the required tests.</p> <p>2. Cleaning, skirting, mechanical polishing and pointing using colored grout if needed.</p> <p>3. Plastic angle beads for ceramic wall tiles at the corners and top and sides of ceramic edges.</p> <p>4. Grade (A) marble whether Italian or local have to be (free from cracks, holes & pits, homogeneous in color and approved by the engineer must be used.</p> <p>5. Marble chips, shall be used in precast terrazzo tiles and skirting.</p> <p>6. Only grade A imported glazed ceramic tiles (floor and wall) European origin shall be used, and approved by the Engineer .</p> <p>7- Any required additional semi dry cement sand Mix).to reach the required finish levels according to drawings .</p> <p>8- Insulation Works under ceramic floor tiles for all wet areas and kitchens using primer coat, two hot bitumen coats (75/25).</p> <p>9-All skirting which will be fixed to walls using minimum 1cm cement mortar.</p> <p>10-Contractor shall submit shop drawings for a approval by the Engineer before executing the work. As-built drawings shall be submitted after completing the work.</p> <p>11-Contractor shall submit shop drawings for a approval by the Engineer before executing the work. As-built drawings shall be submitted after completing the work.</p>				

No.	Item	Unit	Qty.	Unit Rate USD	Total USD
	<p>C- False ceiling Works: The unit rates shall include: 1- Suspension system to walls and ceiling and all required decorations. 2- Preparation and submission of shop drawings and as built drawings. 3-Shop drawings shall be coordinated with other trends. 4- Making proper openings for maintenance with appropriate size. 5- painting of all new gebsume board works(walls and ceiling) with the required paints. 6- Measurements of false ceiling works will be taken for horizontal projection only and all openings will be deducted such (diffusers, air grills, lighting fixtures, ...etc.) and the unit price shall include the vertical parts , corniches and decorations works as per drawings and engineer instructions 7-Contractor shall submit shop drawings for a approval by the Engineer before executing the work. As-built drawings shall be submitted after completing the work.</p> <p>D- Painting works Unit rates shall include : 1-Supplying , testing and installing (High quality) painting will be used including successfully complete the works. 2-Supplying of all materials, scaffolding, workmanship & tools and whatever else needed, 3- Preparation of surface including applying putty ,sanding , cleaning sealing and priming...etc. 4-Any taping and covering to protect horizontal and vertical items and surfaces. 5-Contractor shall submit shop drawings for a approval by the Engineer before executing the work. As-built drawings shall be submitted after completing the work.</p> <p>E- Insulation works : The unit rate include the following : 1-The existing Insulation of the roof should be tested before the works " within the mobilization period " by the contractor to assure slopes and correct to avoid any stagnation of water . 2-The contractor is responsible to repair any damages caused by him on his own cost. 3-Mesurment will be for horizontal projection only . 4-Contractor shall submit shop drawings for a approval by the Engineer before executing the work. As-built drawings shall be submitted after completing the work.</p>				
2.1	Supply & execute internal plastering with minimum 13mm thick to soffits & ceilings including galvanized metal lath angles for concrete edges & chicken wire at the intersection of concrete & block works, pipes & cement rendering as per specifications and the engineer's instructions.	M ²	500		
2.2	Supply & execute internal plastering with minimum 15mm thick to walls, beams & columns including galvanized metal lath angles for columns, edges & chicken wire at the intersection of concrete & block works, pipes & cement rendering as per specifications and the engineer's instructions.	M ²	3,500		
2.3	Ditto, but for external plastering with minimum 15mm thick to walls and soffits the price including additional layer of 5mm thick lime free mortar (mix 1: 3) as per specifications and the engineer's instructions.	M ²	100		
2.4	Supply and install Crema Nova marble size (to match the existing) x 3cm thick for staircase walls laid on 2.5 cm thick mortar the price includes steel mesh 6mm die @ 20cmm galvanized steel 4mm diameter anchors, cohesive materials, polishing , pointing and any required to complete the work as per specifications, drawings, and the engineer's instructions.	M ²	280		
2.5	Ditto but Crema Nova marble size 15x15x1cm thick for walls laid on 2.5 cm thick mortar bed as per specifications, drawings, and the engineer's instructions.	M ²	180		
2.6	Supply and lay Crema Nova marble stair treads size (to match the existing type) of finished size minimum 30 wide x 3cm thick chamfered once, and laid on 2.5cm thick mortar bed and the price includes Crema Nova marble stair risers 2cm thick for internal steps including 5*3cm chamfered and polished crema nova edges for each step as per drawing (AR-53) as per specifications, drawings and the engineer's instructions.	RM	525		
2.7	Ditto but including skirting 2cm thick as per specifications, drawings and the engineer's instructions.	RM	125		

No.	Item	Unit	Qty.	Unit Rate USD	Total USD
2.8	Supply and fix Crema Nova marble (grade A) size 30x60x3cm thick for staircase landings and rooms laid on 2.5cm thick cement mortar bed , as per specifications, drawings and the engineer's instructions.	M ²	200		
2.9	Ditto but including skirting 60cmx 10cmx2cm for staircase and rooms including all materials and testing as per specifications, drawings and the engineer's instructions.	M ²	100		
2.10	Supply and install high quality Polyvinyl 1.0cm thick for Gym floor. Works include supplying and installing marble chips terrazzo tiles (grade A) size 25x25x2.5cm for floor, supplying and installing laid on 2.5cm mortar bed and 5 cm thick dry clean sand , semi dry mix of sand and cement to fill depressions and maintain the design level skirting (marble ships terrazzo 25x10x1.0 and Polyvinyl 1.0cm thick) , and all materials and testing as per specifications, drawings and the engineer's instructions.	M ²	410		
2.11	Supply and install marble chips terrazzo tiles (grade A) size 25x25x2.5cm covered with parquet (Painted OAK wood 10 mm thickness) fixed with adhesive .works include supply and install 2.5cm mortar bed and 5 cm thick cement sand bed and skirting 25x10x1.0 cm The price includes all require materials and accessories to complete the work as per specifications, drawings and the engineer's instructions.	M ²	80		
2.12	Supply and install marble chips terrazzo tiles (grade A) size 25x25x2.5cm for floor .works include supply and install 2.5cm mortar bed and 5 cm thick cement sand bed and skirting 25x10x1.0 cm The price includes all require materials and accessories to complete the work as per specifications, drawings and the engineer's instructions.	M ²	300		
2.13	Supply and install glazed porcelain full body 1.2 cm thick (grade A) size30x60x1.2cm for floor. Works include supply and install 2.5cm mortar bed and 6 cm thick semi dry mix of sand and cement , and porcelain skirting 60 cmx 10cmx1.2 cm including all materials and testing as per specifications, drawings and the engineer's instructions.	M ²	450		
2.14	Supply and install Chaker Afuon marble for floors (grade A) size 30x60x3cm thick (to match the existing) .works include supply and install 2.5cm thick cement mortar bed and semi dry mix of sand and cement, making required slopes, and skirting 10x2.0cm as per specifications, drawings and the engineer's instructions.	M ²	1,000		
2.15	Supply and install local marble (grade A) 3cm thick for windows sills, doors threshold and roof parapet works include supply and install 2.5cm thick mortar bed as per specifications, drawings and the engineer's instructions.	M2	60		
2.16	Supply and install Creamy ceramic (25cm*60cm *10mm) wall tiles (grade A) 1.0cm thick including backing of 2cm mortar (1:3).	M ²	350		
2.17	Supply and install Creamy ceramic wall tiles (grade A) size 24x68 x1.0 cm including backing of 2cm mortar (1:3).	M ²	400		
2.18	Supply, test and paint the internal walls minimum two coats of bondrol, three coats of putty, one undercoat of undercoat and at least two coats of mat colored oil paint.	M ²	2,000		
2.19	Ditto but maintenance of the existing oil painted walls including any plaster maintenance, repairing cracks and removal of deteriorated paints if needed .Works include and all materials needed to finish the Works .	M ³	1,000		
2.20	Supply, test and Paint one-primer coat and minimum two coats of Poliside for ceiling stair case and drop beams .	M ²	500		
2.21	Ditto but for Maintenance of the existing painted internal ceilings staircase and drop beams . including any plaster maintenance repairing cracks and removal of deteriorated paints if needed .	M ²	1,000		
2.22	Supply and paint, the existing Gypsum false ceiling with at least two coats of high quality of colored acrylic paint (Supercryle) . the price includes any required maintenance, replacement of any defected part with approved boards, papers , putty. and all required materials to complete the work as per specification and engineer's instruction.	M ²	1,500		
2.23	Ditto, but for the existing internal gypsum wall.	M ²	400		
2.24	Supply, test and paint the internal walls minimum two coats of bondrol, two coats of putty, at least three coats of colored acrylic paint (Supercryle).	M ³	2,000		
2.25	Ditto but maintenance of the existing (Supercryle) painted walls including any plaster maintenance, repairing cracks and removal of deteriorated paints if needed .Works include and all materials needed to finish the Works .	M ⁴	1,000		

No.	Item	Unit	Qty.	Unit Rate USD	Total USD
2.26	Supply and fix ,fire rated gypsum boards one side for ceiling for lecture halls , classrooms and where needed including suspension system (hot galvanized metal studs at 50cm in both directions , frame "C" section in two direction, angles (each 60*40cm for both directions), bolts, screwsetc. The price includes, decorative Cornish (vertical and horizontal) and any decoration shape, including one undercoat primer, putty, two coats of Supercryle, all works according to specification, drawings and engineer instructions.	M ²	1,250		
2.27	Ditto, but for Gymnasium including decoration according to design drawings.	M ²	500		
2.28	Ditto but Anti-moisture false ceiling for toilet (to match the existing) .	M ²	115		
2.29	Supply and install colored suspended falsceiling Aluminum corrosion proof - open cell Ceiling System (COVERT 50*50*0.8 mm) thick for kitchen, the price includes all the needed Aluminum profiles and suspension system, decorative Cornish , shop drawing, and all accessories needed for fixation and all materials needed to finish the Works according to specifications , drawings and supervisor engineer's instructions	M ²	430		
2.30	Supply and install 3-D colored LED dancing floor with 50*50*12 cm fixtures of Aluminum alloy and LED lights covered with 12 mm frosted tempered glass IP 42 including WI-FI mobile phone remote control, the electrical works, preliminary installations, cables and conduits. Works include removing installing and reinstatement of the existing flooring and others to reach the original conditions of the Boll Room in addition to proper fixing as per the manufacturer instructions, design drawing, drawings (AR-32), (AR-25) and the engineer's instructions.	M ²	50		
2.31	Supply and install wooden posters 2x5cm natural hard wood Zan . The price includes painting with platoura paint and all required materials for fixation as per specifications, drawings (AR-25) and the engineer's instructions.	M.R	70		
2.32	Supply and install 50*50*5cm thick rubber flooring for area at the gym, the price includes all the needed materials for fixation as per specifications, drawings and the engineer's instructions.	M ²	42		
2.33	Supply and install Wood Wool bound with Portland cement (with decorative shape and colors) mineralized for thermal & acoustic panels and fire resistant mm thickness " CELENIT " or equivalent the price includes preparing decorative shop drawings for walls or/and ceilings, required calculation sheets, and all required works and materials to complete the work according to drawings (Dwg AR-31), specifications and engineer's instructions .	M ²	150		
2.34	Supply and install MDF wood for wall cladding, (two layers one of them 8mm thick the other one 16mm covered with Mahogany veneer) fixed to soft wood rails and stands of 5*5cm for internals and 5*10cm for edges in both directions with no more than 60cm spacing, the price includes , filling the space between rails and stands by rockwool 5cm thick 120kg/m3 density. works include fixation by hidden screws, any decorations to hide joints using aluminum films, corniches 14mm wide, 6 mm arm flex rubber, painting with one coat of sealer, two coats of approved platoura or Bakasher paint and one coat of lacquer, accessories and materials to complete the job as per specifications, drawings (AR-31) , (AR-22) and engineer instructions.	M ²	180		
2.35	Supply and install 22mm treated MDF boards covered with 6mm high quality carpet , the price includes supply and install two layers of arm flex rubber (the first layer 6 mm and the other 3 mm) according to drawings (AR-31) , as specifications and engineer's instructions.	M ²	200		

No.	Item	Unit	Qty.	Unit Rate USD	Total USD
2.36	<p>Supply and install clay roofing tiles (bricks) of red color Class (A), size 22×42 cm, 3 kg all according to the drawings (Dwg AR-55) for staircase, and battery room and any required area, specification and engineer instructions. The wood must be treated with anti rot paint. The item includes the following works:</p> <p>1. Supply and install Class (A) white Swedish wood 15x5 cm for the trusses with double main girder 10x5 cm free of knots painted with sanding sealer, all as drawings, specifications, and instructions of supervisor engineer.</p> <p>2. Supply and install Class (A) white Swedish wood 5x5 cm for the joists, painted with sealer, all as drawings, specifications, and instructions of supervisor engineer.</p> <p>3. Roofing tiles should be fixed according to the required slopes and proper fixation at slope of various places with all insulation and protection elements.</p> <p>4. Supply and install Covering with wooden sandwich 17mm thick. (covered with zan veneer) . Special insulation sheets for ceiling including all required materials to prevent water leakage to the wood. The price includes painting with one primer coats (sealer and at least two coats of lacquer paints), the installation of electrical connections according to the specifications, drawings, and the instruction of the supervisor engineer.</p> <p>5. Supply and install water drainage system including all required fittings and pipes of galvanized steel gutter (1.5 mm min. thick.) , 3 inch diameter UPVC pipes and all according to the instructions of the supervisor engineer.</p> <p>6. The contractor must approve all wooden sections before any installation and/or fixing process.</p> <p>7. Measurment will be according to the horizontal area, and the contractor should submit a shop drawing before starting the works.</p>	M2	140		
2.37	Ditto but for Pumps room including Galvanized steel profile for columns 10*10*3mm, 50*50*3mm pvc coted steel mesh , galvanized steel angels 50*50*4 mm , doors, looks, Ironmongeries' and covered the sides by colored polycarbonate sheets 3mm thickness for the whole Hight and all required materials and accessories to complete the job.	M2	60		
2.38	Supply and install steel fence for Generator and fuel tank rooms including colored Corrugated sheets 0.5mm , 50*50*3 mm pvc coated steel mesh , galvanized steel angels 50*50*4 mm (for fixation of steel mesh vertically and horizontally) , doors, looks, galvanized steel profiles 80*40*2.2mm for the roof purlins and girders (80 cm spacing) and galvanized steel profiles 80*80*2.2mm each 2 m for columns, gates and frames fixed to walls and floors by steel plate 20*20*6 mm and 4 bolts (20 mm diameter) , galvanized steel sheet 2 mm thick for gutter including UPVC 3 "pipes covered with 2mm thick galvanized steel sheets for rain water drainage , the Works include one primer coat, one under coat and minimum two coats of colored hummer paint in addition to all Accessories needed to finish the work according to specifications, drawings and the engineer's instructions.	M2	75		
2.39	Supply and fix fire rated gypsum boards for the partitions (two sides) with thickness of 12cm, including suspension system (frame "C" section in two direction, angles (each 60*40cm for both directions), bolts, screwsetc. The price includes, 7 cm PVC skirting, decorative Cornish (vertical and horizontal) and any decoration shape, including one undercoat primer, putty, two coats of Supercryle, all works according to specification, drawings and engineer instructions.	M2	50		
2.40	Supply and cast foam concrete with fine aggregates for roof screening of average thickness 8 cm as shown in drawing. The item will include making the concrete angle fillet 5x5cm around the boundary of the parapet and around opening in roof if exists.	M2	40		
2.41	Supply, lay and one layer of plasticized bitumen membrane with chipping 4mm thick, including priming concrete surface prior to laying, dressing to form water proofing seal with the necessary overlapping as per the manufacturer instructions and cover with concrete angle fillets and verticals parts skirting not less than 20cm .	M ²	50		
Total of Bill No. (2)					

No.	Item	Unit	Qty.	Unit Rate USD	Total USD
Bill No. (3) Carpentry & Joinery Works					
	<p>The unit rates shall include:</p> <p>1- supplying best quality of wood, frame cover mold, architrave, wooden frame.</p> <p>2-B (200) concrete filling for doors and jamb.</p> <p>3- All hard ware, lock type Wally switch or approved equivalent, brass hinges 10cm length (heavy duty), Galvanized steel fasteners 20 cm*3 cm*3mm, all ironmongeries, door stoppers, latches, handles (HASNA),...etc.</p> <p>4- Painting frames with selar, white bitumen for the back of frames and the bottom 10 cm of the frame.</p> <p>5- Wooden works shall be painted with primer coat and two coats of PLATORA paints.</p> <p>6-Contractor shall submit shop drawings for a approval by the Engineer before executing the work. As-built drawings shall be submitted after completing the work.</p> <p>NOTES :</p> <p>* Sizes of carpentry works given in the bills of quantities are skeleton sizes and shall be as per drawings.</p> <p>* Sizes of doors and other items mentioned in the bills of quantities shall allow for tolerance to suit the structural openings shown in the Drawings.</p> <p>* Wooden doors and pair of doors shall be measured in number for each structural opening, unless stated otherwise in the bills of quantities.</p> <p>Rates for carpentry and joinery work shall include:</p> <p>1. Shop and coordinated drawings.</p> <p>2. Allowance for plastering and tiling and the like.</p> <p>3. Cutting and fitting around obstructions, bedding and painting.</p> <p>4. Grounds, blocking and backings.</p> <p>5. Plugging concrete, block work, and stonework, and making well, frame insulation beneath tiles.</p> <p>6. Ironmongery including wally cylindrical locks ,wally or equal handles, stoppers, screws, temporary fixing, refixing, oiling and adjusting.</p> <p>7. Providing master key for each floor.</p> <p>8. Providing 3 keys for each lock including tagging.</p> <p>9. Preparing surfaces to receive finishes.</p> <p>10. Painting, varnishing, polishing, oiling, and the like, to any area or width in any location including work in multicolor and cutting in edges and putty.</p> <p>11. Dismantle or removing any defected parts or elements, and preparing for new installment.</p>				
3.1	Supply, fix and paint Solid Mahogany wooden Double internal door type (D1) size 240x300cm with Ornament and required decoration complete including frames. All works according to specifications, approved drawings and engineer instructions.	No.	1		
3.2	Supply, fix and paint solid Swedish wood covered with Mahogany veneer Single internal door type (D2) size 90x240cm. complete including frames. The work includes supply and fix decorative treated MDF covered with Mahogany veneer to apply the required ornament, and All works according to specifications, approved drawings and engineer instructions.	No.	33		
3.3	Supply, fix and paint Solid Mahogany wooden Single internal door type (D3) size 100x240cm. complete including frames. All works according to specifications, approved drawings and engineer instructions.	No.	1		
3.4	Supply, fix and paint Swedish wooden flush Single internal flush door type (D4) size 70x210cm with lower louvers. complete including frames. All works according to specifications, approved drawings and engineer instructions.	No.	31		
3.5	Supply, fix and paint Solid Mahogany wooden Double internal door type (D5) size 200x240cm with Ornament. complete including frames. All works according to specifications, approved drawings and engineer instructions.	No.	7		
3.6	Supply, fix and paint Solid Mahogany wooden Double internal door type (D6) size 140x240cm. complete including frames. All works according to specifications, approved drawings and engineer instructions.	No.	9		
3.7	Supply, fix and paint Solid Mahogany wooden Double internal door type (D7) size 160x240cm. complete including frames. All works according to specifications, approved drawings and engineer instructions.	No.	3		
3.8	Supply, fix and paint Solid Mahogany wooden Single internal door type (D8) size 100x240cm. complete including frames. All works according to specifications, approved drawings and engineer instructions.	No.	1		

No.	Item	Unit	Qty.	Unit Rate USD	Total USD
3.9	supply and install wall cladding natural zan wood leaves including hard wood zan frame to cover the duct's doors and electrical distribution boards . The unit price shall include CNC decoration and applying Platara paints according to specifications and engineer's instructions.	M2	15		
Total of Bill No. (3)					
Bill No. (4) Aluminum & Metal Works					
	<p>The unit rates shall include:</p> <p>1-All Aluminum profile, sections , ironmongeries and accessories of best quality and free from manufacturing defects to be completed and fixed in proper manner and according to the specifications and manufacturer instructions.</p> <p>2- Locks for doors shall be Walley type with approved handles.</p> <p>3-The aluminum windows are colored powder coated aluminum 7000, 8100, 9000 , P100 or approved equivalent with sliding leaves, frame, double secoret glass 6mm thick, ironmongery, and hardware and aluminum accessories.</p> <p>4- All widows and doors will be tested lightness and for water proofing.</p> <p>5-The contractor has to submit shop drawings to the engineer before fabrication and installation. Thickness shall not be less than 1.5mm .</p> <p>6- Color of aluminum as per engineer approval and matching the existing (IRON 291).</p> <p>7- All accessories, wheels, rails, hinges, handles, locks, brushes, rubber EPDM, and angles of windows must be the original and of high quality.</p> <p>8- All doors should be provided with high quality auto-close long jack machine Palmat type .</p> <p>9-All external windows are double and reflected secoret glass 6 mm thick for both interior and exterior side</p> <p>10- Windows dimensions more than 1m square must include internal aluminum profiles as dividers.</p> <p>11-Scaffolding where needed</p> <p>12-Removing the existing old windows " Aluminum or wooden " if needed .</p> <p>13-Contractor shall submit shop drawings for a approval by the Engineer before executing the work. As-built drawings shall be submitted after completing the work.</p>				
4.1	Supply & install Multi-T-Lock door type 417 with overall size 110cm x 220cm (MD1) with powder coated paint. Door lock type 235 or equivalent & Multi-T-Lock serrated cylinder.	No.	6		
4.2	Supply and fix colored aluminum window section 7000 type , complete with frame, four sliding leaves, and fly screens.	M2	22		
4.3	Supply and fix powder coated colored aluminum window type "W1" size 120 cm width x200 cm height, (Tilted 8100) with separators.	No.	12		
4.4	Ditto but for "W10" size 120 cm width x310 cm height.	No.	8		
4.5	Supply and fix powder coated colored aluminum window type "W2" size 650 cm width x200 cm height,(radial shape, Tilted 8100) with separator .	No.	1		
4.6	Ditto, but for "W3" size 600 cm width x 200cm height.	No.	4		
4.7	Ditto, but for "W4" size 830 cm width x 200cm height.	No.	1		
4.8	Ditto, but for "W5" size 670 cm width x 310cm height.	No.	1		
4.9	Ditto but for "W6" size 670 cm width x80cm height.	No.	1		
4.10	Ditto, Tilted type "W7" size 485 cm width x 200cm height.	No.	1		
4.11	Supply and fix powder coated colored aluminum window type "W8" size 200 cm width x200cm height, (Sliding 8100 for frame and 9000 for leaves), fly screen leaves, frame.	No.	1		
4.12	Ditto but for "W11" size 100 cm width x120cm height.	No.	1		
4.13	Ditto, but Sliding type "W9" size 320 cm width x 200cm height.	No.	4		
4.14	Ditto, but Sliding type "W12" size 320 cm width x 100cm height.	No.	3		
4.15	Ditto, but Sliding type "W13" size 540 cm width x 100cm height.	No.	1		
4.16	Ditto, but Sliding type "W14" size 560 cm width x 80cm height.	No.	1		
4.17	Ditto, but Sliding type "W16" size 745 cm width x 100cm height.	No.	3		
4.18	Ditto, but Sliding type "W17" size 120 cm width x 80cm height.	No.	1		

No.	Item	Unit	Qty.	Unit Rate USD	Total USD
4.19	Supply and install aluminum handrail for stairs and ramps with height of 85 cm, the price includes pipes of 5cm Dia., 2.5mm thick and vertical pipes 4cm Dia., 2.5 mm thick, each 70cm, three longtiudal 16mm pipes each 17cmm, vertical pipe 6.5cm Dia., 2.5mm thick each 200cm, the works includes fixing by steel rods with special adhesive materials, elbows, clips, stainless steel bolts, all accessories required to complete the job, according to specifications, drawings and engineer instructions. (Drawing AR-53)	RM	150		
4.20	Ditto but for 50 cm Hight (Drawing AR-53)	RM	50		
4.21	Supply and fix flooring section at theatre balcony consists of galvanized steel angles 40x40x4mm truss provided each 60cm with 6mm Arm flex rubber, 22mmx120cmx240cm MDF boards, 3mm Arm flex rubber and 6mm colored carpet (super logo) according to specs, drawings (AR-18) and the engineer's instructions.	M ²	120		
4.22	Supply and fix flooring section at lecture stage consists of galvanized steel angles 40x40x4mm truss provided each 60cm, galvanizes steel plates 100x100x3mm with 6mm Arm flex rubber, 22mmx120cmx240cm MDF boards, 3mm Arm flex rubber and 6mm colored carpet according to specs, drawings (Ar-30) and the engineer's instructions.	M ²	22		
4.23	Supply and fix flooring section at lecture hall consists of 6mm Arm flex rubber, 22mmx120cmx240cm MDF boards, 3mm Arm flex rubber and 6mm colored carpet according to specs, drawings (AR-31) and the engineer's instructions.	M ²	180		
4.24	Supply and install aluminum partitions Greek type P100 (or equivalent) including two layers of one clear glass 6 mm the other will be, safety film, silver aluminum curtains between the two layers of glass equipped with a special profile size 6.6*14 cm, for wiring private channels separated from each other to pass the phone lines, computers, electricity, composite panels at bottom of partitions, doors, locks, high quality jack, ironmongery, hardware and all required accessories, as per specification, and/or the engineer's instructions.	M ²	120		
4.25	Supply and install secrete glass partsions10 mm thickness including upper stainless steel profile 80*40*1.5 mm, lower aluminum U 2 cm 1.25mm thickness, stainless steel hinges, adhesive materials, stainless steel vertical support 80*40*1.5 mm each 130 cm to fix the upper stain less steel to the roof, stainless steel bolts and all required accessories , the price includes making proper openings in the existing falsceiling, maintaining and finishing works around the openings according to engineer instructions ,	M ³	120		

No.	Item	Unit	Qty.	Unit Rate USD	Total USD
4.26	<p>Supply and fix semi-automatic 19mm high-density particle board panels size 4.9mm wide x 3.5mm high (folded partition), finish with veneer and half hour fire resisting, suspended from an independent welded and braced steel frame, acoustic backing and infill material fitted to achieve required level of sound reduction to achieve Sound reduction of 56 Db, heavy duty extruded aluminum head track (satin anodized or powder coated to RAL 901, two points suspension track system, double roller with parking to one or both sides of opening.</p> <p>The partition is made as top hung system consisting of individually operated interlocking panels incorporating male and female aluminum edge profiles. Edge profiles incorporate magnetic strips with an attractive force of 70 N to ensure positive union between panels. The system includes retractable top and bottom seals which exert 2kn pressure against track and floor when extended as per the following specifications and as shown in the drawings and the engineer's instructions.</p> <p>Width 4900mm. Height 3500mm. Sound insulation value Rw 50dB (Laboratory Value). Reack system: R-Track Roller Suspension 2-point system. Full wall Element (VE) 4 nos. Telescopic Elements (TE) 1 no. Surface Finish MDF covered natural veneer. Sound Barriers above tracks to be supplied and installed.</p>	No.	2		
4.27	<p>Supply and install space truss for lighting Model: T SQ30C produced by speed truss or equivalent with the following specifications: the truss pieces lengths could be 1,2,3 meter based on the shop drawing approval. 290mm Square Aluminum Truss Global Truss Standard F34 Material: Aluminum 6082-T6 Standard 30cm Square Truss Main four tubes: 50x2mm Braces: 20x2mm Weight: 15.5kg/ for each three meter . 4pcs egg connectors & pins included fixing the truss from the concrete ceiling by painted Galvanized steel beams for the hidden parts and Aluminum or stainless-steel pipes for unhidden parts , the truss shall be hanged by the vertical support each 3 m at most after calculation the loads of lighting and approving the safety of the truss hanging. the works shall include all fittings , massive clamps, pins and any material requested for fixing the truss installation recommended by the manufacture at the same time achieving the safety and the purpose.</p>	L.M	20		
4.28	<p>Complete Maintenance works for all existing aluminum windows, The price shall include supplying and erecting new hinges, handles, replacement of the defected jack, polishing, hard ware and any needed accessories.....etc. dismantle the existing widows to make the required maintenance and re-fix it , and all materials to complete the job as requested by the engineer.</p>	L.S	1		
Total of Bill No. (4)					

No.	Item	Unit	Qty.	Unit Rate USD	Total USD
	Bill No. (5) Mechanical Works				
	<p>A- Elevators: The unit rate shall take into consideration the following and will include: 1-All elevators should be American or European manufacturer (Brand Name), (Full Package),European industry according to EN-Codes 2- all required wires , conduits , J boxes cables from SDB to new lighting fixture and power sockets for the shaft and elevator room , (sub-distribution panel board to be placed at machinery room , electrical cable according to drawing , including wires depending on circuit breakers range and Elevators control panel 3-providing test certificate from the Palestinian specification and Standards Institute 4- Specifications and materials must be approved by supervisor engineer . * The contractor shall submit the following documents: "Certificate of Origin, Bill of Lading (original copy) Compliance certificate from third party body to be approved by UNDP for the following:" a- Doors interlock b- buffers c- safety gear , over speed controller ascending and descending d- electrical controls and wiring. 5-The elevators must have the certificate of (CE). 6- the removal of any unwanted materials from the walls and slabs and to be dumped as directed by engineer.. 7- All certifications , materials, and workmanship that might be needed to reinstate the shafts of lifts to receive the elevators and needed connections. 8- Elevators will have two years guarantee for maintenance from supplier. 9-Contractor shall submit shop drawings for a approval by the Engineer before executing the work. As-built drawings shall be submitted after completing the work.</p> <p>B- Plumbing Works: Unit rates for Plumbing Works shall include supply and install the following : 1. All mechanical items shall be executed according to drawings, specifications and as directed by the Engineer 2-all required works, fittings, connections, Reinforced concrete works (supports, pipe covers vertical & horizontal, etc...) and accessories. 3- As built drawings and work shop drawings. 4. Cutting and forming installing all chases, recesses, holes, and the like necessary for laying and fixation of pipe sleeves, 5- concrete and block works needed for laying and fixation in walls and floors. 6-Manholes and sewer rooms shall include excavation, concrete, benching, plastering, backfilling and cover as per Drawings and Specifications, 7- All sanitary items costs such as wash basins, W.Cs, Sinks, showers,....etc. include supplying and installation of all needed fittings, tapes, valves, S connections,.....etc. 8- Sanitary fittings, isolated taps and gullies shall also include all pipe work in connection therewith and connections thereto including connection to the nearest manhole or gully and to the cold water storage tank. 9- Pipes works include shall include : a. Joints in the running length, b. Nipples, connections, sockets, ferrules, couplings, back nuts, unions, and.....etc., c. Bends, elbows, tees, reducers, access doors, cleaning eyes, blank caps, stop valves, and the like, d. Welded joints and connections including grinding, e. Lagging and wrapping, f. Excavation, bedding and backfilling. 10 The contractor shall submit (CALCULATION SHEET) of water, waste water networks including fire fighting system with shop drawings before supplying and installation. 11-All external exposed PPR pipes should be covered with an aluminum layer (aluminum sheet 2mm thickness duct including proper fixation and supports) 12-All required tests . 13- Cleaning and disinfecting all water pipes .</p>				

No.	Item	Unit	Qty.	Unit Rate USD	Total USD
	<p>14- Insulation of all galvanized water pipes and wrapping it with bitumen's sheets and protect pipes located under tiles with cement mortar. In addition to the insulation materials against heat loss for hot water pipes.</p> <p>15-All hot and cold water pipes(16/20mm diameter pex pipes) form distribution boards to the feeding points.</p> <p>16-All plumbing works (wash basin, kitchen sink, gully traps,etc...) include the connection to the nearest floor trap (using 2" PP drainage pipes).</p> <p>17-WC and gully trap drainage (4" upvc pipes) to the nearest vertical sewage header in the typical floors and WC in the GF to the nearest manhole and include all accessories including ventelation pipes, PVC S and caps for all the ends of pipes at parapet.</p> <p>18-The Manhole include executing any external drop manholes (tee's , elbows, pipes , shuttering, concrete B250 , excavation, backfilling ,... etc.) if needed.</p> <p>19- For pumps works supplying and installing of control panels , cables from main distribution board to control panels and from control panels to pumps.</p> <p>20-Sain less steel works should be 316 LL</p> <p>21-The connection between the new work with the existing properly includes all required materials ,etc.</p> <p>22-Contractor shall submit shop drawings for a approval by the Engineer before executing the work. As-built drawings shall be submitted after completing the work.</p> <p>23- All pumps, HVAC,RO, Elevator systems and all other operating systems shall be connected to the BMS through approved protocol. The unit rates for the following items include supply and install integration cards, modules, controller and all needed materials and connection to operate the systems successfully and complete the job as per engineer's instruction.</p>				

No.	Item	Unit	Qty.	Unit Rate USD	Total USD
Bill No. (5-A) Elevators					
5A.1	<p>Supply , install and test electrically operated (FULL PACKAGE- BRAND NAME) passengers single elevator, KONE- OTIS – MITSUBISHI Or equivalent (European –Japan) manufacturer, according to EN-Codes.</p> <p>The unit price includes :</p> <p>All required wires , conduits , J boxes cables from SDB to new lighting fixture and power sockets for the shaft and elevator room , (sub-distribution panel board to be placed at machinery room , electrical cable according to drawing , including wires depending on circuit breakers range , Elevators control panel , providing test certification from the Palestinian specification and Standards Institute with the following specifications:</p> <ul style="list-style-type: none"> - Drive : Gearless drive – 180 S/h -room less - Device Control : Variable voltage variable frequency (VVVF). - Load: 450 kg. - Passengers: 6 - Speed : 1m/s - Travel distance: 13 m - Floors served: 3 floors- same line - Main Floor: basement floors- same line - Shaft size: Width :160 cm Length :170 cm High : 18 m - Mode of operation :Full collective <p>- Doors : Automatic (power operated) with VVVF system, two panels. 80 cm side sliding Opening</p> <p>Decorative (Stainless Steel – 316).</p> <ul style="list-style-type: none"> - Car : Decorative (Stainless Steel– 316) (colors) according to customer's choice. 110 cm width. 120 cm depth. 225 cm height. - Ceiling : Decorative ceiling with down lighting (According to customer's choice). - Floor : GRANITE. - Buttons and Indicators: According to customer's choice - Motor drive: A computerized Ac-variable voltage, variable frequency (VVVF) system. - Motor data: single speed Ac-3phase induction motor 380V, 50Hz, compromise the (VVVF) drive. - Operating panel board (OPB): mounted at side of the car entrance, contains: <ul style="list-style-type: none"> -one micro push button for each floor served -Emergency call button -Door open button -Door close button -Digital display position indicator -Inter phone on alarm buzzer system (3 handle) <p>- Fire man switch.</p> <p>- Fan button.</p> <ul style="list-style-type: none"> - Over load indication, signal -Full load indication signal - Priority switch - Illumination should be LED system - Fan button - 50 CFM fan(s) - elevators must have all the options which will be asked from the client. - Automatic Rescue Device (ARD)- Effective when power cut off many times <p>Operation by emergency power (UPS to sit the elevator to the nearest floor in the case of power failure). The UBS must has B413 stage smart charger and 12 V 100 AH oPzV Tubulat solar Get Battery with 3300 Cycle @50% DOD.</p>	No.	2		

No.	Item	Unit	Qty.	Unit Rate USD	Total USD
5A.2	Ditto but: - Load: 450 kg. - Passengers: 6 - Speed : 1m/s - Travel distance: 10 m - Floors served: 2 floors- same line - Main Floor: ground floor- same line - Shaft size: Width :160 cm Length :170 cm High : 14 m	No.	1		
5A.3	Ditto but for food - Load: 150 kg. - Speed : 0.4m/s - Travel distance: 5 m - Floors served: 2 floors- same line - Main Floor: basement floors- same line Car : (Stainless Steel– 316) according to customer's choice. 80 cm width. 80 cm depth. 120 cm height - Shaft size: Width :110 cm Length :140 cm High : 10 m	No.	1		
5A.4	Ditto but Wheelchair Lift for Handicap Areas of Application : Indoor Arrangement plan : Stainless steel Load : 300 kg Speed : Maximum 0.15 m/s Travel : Maximum 1120 mm Stops : Maximum 2 Operation System : Hold to Run Control Drive : Electrical traction, screw& nut system, Drive : Screw and nut Power Supply: 2.2 kW motor / 220 V, 1 phase, 50Hz Direction : Opposite (180°) Safety Device : Emergency Rescue System Cladding : Stainless steel or (laminated safety glass)	No.	2		
Total of Bill No. (5-A)					
Bill (5-B) Plumbing works					
5B.1	Supply, install, test and commission wash basin (58x44cm), First Class (Ideal Standard) or equivalent, completed with chrome plated mixer GROHE or equivalent (Jack type), bottle trap, soap tray, chrome plated angle valves, flexible tubes, wall fixed mirror size(60 X 40) 6mm thickness include the connection to the nearest floor trap (using 2" PP drainage pipes) complete with elbows and all needed materials for connection, All hot and cold water pipes(16/20mm diameter pex pipes) to distribution boards and their sleeves red and blue , accessories, supports and hangers. upon completing the work.	No.	9		
5B.2	Ditto but for handicap including stainless steel 316 LL supports (handles and jacks) Vitara type.	No.	1		
5B.3	Supply and install hand wash basins set including two hand wash basins (White Color, Oval Shape, under marble, ceramic wash basin (55x47cm), First Class (Ideal Standard)), 2 chrome plated mixer GROHE or equivalent (Jack type), mirror 165 cm *60cm *6mm thickness , 2" PP drainage pipes to the nearest floor trap complete with elbows and all needed materials for connection, All hot and cold water pipes(16/20mm diameter pex pipes) to distribution boards and their sleeves red and blue , accessories , (central building, behind Basin building, stainless steel angels to fix mirrors, Supplying and installing high quality Marble Shuker Afion Decorative top counter 165 cm x60 cm x2cm thick , Shuker Afion 3cm thick for vertical partitions for two directions ,Shuker Afion 2cm thick for floor and shelves ,Shuker Afion Decorative 2cm thick necessary to close around and bottom of sink , skirting and all accessories, fitting and making holes for wash basins . All as per Specification and engineer instructions.	set	4		

No.	Item	Unit	Qty.	Unit Rate USD	Total USD
5B.4	Ditto but the set of wash basins includes three washbasins , The size of counter marble is 240 cm * 60 cm and mirror size is 240 cm * 60 cm .	set	2		
5B.5	Ditto but the set of wash basins includes three washbasins , The size of counter marble is 290 cm * 60 cm and mirror size is 290 cm * 60 cm .	set	2		
5B.6	Supply, install and test complete set European type W.C white color ceramic First Class (Ideal Standard, completed with 2.5 Gallon hidden flush reservoir, stainless steel roll holder, GROHE chrome plated angle valves,UPVC connections , high quality hand spray with hose and flexible chrome connection, necessary fittings, supports , heavy duty hydraulic cover, rubber connector on W.C., all needed water pipes from water distribution board to the feeding points and waste water pipes to the nearest manhole or existing drainage pipe and vent pipes .	No.	23		
5B.7	Ditto, but for handicap, complete with supports (handles and jacks) Should be S.steel (316)LL Vitra type.	No.	1		
5B.8	Supply and fix white glazed fireclay shower size 90cm x90cm (Ideal Standard Type) * Shower with head/Arm	No.	16		
5B.9	Supply, install and test UPVC SN- 4 pipes for drainage according to Palestinian Institute for Standards and Measurements , fixed in walls, floors, exposed or in shafts including all exposed elbows and connections provided with perforated caps on roof, floor clean outs (C.O) completed with all necessary finishing and cover. Prices to include all concrete encasement with columns, Walls,...etc. * Dim. 3"	LM	50		
5B.10	Ditto but 4"	LM	100		
5B.11	Supply, Install, test and connect UPVC 4" pipes SN-8 of the main sewer of the building to the existing main network. This work includes testing of the levels of the existing networks, excavation, compacted backfilling with clean imported safia sand ,reinforced concrete cover where needed , laying of warning tapes , sockets and connection to the manholes as per Specification and engineer instructions.	LM	300		
5B.12	Ditto but UPVC 6" pipes , SN8 for external sewage network.	LM	350		
5B.13	Ditto but UPVC 8" pipes , SN8 and including reinstatement of road layers in the part within crossing the road.	MR	50		
5B.14	Supply and install B300 concrete manhole of internal diameter 60 cm ,and (50-120) cm depth according to the required level, concrete walls , base, slab 10 cm thick, with cast iron cover with frame 50cm opening, 8 ton bearing capacity, including excavation, backfilling with kurkar in layers 20 cm thick each and compaction 98% MDD, 200 Kg/cm2 plain concrete for benching, hunching and making good according to specification, drawing, and the engineer instructions.	No.	7		
5B.15	Ditto but , Size d 80cm for M.H depth more than 120cm (Cast iron cover 25 ton type).	No.	7		
5B.16	Ditto but , Size d 100cm for M.H depth more than 120cm (Cast iron cover 25 ton type).	No.	7		

No.	Item	Unit	Qty.	Unit Rate USD	Total USD
5B.17	<p>Supply, install test and commission set of submersible sewage pumps consists of two pumps (one on duty and other standby) Type FLYGT or equivalent including all necessary pipes, valves, fixing, stainless steel guide rails, stainless steel chains, stainless steel ladder, fittings, accessories and connections complete with pumps and valves, all preliminary installation, sensors, with electrical control panel and all required cables connections, as shown on drawings and as per specifications and approved by supervisor Engineer.</p> <p>* Q = 3m³/Hr., Head 15 m, one duty and one standby with efficiency not less than 50% and minimum IP 65</p> <p>* The pump shall be equipped with discharge connection, thermal & liquid protection system sensors, and marine type electric cable of sufficient length to connect to Electrical main board, one set of spare parts as specified by the manufacturer and frame, all in accordance with enclosed relevant technical specifications, hydraulic performance curves.</p> <p>the unit rates include the following :</p> <p>-Supply and install discharge stainless steel pumps' risers and manifold, made of 3" diameter pipe, grade 316, PN16 connecting pumps with all the fittings grade 316 SS PN 16.</p> <p>Supply and install gate valves size 3", PN16, Type Hakokhav or equivalent</p> <p>-Supply and install Non-return valves of swing size 3", PN16, type Hakokhav or equivalent approved with micro switch, arm and all required bolts, nuts, gaskets, washers, screws, flanges, anchor blocks, adjustable jacks with rubber base equipped with an outside lever and counter weights, The valve is made of cast iron with high resistance against surge effects, with an enamel inside coating, outside levers should be of stainless steel and all required flanged fittings for proper installation & operation, All bolts should be stainless steel grade 316, All the materials must be suitable to be used for sewage works.</p> <p>-Supply and install 2" single automatic air release valve with flange, Type ARI or equivalent approved, epoxy coated, both kinetic and automatic air release functions, including 2" flanged gate valve with pipe and all required fittings and accessories</p> <p>-Supply and install 1/2" pressure gauge with manometer dials of 100 mm diameter, with scale reading extending from (0) to 10/kg/cm², with (3) way valves as per "MEGO" model 3-400 / GP or equivalent, including 2" gate valve, 2" bypass pipe with all needed fittings.</p>	set	2		
5B.18	<p>Supply, install, test & commission water booster pump set Grundfos, KSB or equivalent including motor, Rated voltage 400 V, 50 Hz, 1.7 KW, Rated Speed, silent operation, liquid temperature from 20 to + 120 C, 10 bar PN, built in thermal protection, The works should include all associated supporting, electrical and mechanical connection accessories (flanges, bolts, gaskets, washers, sleeves, valves, non-return valves, control panels, electrical cables, pressure tank ...etc.), complete with all valves, vents, manifolds, gauges, control panel, cables, level switches, pressure, electrical automatic float valve vessel tank & frequency inverter etc., as specified & shown on drawings</p> <p>(Lifting Pump set /2 pumps), with 50 Lt. pressure tank. with variable-frequency drive (VFD)</p> <p>Q = 10 m³/h</p> <p>Head = 40 m with efficiency not less than 70% and minimum IP 65</p>	set	1		
5B.19	<p>Ditto but (Irrigation pump Set/2 Pump) with 100Lt. pressure tank without with variable-frequency drive (VFD)</p> <p>For Each Pump, Flow = 6 m³/h, Head = 40 m. with efficiency not less than 70% and minimum IP 65</p>	set	1		
5B.20	<p>Ditto but (Fountain pump Set/2 pumps) without with variable-frequency drive (VFD)</p> <p>For Each Pump, Flow = 3.5 m³/h, Head = 20 m. with efficiency not less than 70% and minimum IP 65</p>	set	1		

No.	Item	Unit	Qty.	Unit Rate USD	Total USD
5B.21	Supply , install, test and commission PPR (Polypropylene Random) pipes 110 mm dia. DN20 to (TS9937-11451-11755), DIN 8077, DIN 8078, DIN 4102-1, including fittings, supports, connectors , expansion loops, thermal insulation cladding of all external exposed pipes , making openings using core machine in slabs , making routes in walls (block or concrete) along with all needed materials and workmanship for proper fixation and installation of pipes. trenches pipes , opening, 110 mm dia. pipe	LM	100		
5B.22	Ditto but 75 mm die pipe	LM	100		
5B.23	Ditto but 63 mm die pipe	LM	120		
	Ditto but 40 mm die pipe	LM	40		
5B.24	Ditto but 25 mm die pipe	LM	50		
5B.25	Supply and install water distribution box with local marble frame 2.0cm thick including all needed accessories and fittings. The price includes all distribution headers; (Sagiv) valves on cold and hot water in addition to valves on all feeding point 16mm pipes in the D.B, air valves, aluminum framed lockable leaves and all required accessories as per drawings, specifications and engineer instructions. The size of DB is to fit the No. of outlets + 20% spare space . Item includes: - (20mm - 25mm)dia. collector - All needed plastic PEX pipes for cold and hot water complete with sleeves (red & blue) and all fittings.(16/20mm dia)	No.	13		
5B.26	Supply, install, test and commission ARAD water meter 2" dia. - PN 16 bar complete with all pipes, fittings, strainer, valves , nipples , flanges , jacks and all related works.	L.S	1		
5B.27	complete with in and outlet, drain, as described in specifications Supply, paint, fix and disinfect cold water storage polyethylene tank 2000 liter capacity with approved type not less than 40 kg weight The unit price includes float valve, washing valve ,overflow, vent with insect screen, valves, fittings , lockable cover , electrical float, double ladder 2.5 m Hight , all connections to the rising main and distribution pipes network of any type or size with the necessary protection , reinforced concrete foundations 20 cm thick with all required accessories and painting of the water tank with supercyle paint white color . All as specification and drawings.	No.	11		
5B.28	Supply, installation and commission electrical coated water heater 60 litres capacity with enameled Ceramic from the inside including all connections with thermostat , steel base , electrical wires , special socket with light , magnesium column , valves , safety valve , temperature gage , fittings , stainless steel flexible connection , holders and all cold water pipes(16/20mm diameter pex pipes) from distribution boards to the feeding points and their sleeves red and blue "and all necessary to complete the work .	No.	13		

No.	Item	Unit	Qty.	Unit Rate USD	Total USD
	Reverse Osmosis				
5B.29	<p>Notes: All pipes and fittings ,pumps components in contact with brackish water should be made of CPVC PN16 for low pressure and stainless steel 316 for high pressure side</p> <p>It is the contractor full responsibility to check and inspect the proposed sites as identified here below and to quote for all works, repairs, installations, and its associates with all material requirements. The contractor shall arrange for all required equipment, tools, and utilities (water, electricity, and tanks...etc.) to carry out the job in accordance with relevant clauses of standards and code of practices . The contractor shall arrange for all required safety measures, signs, and protections around the sites. The contractor should make valid insurance document to cover all site equipment and labors.</p> <ul style="list-style-type: none"> • Supply and place in service each component of the RO Systems and connection requirements to the proposed discharges of the desalinated water • Test and commission in accordance to relevant standards • The Contractor shall submit “as built” drawings after the completion of the work. • Any other material, accessories and/or fitting, not expressly mentioned but required for the successful installation of the RO plant components, shall be supplied and installed by the contractor. <p>The contractor will submit all chemical and biological tests for the permeate intake and saline waters and the price includes training of eight technicians in the commissioning period for 7 hours daily and 7 days, all under the approval and monitoring of the engineer. • Prior to any work commencement the contractor shall submit detailed design , detailed shop drawings, action plan, material specifications ,itemized priced breakdown of all elements and work methodology for the Engineer’s approval, as per relevant clauses of the Conditions of Contract</p> <ul style="list-style-type: none"> • The Contractor shall submit “as built” drawings after the completion of the work • Any other material, accessories and/or fitting, not expressly mentioned but required for the successful installation of the RO plant components , shall be specified and supplied by the contractor, and must be included in the original price of the tender <p>Design, Supply, install, test and commission modular skid mounted water RO desalination unit built inside isolated container of 3x2.4x2.6 m size with all associated mechanical and electrical installations including any builder's works requirements, the container will be well equipped with air-conditioning12000BTU, made of 2mm galvanized steel sheets, I-beam no 16 and Reinforced concrete base 10cm covered by ceramic tiles for finishing including floor drain 4" covered with stainless steel cover (including 3" UPVC pipes and connection for the nearest manhole), all walls shall be covered with (painted</p> <p>with one primer coat and two cots of lazour paint)16mm wooden panels covered with soft wood finishing, the steel door is 2x2.2 m (louver) with key.</p> <p>the container shall be painted from outside with three layers one of primary coating and two layers of Hamer paint, the ceiling will be insulated with glass wool of 5cm thickness 120 kg/m3 density and will be finished with false ceiling type Armstrong, and the container will be layer on a B200 concrete slab of 10 cm thick and according to the dimensions of the container in addition to 15cm from each side. The container will be equipped by 1.0 m*1.0 m sliding aluminum window (7000)</p> <p>The unit rate includes supply and install power and control cables from Main distribution board to the RO sub distribution board with all needed PVC condutes, ducts and trays, internal LED lighting Units with suitable lumens, switches, sockets with wiring. Also the price includes supply and install complete control panel including all needed circuit breakers, control relays, timers, complete PLC unit, contactors, overloads, adjustable under voltage relay, protection devices, Siren, digital multimeter, indication lamps, and all needed fittings and materials to complete the job.</p>	No.	1		

No.	Item	Unit	Qty.	Unit Rate USD	Total USD
	<p>The unit shall be capable to produce 1.25 M3/hour of desalinated water of TDS not more than 100ppm. Characteristics of Brackish water TDS 6000 ppm and recovery rate must be not less than 75% and power consumption must not exceed 3 KW/m3</p> <p>The price of the unit shall include the following: Pretreatment equipment and materials which including: 1- One Automatic FRP multimedia filtration controlled by actuator valve size 10" x 35" including quartz sand and anthracite, with required pressure gauges before and after the MMF Grundfos SS304 (Case, impeller and shaft) Feed pump with all required valves pressure gauges...etc., 2-One low pressure pump (recommended Grundfos, KSB, lawara SS316 with minimum Q =2 M3/HR and minimum Head =2bar and efficiency not less than 70 %) including (Case, impeller and shaft) 3- 5-micron cartridge filter size 20", with required valves , pressure gauge before and after the CF...etc. , 4-One anti scalant dosing system 1L/h at 10 bar with 250 Liter PE tank filled with anti scalent material, manual mixer and level switch control,</p> <p>5-One SMBS dosing system 1L/h at 10 bar with 250 Liter PE tank filled with SMBS, manual mixer and level switch control. Price includes supply and install 6-Supply and install all fittings, accessories, supports, pipes UPVC PN 16 for low pressure and stainless steel pipes grade 316 for high pressure side. 7- All needed stainless steel pumps and relevant, supports, fittings, cables, sensors. •Price includes supply and install instrumentation required for pretreatment 1- feed water pressure transmitter</p> <p>2- low pressure switch European made range(0-7)bar, High pressure switch (8-32)bar. 3- all electrical and mechanical protection for the feed pump. 4- flow meter for brackish water 5- Feed water PH meter 6- Feed water conductivity meter</p> <p>Main treatment Unit (RO) the unit rates include supply and install the following : 1-One high pressure pump (recommended Grundfos or KSB SS316 (Case, impeller and shaft) with minimum Q=1.5M3/HR , minimum Head = 18 bar and efficiency not less than 75%) with all required valves pressure gauges...etc., Quantity of RO membrane to produce 75% recovery rate of size 40" X 4" FRP pressure vessels 450PSI, CIP System including 250 Liter PE Tank with manual mixer , SS316 high pressure pipes •instrumentation required for Main treatment: 1- Pressure transmitters 2- flow meter for permeate water 3- flow meter for reject water 4- SS304 regulated valve for reject/feed flow control 5- online PH meter at permeate flow 6- online Conductivity meter at permeate flow 7- automatic valve for flushing membranes during every plant shut down 8- automatic floats</p> <p>Post treatment the unit rates include supply and install the following : 1-One Caustic soda dosing system 2L/h at 10 bar with 250 Liter PE tank, manual mixer and level switch control, 2-One Sodium hypo chloride dosing system 2L/h at 10 bar with 250 Liter PE tank, manual mixer and level switch control .</p> <p>REMINERALIZATION SECTION the unit rates include supply and install the following : 1-One Lime stone filter FRP Tank size 16" X 50" with all required piping system and calcite 2-One Carbon Filter FRP Tank size 16" X 50" with manual head filled with suitable Carbon, to be installed after the Sodium Hypochlorite Dosing Pump to remove chlorine from water before drinking. 3-price includes the necessary piping system to feed the declination unit from Riser pipe including pipes, fittings, valves, meters, basis and workmanship.</p>				

No.	Item	Unit	Qty.	Unit Rate USD	Total USD
	<p>The price includes The instrumentation controls:</p> <ul style="list-style-type: none"> . Feed water conductivity meter . Feed water pH meter . Permeate conductivity meter . Permeate PH . Operation timer <p>The price shall include the nesccary protections and controls of the system to Shut down for :</p> <ul style="list-style-type: none"> . Dry running of each dosing pump . Permeate high conductivity . Feed water high conductivity . Feed min. pressure . Permeate max. pressure . Membrane inlet max pressure . Inlet water minimum pressure . Overload of each pump . Wrong dosing . Wrong pH 				
5B.30	Supply and fix water storage stainless steel 304 tank 3.0 m3 capacity with locks, vent and washout ,complete with lockable cover with automatic float valve, overflow pipe (1" diam) and drip tray, with all connections to RO Systems and stop valves 1" with all accessories as specification and drawings	NO.	1		
5B.31	Supply , install, test and commission Fire hose reel cabinet Stainless .Steel (double compartment) with sufficient size and 2mm thick including isolating valve with fully recessed cabinet, 25 mm x 25 m rubber hose with aluminum flange 2", isolating valve, regulating valve with cabinet ABC 5 kg powder extinguisher and 4.5 kg CO2 extinguisher (all to be approved by CDD).	set	9		
5B.32	Supply , install, test and commission Galvanized steel pipe schedule (40) including fittings, and supports to be located in false ceiling and risers and all required protection suspension joint , connection , red color paint 40 mm dia. pipe	LM	90		
5B.33	Ditto but 50 mm dia. pipe	LM	90		
5B.34	Provisional Items : Supply , install, test and commission PPR (Polypropylene Random) pipes DN20 to (TS9937-11451-11755), DIN 8077, DIN 8078, DIN 4102-1, of various sizes for firefighting system above false ceiling and for risers, etc. including fittings, supports, expansion loops, and all external and specifications as Engineer instructions. pipe dia. =50 mm	LM	90		
5B.35	<p>Supply, install, test & commission water FIRE pump set Grundfos type, KSB or equivalent including motor, Rated voltage 400 V , 50 Hz , 2.3 KW, Rated Speed, silent operation, liquid temperature from 20 to + 120 C , built in thermal protection , The works should include all associated supporting, electrical and mechanical connection accessories (flanges, bolts, gaskets, washers, sleeves, valves, nun-return valves, control panels, electrical cables , pressure tank ...etc.) , complete with all valves, vents, manifolds, gauges, control panel, cables, level switches, pressure, electrical automatic float valve vessel tank& frequency inverter etc., as specified & shown on drawings</p> <p>as specified and shown on drawings, including onsite of:</p> <p>1- Two main Fire water Pumps (one duty and one stand by) with Q = 40 m³/h - H = 60 m with efficiency not less than 70% and minimum IP 65 with variable-frequency drive (VFD)</p> <p>2- one jockey pump Q = 5 m³/h - H= 60 m with efficiency not less than 70% and minimum IP 65</p>	Set	1		
5B.36	Supply and install with all needed Fittings and accessories 5 kg dry powder fire Extinguishers .	No.	23		
5B.37	Ditto but 4.5 kg CO2 fire extinguishers. Type League or equivalent	No.	17		
5B.38	Ditto but 3 kg Halotron self automatic fire Extinguishers (opening temperature 67 degree).Type Lahavote or equivalent included preliminary installations all conduits, hocks, suspension system and all required work to complete the work according to specifications and engineer's instructions.	No.	9		

No.	Item	Unit	Qty.	Unit Rate USD	Total USD
5B.39	Supply & install Fire Siamese dia. 3" for Filling the Fire Fighting Line to connect it with the main line near the main Gate of the building, the work include all needed Valves, Non Return Valve, Fittings, Stand galvanized steel pipe 3" dia. and complete concrete Manhole die 80 cm with cast iron cover 8 ton and all accessories to complete the work all according to drawings, specifications and Engineer instructions.	No.	4		
5B.40	Supply and install HDPE pipe PN-16) Ø 50 mm with all valves .Including excavation for trench, backfilling, clean sand, compaction, and all connections and fittings, according to specifications and supervision engineer requests	LM	200		
5B.41	Supply, test and install irrigation distribution Box galvanized steel with lock door, copper manifold for (each eye valve) Italian made 50 mm die outlets as shown in the drawings. Item includes: -All PE PIPES (25, 50 mm) dia. - All needed plastic HDPE pipes for complete and all fittings	No.	4		
5B.42	Supply, install test and commission, an LPG system for the kitchen purposes, composed of 6 LPG cylinders of 48kg each, LPG distribution box composed of headers, copper manifold, distribution box, pipes, fittings, Gas regulators, pressure gauges, item also includes all needed copper pipes, fittings, supports, valves, elbows, testing, Galvanized steel doors including (wire mesh 4mm and angels5*5*4mm) outlets and flexible hoses for connection to the kitchen appliances or wherever needed, all according to specifications, engineer's instructions and drawings. (DWG no. MLPG-01).	L.S	1		
Total of Bill No. (5-B)					
Bill 5-C HVAC & Sauna					
	<p>- All of works are performed in accordance with the plans and technical specifications of the project and properly approved by the Engineer .</p> <p>Note :1 All following items shall be executed according to drawings, specifications and as directed by the Engineer. Prices shall include all required works, supply and install fittings , connections , accessories and testing.</p> <p>Note :2 Contractor shall submit shop drawings for all Mechanical installations to be approved by the Engineer before executing the work. As-built drawings shall be submitted after completing the work.</p> <p>Note:3 All refrigerant should be (environmentally friendly) R 407 .</p> <p>Nore:4 The Contractor shall submit samples of all materials with catalogs showing illustrative specifications</p> <p>Note:5 The contractor shall submit (CALCULATION SHEET) of the HVAC system including ventilation system from the manufacturer of the units to be clear and detailed such that to meet the noise standard in specification Unit price includes the following: - All mechanical and electrical connections and cables for the installation, test and operation. - Supplying and installation of all needed Plastic ducts fixed in walls with suitable dimensions for the refrigerant pipes and electricity cables and water pipes according the engineer instructions .</p> <p>- Supplying and installing of condensed water drainage network and connect it to the nearest point of drainage rain water (for all units internal and external units) including cutting , trenching, making openings and reinstatement in the existing walls including natural stone works, and according to the engineer instructions .</p> <p>-Insulation , painting and wrapping of all condensed water and gas refrigeration pipes .</p> <p>- Supplying and installing all copper gas pipes (liquid & suction) with adequate lengths and diameters according to the manufacturers instructions .</p> <p>- Applying pressure test of all the copper pipes network with all their connections using nitrogen gas as per specifications and engineer instructions and flushing the network before operating the system .</p>				

No.	Item	Unit	Qty.	Unit Rate USD	Total USD
	<ul style="list-style-type: none"> - Applying Sound level test of each single indoor unit as per specifications and engineer instructions . - COP should be more than 4 - IP for all out door unit more than IP 60 				
5C-1	<p>Supply , install, test and commission Complete HVAC system (central air-conditioning) Variable Refrigerant Flow (VRF/VRV) mounted on Roof, it includes of (three Outdoor units) connected through a complex (Refnet Header) , Brand name (US , European , Japan only each 62 KW and total load 186 KW) properly installed with supports. Hangers, insulation , fasteners, drain connections, all pipes , sleeves and thermostat.</p> <p>Each unit includes (four compressors) and working for (cooling / heating) , all compressors should be(Dc-inverter type) with separate control panel and common (Microprocessor). The all aluminum fins should be (anodized) and resistant for rust and corrosion and salts with materials needed for installation and connections and copper(refrigerant) pipes, and all required electrical cables and according to drawings and engineers approval with all necessary connections and accessories to operate and commission the system.</p> <p>each unit should be double skin with thermal insulation not less than 5cm thickness fiber glass.</p> <p>VRF system shall has a capability to interface with BMS . The system include (measurement control) and equipped with a computer (Laptop) and provider of Building Management System – (BMS) and all necessary software , modules , cables, sensors, interface box, router / dongle flash to be with all controls for protection (air control and temperature control) and all needed accessories to interface with BMS.System should be programmed with the Central / Main (BMS).</p> <p>refrigrant to be of environment friendly (R 407)</p>	Set	1		
5C-2	Ditto but Number of outdoor (one unit) Total Load (24.5 KW).	No	1		
5C-3	Ditto but Number of outdoor (two) the cooling ability of each one: (48 KW) Total Load (96 KW).	No	1		
5C-4	Ditto but Number of outdoor (four) the cooling ability of each one: (58 KW) Total Load (232 KW).	No	1		
5C-5	<p>Supply, installation , test and operate internal air conditioning unit (Wall Mounted-VRF TYPE) Model (Decorative) with remote control (cooling / heating) from the same type of outdoor units to be equipped with all the filters required with every needed to install and operate the unit and all needed Pipes, all cables , Refnet Joint 2 numbers for each unit and needed valves.</p> <p>Cooling Capacity: (9 KW).</p> <p>Air flow: (835 CFM).</p>	No	3		
5C-6	Ditto but (5.25 KW) Air flow: (430 CFM).	No	2		
5C-7	Ditto but (3.5 KW) Air flow: (380 CFM).	No	7		
5C-8	Ditto but (Four way Cassette unit type) with built in condensed water pump (7 KW) Air flow: (700 CFM).	No	27		
5C-9	Ditto but (6 KW) Air flow: (600 CFM).	No	16		
5C-10	Ditto but (5.25 KW) Air flow: (550 CFM).	No	9		
5C-11	Ditto but (4 KW) Air flow: (470 CFM).	No	6		
5C-12	Ditto but (3.5 KW) Air flow: (430 CFM).	No	7		
5C-13	Ditto but (Free stand unit type) connected to VRF system with built in condensed water pump (16 KW) Air flow: (1800 CFM).	No	6		

No.	Item	Unit	Qty.	Unit Rate USD	Total USD
5C-15	Supply, install, test, and commission DX type (mini-split A/C unit & split unit A/C unit-INVERTER TYPE) Cooling / Heating cooling capacity (5.5 KW) type of (Electra-Tadiran - Petra) or equivalent with (remote control). consists of indoor unit and outdoor unit equipped with (filter dust - Filter Plasma) and compressors are supported from the same manufacturer of the unit. The external units body will be made of anodized aluminum and resistant to rust and corrosion, insulated copper Pipes and electrical cables and others according to requirements of the preampels and specifications	No	2		
5C-16	Supply , install, test and commission wall mounted extract fan, unit rates includes necessary insulation, supports , sleeves, dampers, all required electrical cables , and flexible connections connected to ducts according to drawings and engineer instructions. CAPACITY : (300 CFM), At Static pressure 70 Pascal.	No	1		
5C-17	Ditto, but CAPACITY : (200 CFM), At Static pressure 70 Pascal	No	1		
5C-18	Ditto, but CAPACITY : (100 CFM), At Static pressure 50 Pascal	No	2		
5C-20	Supply , install, test and commission Inline Extract Fan (silent Type), to be tights installed completed with all necessary supports, sleeves, dampers, and all required electrical cables , and flexible connections connected to ducts according to drawings and engineer instructions. And should be connected with (Exhaust & Fresh air) According to drawings and engineers approval. CAPACITY : (2000 CFM), At Static pressure 100 Pascal	No	2		
5C-21	Supply , install, test and commission Centrifugal Blower ROFTOP Extract Fan (silent Type) should be weather proof, to be tights installed completed with all necessary supports, sleeves, dampers, and all required electrical cables ,and flexible connections connected to ducts according to drawings and engineer instructions. and should be connected with (Exhaust & Fresh air) According to drawings and engineers approval. CAPACITY : (8000 CFM), At Static pressure 400 Pascal	No	2		
5C-22	Ditto, but CAPACITY : (4800 CFM), At Static pressure 300 Pascal	No	1		
5C-23	Ditto, but CAPACITY : (4000 CFM), At Static pressure 300 Pascal	No	1		
5C-24	Ditto, but CAPACITY : (2100 CFM), At Static pressure 300 Pascal	No	1		
5C-25	Ditto, but CAPACITY : (1500 CFM), At Static pressure 200 Pascal	No	1		
5C-26	Ditto, but CAPACITY : (1400 CFM), At Static pressure 200 Pascal	No	2		
5C-27	Ditto, but CAPACITY : (1300 CFM), At Static pressure 300 Pascal	No	1		
5C-28	Ditto, but CAPACITY : (1000 CFM), At Static pressure 200 Pascal	No	1		
5C-29	Ditto, but CAPACITY : (900 CFM), At Static pressure 300 Pascal	No	1		
5C-20	Supply and install galvanized steel insulated sheet ducts (thick : 0.7 mm) according to SMACNA, with proper gage as specified for supply and return air including all accessories, galvanized hangers, bolts, flexible connections , thermal insulation materials of 1" inch thickness ,density 24kg/m³ with volume control damper (VCD)on all branches and According to drawings and engineers approval .	m²	20		
5C-21	Ditto, but duct for extract air fan ,without insulation.	m²	200		
5C-22	Ditto, but including cladding thick (0.6mm) with thermal insulation materials (2") inch thickness ,density 36kg/m³ for extract duct on the roof.	m²	10		
5C-23	Supply , install , test and commission anodized aluminum supply Jet flow diffuser air grill (S.A.G),unit rate shall include fixation with and cooection to opposite blade damper , air volume controller. galvanized steel air box . According to the drawings size : 10" the price includes removal of the existing supply diffusers, making proper openings,instaling new diffusers, maintaining and finishing works around the openings according to engineer instructions.	No	30		
5C-24	Supply and install anodized aluminum ceiling grill for return air (CRG) the price includes fixation with and connection to opposite blade damper air volume controller. Including galvanized steel air box . According to the drawings size : 60 x 60 (cm)	No	31		
5C-25	Ditto, but size : 80 x 20 (cm)	No	22		
5C-26	Ditto, but size : 15 x 2150 (cm)	No	43		

No.	Item	Unit	Qty.	Unit Rate USD	Total USD
5C-27	Supply , install , test and commission Air curtain of a High quality, to be installed at the entrances of a total width of 2.2meters with three speed switch, curtain to cover	No	2		
5C-28	Ditto but 2.6 width	No	1		
5C-29	Check, inspect, maintain and operate the existing roof top package unit of 70 Ton Rfrigrant installed on the roof of the theatre, unit needs to be well maintained . The	L.S	1		
	Steam & Sauna Works				
5C-30	Supply, install and commission a public steam room according to the national standards, dimensions of the room (5 polygon) to be as shown on the drawings (1.8mx2.0mx3mx1.5mx2.4m), room to be completely finished with colored mosaic , color & type to be chosen by the engineer, room to be with a comfortable two steps of approved mosaic seats (60cm width, and 50cm height) all around the room, ceiling with slope to be covered by mosaic 2.5m height a steam jet supply nozzle to be in the middle of the room covered with a suitable modern steam fountain, also a stainless steel floor drain must be installed in the ground for the condensate to nearest drainage network, anti humidity lighting decorative fixtures. An electric - high pressure- steam generator to be placed in the mechanical room with a power of 12KW (3-phase) to cover a room volume of 21m3 approximately, working temperature range to be (40-70C), working time (1-60 min.) or non-stop mode, generator to be with all protections, filters and auto (0-50TDS) RO clean water feed and the emergency stop mode. Also generator to be with AC adapter, water level sensor, safety relief valve, and all related works, all according to the engineer's approval.	L.S	1		
5C-31	<p>Supply, install and commission a sauna room (dry room), dimensions are shown on the drawings (2.9mx2.1mx2.6m) stone walls, to be completely covered by the finishing sauna Red Cedar wood, rock wool 5cm, 48kg/m3 thermal insulation for walls, floor and ceiling, room to be with a suitable built in comfortable seat all around the room (50cm width 50cm height), with easy mobility, a floor mounted electric heater not less than 15KW to match the volume of the room-see manufacturer, with a stainless steel casing material, digital silver control panel, timer for control, radio for local bands, flash adobe, enough sauna stones, including external controller and heating tube, and all related safety works for temperature controlling, door opening, temperature glass window monitoring and all related works according to the engineer's approval.</p> <p>The works include Clear Western Red Cedar or Aspen sauna bench stock; 1 1/2" x 5 1/2", with rounded edges, dried to 8%. Clear Western Red Cedar or Aspen sauna cove molding, door casing trim and backrest. Clear Western Red Cedar or Aspen paneling stock; 1/2" x 3" v-groove, dried to 8%. Finnish Red Cedar or Aspen sauna paneling stock; dried to 6 - 8%, 9/16" thickness, traditional rustic knotty look, Pressure relief grooves in back for air flow. Clear Western Red Cedar or Aspen bench stock; 1 3/4" thick with 1/2" rounded corners, dried to 8%. Western Red Cedar or Aspen paneling stock; waterfall tongue & groove, dried to 8%. Clear Western Red Cedar or Aspen used for making Duckboard, Headrests & Backrests. Snap-together floor tile. Clear Western Red Cedar or Aspen molding for wall corners and ceiling; 1/2 x 1 3/8" with 1/4" radius corner. Aluminum foil vapor barrier (which installs behind paneling) and stainless steel strip nails for paneling and trim (fits most finish nail guns).</p> <p>Paneling Install Direction: Vertical install floor to ceiling.</p> <p>Sauna Heater Guard Included with Junior 3.0 digital wall control. Junior sauna heater with 22 lbs. of Finnish vulcanite rocks. Sauna Logic wall mounted intuitive digital control panel. Contactor power control box.</p> <p>Free Accessory Combo Kit (Item wood type or aromatherapy brand subject to change due to availability).</p> <p>Sauna Door has half glass - hinged -Red Cedar or Aspen. This insulated standard size sauna door has two layers of knot free clear white aspen tongue and groove paneling. Bronze tinted glass unit is tempered for safety. Door is assembled in heavy duty laminated four sided jamb. The door includes all necessary hardware: hinges, magnetic latch and wood handles. Superior Sauna quality doors are made with kiln dried furniture grade materials for durability in sauna environment.</p> <p>Wall Mounted Backrest in Matching Woods</p> <p>Sauna Backrest: Two Portable Headrest / Backrest matching wood</p>	L.S	1		

No.	Item	Unit	Qty.	Unit Rate USD	Total USD
	<p>Sauna Lighting: Compact 180 Light Shade Wall Light Combo. Two Aspen Corner Shade/Light Combos. The sauna light fixture is a satin aluminum base with white glass shade and vapor proof gaskets on the base and glass shade. Porcelain sockets supports up to 100W light bulb at 220v AC. Dimmer switch is included to achieve desired lighting level for sauna.</p> <p>Accessory Combo: Aspen deluxe 6 piece combo</p> <p>Skirting to Benches: Skirting will match bench wood type</p> <p>Snap Together Flooring Tile in Matching Woods with plastic base snap together grids. Corner and edge transition pieces are also included.</p>				
Total of Bill No. (5-C)					
Total of Bill (5) Mechanical works					

No.	Item	Unit	Qty.	Unit Rate USD	Total USD
	Bill No. (6) Miscellaneous Works				
	<p>The works include:</p> <p>Supplying, installing, commissioning & testing the following items with all the required materials to complete the job in accordance with the BOQ, drawings, specifications and the engineer's instructions. The prices should include all the materials and accessories needed to complete the job.</p> <p>-The Contractor has to submit Detailed Shop Drawings to be approved by the Engineer before commencement of the work.</p> <p>-All equipment shall be produced by European manufacturers in accordance with the European Standard.</p> <p>-The contractor must submit the original catalogues with technical data sheets, all certified and calculation sheets test for all different systems components according to the required parameters and engineer's instructions in addition to the certificate of origin.</p> <p>- The unit Price will include required demolishing, dismantling any works (concrete , block works, tiles, granite, plastering, paintingetc.) to implement the new design according to drawings and reinstatement of the relevant existing works including supplying , transporting and installing of nessacery materials, equipment, workmanship, testing, removing all surplus materials to places directed by the engineer, handing the dismantled materials to the owner as directed by engineer, and all direct and indirect works in addition to works needed to finalize items according to new design drawings and specifications and engineer's instructions.</p> <p>Unit rates of Items shall include:-</p> <p>1. All form works and shuttering (new lumber for shuttering painted by special oil (fuel or burnt oil is not accepted) in any form, shape and size . Making chamfered and curved edges, allowing for and making grooves and sleeves and using Tie Rods (Batant) for concrete walls ; removal of forms and cleaning of all exposed tie wires and rods. Steel forms must be used in shuttering the external decorations.</p> <p>2. Supplying of materials, Casting, vibrating and curing as per specifications.</p> <p>3. Approved additives and admixtures.</p> <p>4. Developing new concrete job mix designs, sampling , testing and providing test results certificates, storing and saving of samples.</p> <p>5. Painting of exposed surfaces of underground reinforced concrete elements with two coats of hot bituminous paint (75/25) after primer layer , the strokes of each layer to be opposite to each other.</p> <p>6. Preliminary installations for Electrical, plumbing and floor drainage in all floor slabs including the final floor .</p> <p>7. Compaction and testing under the foundation, ground beams, ground slabs and Apron. the compaction should not be less than 98% of MDD.</p> <p>8. Supply, fabricate and fix reinforcement steel ($f_y = 410 \text{ N/mm}^2$) for all the structural elements according to drawings and engineer's instructions for any grade, size and length as detailed in the drawings, storing on site including cutting, bending and fixing in position and providing all tie wires, spacers, shop drawings, testing and bar bending schedules .</p> <p>9. In rehabilitation works, supply fabricate and fix steel dowels to the existing concrete using special adhesive materials. Cleaning and treatment with special materials of the existing steel reinforcement, will included in Items rates.</p> <p>10. In case there is intersecting of existing footings with the new proposed ones, the contractor is deemed to have included in his price the cost of required modifications including design , extra works and all needed materials.</p> <p>11. The works shall include removal of any existing insulation sheets, foam concrete, drilling and fixing reinforcement dwells steel in the existing slab, cleaning rust , treatment with special materials and reinstatement of the insulation layer around the new constructed part inclusive of all needed materials and workmanship.</p> <p>12- All safety measures, scaffolding and all required by the engineer</p>				

No.	Item	Unit	Qty.	Unit Rate USD	Total USD
	13- Columns are to be measured from the top level of the slab to the bottom level of the bottom upper slab or the bottom of drop beam. 14- The concrete surface of slabs must be finished with mechanical steel trowel machine. 15-Contractor shall submit shop drawings for a approval by the Engineer before executing the work. As-built drawings shall be submitted after completing the work.				
6.1	Carefully demolish and/or remove all the existing obstacles contradicting with the new design drawings (trees, concrete elements, ground beams, foundations, boundary walls where needed, block works,.....etc.) , dismantling of the existing steel entrance gate, to cary out the new design. The price includes dismantling the existing paving tiles, curb stones and store in a safe place (to be reinstalled) and removing of all the debris and surplus materials from site to approved dump site as per drawings, specifications and engineer's instructions by the engineer. <u>The existing generator plat form is not included.</u>	L.S	1		
6.2	Carefully cut mechanically and demolish part of the existing generator's concrete platform. The price includes removing of all the debris from site to approved places by the engineer.	M ²	5		
6.3	Supply, spread, lay, and test colored interlock tiles 8cm thick, the price includes excavation, backfilling, leveling, compaction and testing of subgrade (98% MDD) , supply and lay clean Kurkar layer of minimum 25 cm (98% MDD) , 20cm base coarse layer (100% MDD) ,supplying ,installing and testing of 8 cm interlock colored tiles 49 N/mm ² of 10 mm thick. bazelt layer, 5 cm clean safia sand bedding, filling the tiles with clean safia sand with compaction, closing ends with cement mortar, adjustment of all types of man halls to the design level and cleaning of all unwanted materials and surplus materials to approved dump site.	M ²	1450		
6.4	Ditto but using the dismantled interlocked tiles at the proposed locations.	M ²	450		
6.5	Supply, install , test and build Hydraulically pressed to BS 7263 pre-cast concrete curbstones for the sidewalks with size of (15x30x100cm) including all necessary excavations, leveling, compaction of subgrade, filling with dune sand & compaction to 98% of MDD, the base coarse layer (30x13 cm) with compaction of 100% MDD, B200 plain concrete foundation (27x12cm) under the curbs and (19x12cm) backing behind, 2 cm cement mortar under the curbs, filling joints between curbs with cement mortar and painting with one prime coat and two finishing coats of approved tested brand name painting material ,expansion joint every 12 meter with selotex board and filling 3cm with (mix between hot bitumen and sand.	RM	500		
6.6	Ditto but using dismantled pre-cast concrete curbstones at the proposed locations.	RM	150		
6.7	Supply , cast , and cure reinforced ready mix concrete (B250) for the external steps, ramps ,entrance gates, boundary walls concrete elements, ground beams, and any others required concrete elements. The price includes form work, testing, steel reinforcement, steel shuttering if needed, preliminary installation of electrical works,scaffolding, spacers, wires, nails, vibrations,.....etc.	M ³	40		
6.8	Ditto but ready mix concrete (B250) for generator's platform.	M ²	20		
6.9	Supply and install high quality natural stone of Jammaien west bank molatah stone (Band Ardi layer depth 1.6 m) 5.0 cm thick for boundary walls with concrete backing filling 5.0cm (Grade B-200) with steel mesh 6mm dia @ 20cmm for the main building parapet. The price includes scaffolding, cleaning, pointing, galvanized steel anchors to walls / columns, wooden piles, adhesive materials to fix the stone, galvanized steel plate making any required decoration, shapes ,colours, and other required materials to complete the work as per specifications and the engineer's instructions.	M ²	1250		
6.10	Ditto but smooth polished stone for decoration, coping and where needed.	M ²	450		
6.11	Supply and install smooth natural stone of Jammaien west bank stone (Band Ardi layer depth 1.6 m) 60*30*3cm for pergulas floors and sides.	M ²	220		

No.	Item	Unit	Qty.	Unit Rate USD	Total USD
	C- Planting Works: Supply, plant and maintain the flowing (trees and grass)including all needed materials, agriculture soil with minimum 30cm thickness,irrigation,pesticide, fertilizers & workmanship to complete the job according to the drawings, specifications and the engineer's instructions for the following items: -				
6.12	Relocate some of the existing trees by replanting them to new locations including all the needed materials to complete the job.	No.	20		
6.13	Supply and plant FICUS BENJAMINA tree free of diseases (25) litters pot, trunk height is not les than 2.0 meters and girth not less than 5.0cm, as per the engineer's instructions.	No.	20		
6.14	Supply and Execute plates of green grass (COCOIA+PESBLONE) Free from diseases and facility certificate of origin for the playground, spreading of 5cm clean sand, Compost under the grass the work includes excavation, backfilling with 30 cm agriculture soil (clean clay: clean sand 1:1) leveling of subgrade, irrigation .	M ²	1700		
6.15	Supply ,construct, disinfect and test reinforced fair face concrete underground water tank (B300) with size of (9.75M x 3.75m x4.75M) and details as shown on the drawings. the unit rate shall include water stop (vertical & horizontal) where required , including two openings 80*80 cm covered with two stainless steel(304) lockable covers with lipping tupe,handels, rubber for water tightness , Price also includes the plastering for roof , supplying and installation of ceramic tiles for floor and walls excavation , back filling with compacted imported clean safia sand, painting the external concrete surfaces with one primer coat paint and two coats of hot bitumen (75/25) , and supplying and installing two internal stainless steel ladders and all pipes crossing concrete walls must be welded with steel plates as shown in drawings.	L.S	1		
6.16	Supply and construct reinforced fair face concrete sewer tank (B300) with size (2.8m * 2.8m * 5m) using water stop (vertical and horizontal) where required and details as shown on the drawings. with cast iron cover (25 ton type 60*60 cm). Price also includes excavation , back filling with imported clean sand, (two coats) of hot bitumin (75/25) with one primer coat paint externally, supplying and installing stainless steel ladder, stainless steel pipes crossing the concrete walls must be welded with steel plates as shown in the drawings.	L.S	2		
6.17	Supply and construct reinforced concrete fountain DWG No(AR-51) . The unit rate includes marble works ,excavation , backfilling , supplying and installation of ceramic tiles , painting the underground concrete surfaces with hot bituminous (75/25) with one primer coat paint externally(two coats), supplying and installation, testing and commission a full fountain, composed of the volcano shape nozzle, floor drain, filling inlet, evacuating outlet to waste or green areas, work include all meridor piping and fittings and all related civil and electromechanical works.	Unit	1		
6.18	Supply and construct wooden Pergolas(type 01)(drawing AR-42) the price includes supply and cast Reinforced concrete ground floor slab (B250), Reinforced concrete ground beams (B250), excavation , backfilling, galvanized steel elements for fixation inside concrete, and required materials, accessories, workmanship to complete the job according to drawings, specifications and engineer's instructions.	Unit	15		
6.19	Ditto but for wooden Pergolas(type 02) (drawing AR-43)	Unit	1		
6.20	Ditto but for Cafeteria wooden Pergolas.DWG no (AR-47 , AR-47)	Unit	1		
6.21	Supply and fix Garden seats.DWG no (AR-48). The price includes colored hummer painted decorative galvanized steel profile 2 mm thickness, lazour painted Swedish wood (one coat of sandic sealer, two cats of approved lazour paints and at least one coat of approved varnish paint. Fixation of the chairs by 6mm galvanized steel plate , galvanized steel bolts, and concrete base and all required work to complete the work according to drawings, specifications and engineer's instructions	Unit	11		

No.	Item	Unit	Qty.	Unit Rate USD	Total USD
6.22	Supply and construct Children playing area including all materials accessories detailed shop drawings, required special colored paints according to drawing No (AR-49) . The price includes suppling and installing and fixing all required wooden / steel supports in the the ground by (B250)reinforced concrete with steel anchors including excavation , formwork and backfilling with clean sand.	Unit	1		
6.23	Supply and construct Gas Cabinet DWG (AR - 52) including reinforced concrete ground slab B250, steel, fire clay roof with galvanized steel profile 80*40*2.2 mm, steel mesh 50*50*3mm PVC coated, galvanized steel angels 50*50*4mm and all required materials, accessories according to drawings, specifications and engineer's instructions .	Unit	1		
6.24	Supply and fix galvanized steel trash bin 3mm thick, galvanized steel pipe 2 inch diameter with fixing plates, anchors and anchor bolts, 2x10cm Swedish wood, excavation, backfilling and all concrete works 40x40x40cm, ...etc. as shown in the drawings.	Unit	14		
6.25	Supply and install cylindrical steel fuel tank with 5000 litter capacity and 6 mm thick. complete with all the required valves, fittings, float valve, measuring scale, pipes , steel ladder, steel base and support, ventilation pipes, lockable feeder pipe steel lockable cover, clean out valve, Solenoid valve with fuel sensor controlled by control panel, visual level indicator fittings .excavation, concrete foundation base and backfilling and paint one primer coat , at least two coats of hummer paints and all materials and accessories to complete the work according to specification and engineer's instructions. Drawing (AR-62) The price includes supplying, installing and commission special fuel pump gear type with rotation speed not greater than 1450 RPM, efficiency not less than 70% and stainless steel impeller & gears, including pressure switches, flow switches, float switches, control panel, electrical protection panel (overload protection), all required and necessary fittings, accessories, valves, gate valves, globe valves, check valves, gauges, filters, flexible connections, power connections between the unit & the power panel, to operate the pump .	Unit	1		
6.26	Supply and fix galvanized steel decorative double leaves entrance gate 3.71m length x 2.75m height as per drawings. drawings no (AR-50) .the price includes supplying and installing galvanized steel frame 80*40*3mm to be filled with concrete, fixation to concrete columns using steel plates 4 mm thick, anchors, welding, handle , latches, locks, colored polycarbonate sheets 3mm, electrical switch, electrical cables, with the needed controls along with accessories, ironmongery and painting with one primer coat and two coats of hummer paints	Unit	4		
6.27	Supply and fix decorative galvanized steel bars 1x1cm for boundary wall ,60cm height as per drawings (AR-50). The price includes painting with one primer coat and two coats of Hummer paints as required by the engineer.	M.R	100		
Total of Bill (6) Miscellaneous works					

No.	Item	Unit	Qty.	Unit Rate USD	Total USD
Bill No. (7) Electrical works					
	<p>Bill No. (7) Electrical works</p> <p>- The Contractor has to submit Detailed Shop Drawings and method of statement to be approved by the Engineer before commencement of the work.</p> <p>-The unit rate include maintain the following systems and submit warrantees for two years.</p> <p>- The cables of BMS and ELV systems (CCTV, Public Address, Lighting control, Access control ,...etc) should have a separate cable tray under false ceiling as per specification and engineer's instruction.</p> <p>- The contractor has to submit detailed schedules for the onsite training program for each system (lighting control system, ELV systems, solar system) separately for the commissioning, operation and maintenance purpose during the commissioning works,in addition he has to submit all the written parameters for each system to the supervision team. The unite rates include the cost of training for at least 6 persons in the siteduring the commissioning period for 5 hours daily and 7 days, all under the approval and monitoring of the supervision engineer.</p> <p>-The rates include all restatement of civil works (concrete, Block, Finishing, carpentry , metal ,...ect) resulting of electrical work .</p>				
Bill No. (7.A) Main Building Electrical Works					
A.1 Internal Lighting Works					
*	Supply, install and operate the following Items , the price includes 3x1.5mm ² flexible bundle pvc cables , PVC conduites, Cable tray with accessories (If needed as per engineers instructions) ,ducts, clamps, supports, labeling , junction box ,civil works with all needed connection and accessories and any other needed materials and workmanship to complete the job as per specification drawing and engineer's instructions				
A.1.1	Recessed Luminaire LED Lighting Fixture 30W , Panel Light 60X60 cm, false ceiling mounted, 3,150Lm, 6000K, CRI 80. (Type is Gaash Model # 5Z00351 or equivalent)	No.	393		
A.1.2	Recessed Mounted LED Lighting Spot 12-15 watt , 8" diameter with 85 lumen/watt and life time 30000 hours. 4000K-6500K (Type is LIPER or equivalent).	No.	169		
A.1.3	Surfaced Mounted LED Lighting Fixture 14w , Circular with 1,100 lumen and life time 30000 hours. (Type is Gaash Model # 5Z00351 or equivalent)	No.	51		
A.1.4	Ditto, but outdoor Decorative wall mounted with diffuser. (Type is Gaash or equivalent)	No.	10		
A.1.5	Surfaced mounted lighting fixture , including LED lamps 2x16W Philips, T8 , 1200mm ,230V,not less than 100 Lumen/W , daylight 6500 K. (Type is Gaash or equivalent)	No.	12		
A.1.6	Ditto, but waterproof type IP 65. (Type is Gaash or equivalent)	No.	15		
A.1.7	Surfaced mounted lighting fixture ,including LED lamps 1X16 w , 1600 lumen, with asyemetric reflector for the classrooms blackboards, exit window 140 degre T8 , 1200mm ,230V,not less than 100 Lumen/W , daylight 6500 K. (Type is Gaash or equivalent)	No.	12		
A.1.8	Recessed Mounted LED Lighting Spot 5-7 watt , 4" diameter with 85 lumen/watt and life time 30000 hours. 4000K-6500K (Type is LIPER or equivalent).	No.	425		
A.1.9	Decorative Suspended Chandelier with 16 LED lamps 2-4 watt each lamp.Type must be European made , Coplete withh all neded suports, frames and accessories, high quality and brand name.	No.	1		
A.1.10	Ditto But With 8 Lamps.	No.	1		
A.1.11	Surfaced Mounted Covered Diffuser Luminair LED Lighting Fixture 20-30w, for bathroom above mirror, Rectangular size from 50-60 cm, with life time 30000 hours. (Type is Brand Name)	No.	24		
A.1.12	Indirect lighting LED Strip , high quality for use inside the hidden and lighting in gypsum ceilings, with all needed accessories, fittings and power supply socket (Type is Brand Name) .	L.M.	200		

No.	Item	Unit	Qty.	Unit Rate USD	Total USD
A.1.13	Recessed Stair Mounted lighting Unit for Theater LED 4-8 watt, IP 65, 4000K-6500K. (Type is Eourpean Brand Name).	No.	30		
A.1.14	Supply , Install & operate wall mounting 50W RGB LED flood light projector ,dimmable, color changing ,16 colors, water proof with remote control type(LE) IP65 or equivalent complete with all needed XLPE cable 3x2.5 mm ² , Multicore, and control cables conduits, clamps, supports and frame to fix the fixture, fittings, and accessories and any other needed materials and workmanship to complete the job.	Unit	4		
A.1.15	Ditto But daylight flood light.	Unit	2		
A.1.16	Lighting Emergency Signs (EXIT) surface mounted, LED , emergency time 180 minutes ,complete set with accessories. (Type is Gaash # 580015 or equivalent)	No.	16		
A.1.17	Recessed Mounted Emergency Lighting , LED , 3 watt, 160 LM with emergency backup time 180 minutes ,complete set with accessories. (Type is Gaash # 5878953 or equivalent)	No.	80		
A.2	Power Socket				
	Supply, install and operate the following power sockets, the price includes 3x2.5mm ² flexible bundle pvc cables, PVC conduites, Cable tray (If needed as per engineers instructions) ,ducts, clamps, labeling , junction box , connection boxes, cover plate supports, fixing bolts, connection, civil works with all needed connection and accessories and any other needed materials and workmanship to complete the job as per specification drawing and engineer's instructions				
A.2.1	Single phase flush 220V,16A socket outlet. (Type is GEWISS Chorus or equivalent)	No.	166		
A.2.2	Ditto, but Table Mounted in computer class. (Type is GEWISS Chorus or equivalent)	No.	12		
A.2.3	Ditto item 2.1, but water proof single socket. (Type is GEWISS Chorus or equivalent)	No.	45		
A.2.4	Supply, install & operate waterproof 3ph (380 V, 3P N & E , 32AMP SWITCHED INTERLOCKED SOCKET (SHELTER OUTLET) complete set with all needed accessories, power cables 5X6mm ² XLPE cables, pipes, ducts, trays, connection boxes, fixing bolts, connection and commissioning. (Type is GEWISS or equivalent)	Unit	25		
A.3	Hand Dryer Supply and install complete automatic operated infra red hand dryer 2000w stainless steel brand name with all needed 3x4 mm ² XLPE cable ,conduit connection boxes fixing bolts, connection any other needed materials and workmanship to complete the job.	No.	5		
A.4	Supply and install Heat Shrinkable Low Voltage Cable Joints & Terminations Kit To suit low voltage cables type XLPE 0.6/1 KV to be used as a Joint for Exiting XLPE CABLE 3x95+50mm ² in building . The price includes all needed copper Connections, insulation tubes, clamps. heat shrink tubes for inside and outside and all needed fittings, accessories to complete the work as per the specifications and engineer's instructions.	Unit	4		
A.5	Cables				
	Supply, laying and termination of XLPE CU cable, including labeling cable lugs, cable glands ,pipes. Ducts with all required electrical and civil works to connect cable terminals from source to destination. According to drawings, specifications and the engineer's approval and any other needed materials and workmanship to complete the job.				
A.5.1	XLPE -N2XY Cable (3x240+120)mm ²	R.M.	360		
A.5.2	XLPE cable 3x120+70 mm ²	R.M.	150		
A.5.3	XLPE cable 3x95+50 mm ²	R.M.	50		
A.5.4	XLPE cable 3x50+25 mm ²	R.M.	50		
A.5.5	XLPE cable 3x35+16 mm ²	R.M.	30		
A.5.6	XLPE cable 3x25+16 mm ²	R.M.	30		
A.5.7	XLPE cable 5x25 mm ²	R.M.	600		
A.5.8	XLPE cable 5x16 mm ²	R.M.	350		

No.	Item	Unit	Qty.	Unit Rate USD	Total USD
A.5.9	XLPE cable 5x10 mm ²	R.M.	300		
A.5.10	XLPE cable 5x6 mm ²	R.M.	600		
A.5.11	XLPE cable 5x4 mm ²	R.M.	300		
A.5.12	XLPE cable 5x2.5 mm ²	R.M.	150		
A.5.13	XLPE cable 3x6 mm ²	R.M.	150		
A.5.14	XLPE cable 3x4 mm ²	R.M.	150		
A.6	Cable tray				
A.6.1	Supply and erect hot galv. Suspended or wall mounting channel cable tray type Besca width 60cm, 1.5mm thickness or equivalent complete with all needed fitting such as straight coupler, elbow coupler, tee coupler, divider etc. and works to lay and arrange cable according to drawing, specification and instruction. The Contractor has to submit Detailed Shop Drawings to be approved by the Engineer before commencement of the work, and all required materials should be supplied as specified and subject to the Engineer's approval. Also the cable tray must be provided with complete continuity earth conductor at every joint(NYA 1x16mm ² Flexible CU. wire.)	R.M.	40		
A.6.2	Ditto but width 30cm with sun shade cover for outdoor cable tray on roof.	R.M.	50		
A.6.3	Ditto but width 20cm cable tray .	R.M.	100		
A.6.4	Ditto but width 15cm cable tray .	R.M.	100		
A.6.5	Ditto but width 10cm cable tray .	R.M.	100		
A.7	Cable ladder				
A.7.1	Supply H.G. cable ladder 60cm width type Besca or equivalent with all needed accessories for fixing and installation according to instructions. Also the ladder must be complete earthed by NAY 1x10mm ² wire.	R.M.	30		
A.7.2	Ditto but width 30cm .	R.M.	30		
A.8	Low Voltage Electrical Boards				
A	Main Distribution Board MDB - BASEMENT FLOOR				
A.1	Supply, install and commission main distribution board (MDB) .The frame is made of hot galvanized steel sheets 2mm thickness, painted by antistatic and insulation paint. The unit rate for the below items include Power and control wires, connections terminals , PVC ducts, suitable rating copper bus-bars for three phases, neutral and separate earth bus bar, Ventilation, trenches, civil works, earthing and all needed accessories. -Labelling inside and outside panel and S.L.D diagram fixed inside panel . -The panel size will have to include into consideration all electrical Components including M.C.B , MCCB , ATS,...etc with 30% free space. (Enclosure is made by xEnergy type test Eaton.)	Unit	1		
A.2	Supply and install Molded Case Circuit Breaker MCCB 4X800A.Type EATON NZMN4-800A or equivalent). With external hand.	No.	1		
A.3	Supply and install Molded Case Circuit Breaker MCCB 4X400A.Type EATON NZMN3-400A or equivalent).	No.	1		
A.4	Ditto as (A.3) but NZMN2- 3x250A .	No.	1		
A.5	Ditto as (A.3) but NZMN1- 4x80A . With external hand	No.	1		
A.6	Ditto as (A.3) but NZMN1- 3x80A .	No.	2		
A.7	Ditto as (A.3) but NZMN1- 3x63A .	No.	9		
A.8	Ditto as (A.3) but NZMN1- 3x32A .	No.	6		
A.9	Supply and install Minture Circuit Breaker MCB 3X25A.Type EATON FAZ-D25/3 or equivalent).	No.	6		
A.10	Ditto as (A.9) but 3x32A.	No.	1		
A.11	Sypply and install 3-PH Mains/Solar. Automatic Change Over switch(ATS), motorized type, made of Two NZM 160A, 400V(N2-4-160), with electrical and mechanical inter-lock, including control and all needed accessories. Type Moeller or equivalent..	No.	1		
A.12	Supply and install Manual transfer switch MTS 4x160A with all needed connections and accessories.	No.	1		
A.13	Supply and install 3 Indication Lamps R-S-T the item includes push button, LTL fuse3x10/6A and all needed connection.	Set.	2		
A.14	Supply and install Current Transformer 1000/5A.	No.	3		
A.15	Supply and install 3ph.digital multimeter.	No.	1		

No.	Item	Unit	Qty.	Unit Rate USD	Total USD
B	SUB AC Distribution Board - ROOF FLOOR				
B.1	Supply, install and commission main distribution board (ACMDB) .The frame is made of hot galvanized steel sheets 2mm thickness, painted by antistatic and insulation paint.The unit rate for the below items include Power and control wires,connections terminals , PVC ducts, suitable rating copper bus-bars for three phases, neutral and separate earth bus bar, trenches, civil works, earthing and all needed accessories. -Labeling inside and outside panel and S.L.D diagram fixed inside panel . -The panel size will have to include into consideration all electrical Components including M.C.B , MCCB , ..etc with 30% free space. (Enclosure is made by xEnergy type test Eaton.)	Unit	1		
B.2	Supply and install Molded Case Circuit Breaker MCCB 4X400A.Type EATON NZMN3-400A or equivalent).	No.	1		
B.3	Ditto as (B.2) but NZMB1- 3x160A .	No.	1		
B.4	Ditto as (B.2) but NZMB1- 3x125A .	No.	1		
B.5	Ditto as (B.2) but NZMB1- 3x63A .	No.	1		
B.6	Ditto as (B.2) but NZMB1- 3x40A .	No.	2		
B.7	Ditto as (B.2) but NZMB1- 3x32A .	No.	9		
B.8	Supply and install Minture Circuit Breaker MCB 3X25/20A.Type EATON FAZ-D25/3 or equivalent).	No.	6		
B.9	Ditto as (B.8) but 3x16A.	No.	1		
B.10	Ditto as (B.8) but 2x20A.	No.	1		
B.11	Supply and install 3 Indication Lamps R-S-T the item includes push button, LTL fuse3x10/6A and all needed connection.	Set.	1		
B.12	Supply and install Current Transformer 400/5A.	No.	3		
B.13	Supply and install 3ph.digital multimeter.	No.	1		
C	SDB-AC1,2,3,4,5 (1st B.F , 2nd B.F , G.F , F.F)				
C.1	Supply and install, connect electrical board size of 12 C.B the unit price include Terminals, busbars,wires and all needed materials , accessories and workmanship for proper installation.	Unit	5		
C.2	Supply and install Miniature Circuit Breaker MCB 3X20A,(Type is EATON MOELLER FAZ-D20/3 or equivalent).	No.	1		
C.3	Ditto but MCB 3X16A,(Type is EATON MOELLER FAZ-D16/3 or equivalent).	No.	1		
C.4	Ditto but MCB FAZ-C 2X20/16A, (Type is MOELLER FAZ-C20/2 or equivalent).	No.	2		
C.5	Ditto but, Residual current circuit breaker RCD 2x40A/0.03A , (Type is MOELLER EATON RCD 40/2/0.03A or equivalent).	No.	2		
C.6	Ditto but, Residual current circuit breaker RCD 4x25A/0.03A , (Type is MOELLER EATON RCD 40/2/0.03A or equivalent).	No.	3		
C.7	Ditto but 2x10A,(Type is MOELLER FAZ-C10/1 or equivalent).	No.	1		
C.8	Ditto but 2x16A,(Type is MOELLER FAZ-C16/1 or equivalent).	No.	21		
D	SDB-BFG1 (Basement Floor)				
D.1	Supply, install and commission sub distribution board with double door and switch key. the frame is made of hot galvanized steel sheets 2mm thickness, painted by antistatic and insulation paint.The unit rate for the below items include Wires,connections terminals , PVC ducts, suitable rating busbars,civil works, earthing and all needed accessories. -Labeling and S.L.D diagram fixed inside panel . -Metallic partition between essential and non essential load. -The panel size will have to include into consideration all electrical Components including C.B and lighting control system devices (Actuator, power supply ,bus copluer,etc) with 30% free space. (Type is Moller Eaton or equivalent).	Unit	1		
D.2	Supply and install Molded Case Circuit Breaker MCCB 3X63A, (Type is EATON MOELLER NZMN1-63A or equivalent).	No.	1		
D.3	Supply and install Molded Case Circuit Breaker MCCB 3X63A, (Type is EATON MOELLER NZMB1-63A or equivalent).	No.	1		
D.4	Ditto but MCCB 3X40A, (Type is EATON MOELLER NZMN1-40A or equivalent).	No.	1		
D.5	Ditto but 3X32A,(Type is EATON MOELLER FAZ-C32/3 or equivalent).	No.	1		
D.6	Ditto but 3X25A,(Type is EATON MOELLER FAZ-D25/3 or equivalent).	No.	2		
D.7	Ditto but 3X20A,(Type is EATON MOELLER FAZ-D20/3 or equivalent).	No.	1		

No.	Item	Unit	Qty.	Unit Rate USD	Total USD
D.8	Ditto but, Residual current circuit breaker RCD 4x40A/0.03A , (Type is MOELLER EATON RCD 40/4/0.03A or equivalent).	No.	2		
D.9	Ditto but Miniature Circuit Breaker MCB 1X10A, (Type is MOELLER EATON FAZ-C10/1 or equivalent).	No.	15		
D.10	Ditto but 1x16A,(Type is EATON MOELLER FAZ-C16/1 or equivalent).	No.	7		
D.11	Ditto but 1x20A,(Type is EATON MOELLER FAZ-C20/1 or equivalent).	No.	6		
D.12	Ditto but 1x20A,(Type is EATON MOELLER FAZ-D20/1 or equivalent).	No.	1		
D.13	Supply and install Signal indication lamp R S T ,the item includes push button, LTL fuse3x10/6A and all needed connection.	Set.	2		
E	SDB-BFG2 (Gymnasium Hall-Basement Floor)				
E.1	Ditto as Item (SDB-BFG1)	Unit	1		
E.2	Supply and install Molded Case Circuit Breaker MCCB 3X40A, (Type is EATON MOELLER NZMB1-40A or equivalent).	NO	1		
E.3	Ditto but Miniature Circuit Breaker MCB FAZ-C 3X25A, (Type is MOELLER EATON FAZ-C25/3 or equivalent).	No.	3		
E.4	Ditto but Residual current circuit breaker RCD 4X40A/0.03A, (Type is MOELLER EATON RCD 40/4/0.03A or equivalent).	No.	3		
E.5	Ditto but Miniature Circuit Breaker MCB 1X10A, (Type is MOELLER EATON FAZ-C10/1 or equivalent).	No.	26		
E.6	Ditto but 1x16A,(Type is MOELLER EATON FAZ-C16/1 or equivalent).	No.	17		
E.7	Ditto but 1x20A,(Type is MOELLER EATON FAZ-C20/1 or equivalent).	No.	4		
E.8	Supply and install Signal indication lamp R S T ,the item includes push button, LTL fuse 3x10/6A and all needed connection.	Set.	2		
F	SDB-BFA (AEROBIC- Basement Floor)				
F.1	Ditto as Item (SDB-BFG1)	Unit	1		
F.2	Supply and install Miniature Circuit Breaker Miniature Circuit Breaker MCB FAZ-C 3X25A,(Type is MOELLER EATON FAZ-C25/3 or equivalent).	No.	2		
F.3	Ditto but , Residual current circuit breaker RCD 4x40A/0.03A, (Type is MOELLER EATON RCD 40/4/0.03A or equivalent).	No.	2		
F.4	Ditto but , Miniature Circuit Breaker MCB 1X10A, (Type is MOELLER EATON FAZ-C10/1 or equivalent).	No.	21		
F.5	Ditto but 1x16A,(Type is MOELLER EATON FAZ-C16/1 or equivalent).	No.	16		
F.6	Ditto but 1x20A,(Type is MOELLER EATON FAZ-C20/1 or equivalent).	No.	1		
F.7	Supply and install Signal indication lamp R S T ,the item includes push button, LTL fuse3x10/6A and all needed connection.	Set.	2		
G	SDB-BFK (KITCHEN - Basement Floor)				
G.1	Ditto as Item (SDB-BFG1)	Unit	1		
G.2	Supply and install Molded Case Circuit Breaker MCCB 3X63A, (Type is EATON- MOELLER EATON NZMB1-63A. or equivalent).	No.	1		
G.3	Ditto but, Miniature Circuit Breaker MCB FAZ-C 3X25A ,(Type is MOELLER-EATON FAZ-C25/3 or equivalent).	No.	2		
G.4	Ditto but 3x20A,(Type is MOELLER EATON FAZ-C20/3 or equivalent).	No.	10		
G.5	Ditto but, Residual current circuit breaker RCD 4x40A/0.03A , (Type is MOELLER- EATON RCD 40/4/0.03A or equivalent).	No.	3		
G.6	Ditto but , Miniature Circuit Breaker MCB 1X10A, (Type is MOELLER EATON FAZ-C10/1 or equivalent).	No.	19		
G.7	Ditto but 1x16A,(Type is MOELLER EATON FAZ-C16/1 or equivalent).	No.	26		
G.8	Ditto but 1x20A,(Type is MOELLER EATON FAZ-C20/1 or equivalent).	No.	4		
G.9	Supply and install Signal indication lamp R S T ,the item includes push button, LTL fuse3x10/6A and all needed connection.	Set.	2		
H	SDB-BFL (LAUNDRAY - Basement Floor)				
H.1	Ditto as Item (SDB-BFG1)	Unit	1		
H.2	Supply and install Molded Case Circuit Breaker MCCB 3X63A, (Type is EATON MOELLER NZMB1-63A. or equivalent).	No.	1		
H.3	Ditto but,Miniature Circuit Breaker MCB FAZ-C 3X25A,(Type is MOELLER EATON FAZ-C25/3 or equivalent).	No.	2		
H.4	Ditto but 3x20A,(Type is MOELLER EATON FAZ-C20/3 or equivalent).	No.	4		
H.5	Ditto but, Residual current circuit breaker RCD 4x40A/0.03A , (Type is MOELLER EATON RCD 40/4/0.03A or equivalent).	No.	2		
H.6	Ditto but , Miniature Circuit Breaker MCB 1X10A, (Type is MOELLER EATON FAZ-C10/1 or equivalent).	No.	15		
H.7	Ditto but 1x16A,(Type is MOELLER EATON FAZ-C16/1 or equivalent).	No.	7		

No.	Item	Unit	Qty.	Unit Rate USD	Total USD
H.8	Ditto but 1x20A,(Type is MOELLER EATON FAZ-C20/1 or equivalent).	No.	4		
H.9	Supply and install Signal indication lamp R S T ,the item includes push button, LTL fuse3x10/6A and all needed connection.	Set.	2		
I	SDB-BSG1 (Basement Floor)				
I.1	Ditto as Item (SDB-BFG1)	Unit	1		
I.2	Supply and install Molded Case Circuit Breaker MCCB 3X40A (Type is EATON MOELLER NZMB1-40A. or equivalent).	No.	1		
I.3	Ditto but, Miniature Circuit Breaker MCB FAZ-C 3X32A, (Type is EATON MOELLER FAZ-C32/3 or equivalent).	No.	2		
I.4	Ditto but 3x25A,(Type is MOELLER EATON FAZ-C25/3 or equivalent).	No.	1		
I.5	Ditto but, Residual current circuit breaker RCD 4x40A/0.03A (Type is MOELLER EATON RCD 40/4/0.03A or equivalent).	No.	2		
I.6	Ditto but , Miniature Circuit Breaker MCB 1X10A, (Type is MOELLER EATON FAZ-C10/1 or equivalent).	No.	27		
I.7	Ditto but 1x16A,(Type is MOELLER EATON FAZ-C16/1 or equivalent).	No.	8		
I.8	Ditto but 1x20A,(Type is MOELLER EATON FAZ-C20/1 or equivalent).	No.	2		
I.9	Supply and install Signal indication lamp R S T ,the item includes push button, LTL fuse3x10/6A and all needed connection.	Set.	2		
J	SDB-BSG2 (Basement Floor)				
J.1	Ditto as Item (SDB-BFG1)	Unit	1		
J.2	Supply and install Miniature Circuit Breaker MCB FAZ-C 3X25A, (Type is MOELLER EATON FAZ-C25/3 or equivalent).	No.	1		
J.3	Supply and install Miniature Circuit Breaker MCB FAZ-C 3X25A, (Type is MOELLER EATON FAZ-C25/3 or equivalent).	No.	1		
J.4	Ditto but, Residual current circuit breaker RCD 4x40A/0.03A , (Type is MOELLER EATON RCD 40/4/0.03A or equivalent).	No.	1		
J.5	Ditto but, RCD 2x40A/0.03A, (Type is MOELLER EATON RCD 40/2/0.03A or equivalent).	No.	1		
J.6	Ditto but , Miniature Circuit Breaker MCB 1X10A, (Type is MOELLER EATON FAZ-C10/1 or equivalent).	No.	15		
J.7	Ditto but 1x16A,(Type is MOELLER EATON FAZ-C16/1 or equivalent).	No.	4		
J.8	Ditto but 1x20A,(Type is MOELLER EATON FAZ-C20/1 or equivalent).	No.	1		
J.9	Supply and install Signal indication lamp R S T ,the item includes push button, LTL fuse3x10/6A and all needed connection.	Set.	2		
K	SDB-G1(Ground Floor)				
K.1	Supply, install and commission sub distribution board with switch key. the frame is made of hot galvanized steel sheets 2mm thickness, painted by antistatic and insulation paint.The unit rate for the below items include Wires,connections terminals , PVC ducts, suitable rating busbars,civil works, earthing and all needed accessories. -Labeling and S.L.D diagram fixed inside panel . -The panel size will have to include into consideration all electrical Components including C.B and lighting control system devices (Actuator, power supply ,bus copluer,etc) with 30% free space. (Type is Moller Eaton or equivalent). -The unit rate include Rearrange exiting distribution board to separate essential loads(lightning) and transfer to new panel, the item icludes dismantling exiting C.Bs and deliver to owner, cleaning and all needed works as per approved shopdrawing ,specifications and supervisor engineer instruction's.	Unit	1		
K.2	Supply and install Miniature Circuit Breaker MCB FAZ-C 3X40A, (Type is MOELLER EATON FAZ-C40/3 or equivalent).	No.	1		
K.3	Ditto but, Residual current circuit breaker RCD 4x40A/0.03A, (Type is MOELLER EATON RCD 40/4/0.03A or equivalent).	No.	1		
K.4	Ditto but Miniature Circuit Breaker MCB 1X10A, (Type is MOELLER EATON FAZ-C10/1 or equivalent).	No.	27		
K.5	Ditto but 1x16A,(Type is EATON MOELLER FAZ-C16/1 or equivalent).	No.	7		
K.6	Supply and install Signal indication lamp R S T ,the item includes push button, LTL fuse3x10/6A and all needed connection.	Set.	1		
L	SDB-G2(Ground Floor)				
L.1	Ditto as Item (SDB-BFG1)	Unit	1		
L.2	Supply and install Miniature Circuit Breaker MCB FAZ-C 3X32A,(Type is MOELLER EATON FAZ-C32/3 or equivalent).	No.	1		

No.	Item	Unit	Qty.	Unit Rate USD	Total USD
L.3	Ditto but MCB FAZ-C 3X25A, (Type is MOELLER EATON FAZ-C25/3 or equivalent).	No.	1		
L.4	Ditto but, Residual current circuit breaker RCD 4x40A/0.03A, (Type is MOELLER EATON RCD 40/4/0.03A or equivalent).	No.	2		
L.5	Ditto but Miniature Circuit Breaker MCB 1X10A, (Type is MOELLER EATON FAZ-C10/1 or equivalent).	No.	39		
L.6	Ditto but 1x16A,(Type is EATON MOELLER FAZ-C16/1 or equivalent).	No.	9		
L.7	Ditto but 1x20A,(Type is EATON MOELLER FAZ-C20/1 or equivalent).	No.	4		
L.8	Supply and install Signal indication lamp R S T ,the item includes push button, LTL fuse3x10/6A and all needed connection.	Set.	2		
M	SDB-G3(Ground Floor)				
M.1	Ditto as SDB-G1.	Unit	1		
M.2	Supply and install Miniature Circuit Breaker MCB FAZ-C 3X40A,(Type is MOELLER EATON FAZ-C40/3 or equivalent).	No.	1		
M.3	Ditto but MCB FAZ-C 3X25A,(Type is MOELLER EATON FAZ-C25/3 or equivalent).	No.	1		
M.4	Ditto but, Residual current circuit breaker RCD 4x40A/0.03A, (Type is MOELLER EATON RCD 40/4/0.03A or equivalent).	No.	2		
M.5	Ditto but Miniature Circuit Breaker MCB 1X10A, (Type is MOELLER EATON FAZ-C10/1 or equivalent).	No.	65		
M.6	Ditto but 1x16A,(Type is EATON MOELLER FAZ-C16/1 or equivalent).	No.	8		
M.7	Ditto but 1x20A,(Type is EATON MOELLER FAZ-C20/1 or equivalent).	No.	2		
M.8	Supply and install Signal indication lamp R S T ,the item includes push button, LTL fuse3x10/6A and all needed connection.	Set.	1		
N	SDB-FF1 (First Floor)				
N.1	Ditto as Item (SDB-BFG1)	Unit	1		
N.2	Supply and install Miniature Circuit Breaker MCB FAZ-C 3X32A, (Type is MOELLER FAZ-C32/3 or equivalent).	No.	1		
N.3	Ditto but, MCB FAZ-C 3X25A,(Type is MOELLER FAZ-C25/3 or equivalent).	No.	1		
N.4	Ditto but, Residual current circuit breaker RCD 4x40A/0.03A , (Type is MOELLER EATON RCD 40/4/0.03A or equivalent).	No.	2		
N.5	Ditto but , Miniature Circuit Breaker MCB 1X10A, (Type is MOELLER FAZ-C10/1 or equivalent).	No.	15		
N.6	Ditto but 1x16A,(Type is MOELLER FAZ-C16/1 or equivalent).	No.	13		
N.7	Supply and install Signal indication lamp R S T ,the item includes push button, LTL fuse3x10/6A and all needed connection.	Set.	2		
O	SDB-FF2 (First Floor)				
O.1	Ditto as Item (SDB-BFG1)	Unit	1		
O.2	Supply and install Miniature Circuit Breaker MCB FAZ-C 3X32A, (Type is MOELLER FAZ-C32/3 or equivalent).	No.	1		
O.3	Ditto but, MCB FAZ-C 3X25A, (Type is MOELLER FAZ-C25/3 or equivalent).	No.	1		
O.4	Ditto but, Residual current circuit breaker RCD 4x40A/0.03A, (Type is MOELLER EATON RCD 40/4/0.03A or equivalent).	No.	2		
O.5	Ditto but , Miniature Circuit Breaker MCB 1X10A, (Type is MOELLER FAZ-C10/1 or equivalent).	No.	19		
O.6	Ditto but 1x16A,(Type is MOELLER FAZ-C16/1 or equivalent).	No.	10		
O.7	Ditto but 1x20A.,(Type is MOELLER FAZ-C20/1 or equivalent).	No.	2		
O.8	Supply and install Signal indication lamp R S T ,the item includes push button, LTL fuse3x10/6A and all needed connection.	Set.	2		
P	SDB-FF3 (First Floor)				
P.1	Ditto as Item (SDB-BFG1)	Unit	1		
P.2	Supply and install Miniature Circuit Breaker MCB FAZ-C 3X32A, (Type is MOELLER FAZ-C32/3 or equivalent).	No.	1		
P.3	Ditto but, MCB FAZ-C 3X25A (Type is MOELLER FAZ-C25/3 or equivalent).	No.	1		
P.4	Ditto but, Residual current circuit breaker RCD 4x40A/0.03A , (Type is MOELLER EATON RCD 40/4/0.03A or equivalent).	No.	2		
P.5	Ditto but , Miniature Circuit Breaker MCB 1X10A, (Type is MOELLER FAZ-C10/1 or equivalent).	No.	27		
P.6	Ditto but 1x16A,(Type is MOELLER FAZ-C16/1 or equivalent).	No.	13		
P.7	Ditto but 1x20A.,(Type is MOELLER FAZ-C20/1 or equivalent).	No.	2		

No.	Item	Unit	Qty.	Unit Rate USD	Total USD
P.8	Supply and install Signal indication lamp R S T ,the item includes push button, LTL fuse3x10/6A and all needed connection.	Set.	2		
Q	SDB-FF4 (First Floor)				
Q.1	Ditto as Item (SDB-BFG1)	Unit	1		
Q.2	Supply and install Miniature Circuit Breaker MCB FAZ-C 3X25A, (Type is MOELLER FAZ-C25/3 or equivalent).	No.	2		
Q.3	Ditto but, Residual current circuit breaker RCD 4x40A/0.03A , (Type is MOELLER EATON RCD 40/4/0.03A or equivalent).	No.	2		
Q.4	Ditto but , Miniature Circuit Breaker MCB 1X10A, (Type is MOELLER FAZ-C10/1 or equivalent).	No.	19		
Q.5	Ditto but 1x16A,(Type is MOELLER FAZ-C16/1 or equivalent).	No.	9		
Q.6	Supply and install Signal indication lamp R S T ,the item includes push button, LTL fuse3x10/6A and all needed connection.	Set.	2		
R	SDB-LAB (First Floor)				
R.1	Supply, install and commission sub distribution board with switch key. the frame is made of hot galvanized steel sheets 2mm thickness, painted by antistatic and insulation paint.The unit rate for the below items include Wires,Cables,connections terminals , PVC ducts, suitable rating busbars,civil works, earthing and all needed accessories. -Labeling and S.L.D diagram fixed inside panel . -The panel size will have to include into consideration all electrical Components including C.B and lighting control system devices (Actuator, power supply ,bus copluer,etc) with 30% free space. (Type is Moller Eaton or equivalent).	Unit	1		
R.2	Supply and install Miniature Circuit Breaker MCB FAZ-C 3X32A , (Type is MOELLER FAZ-C25/3 or equivalent).	No.	1		
R.3	Ditto but, Residual current circuit breaker RCD 4x40A/0.03A , Type is MOELLER EATON RCD 40/4/0.03A or equivalent).	No.	1		
R.4	Ditto but , Miniature Circuit Breaker MCB 1X10A, (Type is MOELLER FAZ-C10/1 or equivalent).	No.	8		
R.5	Ditto but 1x16A,(Type is MOELLER FAZ-C16/1 or equivalent).	No.	15		
R.6	Supply and install Signal indication lamp R S T ,the item includes push button, LTL fuse3x10/6A and all needed connection.	Set.	1		
S	MDB- (First Floor)				
S.1	Ditto as Item (SDB-BFG1)	Unit	1		
S.2	Supply and install Molded Case Circuit Breaker MCCB 3X63A, (Type is EATON MOELLER NZMB1-63A. or equivalent).	No.	2		
S.3	Ditto but Miniature Circuit Breaker MCB 3X32A, (Type is MOELLER FAZ-D32/3 or equivalent).	No.	4		
S.4	Ditto but 3X25A (Type is MOELLER FAZ-D25/3 or equivalent).	No.	7		
S.5	Ditto but 3X20A (Type is MOELLER FAZ-C20/3 or equivalent).	No.	1		
S.6	Ditto but, Residual current circuit breaker RCD 4x40A/0.03A , (Type is MOELLER EATON RCD 40/4/0.03A or equivalent).	No.	2		
S.7	Ditto but Miniature Circuit Breaker MCB 1X10A, (Type is MOELLER FAZ-C10/1 or equivalent).	No.	15		
S.8	Supply and install Signal indication lamp R S T ,the item includes push button, LTL fuse3x10/6A and all needed connection.	Set.	2		
T	SDB-FDB (Roof)				
T.1	Supply, install and commission sub distribution board with switch key. the frame is made of hot galvanized steel sheets 2mm thickness, painted by antistatic and insulation paint.The unit rate for the below items include Wires,Cables,connections terminals , PVC ducts, suitable rating busbars,civil works, earthing and all needed accessories. -Labeling and S.L.D diagram fixed inside panel . -The panel size will have to include into consideration all electrical Components including C.B with 30% free space. (Type is Moller Eaton or equivalent).	Unit	1		
T.2	Supply and install Molded Case Circuit Breaker MCCB 3X63A, (Type is EATON MOELLER NZMB1-63A. or equivalent).	No.	1		
T.3	Ditto but Miniature Circuit Breaker MCB 3X63A, (Type is MOELLER FAZ-C63/3or equivalent).	No.	1		
T.4	Ditto but Miniature Circuit Breaker 2X20A, (Type is MOELLER FAZ-C20/2or equivalent).	No.	10		

No.	Item	Unit	Qty.	Unit Rate USD	Total USD
T.5	Supply and install Signal indication lamp R S T ,the item includes push button, LTL fuse3x10/6A and all needed connection.	Set.	1		
U	SDB-PDB (Land scape)				
U.1	Ditto as Item (SDB-PDB)	Unit	1		
U.2	Supply and install Molded Case Circuit Breaker MCCB 3X63A, (Type is EATON MOELLER NZMB1-63A. or equivalent).	No.	1		
U.3	Ditto but Miniature Circuit Breaker 2X20A, (Type is MOELLER FAZ-C20/2 or equivalent).	No.	6		
U.4	Ditto but 3X40A (Type is MOELLER FAZ-C40/3 or equivalent).	No.	1		
U.5	Ditto but 3X25A (Type is MOELLER FAZ-C25/3 or equivalent).	No.	1		
U.6	Ditto but 3X16A (Type is MOELLER FAZ-C16/3 or equivalent).	No.	1		
U.7	Supply and install Signal indication lamp R S T ,the item includes push button, LTL fuse3x10/6A and all needed connection.	Set.	1		
V	SDB-LSDB (External Lighting)				
V.1	Supply, install and commission sub distribution board with switch key. the frame is made of hot galvanized steel sheets 2mm thickness, painted by antistatic and insulation paint. The unit rate for the below items include Wires,Cables,connections terminals , PVC ducts, suitable rating busbars,civil works, earthing and all needed accessories. -Labeling and S.L.D diagram fixed inside panel . -The panel size will have to include into consideration all electrical Components including C.B with 30% free space. (Type is Moller Eaton or equivalent).	Unit	1		
V.2	Supply and install Molded Case Circuit Breaker MCCB 3X63A, (Type is EATON MOELLER NZMB1-63A. or equivalent).	No.	1		
V.3	Ditto but MCCB 3X40A, (Type is EATON MOELLER NZMB1-40A or equivalent).	No.	2		
V.4	Ditto but MCCB 3X32A, (Type is EATON MOELLER NZMB1-32A or equivalent).	No.	1		
V.5	Ditto but MCCB 3X32A, (Type is EATON MOELLER NZMB1-25A or equivalent).	No.	1		
V.6	Ditto but 3X25A (Type is MOELLER FAZ-C25/3 or equivalent).	No.	1		
V.7	Ditto but 2X20A (Type is MOELLER FAZ-C20/2 or equivalent).	No.	1		
V.8	Ditto but, Residual current circuit breaker RCD 2x40A/0.03A , (Type is MOELLER EATON RCD 40/2/0.03A or equivalent).	No.	1		
V.9	Ditto but 1x16A,(Type is MOELLER FAZ-C16/1 or equivalent).	No.	3		
V.10	Ditto but 1x10/20A,(Type is MOELLER FAZ-C10/1,C20/1 or equivalent).	No.	1		
V.11	Supply and install Signal indication lamp R S T ,the item includes push button, LTL fuse3x10/6A and all needed connection.	Set.	1		
W	SDB-ELP1 (External Lighting)				
W.1	Supply, install and commission sub distribution board with double door and switch key. the frame is made of hot galvanized steel sheets 2mm thickness, painted by antistatic and insulation paint. The unit rate for the below items include Wires,connections terminals , PVC ducts, suitable rating busbars,civil works, earthing and all needed accessories. -Labelling and S.L.D diagram fixed inside panel . -Metallic partition between essential and non essential load. -The panel size will have to include into consideration all electrical Components including C.B and lighting control system devices (Actuator, power supply ,bus copluer,etc) with 30% free space. (Type is Moller Eaton or equivalent).	Unit	1		
W.2	Supply and install Miniature Circuit Breaker MCB FAZ-C 3X40A, (Type is MOELLER FAZ-C40/3 or equivalent).	No.	1		
W.3	Ditto but, Residual current circuit breaker RCD 4x40A/0.03A , (Type is MOELLER EATON RCD 40/4/0.03A or equivalent).	No.	1		
W.4	Ditto but 1x10A,(Type is MOELLER FAZ-C10/1 or equivalent).	No.	14		
W.5	Supply and install single phase Contactor DILM 25A with all needed and protections,Toggle switches,Relays for external lighting, (Type is MOELLER or equivalent).	No.	12		
W.6	Supply and install Signal indication lamp R S T ,the item includes push button, LTL fuse3x10/6A and all needed connection.	Set.	1		

No.	Item	Unit	Qty.	Unit Rate USD	Total USD
X	SDB-ELP2 (External Lighting)				
X.1	Ditto as Item (SDB-ELP1)	Unit	1		
X.2	Supply and install Miniature Circuit Breaker MCB FAZ-C 3X40A, (Type is MOELLER FAZ-C40/3 or equivalent).	No.	1		
X.3	Ditto but, Residual current circuit breaker RCD 4x40A/0.03A ,(Type is MOELLER EATON RCD 40/4/0.03A or equivalent).	No.	1		
X.4	Ditto but 1x10A,(Type is MOELLER FAZ-C10/1 or equivalent).	No.	14		
X.5	Supply and install single phase Contactor DILM 25A with all needed and protections,Toggle switches,Relays for external lighting, (Type is MOELLER or equivalent).	No.	12		
X.6	Supply and install Signal indication lamp R S T ,the item includes push button, LTL fuse3x10/6A and all needed connection.	Set.	1		
Y	SDB-GDB 1,2 (Gurad Room)				
Y.1	Supply and install, connect electrical board size of 12 C.B.The unit rate include Terminals, busbars,wires and all needed materials , accessories and workmanship for propper installation.	Unit	2		
Y.2	Ditto but 24 C.B.	Unit	2		
Y.3	Supply and install Miniature Circuit Breaker MCB FAZ-C 2X20A, (Type is MOELLER FAZ-C20/2 or equivalent).	No.	2		
Y.4	Ditto but, Residual current circuit breaker RCD 2x40A/0.03A , (Type is MOELLER EATON RCD 40/2/0.03A or equivalent).	No.	2		
Y.5	Ditto but 1x10A,(Type is MOELLER FAZ-C10/1 or equivalent).	No.	4		
Y.6	Ditto but 1x16A,(Type is MOELLER FAZ-C16/1 or equivalent).	No.	4		
Z	SDB-CDB (Cafeteria Room)				
Z.1	Ditto as Item (SDB-GDB)	Unit	1		
Z.2	Supply and install, connect electrical board size of 12 c.b. with Terminals, busbars,and all accessories.including all needed materials and workmanship for propper installation.	Unit	1		
Z.3	Supply and install Miniature Circuit Breaker MCB FAZ-C 2X20A, (Type is MOELLER FAZ-C20/2 or equivalent).	No.	1		
Z.4	Ditto but, Residual current circuit breaker RCD 2x40A/0.03A , (Type is MOELLER EATON RCD 40/2/0.03A or equivalent).	No.	1		
Z.5	Ditto but 1x10A,(Type is MOELLER FAZ-C10/1 or equivalent).	No.	2		
Z.6	Ditto but 1x16A,(Type is MOELLER FAZ-C16/1 or equivalent).	No.	2		
A.9	Supply, Install & Commissioning 3Phase 10 KVA UPS. Type is APC Galaxy 300 10kVA 400V 3:3 with 10min Battery backup at full load , Start-up	L.S	1		
A.10	Dismantling and carefully removing the exiting fire control panel , the unit rate includes dismantling and removing all exiting fire alarm system components including detectors, break glass ,cables, networks, horns,...etc and all needed to complete the job as per engineer's instruction and delivered all components to the owner.	L.S	1		
Total of Bill No. (A)					

No.	Item	Unit	Qty.	Unit Rate USD	Total USD
Bill No. (7.B) Transformer Room					
B.1	Earth Works				
B.1.1	Excavation for foundations from the natural ground level up to the required designed foundations level. The works include: - The compaction of the soil layers to get (95% MDD). - The selected excavated material can be used for back filling & disposal of surplus material to locations acceptable to the Engineer and local authorities.	M3	150		
B.1.2	Supply, fill & compact coarse sand (kurkar) material with (CBR> 30) under the main building foundations (the mentioned soil improvement area) in four layers 25cm thick each (MDD 98%), to comply with the design bearing capacity of not less than (2.0Kg/cm2). The work must be carried out according to the specifications & the engineer's instructions.	M3	100		
B.1.3	Supply and fill clean sand below the ground slab level in compacted layers 25 cm thick each (M.D.D 98%) as per specifications, drawings and the engineer's instructions.	M3	50		
Total of B.1					
B.2	Concrete & Block Works				
	A- Concrete Works Rates of Concrete Works shall include:- - All form works and shuttering in any form, shape and size. Making chamfered and curved edges, allowing for and making grooves and sleeves and the like; removal of				
B.2.1	Supply & cast plain concrete (B 200) under the foundations .	M3	1		
B.2.2	Supply & cast Reinforced Concrete (B 300) ready mix concrete for foundations.	M3	3		
B.2.3	Supply & cast Reinforced Concrete (B 300) ready mix concrete for columns & necks.	M3	2		
B.2.4	Supply & cast Reinforced Concrete (B 300) ready mix concrete for ground beams.	M3	4		
B.2.5	Supply & cast Reinforced Concrete (B 300) ready mix concrete for ground slab	M3	3		
B.2.6	Supply & cast Reinforced Concrete (B 300) ready mix concrete for trench.	M3	3		
B.2.7	Supply & cast Reinforced Concrete (B 250) ready mix concrete for doors & windows lintels & sills including all the required materials.	M3	1		
B.2.8	Supply and cast Reinforced Concrete (B 300) ready mix concrete but for Slabs 25cm thick. The Price includes concrete, reinforcement, hollow Blocks (40x25x17), inverted beams, drainage, electrical, mechanical ducts & workmanship with all required works. as shown on the drawings, specifications and the engineer's instructions.	M2	35		
	B- Block Works: - The items include supplying hollow cement block from good and approved factory in perfect dimension and build it in good manner, cement mortars, compressive strength 40kg/cm2 & all requirements needed to finish the work as per specs drawings and the engineer's instructions.				
B.2.9	Supply & build hollow block walling 20cm thick including the supplying of all materials (block size 20 x 20 x 40cm).	M2	55		
B.2.10	Supply & build hollow block walling 10cm thick including the supplying of all materials (block size 20 x 10 x 40cm).	M2	30		
Total of B.2					
B.3	Plastering and Painting Works				
*	- Price also shall include all protection concrete (B-200) around sleeves and pipes of electrical, sanitary & mechanical works. - Price of plastering shall include galvanized angles (for exposed edges), galvanized mesh (between block walls and concrete), mixing, scaffolds, curing, site cleaning, equipment and workmanship required, according to specifications and as directed by the Engineer - All materials used for painting (walls and ceilings) shall be European type of high quality materials according to the British Standards and to be approved by the Engineer, Paints and method of application according to the manufacture's instructions.				
B.3.1	Plastering for internal walls 13mm thick according specifications.	M2	145		
B.3.2	External Plastering two faces for external walls (elevations) min. thick 15mm with all required works.	M2	100		

No.	Item	Unit	Qty.	Unit Rate USD	Total USD
B.3.3	Tyrolean color finish min. 2-coats with all required works.	M2	100		
B.3.4	Internal Painting for internal walls 2-coats of putty, one undercoat primer and min. 2-coats of oil paint with all required works.	M2	110		
B.3.5	Internal Painting for ceiling one undercoat primer and min. 2-coats of emulsion paint with all required works.	M2	35		
Total of B.3					
B.4	Tiling Works				
	<ul style="list-style-type: none"> - The rates of the following items shall be completed in accordance with drawings, specifications, details and as directed by the Engineer. - Terrazzo tiles with marble chips, Price of tiles shall include all tests required as directed by the Engineer. - Only grade A local marble shall be used, free from cracks, holes and pits, homogeneous in color, and approved by the Engineer. - Only grade A imported glazed ceramic tiles (floor and wall) shall be used, and approved by the Engineer. - All according to Drawings, Specifications and instructions of the Engineer. 				
B.4.1	Supply and install local marble (Grade A) 3cm thick for window sills, doors, staircase risers and goings (external steps) with all required works.	RM	5		
B.4.2	Supply and cast terrazzo roof parapet 25cm wide x 5cm thick of the same kind and color of the floor tiles including smoothing the surfaces as all according to Drawings, Specifications and instructions of the Engineer.	RM	22		
Total of B.4					
B.5	Insulation Works				
B.5.1	Supply and cast foam concrete with fine aggregates for roof screening of ranging thickness from 4 to 15 cm and sand angle fillets size 5cmx5cm. All as per specifications, drawings and the engineer's instructions.	M2	35		
B.5.2	Supply and lay one layer of plasticized bitumen roofing membrane with chipping 4mm thick, including priming concrete surface prior to laying, dressing into rain water outlets to form water proofing seal and cover with angle fillets. The rate includes thermal insulation 5 cm thick with density of 32.35 Kg/m3; vapor barrier, mastic and verticals parts skirting not less than 25cm and galvanized steel cover 1.0mm thick. All as per specifications, drawings and the engineer's instructions.	M2	35		
Total of B.5					
B.6	Metal Works				
	<ul style="list-style-type: none"> - The rates of the following items shall be completed in accordance with drawings, specifications, details and as directed by the engineer. - Door frames shall fit walls & sizes of door openings, taking into consideration the thickness of plastering on both sides of the frames. - Hardware for doors shall be Waley type with approved handles. - The contractor has to submit shop drawings to the engineer before fabrication and installation. 				
B.6.1	Supply and install hot-dip galvanized steel louver door with overall size 220cm width x 325 cm height with new double sheet (2-mm) complete with frame. The price should include painting with two coats and base coat and union type lock or equivalent, (D1) .	No.	3		
B.6.2	Supply and install hot-dip galvanized steel louver window with overall size 120cm width x 100cm height with frame. The price should include painting with two coats and base coat and steel locker. (W1).	No.	1		
B.6.3	Supply and install hot-dip galvanized steel checkered plate 4mm surrounded with 40x40x4 mm angle frame for trench cover. The price should include angle frame 50x50x5mm, anchor plate 100x20x4mm and all needed material to complete works.	L.S	1		
B.6.4	Supply and install hot-dip galvanized steel ladder. The price should include painting with two coats and base coat.	No.	1		
Total of B.6					

No.	Item	Unit	Qty.	Unit Rate USD	Total USD
B.7	Mechanical Works				
	<ul style="list-style-type: none"> - All works should be done according to the drawings and technical specifications. - The contractor is to submit workshop drawings for the whole work to be approved by the Engineer before starting any work activity. - The price includes all the required fittings for the connection process according to the Water Department instructions.. - All necessary materials, works tests and inspections shall be conducted according to specifications and instructions of the Engineer. The contractor shall at its own expense carry out all such tests and inspections. 				
B.7.1	Supply and install UPVC pipes 3" diameter for rain water drainage pipe, with Galvanized plates 200x200x3mm fixed to the pipe, sockets, pipe joints, supports and all needed materials to complete the job as per specifications, drawings and the engineer's instructions.	unit	1		
B.7.2	Supply and lay 4" UPVC sewage pipes SN 8 including excavation, bedding, jointing, backfilling, testing and connect to the drainage manhole, all according to Drawings, Specifications and instructions of the Engineer.	RM	50		
B.7.3	Supply and install Fire extinguisher (Powder 6kg).	No.	2		
Total of B.7					
B.8	Electrical Works				
	The items in general shall include conduits, connection boxes, controls, wires, connectors, clamps, bolts, and connecting the cables to switchboards and common electric network are included in the unit price. Contractor shall submit workshop drawings for all electrical works to be approved by the Engineer before executing the work. The workshop drawings shall include detailed lists of all electrical materials specifications (manufacturer, ratings and model numbers). All electrical works shall be carried out according to Standards, drawings, specifications and supervisor engineer instructions. Any modifications to the drawings shall be the responsibility of the Contractor. The Contractor shall stick with the specified materials. No variations will be accepted without prior approval of the Engineer.				
Lightings Fittings					
	Supply, install and operate the following Items , the price includes 3x1.5mm ² wires , PVC onduites, ,ducts, clamps, junction box , with all needed connection and accessories and any other needed materials and workmanship to complete the job as per specification drawing and engineer's instructions				
B.8.1	Surfaced mounted lighting fixture , including LED lamps 2x16W Philips, T8 , 1200mm ,230V,not less than 100 Lumen/W , daylight 6500 K. (Type is Gaash or equivalent)	No.	8		
B.8.2	Recessed Mounted Emergency Lighting , LED , 3 watt, 160 LM with emergency backup time 180 minutes ,complete set with accessories. (Type is Gaash # 5878953 or equivalent)	No.	6		
Switches and Sockets					
B.8.3	Supply, install connect and test flush mounting single pole one way switch , 220V, 16A, complete with PVC conduits, J. boxes, 3x1.5mm ² wires, cover and all necessary accessories to complete the job. (Type is GEWISS Chorus or equivalent).	No.	3		
B.8.4	Ditto, but double pole one way switch	No.	3		
B.8.5	Supply, install connect and, testing flush mounting single socket outlet 16A , 220V, 2p+E complete with PVC conduits, J. boxes, 3x2.5mm ² wires, and all necessary accessories to complete the job. (Type is GEWISS Chorus or equivalent).	No.	6		
Transformer Room Lighting Panel					
B.8.6	Supply, install transformer room service distribution board TDB , (Plastic - 24 ways), The price includes supply and install all inside components, mccb's , ELCB, bus bars for incoming cables, neutral and earthing terminal with all necessary accessories and material to hand over clean and tested ad in operating conditions. (Type is Hager or equivalent). the panel includes all circuit breakers and accessories shown in the drawings.	Unit	1		

No.	Item	Unit	Qty.	Unit Rate USD	Total USD
	Grounding system for TR room				
B.8.7	Supply, install and commission a complete foundation grounding system including welding hot galvanized 35x3 mm steel sheet through tie beam, cables, all required copper electrodes 15mm ² driven into ground to achieve the resistance low than 2 ohm, manholes with iron cover, earth joints, clamps, ducts , conduits and 25 mm ² flexible earthing copper wires and main earthing busbar panel according drawing,detailes(1,2), specification and engineers instructions such that the resistance shall not exceed 2 ohm	L.S	1		
	EXTERNAL 22KV ELECTRICAL NEWTORKS:				
	<p>* All Materials and Installation works must be according to GEDCO Technical Specifications, drawings, and Engineer's instruction.</p> <p>The Price of the following items shall include but not limited to the following :</p> <p>1-1- The costs of testing as required and according to technical specifications and work requirement.</p> <p>2-All equipments, machines, Cranes ... etc. needed for proper execution and completion of work activities.</p> <p>3- Encasing all water, sewage pipes or any other pipes, and Cables which intersect with the concrete foundations of the steel poles with UPVC SN8 pipes of diameters 2" larger than the existing pipes. In case of important facilities such as pressure lines, the encasement must be steel sheets of 2 mm thick Ω-shape over the existing facilities as per supervisor instruction.</p> <p>4- Dismantling, and reinstating the existing pavement layers (Interlock, cement tiles , asphalt, ...etc.) as well as the soil layers at the places of excavation of cables , new or removed wooden or steel poles. The price also includes supplying and replacing the damaged interlock tiles, asphalt, basecourse, .. etc by new materials to match the existing one such that minimum basecourse layer at least 20cm thick. as per Engineer's instruction.</p> <p>5- The exact quantities of all materials will be determined during the implementation of the Works.</p> <p>6- Preparation of proper access to the work site as may deemed necessary.</p>				
	<p>7- Protection of the existing facilities during implementation, in case of damages, the price shall include the full cost for repair or replacement according to the technical specification and the Engineer's instructions.</p> <p>8- Dismantling and removal of any damaged external Lantern , poles , wires, surplus materials,... etc or any equipment or material , then transport to locations nominated by engineer.</p> <p>9- The price shall include obtaining GEDCo approval on all materials and works that must be according to GEDCo specifications ,where, obtaining approval of GEDCO is pre-requisite to starting any activity.</p> <p>12-All needed materials, personnel and works that are deemed necessary for the safety during implementation along with all communication needed with GEDCO to coordinate for activities. Safety plan and implementation of its items will be pre-requisit to commence any relevant activities according to Engineer's approval and instructions.</p> <p>13- The price should include commissioning works for electricity network system and operating all the new and the existing networks to complete the job according to the GEDCO specifications.</p> <p>14- The earth resistance of total earthing system must be less than 5 Ω , and the contractor must find and do the all solutions to be < 5 Ω according to the specifications.</p>				
B.8.9	Supply and Install Hot Galvanized M.V. Isolating Switch Side Arm K1558 , complete ,the item includes Steel Bolts, Nuts, Washers, Spring Washers and all needed for Fixing and Installation according (According to the Steel GEDCO Specifications and Attached Drawing No. K1558)	No.	1		
B.8.10	Supply and Install Hot Galvanized Auxiliary Steel Arm K160/3B , complete ,the item includes Steel Bolts, Nuts, Washers, Spring Washers and all needed for Fixing and Installation according (According to the Steel GEDCO Specifications and Attached Drawing No. K160/3B)	No.	2		

No.	Item	Unit	Qty.	Unit Rate USD	Total USD
B.8.11	Supply & Install 36 kV Isolating Switch with built-in arc interrupter complete set, the Item Include Master lock key , Compression Lugs , Steel Bolts , Nuts & Washers & Springs , copper parallel groove clamps, Earthing Cable, and Earthing Connection Clamp with all Fittings & Accessories needed for Operation ,Fixing & Installation according to specifications & instructions . (According to the M.V Switches GEDCO Specifications and Technical Guarantees No.IS_36)	Set	1		
B.8.12	Supply & Install Outdoor Metal Oxide Surge Arrestor M.C.O.V 19.5 KV with Ground Lead Disconnecter included Brackets and Cable (Set for one phase), the Item Include Earthing Wire PVC CU 70 mm2 , Compression Lugs , Clamps and all needed Accessories for Fixing & Connection . (According to GEDCO Specifications and Technical Guarantees No. SA_19)	No.	3		
B.8.13	Supply & Install Fittings to Protection the M.V cables on the steel poles, the item includes 2 cable Guard , 3Steel Plates, 6 Cable Holder, Steel Bands with Buckles and all needed to Fixing on the Pole.	Set	1		
B.8.14	Supply , Install, test and operate 22/0.4 KV Low Losses , 3 phase , Indoor Distribution Transformer 800 KVA Rating with all needed to Fixing & Connection . (The supply and installation shall be according to GEDCo specifications and Instructions) including of all needed materials and equipment to fix and operate the transformer. The item includes all needed Bushings and Arms for Fixing the Cable beside the Transformer from L.V side and M.V side with cable ladder. (The supply and installation of materials will be according to GEDCO Specifications and Technical Guarantees No. IDT_800)	L.S	1		
B.8.15	Supply , Install, test and operate 24 kV , 630 A Switchgear , and 16 KA Short Circuit Current Ring Main Unit SF6 , Two Incoming Switch Disconnectors, One Transformer Protection Fuse Switch with M.V Porcelain Fuses 40A, combination (CTC) with all workmanship and materials needed to Fixing, Connection, testing and Opertaion of the CTC. , (The supply and installation of materials will be according to GEDCO Specifications and Technical Guarantees No.RMU_1T2C)	No.	1		
B.8.16	Supply & Install 250A , 24 KV Indoor Screened Separable Elbow Termination Kit for 12/20 kv XLPE Cable 1x50/16 mm2 , for transformer side or CTC side , (Set for one Phase) with all needed to Fixing & Connection, clamps, Electrical insulation tape, flame retardant heat shrinkable tube,with all needed fittings to complete the job, (According to GEDCO Specifications and Technical Guarantees No. IT24_50)	No.	6		
B.8.17	Supply & Install 630A , 24 KV Indoor Screened Separable Termination Kit for 12/20 kv XLPE Cable 1x120/16 mm2 , (Set for one Phase) with all needed to Fixing & Connection, clamps,Electrical insulation tape, flame retardant heat shrinkable tube,with all needed fittings to complete the job (According to GEDCO Specifications and Technical Guarantees No. IT24_120)	No.	3		
B.8.18	Supply & Install 36 Kv Heat Shrinkable Outdoor Termination Kit for XLPE Cable 1x120 mm2 (Set for one Phase) with Suitable Mechanical Compression Lugs, Steel Bolts , Electrical insulation tape, flame retardant heat shrinkable tube, Nuts & Washers and all needed to Fixing & Connection (According to GEDCO Specifications and Technical Guarantees No.OT36_120)	No.	3		
B.8.19	Supply,insall,connect, test and operate 12/20 kV Single Core Cable with XLPE Insulation and Copper Circular Stranded Conductor (1x50/16) mm2 CU with all needed to Fixing on the RMU & TR. Connection. , (According to GEDCO Specifications and Technical Guarantees No. XLPEC_50)	L.M	50		

No.	Item	Unit	Qty.	Unit Rate USD	Total USD
B.8.20	Supply, install, connect, test and operate 12/20 KV 3-Single Core Cable with XLPE Insulation and Aluminum Circular Stranded Conductor 3*(1x120/16) mm² AL , from L.S.P to CTC with all needed fittings and work to complete the job. According to GEDCO Specifications. The work also includes all needed civil works like excavation trench in any type of soil with 60 x 110 cm, backfilling with clean sand, first layers 50cm deep, then supply & install 45x45x5cm concrete slabs with flexural strength (5 Mpa), along with 5 cm thick clean sand topped with warning tape. then backfilling with clean sand up to the pavement layers. The work includes watering & compaction to 100% each layer with maximum 25cm depth. The price includes demolishing of any concrete obstacles, blockworks, interlock tiles, Asphalt layers and reinstatement of relevant works and all required new materials to complete the job. , (According to GEDCO Specifications and Technical Guarantees No. XLPEA_120)	L.M	100		
B.8.21	Supply,insall,connect, test and operate 0.6/1 Kv Single Core Cable with XLPE Insulation and Stranded Copper Conductor,(1x240) mm², N2X2Y. to connect LV Panel to transformer Low Voltage Side. The Item Include Supplying and Install all needed connector ends, supports, clamps, and Indoor Screened Separable Elbow Termination Kits for transformer side and LV panel side , to Connect and Operate (According to GEDCo specifications and Instructions and Technical Guarantees No. LV1C_240)	L.M	150		
Main Power Supply					
B.8.22	Enlarging the existing power supply subscription from 3x400A to 3X1000A according to GEDCO standards and regulations,the price includes subscription fees also this item includes the following works. 1- Carefully dismantle and remove the existing MDB, cables and power factor correction unit deliver all components to the owner as spare parts for future maintenance. 2-Carefully dismantle all the existing KWH & KVAR meters according to GEDCO regulations and standards and deliver them to owner.	L.S	1		
ATS Switch Board					
B.8.23	Supply, install and commission ATS panel .The frame is made of hot galvanized steel sheets 2mm thickness, painted by antistatic and insulation paint.The unit rate for the below items include Power and control wires,connections terminals , PVC ducts, suitable rating copper bus-bars for three phases, neutral and separate earth bus bar,Ventilation,trenches, civil works, earthing and all needed accessories as per specification and shopdrawing. -Labelling and S.L.D diagram fixed inside panel . -The Contractor has to submit Detailed Shop Drawings to be approved by the Engineer before commencement of the work -The panel size will have to include into consideration all electrical Components with 30% free space. (Enclosure is made by xEnergy type test Eaton).	Unit	1		
B.8.24	Supply, install and commission Remote Operator Unit (motorize type NZM3-XR208-240AC) For remote switching of size 3 Molded Case Circuit Breaker, the price includes supply and install MCCB (NZMN3-4-630A) and all needed ACU control units, timers , relays and protections U.V.R, fuses , ...etc with wiring and observation components to operate this unit remotely for operation and disconnection of the main MCCB. (Type is EATON MOELLER Remote operator, for size 3 or equivalent).	Set	1		
B.8.25	Ditto but NZMN2-4-250A	Set	1		
B.8.26	Current Transformer 600/5A	No.	6		
B.8.27	Current Transformer 200/5A	No.	6		
B.8.28	supply and install 3-phase digital digital multimeter meter according to specification and with all needed to complete the job.	No.	3		
B.8.29	Supply and install 3 Indication Lamps R-S-T the item includes push button, LTL fuse3x10/6A and all needed connection.	Set	3		
B.8.30	Supply and install Molded Case Circuit Breaker (MCCB) NZMN4 AE 4x1250A , Ir =630-1250A ,Icu 50KA Type E.T.N. or equivalent	No.	4		
B.8.31	Ditto but MCB 2x25A , Icu 35KA	No.	1		

No.	Item	Unit	Qty.	Unit Rate USD	Total USD
B.8.32	Spplly and install 4poles- 3ph.mechanical & electrical interlock motorized automatic transfer switch (ATS) between.Main &Gen. ,380 V 4x1250A , Icu 50KA type E.T.N.(NZM4-4,AE1250) with needed under voltage trip(NZMU-XU208-240AC) ,overload protection and needed motor operator (NZM4-XR208-240AC) and complete controller unit or equivalent complete with all needed components such as timers, relays ,controll cables and with all and any needed accessories, wiring , fitting,workman to get job and operation sequence ready according to specification and instructions .The contractor should submit detailed shopdrawing with all components to get approval .	Set	1		
B.8.33	tto as item B.8.32, but manual transfer switch (MTS)- (1-0-2)	Set	1		
B.8.34	Supply and install Four Poles 3ph. Lightening Arrestor, 380V ,40KA type moeller or equivalent .the item include Triple poles Fused Switch (LTL) 125/160A With HRC fuses 125A.	Set	1		
Metering and P.F panel					
B.8.36	Supply, install and commission Metering and P.F panel .The frame is made of hot galvanized steel sheets 2mm thickness, painted by antistatic and insulation paint.The unit rate for the below items include Power and control wires,connections terminals , PVC ducts, suitable rating copper bus-bars for three phases, neutral and separate earth bus bar, trenches, civil works, earthing and all needed accessories as per GEDCO specification and drawings. -The Contractor has to submit Detailed Shop Drawings to be approved by GEDCO and the Engineer before commencement of the work. -The panel size will have to include into consideration all electrical Components with 30% free space. (Enclosure is made by xEnergy type test Eaton).	Unit	1		
B.8.37	Supply & install LTL Fuse holder 3x1250A with fuse 1000A, 400V- in standalone metering compartment according to Gedco specifications.	Set	1		
B.8.38	Supply and install Air cuiRCT breaker 3X1000A , Isc=50 KA. approved type from GEDCO (Type EATON IZMX16N3-V10F or equivalent).	No.	1		
B.8.39	Supply ,install and commission no.1-3ph.KWHM,no.1-3hp.KVAR metre and no.3 - 1ph.KWHM /5A including current transformers, RST indication lamps, LTL 3X6/10A , Digital multimeter and all needed according to GEDCO regulations. with all needed fittings and materials and workman to get jop ready according to instructions.	L.S	1		
B.8.40	Supply ,install and commission seven stages full automatic power factor correction unit with capacity 225KVA complete with all European made components according to Gedco regulations& drawing including MCCB 3x630A(Type ETN NZMN3), C.B.,Contactors , Controller condenser and so on with all needed fittings and materials and workman to get jop ready according to instructions.	L.S	1		
Total of B.8					
Total of Bill No. (B)					

No.	Item	Unit	Qty.	Unit Rate USD	Total USD
Bill No. (7.C) External Electrical Works					
External Lighting					
C.1	<u>Garden lighting Pole 3m Hight:</u> Supply, Install and operate Hot dip galvanized circular Garden lighting Pole 3m Hight (circular Type) with hot electrostatic Powder coating, the price includes supply and Install the following : - 4 decorative arm kits for installation down light. - 2 complete circular globe IP 54 high quality polycarbonate, with LED lamps 20-30W. -3*2.5 mm2 XLPE cables with flexible conduit for Luminaries. -Control box with 1x10 A MCB's for each globe. - Hot dip galvanized Steel base with supply and cast B250 concrete foundations 60x60x60cm. - All needed Bolts, Nuts, Washers, Terminal connections, Accessories, Covers, all requirement installation recommended by the manufacture, & all needed reinforced cement. All works must be According to drawing and supervision engineer Instructions. (Type is GEWISS, DISANO, GAASH or equivalent)	Unit	33		
C.2	<u>Street lighting Pole 9m Hight:</u> Supply, Install and connect hot galvanized Octagonal Street Lighting Pole 9m Hight (One Piece), the price includes supply and Install the following: - Hot galvanized steel single arm 60-100cm long- Ø 2" 3mm2 thickness, complete with all accessories. -3*2.5 mm2 XLPE cables with flexible conduit for Luminaries. - Fiberglass control panel with all needed 10 A MCB's. door cover is connected to the pole by galvanized steel chain. - Hot dip galvanized Steel base with supply and cast B250 concrete foundations size 80x80x100cm. - All needed Bolts, Nuts, Washers, Terminal connections, Accessories, Covers, all requirement installation recommended by the manufacture, & all needed reinforced cement. All works must be According to drawing and supervision engineer Instructions (Type is GEWISS, DISANO, GAASH or equivalent)	Unit	6		
C.3	<u>Street lighting Pole 9m Hight:</u> Ditto, but double Arms. (Type is GEWISS, DISANO, GAASH or equivalent)	Unit	3		
C.4	<u>Street Lighting LED Fixture:</u> Supply, install, connect and test complete street lighting LED Fixture High-pressure die cast aluminum housing with powder coated finish for corrosion resistance, Vacuum-coated inner surface reflector optimizes lumen output photocell maximizes saving energy range 100w -120W LED Type with high lumen efficiency, LED luminous efficiency =100 lm/w or more. Power Factor >0.95 CRI (color rendering index) =80 or more. Light Distribution Curve/Beam Pattern Bat Wing / Rectangular Beam Color Temperature 3000-4000K Working Temperature -30.C-+50.C Housing Material Aluminium Alloy Input Voltage AC LED Chip PHILIPS leds Total lamp lumen=10000 lm or more lamp's Efficiency >90% THD <15% Guard Level IP66 Service lifespan 50,000hrs Type is (Gewiss, Gaash, Disano or equivalent)	No.	15		

No.	Item	Unit	Qty.	Unit Rate USD	Total USD
C.5	<u>Column or Pillar Fence Lighting Fixture:</u> Supply, Install and connect Column or Pillar Fence LED Lighting Fixture, Aluminum, IP 65, 220V,50HZ, UV resistant for Garden Walls, the price includes supply and Install all needed waterproof boxes 15x15cm, terminals, PVC conduits, 5*2.5 mm2 XLPE cables, LED lamp, civil works inside the walls, with all needed fittings & accessories workmanship to fix the fixture According to drawing and supervision engineer Instructions. (Type is GEWISS, DISANO, GAASH or equivalent)	Unit	45		
C.6	<u>UP & DOWN EXTERIOR WALL LED LIGHT:</u> Supply, Install and connect UP & DOWN EXTERIOR WALL LED LIGHT Fixture, 10W- 20 W, die-cast Aluminum, IP 65, 220V,50HZ, UV resistant for outdoor installation for building walls, the price includes supply and Install all needed waterproof boxes 15x15cm, terminals, PVC conduits, 5*2.5 mm2 XLPE cables, civil works inside the walls, with all needed fittings & accessories workmanship to fix the fixture According to drawing and supervision engineer Instructions. (Type is GEWISS, DISANO, GAASH or equivalent)	Unit	20		
C.7	<u>LED Flood Lighting Fixture:</u> Supply, Install and connect LED Flood Lighting Fixture, 150 W with range from 80-90 Lumen per watt, die-cast Aluminum, IP 65, 220V,50HZ, UV resistant for outdoor installation for roof top of the building walls, the price includes supply and Install all needed waterproof boxes 15x15cm, frames and arms, terminals, PVC conduits, and 5x2.5mm2 XLPE cables between fixtures , civil works inside the walls, with all needed fittings & accessories workmanship to fix the fixture According to drawing and supervision engineer Instructions. (Type is MATIX, GAASH or equivalent)	Unit	20		
C.8	Underground Pipes, and Manholes				
	Supply & lay under ground PVC piping system for the under ground electrical network (90 cm under ground). The work includes excavation, warning tapes, backfilling and all required civil works to finish the work . According specifications and demands of the supervising engineer. (the price include dismantling, and reinstating the existing pavement layers (Interlock, tiles,...etc.) as well as the soil layers at the places of excavation of cables. The price also includes supplying and replacing the damaged tiles by new materials to match the existing .) as follow:				
8.1	Supply & install 6" UPVC , SN8 Pipes	L.M	250		
8.2	Ditto, but 4" UPVC , SN8 Pipes	L.M	200		
8.3	Ditto, but 4" PVC heavy duty Flexible Conduit	L.M	50		
8.4	Ditto, but 3" PVC heavy duty Flexible Conduit	L.M	600		
8.5	Ditto, but 2" PVC heavy duty Flexible Conduit	L.M	250		
8.6	Supply and Instal electrical manhole 120x120x100 cm with (8 ton) cast iron cover iron ring marked with the word Electrical Supply. Manhole must be internally and externally tar coated for isolation and sealing. The price should include all excavation, fittings, leveling, connections, sealing, backfilling, etc.. All according to the relevant international standards, drawings, specifications, and Engineers instructions	No.	4		
8.7	Ditto but 80 cm dia with (8 ton) cast iron cover iron ring marked with the word Electrical Supply .	No.	10		
8.8	Ditto but 60 cm dia with (8 ton) cast iron cover iron ring marked with the word Electrical Supply .	No.	15		
C.9	Grounding System				
9.1	<u>Earthing System for Pole Lighting:</u> Supply and install 40 cm internal diameter precast circular reinforced concrete manhole for St. Light Earthing System, with iron cover with frame 8 ton capacity. The work includes excavation in any type of soil to any depth , backfilling with clean sand and compaction 98% MDD up to the design leveling of the roads. -The item include Cu electrodes above together , the number of electrodes achieve resistance less than 2 ohm -Cu stranded wire 25mm2 in 2" flexible pipe to connect between the electrodes and pole , and clamps . All works must be According to the drawings and supervisor instructions.	Unit	4		

No.	Item	Unit	Qty.	Unit Rate USD	Total USD
9.2	<u>Earthing System :</u> Supply and install 60 cm internal diameter precast circular reinforced concrete manholes for Earthing System, with iron cover with frame 8 ton capacity. The work includes excavation in any type of soil to any depth , backfilling with clean sand and compaction 98% MDD up to the design leveling of the roads. -The item include Cu electrodes above together , the number of electrodes achieve resistance less than 5 ohm -Cu stranded wire 70mm2 in flexible pipe to connect between the electrodes and equipments , and clamps . All works must be According to the drawings and supervisor instructions.	Unit	5		
9.3	<u>Earthing System for Main Building:</u> Supply, install, burry and connect complete . U.G. bare earthing conductor stranded 1x95mm2 copper conductor including needed excavation, 1mt depth and any other needed manhoules , Cu electrodes above together , the number of electrodes achieve resistance less than 2 ohm materials and workmanship to complete the job as per the drawings and engineer instructions.	L.S	1		
9.4	<u>MV Earthing System :</u> Supply and install 60 cm internal diameter precast circular reinforced concrete manholes for Earthing System, with iron cover with frame 8 ton capacity. The work includes excavation in any type of soil to any depth , backfilling with clean sand and compaction 98% MDD up to the design leveling of the roads.The item include: -Earthing for main switch gear and transformer. -Earthing for LV panel and all metal component in Tansformer room. - Cu electrodes above together , the number of electrodes achieve resistance less than 5 ohm -Cu stranded wire 70mm2 in flexible pipe to connect between the electrodes and equipments , and clamps . All works must be According to Gedco specification , drawings and supervisor instructions.	Unit	1		
C.10	GENERATORS				
10.1	Supply, install and operate Prime Power Supply Diesel Generator Complete Set. Type is (Caterpillar, FG-WILSON, CUMMINS). The item includes connect it to the storage fuel tank with all needed fittings, the Price includes automatic start and stop, exhaust system, silencer, automatic float, control, protection and digital operation control panel engaged with RS-485 Modbus protocol and with automatic control panel (InteliCompact NT-Paralelling gen-set controller) for synchronization between GE/GE, and I/O extensions modules, COMMUNICATION extensions, control cables to connect the panels with generators and motorizes MCCb's for the synchronization, sensors for heat, speed, under voltage, over voltage, oil pressure, phase sequence and phase failure, measuring instruments, air duct, built in 8 hours fuel consumption day tank, alternator, diesel engine, exciter, automatic charger, original product batteries, main circuit breaker, sound attenuated enclosure (original) as recommended by the manufacturer with soundproof canopy and sound level not more than 62 DB measured at 7 m. distance free space. the price includes supply and install complete earthing system with all needed martial (manholes & cables, electrodes , pipes, boxes ,all accessories) to complete earthing system to achieve earth resistance less than 5 Ω . All fittings and fixing materials and control needed are included in the price. The generator shall be rated 350 KVA Prime rating, 400V, 50HZ, 1500RPM. The price shall include also the supply and cast concrete pad of 20 cm thickness of B350 and vibration insulation polystyrene and foundation, excavation for foundation and stainless pipes 4", 1.5 mm thick for chimney including all required insulation to complete the works associated as per the Specifications and as directed by the Engineer.	Unit	1		
10.2	Ditto, but 150 KVA	Unit	1		
	Total of Bill No. (C)				

No.	Item	Unit	Qty.	Unit Rate USD	Total USD
Bill No. (7.D) Extra Low Voltage Works					
D.1	Structured Cabling System				
D.1.1	Unit rate include supply , install and operate structured cabling system for the following items includes PVC conduites, Cable tray ,ducts , junction box , labling ,civil works and all needed hardware , software connection and accessories to operate the system as per specification drawing and engineer's instructions .				
D.1.2	Supply & install Network Rack model APC NetShelter SX 42U (750mm Wide x 1070mm Deep) Enclosure with Sides Black (Part Number: AR3150) or equavilant Including: -Two fixed shelves (APC BRAND). - Four fans (APC Fan tray) , castors and breakes - Power splitter with 6 females socket outlet with switch and 20A circuit breaker. And all needed accessories.	No	1		
D.1.3	Supply, install & 15U Network Rack model (Link Basic or equavilant) including:- - Front glass door with key. -Two side doors. -Top fan 4". -Power splitter with 6 females socket outlet with switch and 20A circuit breaker - shelves And all needed accessories.	No	7		
D.1.4	Ditto but 12U network Rack.	No	1		
D.1.5	Supply and install cat6 Patch Panel 24 port, Built-in with RJ45 Female connector ,Type is Westren wire or equavilant.The price include cable management brushes , cat 6 patch cords to connect from patch panel to switch and all needed fitting and accessories.	No	18		
D.1.6	Supply and install Network Switch type is Cisco Model SG300-28MP-K9-EU 28-port Gigabit Max-PoE Managed Switch or equavilant. The item include Smart net total care SNTC 8X5 for one year after the handover of the project works, Dual cat6A STP cable uplink from switch to main Data rack in basment floor and all needed accessories.	No	2		
D.1.7	Supply and install Network Switch type is Cisco Model SG300-52MP-K9-EU 52-port Gigabit Max-PoE Managed Switch or equavilant. The item includes Smart net total care SNTC 8X5 for one yearafter the handover of the project works,Dual cat6A STP cable uplink from switch to main Data rack in basment floor and all needed accessories.	No	6		
D.1.8	Supply and install Cisco Network Switch (Model No. WS-C4506-E) or equavilant with the following specs :- - CAT4500e SUP7-E/SUP7L-E Universal Image - Paper IP Base License - Catalyst 4500 E-Series Supervisor LE, 520Gbps - Catalyst 4500E 48-Port PoE 802.3at 10/100/1000(RJ45) - Catalyst 4500E 48-Port PoE 802.3at 10/100/1000(RJ45) - Catalyst 4500 1300W AC Power Supply (Data and PoE) - Catalyst 4500 1300W AC Power Supply (Data and PoE) - Smart Net Total Care SNTC 8x5 for one year. -Cisco Management Software , Prime Infrastructure, to manage network switches .	No	1		

No.	Item	Unit	Qty.	Unit Rate USD	Total USD
D.1.9	Supply and install Router Mikrotik CCR1009 or equavilant with the following specs :- -Powerful Ethernet router based on the cutting edge TILERA 9 core CPU - 2GB of RAM, eight Gigabit Ethernet ports (Ether1-4 are in a Switch group). - One SFP port and one SFP+ port with 10G support (SFP module included). -Dual power supplies built in for redundancy (if one power line fails, the other one will take over automatically). - Supports a Smart card, to store your private key for use in all features that support Certificate based authentication. and all needed connection and accessories.	No	1		
D.1.10	Supply ,install and test Wifi Controller Based System (up to 60 Access Point) .The item builtin Dual radio 2x2 802.11a/b/g/n/ac AP, Dual band integrated antenna, 1 x 10/100/1000Base-T (RJ-45) w/802.3af POE, 1x 48V DC power interface, Console port. Restricted Regulatory Domain Middle East (Israel) with Built-in Controller.Type is ALCATEL LUCENT (OmniAccess Stellar Access Point AP1101) or equavilant	No	28		
D.1.11	Supply and install Cisco Router ISR4321 /K9 or equavilant with all needed accessories.	NO	1		
D.1.12	Supply and install Fortinet Firewall: FG-140E-BDL: Hardware Plus 8X5 Forticare & Fortiguard UTM Protection with all needed accessories.The item include FortiClient Enterprise Management Server License subscription for 100 clients. Includes 24x7 support. Endpoint Telemetry & Compliance License subscription for 100 clients. Includes 24x7 support.	NO	1		
D.1.13	Supply and install Online UPS 1.5 KVA Type is APC or equavilant.	No	8		
D.1.14	Ditto but 3 KVA.	No	1		
D.1.15	Supply and install HPE Server DL380 GEN10 RACKMOUNT with following specs :- - CPU: 2 x 4110 Xeon-S/8 Core /85W /2100 / Sky lake-SP - MEM: 64GB 4Rx16 PC4-2666V-R Smart Kit - CAGE: DL380 Gen10 8-SFF Hot Plug - HDD: 8 x HPE 1.2TB SAS 10K - CTR: HPE Smart Array P408i-a/2GB SR Gen10 Ctrlr - ODD: HP 9.5mm SATA DVD-RW Optical Drive - NIC: HP 1Gb 4-port 331i Adapter - PSU: 2 x 500W Power Supply Kit (Gen10) - RAIL: HP 2U SFF - Easy Install Rail Kit - MGMT: iLO5 Standard - WAR: 3-3-3 - VMWARE EXSI 6.0 LICENSE. with all needed connection and accessories.	No	1		
D.1.16	Supply and install STP Rj45 outlet type Premium Line or equavilant . The item includes Cat 6 SFTP cable (D-link or equavilant) from outlet to terminate on patch panel , J.B , patch cord to connect RJ45 module with camera and all needed connection and accessories.	No	59		
D.1.17	Supply and install wall mounted junction box including STP Rj45 outlet type Premium Line or equavilant,16A power socket, Cat 6 SFTP cable (D-link or equavilant) from outlet to terminate on patch panel ,3x2.5mm2 XLPE cable, J.B , patch cord to connect RJ45 module with Access machine and all needed connection and accessories.	No	10		
D.1.18	Supply and install STP Rj45 socket type Premium Line or equavilant . The item includ Cat 6 SFTP cable (D-link or equavilant) from outlet to terminate on patch panel,cover and all needed connection and accessories.	No	120		
D.1.19	Supply and install Dual STP Rj45 socket type is Premium Line or equavilant . The item includ Cat 6 SFTP cable (D-link or equavilant) from outlet to terminate on patch panel, cover and all needed connection and accessories.	No	40		

No.	Item	Unit	Qty.	Unit Rate USD	Total USD
D.1.20	Supply, install , test and operate IP PBX(VOIP) System Type is ALCATEL LUCENT PBX OXO connect medium 220V or equavilant as specied in technical specification file.The item includes all needed connection and accessories as per specification and engineer instructions .	No	1		
D.1.21	Supply, install and test IP phone as specified in technical specification file . The item includes all needed connection and accessories.Type is ALCATEL LUCENT(8068s BT) or equavilant.	No	3		
D.1.22	Supply, install and test IP phone as specified in technical specification file . The item includes all needed connection and accessories.Type is ALCATEL LUCENT (8001) or equavilant.	No	40		
D.1.23	Supply, install and test operator phone as specified in technical specification file . The item includes all needed connection and accessories.Type is ALCATEL LUCENT(8029) or equavilant.	No	2		
D.1.24	New Telecommunication subscription for internet Fiber services (10Mbps upload and 10Mbps download) according to PALTEL standards and regulations with all needed fees (for 3 years) .	No	1		
D.2 IP Surveillance System					
	Supply, install , test and operate IP Surveillance system.Unit rate for the following items include , PVC conduits, Cable tray ,ducts , junction box , labeling ,civil works to connect all Cameras to the cat6 patch panel in data rack for each floor with all needed accessories to complete the work as per drawing , specification and engineer's instructions .The system should has a capablity of connecting the NVR through the try contacts with BMS system to provide monitoring of a building's IP Surveillance system.				
D.2.1	Supply and Install HIKVISION IP SURVEILLANCE CAMERA , MODEL: DS-2CD2142FWD-I or equavilant with following specs: - Up to 4 megapixel high resolution - Full HD1080p video - Dual stream - 2.8mm/4mm/6mm fixed lens - 120dB Wide Dynamic Range - 3D Digital Noise Reduction - 3-axis adjustment - DC12V & PoE - Support H.264+ - Up to 30m IR range - IP67 weather-proof protection - IK10 -S: Audio/Alarm IO -W: Built-in Wi-Fi. - night vision. with all needed connection and accessories.	No	45		
D.2.2	Supply and install HIKVISION IP SURVEILLANCE CAMERA , MODEL: DS-2CD2042WD-I , with following specs: - 4 Megapixel High Resolution - Full HD1080p Video - Dual Video Streams - 4 mm or 6 mm Fixed Lens - 120 dB Wide Dynamic Range - 3D Digital Noise Reduction - Smart Features - PoE (802.3af) - IR Range 30 Meters (~100 Feet) - IP67 Protection - night vision. with all needed connection and accessories.	No	20		
D.2.3	Supply and install NVR 32 Channel with 8 MPixel , 12 TB HHD (2x6TB). Incoming Bandwidth 256 Mbps. Outgoing Bandwidth 160 Mbps. Decoding Support H.264, H.265 and MPEG4. Support Storage 4 X SATA (6TB Each).wiType is HiKvision (Model : DS-7732NI-K4/P16) or eqaivalent.	No	1		
D.2.4	Ditto but NVR 16 channel . Type is HiKvision (Model : DS-7716NI-K4/P16) or eqaivalent.	No	7		

No.	Item	Unit	Qty.	Unit Rate USD	Total USD
D.2.5	Supply and install 60" LED Display secreen 4K WITH HDMI, MINI DB AND ETHERNET PORTS and all needed connections and accessories . Type SAMSUNG or equivalent.	No	4		
D.2.6	Supply and install and operate HP Z240 Tower Workstation with following specs: - 2 CPU x Intel Core i7-8000 - 32GB DDR4-2400 nECC (4x8GB) - 512 GB SSD - 2 TB SATAIII 10 K rpm 3.5" - Integrated Intel HD Graphics 530 QUADRO P2000 5GB with 4 HDMI/DVI output - Slim DVD-RW Drive - 2 x Giga Ethernet Port (10/100/1000) - 6 x USB 3.0 - HP Keyborad and Mouse - Original Windows 10 Pro License with all needed connection and accessories.	No	3		
D.3	Fire Alarm System				
	Supply, install , test and operate fire alarm system.The Unit rate of the following items include fire cable 4x0.8mm2 for sensors and sirens, PVC conduites, Cable tray ,ducts , junction box ,ducts , labling ,civil works to connect all fire alarm items to the control panel in ground floor through the ELV duct as per drawing and engineer instructions .The system should has a capablity of interfacing with BMS system by communicating through aporoved protocol and interfacing with Public Address system including control modules, cables and other needed to complete connection.				
D.3.1	Supply and install Addressable Fire Alarm Control Panel (FAP) , two loops, each loop 126 sensor capacity, with back up batteries with all needed connections and accessories. Type is Telefire or equivalent .The control panel version should has serial port to communicate with BMS.	No.	1		
D.3.2	Supply and install Addressable Smoke Detector . Type Tele-fire or equivalent.	No.	115		
D.3.3	Supply and install Addressable heat detector . Type Tele-fire or equivalent.	No.	25		
D.3.4	Supply and install Addressable manual break Glass switch Type Tele-fire or equivalent.	No.	65		
D.3.5	Supply and install indoor Fire alarm emergency siren surface mounted with all needed accessories. Type Tele-fire or equivalent.	No.	15		
D.3.6	Supply and install Fire alarm emergency siren IP 65 , with Flasher, surface mounted and all needed accessories. Type Tele-fire or equivalent.	No.	6		
D.4	Video conference system				
D.4.1	Supply, install , test and operate vedio conference system Type Cisco SX20 or equavilant Full Package as specified in technical specification file.The item includes cables, PVC conduits ,ducts , junction box , and all needed connection and accessories as per secification and engineer instructions .	No	1		
D.5	Interactive System				
	Supply, install,fix and test Interactive System.Unit rate of the following items include PVC conduits ,ducts , junction box ,civil works all needed accessories to complete work as per drawing and engineer instructions.				
D.5.1	Supply , install and test InFocus Projector , IN119HDx Inputs ,1920 X 1080 , 3200 lumens. The item includes wall mount Projector LCD manual 2m x2m with all needed connection and accessories.	Unit	7		
D.6	Digital Signage System				
	Supply, install and test Digital Signage System. unit rate of the following items include, PVC conduits, Cable trays ,ducts , junction box ,labeling ,civil works and all needed hardware and soft ware to complete and operate the system as per drawing, specification and engineer's instructions.				
D.6.1	Supply and install IP Digital Signage System as specied in technical specification file.The item includes subscription fees for 3 years. Type is NoviSign Brand or equavilant.	No	1		
D.6.2	supply and install Screen Player device hard ware + License for smart TV screen.The item includes HDMI cable, Etherner cable ,Adapter and all needed connection and accessories.	No	20		

No.	Item	Unit	Qty.	Unit Rate USD	Total USD
D.6.3	Supply and install 42" LED smart Android Secreen FULL HD 1080p Type Sumsung or equvilant.	No	20		
D.7	Public Address System				
	Supply, install , test and operate Public Address system.Unit rate of the following items include cables, PVC conduits, Cable tray ,ducts , junction box , labling ,civil works ,connection with fire alarm panel and all needed connection and accessories to complete the work as per drawing , specification and engineer instructions . Brand name to be one of the approved suppliers (Bouyer,Boush or equavilant) Full package.				
D.7.1	Supply and install Central monitoring unit for Voice Alarm System ,Monitors up to 120 zones ,Interface with Public address ,Provided with LCD display on front panel with all needed connection.The iteme include 24U P.A Aluminum rack. Type Bouyer CS2600 ,Boush or equavilant.	No.	1		
D.7.2	Supply and install Digital audio matrix (8 x 16) ,16-zone DSP matrix ,8 music source inputs ,2 microphone console buses ,Priority management .Type is Bouyer (3816) ,Boush or equavilant.	No.	1		
D.7.3	Supply and install Microphone console ,Up to 16 zones ,Integrated 3-tone chime ,Power supply over Bus ,Inconspicuous and multipurpose.Type is Bouyer ,Boush or equavilant.	No.	3		
D.7.4	Supply and install 6W speaker (false ceiling mounted) fitted with a dual cone loudspeaker .Type is Bouyer ,Boush or equavilant.	No.	47		
D.7.5	Supply and install 6/8 W wall mounter loudspeakers .Type is Bouyer,Boush or equavilant.	No.	18		
D.7.6	Supply and install Aluminum Local rack includes Mixer amplifier – 150 W Small size Cascadable Power extension: 1 output for amplifier (0 dBu) 6 switchable inputs 2-tone chime for Gem HALL . .Type is Bouyer , Boush or equavilant.	No.	1		
D.7.7	Supply and install CD/TUNER /USB music source for Gem HALL	No.	1		
D.7.8	Supply and install Aluminum Local rack includes MIXER Amplifier – 30 W Compact wall-mounted box Up to 4 sources with priority management Easy and quick wall mounting for Lecture room in first floor .Type Bouyer, Boush or equavilant.	No.	1		
D.7.9	Supply and install wireless microphone for lecture room in first floor and gym. Type Bouyer,Boush or equavilant.	No.	2		
D.7.10	Supply and install BOUYER AD-4075 (or Boush or equavilant) amplifier range is based on latest digital class D without transformer technologies . It therefore offers advantages in terms of energy efficiency, heat dissipation and space saving. It is provided under 15 different mono or multi-channel configurations (AD-4075).	No.	1		
D.7.11	Supply and install BOUYER AD-2075 (or Boush or equavilant) amplifier range is based on latest digital class D without transformer technologies. It therefore offers advantages in terms of energy efficiency, heat dissipation and space saving. It is provided under 15 different mono or multi-channel configurations (AD-2075)	No.	1		
D.7.12	Supply and install BOUYER AD-1075 (or equavilant) amplifier range is based on latest digital class D without transformer technologies. It therefore offers advantages in terms of energy efficiency, heat dissipation and space saving. It is provided under 15 different mono or multi-channel configurations (AD-1075)	No.	1		
D.7.13	Supply and install BOUYER AD-1150 (Boush or equavilant) amplifier range is based on latest digital class D without transformer technologies. It therefore offers advantages in terms of energy efficiency, heat dissipation and space saving. It is provided under 15 different mono or multi-channel configurations (AD-1150)	No.	1		

No.	Item	Unit	Qty.	Unit Rate USD	Total USD
D.8	Access Control System				
	Supply, install , test and operate Access Control system.The following itemes includes cables , PVC conduites, Cable tray ,ducts , junction box , labling ,civil works,connection and all needed and accessories to complete the work as per drawing , specification and engineer instructions				
D.8.1	Supply and install Access Control machine ZKTeco IN01-A or equavilant .The item includes power adapter,magnetic lock 300 Kg monitored, surface mount and all needed accessories for operation and testing as per ingineer's instruction.	No.	11		
D.8.2	Supply and install Intercom system according to specification and engineers instructions with all required cables , junction boxes conduits, This work incloude: - Two handsets with 2 push buttons. - Door station with 2 call buttons and access control keypad, c/w Back boxes, cover and frame. - Power supply & service control module. - the contractor must be connected between the Intercom system and access control system to receive the door opening signal by compatibility between the two systems. and all necessary accessories. (All fittings and devices must be European made)	L.M	2		
D.9	Theatre & Ballroom Sound & Lighting system				
D.9.1	Supply, install , test and operate sound system with Stage LED/DMX/RGB lighting system.The contractor shall provide a full design drawing and specification for the control panel , microphones ,Loudspeaker,synchronising sound, light and smoke effects according to supervisor instruction . The Design shall be based on the exiting area architecture and take into consideration the area to be covered with comfort to audience with out disruption. All equipment should be Europe made , brand name and high quality. The item includes cables ,wires, junction box and all needed connection and accessories.The Design shall be based on the exiting area architecture.	No	2		
D.10	IPTV System				
D.10.1	Supply, install , test and operate IPTV System Hibox or equivalent consist of Satallite dishes Arabsat, Nilesat and Hotbird, cables , receiver (vedio decoder) , License and all needed connection and accessories to operate system as per specification and engineer's instruction. The system has Ability to browse channels from Arabsat, Nilesat and Hotbird. - RF Video decoder - IPTV middleware software. - Client Access from Smart TV, PC, Tablet, Smart phone. -License for 200 different types of users.	No.	1		
Total of Bill No. (D)					

No.	Item	Unit	Qty.	Unit Rate USD	Total USD
Bill No. (7.E) Building Management System					
	<p>-The unit rate of all below itemes shall include supply, install, integrate terminate and commission the following hardware and software architecture, with centralized software license unlimited by the number of points for current and future extensions. The Software license shall be brand name. including cable for connecting BMS automation servers and their I/O expansion cards, and having all LON, BACnet and MODBUS protocols built-in without extra license, capable of providing connection at user level, group level and domain level privileges and permissions allowing to separate the tasks of the BMS systems operations and operators. The system will include the option of E-mail and web-server, reporting, logging, trending that are built-in , 3D graphical representation of the plant with click to drill down provided at commissioning, Adding future expansion I/O's and integration without license costs other than the required hardware (if any is required) to perform the expansion.</p> <p>- BMS automation servers to be modular, expandable and hot-pluggable with field separable bases that allow the installation of the terminals without the actual automation server or the I/O cards being on site at time of commissioning. The automation servers must have LON, BACnet and MODBUS built-in , both over IP and Twisted Pair. The automation servers must have web and e-mail server capabilities with logging, trending and notification built-in in each automation server without connection to the BMS software server. Web station to be included with up to 5 concurrent users logging.</p> <p>- BMS field controllers with built-in I/O's and IP connection to either the BMS automation servers or directly to the BMS software servers, with hot-pluggable field separable bases that allow the installation of the terminals without the actual controller to be on site. With built-in web server and e-mail server for up to 5 concurrent users. With either 24 I/O or 36 I/O's configurations. All input I/O's to be universal inputs.</p> <p>- All systems to be connected to the BMS system through integration (as HVAC Units, pumps , generators and other operating systems shall have communication integration cards provided by the system supplier with either MODBUS, LON or BACnet interface .(for systems such as the UPS, Generator, VRF.. etc)</p> <p>- BMS system sequence of operation shall be provided by system suppliers for each system connected to the BMS and the BMS system integrator (software) that shall coordinate all sequences to run as required. The BMS integrator shall be responsible to devise the most energy efficient method possible with the highest level possible of tracking, logging, alarm notification, e-mail notification, graphical interface to the building owner. The BMS integrator shall rely on best practice solutions whether through time schedules, motion and presence sensors where provided, energy monitoring and occupancy levels to reduce the plants energy consumption as possible. The BMS integrator shall be responsible for providing the highest level of transparency of the plant with the provided system inputs through the graphical interface in order to help reduce the manpower costs and the time to detect and repair for the systems connected to the BMS solution.</p> <p>- The price will include all Cables for (power, data, control, buscommunication,...etc) PVC conduites, Cable tray ,ducts , junction box , labling ,civil works and all needed hardware , software connection and accessories to connect the BMS system to the operating other systems integrated on the relevent network.</p> <p>The contractor should include in the price to facilitate the attendance of (4) Engineers to participate training course full package for the proposed BMS system in the manufacture's training center including detailed schedule for the materials course after the approving of the BMS system and before the delivering into GAZA. The cost will cover all travelling, visas, transportation, accommodations and other logistics for the nominated persons.</p> <p>- The BMS system will be full package of one of brand names (Schneider, Siemens , Hony well) including all network components.</p>				

No.	Item	Unit	Qty.	Unit Rate USD	Total USD
E.1	DDC Panels				
E.1.1	Supply and install DDC-ROOF panel , the iteme include all needed materials , I/O modules ,connections, terminals and accessories as shown in drawing.	No	1		
E.1.2	Ditto as (1.1) but DDC-Basement panel .	No	1		
E.1.3	Ditto as (1.1) but DDC-site # 1 panel .	No	1		
E.1.4	Ditto as (1.1) but DDC-site # 2 panel .	No	1		
E.1.5	supply and install BMS Automation server and controllers as required per each DDC as shown in drawing.	Unit	4		
E.2	System Integration (Software)				
E.2.1	Supply and install BMS software The item include: - Basic software ,Servers, work station and 42" Led secreen. - Power digital meters in MDB integration (Minimum 3). - Fire Alarm control panel Integration. -VRF controller Integration. -KNX system Integration including BACnet Gateway device. - PV system integration. - Access control system Integration. - Generator 350 KVA Integration. - Generator 150 KVA Integration.	L.S	1		
E.3	Field Devices				
E.3.1	Supply and install field devices including all required for operational BMS system with - Differential Pressure Sensors for water (minimum 2 point). - Irrigation two-way valves (minimum 16 point) - Water flow switches (minimum 3 point). -Water flow consumption meter 2". -Water level reader (sensor) (minimum3 point). - Diesel level reader (sensor). - Diesel level switch. - Air differential pressure switch (minimum 12 point). - Float level switch (minimum 9 point). - Room tempreture sensor with display (minimum 3 point). - Fountain isolating switch valve.(minimum 2 point) - Fountain Filling valve. - line pressure switch (minimum 9 point)	L.S	1		
Total of Bill No. (E)					

No.	Item	Unit	Qty.	Unit Rate USD	Total USD
Bill No. (7.F) Lighting Control System					
	The unit rate shall include Supplying , installing ,connecting ,testing , programming and commissioning for all below items. - Unit rates include PVC conduits, Cables (power,data,control,KNX) , cable tray ,ducts , junction box , labeling ,civil works and all needed hardware , software connection and accessories to operate the system. - All works are according to specification design drawing and engineer's instructions. - Brand name to be one of the approved suppliers (Schneider, Siemens , Hony well , Legrand, Gewiss) whole/Full package.				
F.1	Supply and install KNX keypad with 8 push buttons. The item include KNX cables and all needed connection and accessories.	No	4		
F.2	Ditto as (1.1) but with 4 push buttons.	No	13		
F.3	Ditto as (1.1) but with 2 push buttons.	No	4		
F.4	Supply and install KNX keypad with 5" screen .The item include all needed connection and accessories.	No	8		
F.5	Supply and install Recessed movement Detector with light control and light sensitivity adjustable.The item include all needed connection and accessories	No.	72		
F.6	Ditto as (1.5) but surface mounted.	No.	21		
F.7	Ditto as (1.5) but out door movement sensor.	No.	3		
F.8	Supply and install KNX actuator 24 channels , 10A with manual mode.The item include all needed connection and accessories.	No.	6		
F.9	Ditto as (1.8) but KNX actuator 16 channels .	No	6		
F.10	Ditto as (1.8) but KNX actuator 12 channels .	No	6		
F.11	Ditto as (1.8) but KNX actuator 8 channels .	No	1		
F.12	Ditto as (1.8) but KNX actuator 4 channels .	No	2		
F.13	Supply and install KNX power supply 640 mA with UPS power input.The item include all needed connection and accessories.	No	5		
F.14	Supply and install KNX bus coupler .The item include all needed connection and accessories.	No	5		
F.15	Supply and install KNX IP Gateway with graphical interface .The item include all needed connection and accessories.	No	1		
F.16	Supply and install KNX power supply 2.5 A 24 VDC with UPS power input.The item include all needed connection and accessories.	No	1		
F.17	Supply and install KNX Logic module The item includes all needed connection and accessories.	No	1		
F.18	Supply and install I-PAD with Graphical interface software .The item include all needed connection and accessories.	No	1		
F.19	Supply and install KNX-DMX gate way . The item include all needed connection and accessories.	No	1		
F.20	Supply, test, commision and programming for KNX software lighting controll system.	L.S	1		
Total of Bill No. (F)					

No.	Item	Unit	Qty.	Unit Rate USD	Total USD
	Bill No. (7.G) Solar System				
	<p>Supplying, installing, commissioning & testing the following items with all the required materials to complete the job in accordance with the BOQ, drawings, specifications and the supervising engineer's instructions.</p> <p>The prices should include all the materials and accessories needed to complete the job.</p> <p>The Contractor has to submit Detailed design drawings (single line diagram, Equipment Layout inside room, PV sidtribution panels, DC & AC distribution bards...etc) for the propoused PV system to be approved by the Engineer before commencement of the work.</p> <p>The contractor must submit the original catalogues with all certified and calculation sheets test for all system component according to the required parameters and supervising engineer's instructions.</p> <p>- The contractor must submit all calculation sheets from system manufacturer for the required parameters and supervisor engineer's instructions.</p>				
	<p>General:</p> <ul style="list-style-type: none"> • The system is designed to cover the Essential loads in Arab Orthodox Cultural Center • The system will be grid interactive connected with battery backup system, which will allow many power sources options. The system will import from the grid when loads are being more than the generated from PV and supply surplus electricity to the batteries when PV generates more than the loads, the batteries can be charged from Grid if PV output is not enough for loads and batteries. <p>* Contractor shall submit shop drawings for all architectural, civil, electrical and a complete photovoltaic solar system works, including a single line diagram showing all the components of the PV system, DC and AC distribution boards, PV Arrays lay out and battery backup systems connections and cables, wires cross section for all the system to be approved by the Engineer before executing the work.</p> <ul style="list-style-type: none"> • Contractor shall submit the catalogs of each component showing the requested specifications stated at the bill of quantity. • The contractor shall submit the Manufacture testing certificate, country of origin, certified characteristics, test performance curves, spare parts regular (as recommended by manufacturer , maintenance manuals and manufacturers warranty for each components of the system. <p>* As-built drawings and writting settemg parameters shall be submitted after handing over the work.</p> <ul style="list-style-type: none"> • All junction boxes and DBs will be lockable type. • Upon completion of the installation, the contractor shall organize an on site training program for operation and maintinance purpouse involving nominated employer's staff. Such a program shall be carried out during the commissioning phase. The cost of the training shall be deemed to have been included in the tendered rates. <p>* The price includes all builders' works, making good and reinstatement including necessary materials and workmanship as well as removal of unwanted materials to dump sites approved by the engineer to complete the job successfully.</p> <ul style="list-style-type: none"> • All the following items include supply, install, commission and operate of the complete PV solar system. • The work includes maintenance period for each device according to BOQ and Specifications. 				

No.	Item	Unit	Qty.	Unit Rate USD	Total USD
G.1	<p><u>PV Modules – 50 KwP:</u> Supply, install, connect and operate Mono Crystalline or Polycrystalline Photovoltaic Solar Modules with all material needed to have complete job ready for installing high quality PV modules with total arrays capacity to achieve 50 KWp. The item Includes supply, install &connect the following:</p> <ul style="list-style-type: none"> • Water proof PV junction boxes IP65 for each array including DC Fuses, DC LTL, bus bars ,terminals, ducts or trays, supports &labels suitable to the PV arrays loads. • Solar DC cables appropriately sized to connect the PV solar cells together and to the J.B and from J.B to the inverter directly to have a complete operational circuit with all conduits, clamps , trays and cable end terminations which shall be DC plug and socket connectors . The DC cables must be sized in accordance with the installation requirements applicable on site, the allowable voltage drop for DC cables between PV Arrays and inverter less than 1%. <p>• The price includes all works, making good and reinstatement including necessary materials and workmanship as well as removal of unwanted materials to dump sites approved by the engineer to complete the job successfully.</p> <p>•The contractor has to obtain 50kwp from PV system as minimum. In case the proposed PV modules results in extra kw than this is deemed to be accounted for the proposed ratio. Contract will be pay only 50kwp.</p> <p>• Contractor must submit manufacturer warranty for solar panels as recommended by manufacturer.</p> <p>• Contractor must submit all the required certificates for each PV solar panel from.</p> <p>All works and materials must be according to the drawings, specifications and supervisor engineer instruction's and approval.</p>	KWp	50		

No.	Item	Unit	Qty.	Unit Rate USD	Total USD
G.2	<p><u>Inverters – 50 KW:</u> Supply, install, connect and operate DC/AC grid tie 3-phase inverter with data communication unit with Ethernet connection . (Type is SMA or equivalent). The inverterwith must be suited to any PV module configuration, and depending on the system design and installation proposed and for the future extended also. The DC max power input rating should be equal or more than 50 KW of the PV modules capacity at standard test condition. The inverter unit shall be suitable for indoor and outdoor installations with IP65. The inverter AC nominal power output rating must be equal or greater than 50 KW compatible with the AC loads design.The inverter must include the safety concepts such as (triple protection with optiprotect, electronic strings fuses, self-learning string failure detection, DC surge arrestor type 2) to ensure max availability. Total inverter capacity must be devided at least 3 inverters or more. The price includes :</p> <ul style="list-style-type: none"> • Supply, install and connect (monitoring and controlling unit) for all PV solar system installed especially compatible with the inverters, with all needed accessories, interface modules & data cables and all connections needed to complete and connect the monitoring system to internet. • Supply ,install and connect all DC cables appropriately sized in accordance with the installation requirements and to connect the inverters with PV system designed with all conduits, clamps, trays and cable terminations end which shall be DC plug and socket connectors to have a complete job, the allowable voltage drop for DC cables between inverters and PV system not less than 1%. • Inverters shall allow an adjustable power factor minimum AC output power with all necessary electrical cables, earthing system, Conduits, trays and all other materials and workmanship needed to connect with the main distribution panel according to the engineer's instruction and approval and have a complete job. •The contractor has to obtain 50kw from PV inverters capacity as minimum. In case the proposed PV inverters capacity results in extra kw than this is deemed to be accounted for the proposed ratio. Contract will be pay only 50kw. • The contractor must submit manufacturer warranty for each inverter as recommended by manufacturer. <p>All works and materials must be according to the drawings, specifications and supervisor engineer instruction's and approval.</p>	Unit	1		

No.	Item	Unit	Qty.	Unit Rate USD	Total USD
G.3	<p>Battery Inverters – 50 KW: Supply, install, connect and operate Battery Inverters compatible with on grid inverter rated power 50 Kw with all necessary automatic transfer control box- On Grid type ,interface modules and connections for masters & slaves , electrical cables and data communication unit with Ethernet connection, connectable in parallel and modularly extendable. The Battery Inverter must include the following concepts such as (Ac and DC coupling, High efficiency, intelligent battery management for maximum battery life, charge level calculation, extreme overload capability, and battery temperature sensing and battery current measurements).Total battery inverters capacity must be compatible with the number of the inverters. (Type is SMA or equivalent). The price includes:</p> <ul style="list-style-type: none"> • Supply, install and connect Remote Control Unit (RC Unit) for the installed battery inverters with all data & communication cables and connection needed to complete the job. • Supply, install and connect: DC cables appropriately sized in accordance with the installation requirements to connect the battery inverters with DC battery fuses box. AC electrical cables to connect the battery inverters with the main distribution panel(AC Out). the works includes all conduits, clamps, trays and cable terminations end and workmanship needed to have a complete job, • The allowable voltage drop for DC cables between battery inverter and batteries less than 1%. •The contractor has to obtain 50kw from Battery inverters capacity as minimum. In case the proposed battery inverters capacity results in extra kw than this is deemed to be accounted for the proposed ratio. Contract will be pay only 50kw. • The contractor must submit manufacturer warranty for each battery inverter as recommended by manufacturer. <p>All works and materials must be according to the drawings, specifications and supervisor engineer instruction's and approval.</p>	Unit	1		



No.	Item	Unit	Qty.	Unit Rate USD	Total USD
G.4	<p>Battery Bank : Supply, install, connect and operate VRLA tubular design deep cycle batteries, the total demand energy is 300 KWh, @ C10 , 1.8V per cell, 3000 cycle @ C10. The battery bank voltage is 48 Vdc, each battery 2 volt. (GERMANY MADE BRAND NAME) The batteries must provide high-quality and achieving superior performance, the manufacturing date must be new and not more than 6 months, suitable for every type of applications especially for solar renewable energy, designed Service Life 10 years with low internal resistance, designed to be deeply discharged. The Battery should provide benefits of being maintenance free, case flame retardant & non-hazardous. The price Includes supply, install &connect Battery temp. sensor (BTS) and the following:</p> <ul style="list-style-type: none"> • All necessary DC cables between the batteries together and to the battery fuse box to have a complete operational circuit with all bus bars, conduits, clamps, stainless steel bolts, washers and cable end terminations and all needed materials to complete the job. All DC cables must be sized in accordance with the installation requirements applicable on site ,the allowable voltage drop must be less than 1%. • Battery Banks rack from the same manufacturer of the batteries with dividers and all needed accessories to finish the job. the rack must be enough to carry all the weight of the required batteries for the system. • The contractor has to obtain minimum 300kwh functional battery bank. In case the proposed batteries in stings provide more capacity. The contract will pay only for 300kwh and contractor will include in his price the extra kwh on the relevant ratio. • The contractor must submit manufacturer warranty for each battery cell as recommended by manufacturer. <p>All works and materials must be according to the drawings, specifications and supervisor engineer instruction's and approval.</p>	KWh	300		
G.5	<p>PV Mounting structure: Supply and install Module mounting structure from hot galvanized steel Angles foundation suitable to the dimension of selected PV modules and PV numbers, the mounting provides a fixed inclination of the modules 26-30 degree with vertical supports, plates, screws and casting concrete foundations B250 (0.4*0.4*0.4) m3 for each leg, The PV structure must covered with approved typ of Epoxy painting with approved color with painting layers approved types with all testing, the structure includes bracing and double hot galvanized angles for dividers. The mounting structures and the foundations must be designed structurally to be suitable to withstand all static loads (weight of modules, wind loads etc) that might occur according to the Site conditions. The mounting structure components are bonded together to guaranty potential equalization.</p> <p>The price includes retesting Leakage of the roof insulation for the hole roof after completion of PV system and making good of any damages to insulation membrane if occurred.</p> <p>All works and materials must be according to drawings, specifications and supervisor instructions and approval.</p>	L.S	1		




No.	Item	Unit	Qty.	Unit Rate USD	Total USD
G.6	<p><u>Battery Fuse Box:</u> Supply, install, connect and operate battery DC fuse box (500*375*225 mm) as an external DC distributor to protect the battery connections of the inverters . The box must be water proof protection with IP65, simple wall mounting, suitable connections for three battery inverters and up to six DC connections inlet on the battery side, the item includes (2 LTL 250/400A , 6 fuses 250A , cable glands, with all necessary DC cables from the battery bank and to the fuse box and from the fuse box to the battery inverters to have a complete operational circuit with all conduits, clamps, stainless steel bolts, washers and cable end terminations needed to fix, all DC cables must be sized in accordance with the installation requirements applicable on site ,the allowable voltage drop must be less than 1%.</p> <p>• The contractor must submit manufacturer warranty for each battery fuse box for a period not less than 1 years.</p> <p>All works and materials must be according to the drawings, specifications and supervisor engineer instruction's and approval.</p>	No	3		
G.7	<p><u>3-Phase SMART Bidirectional Digital KWH Meter:</u> Supply,install,connect and operate 3-phase 3x100 A SMART Bidirectional digital KWH meter,with all CT's and any other material needed to have a complete job .The KWh meter has monitoring LCD with all needed data & interface cables to connect with the Monitoring System .All works and materials must be according to the drawings, catalogues, specifications and supervisor engineer instruction's and approval.</p> <p>(Type is holley or equivalent)</p>	No	3		
G.8	<p><u>3-Phase Digital KWH Meter:</u> Supply,install,connect and operate 3-phase digital KWH meter,with all CT's and any other material needed to have a complete job ,The KWh meter has monitoring LCD with all needed data & interface cables to connect with the Monitoring System .All works and materials must be according to the drawings, catalogues, specifications and supervisor engineer instruction's and approval.</p>	No	3		
G.9	<p><u>Earthing System For AC Side:</u> Supply,install,connect and operate complete independent earthing system for PV solar system, must be separated of the main earthing system to obtain 2 ohm max resistance.</p> <p>the item includes (all required copper electrodes 15mm2 driven into ground to achive the resistance low than 2 ohm, manholes with iron cover, earth joints, clamps, ducts , conduits and 25 mm2 flexible earthing copper wires and cables from the AC system components to the electrode to complete the system as specifications and supervisor engineer instruction's and approval.</p>	Unit	1		
G.10	<p><u>Earthing for PV Structure:</u> Supply,install,connect and operate complete independent earthing system for PV solar system, must be separated of the main earthing system to obtain 2 ohm max resistance.</p> <p>the item includes (all required copper electrodes 15mm2 driven into ground to achive the resistance low than 2 ohm, manholes with iron cover, earth joints, clamps, ducts , conduits and 25 mm2 flexible earthing copper wires and cables from the PV system components to the electrode to complete the system as specifications and supervisor engineer instruction's and approval.</p>	Unit	1		


No.	Item	Unit	Qty.	Unit Rate USD	Total USD
G.11	SOLAR POWER DISTRIBUTION BOARD (PV-MDB)				
11.1	Supply, install and commission solar power PV distribution panel board (PVMDB) with 30% free space, the panel made of galvanized steel sheet and frame 2mm thick, painted with anti-static primer paint and 2coats of final polyester paint . As required by the engineer. The panel should be factory assembled c/w pvc coated cu bus bars of adequate sizes and all other accessories and civil works that may needed to complete the job and hand over in operable conditions trenches, power and control wires, terminals bus bars neutral bus bar, earthing bus bar ducts, supports, labels and numbers and all necessary accessories to complete the work. According to Standards, drawings, specifications and supervisor engineer instructions. (Type is MOELLER or equivalent). The panel size must achieve at least 30% free space and the size of panel will be determined after shop drawings and that all internal components were agreed upon. The panel size shall include but not limited to the followings:	unit	1		
11.2	Supply, install M.C.C.B 4x100A . Type Moeller NZMB1-4-100A or approved equivalent.	No.	1		
11.3	Supply, install MCB 3X40/50A. (Type is MOELLER FAZ-C(40,50)/3 or equivalent).	No.	3		
11.4	Ditto,but MCB 3X32A. (Type is MOELLER FAZ-C32/3 or equivalent).	No.	1		
11.5	Ditto,but RCCB 4X40/0.003A.	No.	1		
11.6	Ditto, but LTL 3x100A with fuses . Type Moeller or approved equivalent.	Set	1		
11.7	Ditto,but MCB 1X10/16/20A. (Type is MOELLER FAZ-C10/16/20/1 or equivalent).	No.	4		
11.8	Suuply, install Surge protection device of 40KA short circuit capacity to secure the over all system (data and power) against lightnings and surges strikes, including connecting the device to earthing system and all needed accessories. Type Moeller or equivalent.	No.	1		
11.9	Supply and install 3 Indication Lamps R-S-T the item includes Triple poles Fused Switch Moeller (LTL) 6/10A With HRC fuses and test push button.	Set	1		
Total of Bill No. (G)					



SUMMARY OF ELECTRICAL WORKS (BILL 7)


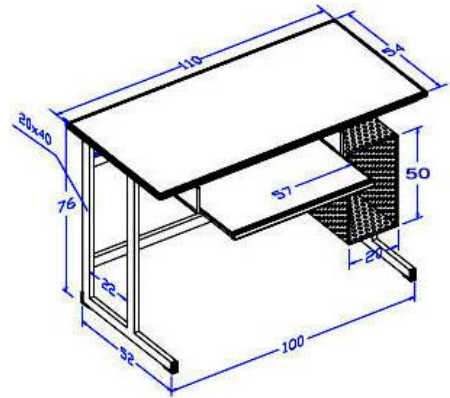
	Bill	Total USD
A	Main Building Electrical works	
B	Transformer Room	
C	External Electrical Works	
D	Extra Low Voltage	
E	Building Management System	
F	Lighting Control System	
G	Solar System	
	Total (USD)	

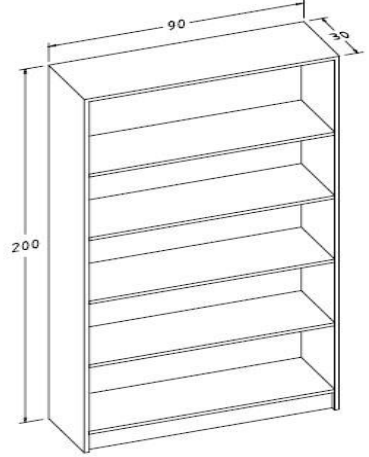

No.	Item	Unit	Qty.	Unit Rate USD	Total USD	Description
	Bill No. (8) Furnishing works					
	<p>Supplying, installing, commissioning & testing the following items with all the required materials to complete the job in accordance with the BOQ, drawings, specifications and the supervising engineer's instructions.</p> <p>-The prices should include all the materials and accessories needed to complete the job.</p> <p>-The Contractor has to submit Detailed Shop Drawings to be approved by the Engineer before commencement of the work.</p> <p>-All equipment & furniture shall be produced by European manufacturers in accordance with the European Standard.</p> <p>-The contractor must submit the original catalogues with technical data sheets, all certified and calculation sheets test for all system component according to the required parameters and supervisor engineer instructions in addition to the certificate of origin.</p> <p>-Any bidder who fails to submit the supporting documents shall be considered as ineligible bidder.</p>					
8A	Ballroom (Multipurpose Hall)					
8A-1	<p>Seats for Ballroom (Multipurpose Hall)</p> <p>Casa Florentina Genoa Side Chairs with Linen Seat</p> <p>Chair has a curved solid beech wood frame, scalloped ladder back and a wide. Seat is removable for easy recovering</p> <p>Dimensions:</p> <p>Overall: 39"H X 19 1/2"W X 21 1/2"D</p> <p>Seat: 18 3/4"H X 18"W (at front) & 13 3/4"W (at back) X 16 1/4"D</p> <p>Construction:</p> <p>Frame: Constructed of beech wood.</p> <p>Seat Upholstery: Made of 49% viscose, 24% polyester, 21% linen, and 6% cotton;</p>	No.	400			
8A-2	<p>Tables for Ballroom (Multipurpose Hall)</p> <p>SIZE : 1500*900mm</p> <p>color : walnut (or as approved by the client)</p> <p>Material : Constructed of beech wood</p>	No.	60			
	Total of Bill No. (8A)					




No.	Item	Unit	Qty.	Unit Rate USD	Total USD	Description
8B	Billiard Hall					
8B-1	Billiard Table - 8 feets Crafted from 1 in. thick MDF material covered in a maple veneer Detailed ball and claw legs with a 1.75 in. MDF play surface Inlaid diamond sites with a 1W x 4.5H in. hard wood top rails Finger jointed interlocking support beams and perimeter anchor blocks give the table rock solid stability. Assembly required	No.	2			
8B-2	Seating bench Main Material : Wood Leg Material : Wood Overall : 36.4" H x 48" W x 19" D Arms : 27" H Seat Height : 18 " Overall Product Weight : 33 lb. Seat: 45.5" W x 16" D Weight capacity: 250 lbs.	No.	4			
8B-3	Wooden Shelves mm, best quality. Dimensions: Length; 200 cm, Width; 90 cm, Depth 30 cm.	No.	4			
Total of Bill No. (8B)						



No.	Item	Unit	Qty.	Unit Rate USD	Total USD	Description
8C	Classrooms					
8C-1	<p>Classrooms Student Seats Height: 38 cm Dimension of plastic seat: 33.5 x 34.5 cm Dimension of plastic back: 19.5 x 34.5 cm Plastic thickness: 5 - 8 mm Plastic color: grey Diameter of iron pipes: 22 mm, 10/20mm Thickness of iron pipes: 1.5 mm, 1.25mm Width of chair: 40 cm</p> <p>Metal framework The metal framework shall be made from metal pipes. Diameter: 22 mm, thickness 1.5 mm. The lateral metal connections shall be made of elliptical profile 10/20 mm with a thickness of 1.25mm. All ends of metal pipes should be closed with plastic covers. Plastic heels are to be installed at the bottom of the chair's legs. All metal pieces shall be welded together properly, strongly and in conformity with regulations. CO2 welding shall be used</p> <p>Chair back and seat Chair back and seat shall be made out of reinforced plastic. Thickness: 5- 8mm. The chair back shall be fixed by metal screw; length 1.5cm, required number: 4. It shall be fixed from the backside. The seat shall be fixed by metal screw; length: 1.5 cm required number: 4.</p> <p>Chair writing board The seat board shall be made of precut plywood (SANDWICH), best quality. Thickness of the board shall be 17 mm, dimensions: It shall be covered with colored plastic FORMICA on both sides. Top Formica thickness: 0.8mm. Color: grey (3130). Bottom Formica thickness: 0.5mm.</p>	No.	90			



No.	Item	Unit	Qty.	Unit Rate USD	Total USD	Description
8C-2	Conference Hall Seats ATERIAL : B series Fabric, fade-resistant anti-fouling ARMREST : Beech armrests MECHANISM : fixed back GROSS WEIGHT : 20.85KG SEAT HEIGHT : 420MM FEET : Steel(1.5MM)with powder coating SEAT REBOUND : Damping slow rebound back (L*W*H) : 88*77*54 seat (L*W*H) : 3*51*49 feet (L*W*H) : 69*44*63	No.	216			
8C-3	Teacher Chair Metal framework A swivel chair with 5 rolling wheels. The chair shall have a jack for elevation adjustment. The arms shall be made of iron and covered with reinforced plastic pieces from top. The base shall be made of black reinforced plastic. The seat shall be connected to the base by a chromium rod not less than 30 cm long and 5 cm in diameter. Chair back and seat It shall be made of plywood (sandwich) with a minimum thickness of 15 mm, best quality. The chair back and seat shall be upholstered using sponge. The thickness of sponge for the chair back should not be less than 8 cm and for the seat 10 cm. Special, good quality cloth shall be used for covering the chair back and seat. The color shall be chosen by the Ministry. The wooden seat shall be fixed on the metal base using bolts, with a nut fixed on the wooden seat. The chair shall be attached to the arms' framework using bolts and a nut fixed on the chair back. A device (propeller) shall be installed at the back of the chair to control the inclination process forwards and backwards.	No.	6			كرسي موظف دوران 

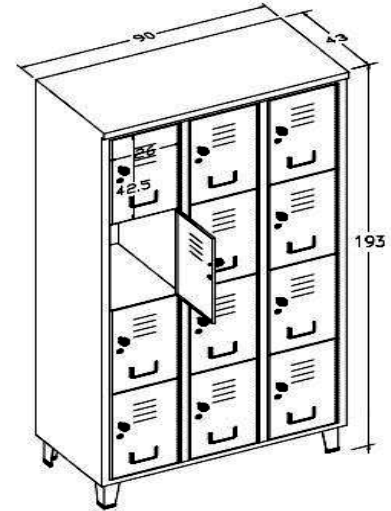

No.	Item	Unit	Qty.	Unit Rate USD	Total USD	Description
8C-4	COMPUTER REVOLVING CHAIR (Two Jacks) Seat size wooden:- 480 x 420 x 20mm (shaped) Back size wooden:- 400 x 400 x20mm(shaped) Seat and back made of solid seasoned wood. Seat & back properly cushioned having rubber strips with raw cotton filling fixed with 1st quality foam and covered with durable tapestry cloth. Having 5-star revolving adjustable threaded pedestal, durable & load bearing caster wheels.	No.	15			
8C-5	Computer table -student (L*W*H) 110*54*76cm Metal Frame Work The metal frame shall be made from hollow metal profile tubes (profilstahl). Dimension: 20 x 20 mm and 40 x 20 mm, thickness: 1.25 mm. All metal pieces shall be welded together properly, strongly and in conformity with regulations. CO2 welding shall be used. Additional holes in the metal framework shall be made besides and equal in number to the original holes to enable future maintenance. All ends of the metal squares must be covered with black plastic covers. Plastic heels are to be installed under the legs to elevate the metal frame from the ground and must be fixed with galvanized metal screws. An Iron Box with a thickness of (1 mm) penetrated, pinned and fixed as shown on attached figure. Table Board The table board shall be made of precut plywood (SANDWICH), best quality. Thickness of table board shall be 17 mm, dimensions: 110 x 54 cm. It shall be covered with colored plastic FORMICA on both sides. Top Formica thickness: 0.8mm. Color: grey (3130) Bottom Formica thickness: 0.5mm. The table board shall be belted using INJECTION POLYURETHANE THERMOSET. The belt thickness must be (5- 8mm). Color: black The table board shall be fixed on the metal framework using galvanized metal screws, (3.5 cm).	No.	15			


No.	Item	Unit	Qty.	Unit Rate USD	Total USD	Description
8C-6	Bookshelf The bookshelves shall be made of plywood (sandwich board) with a minimum thickness of 17 mm, best quality. The back shall be covered with a plate made of Masonite wood 5 mm thick, color: white. The shelves shall be fixed using glue and 4 cm long pins. Distance between shelves shall be equal. The wooden parts shall be covered with stretched laminating plastic sheet (Formica) 0.8 mm thick, best quality. Color gray (3130). All edges of should be cover by hardened plastic belt thickness (1.5-2mm) color: black. The back shall be fixed using metal screws 1.5 cm long. Plastic heels are to be installed under the legs to elevate the wooden parts from the ground. Dimensions: Length; 200 cm, Width; 90 cm, Depth 30 cm.	No.	4			
8C-7	File Cabinet The bookshelves shall be made of plywood (sandwich board) with a minimum thickness of 17 mm, best quality. The back shall be covered with a plate made of Masonite wood 5 mm thick, color: white. The shelves shall be fixed using glue and 4 cm long pins. Distance between shelves shall be equal. The wooden parts shall be covered with stretched laminating plastic sheet (Formica) 0.8 mm thick, best quality. Color gray (3130). All edges of should be cover by hardened plastic belt thickness (1.5-2mm) color: black. The back shall be fixed using metal screws 1.5 cm long. Plastic heels are to be installed under the legs to elevate the wooden parts from the ground. Dimensions: Length; 130 cm, Width; 46 cm, Depth 65 cm.	No.	6			

No.	Item	Unit	Qty.	Unit Rate USD	Total USD	Description
8C-8	<p>White Board</p> <p>Wall mounted magnetic green writing board Lina series, 25 mm profile size 120x360 cm) with silver anodized elegant aluminum frame (19x25mm thick) and four strong rounded plastic (upvc) corners fixed internally with screws to the wall, and also with silver anodized aluminum try fixed by sliding through the profile which used for chalks, markers and duster and has UPVC edges for safety.</p> <p>The writing surface is enameled surface (ceramic) .The back is covered by aluminum foils.</p> <p>The board is scratch resistant.</p>	No.	6			
8C-9	<p>White Board</p> <p>Ditto, with dimensions 120x210 cm and movable legs</p>	No.	6			
8C-10	<p>Rest Area +back stage</p> <p>wooden table 100cm dia.</p> <p>4 zan chairs with high quality sponge and textile.</p>	No.	13			

No.	Item	Unit	Qty.	Unit Rate USD	Total USD	Description
8C-11	Landscape Area wooden table 100cm dia. 4 zan chairs with high quality sponge and textile.	No.	5			
Total of Bill No. (8C)						
8D	Administration offices (DESK + TABLE + CHAIR)					
8D-1	DESK Desk with overall Measurements: 66"W x 36-1/4"D x 30-1/8"H Style: Italian Finish: Vintage Burnished Black Light to heavy physical distressing 2 Penda flex file drawers that fit either standard or legal folders Pencil drawer has drop face to allow use as keyboard drawer or as laptop station Hidden wire management inside pedestal walls allow for power access Desk's top features tooled leather inserts for both esthetics and durability Poplar Solids / Birch Veneers Parker House Venezia Executive Desk in Vintage Burnished Black	No.	6			
8D-2	TABLE Table with overall Measurements: 44"W x 24-1/4"D x 20-1/8"H	No.	6			

No.	Item	Unit	Qty.	Unit Rate USD	Total USD	Description
8D-3	<p>CHAIR</p> <p>Metal framework</p> <p>A swivel chair with 5 rolling wheels. The chair shall have a jack for elevation adjustment. The arms shall be made of iron and covered with reinforced plastic pieces from top. The base shall be made of black reinforced plastic. The seat shall be connected to the base by a chromium rod not less than 30 cm long and 5 cm in diameter</p> <p>Chair back and seat</p> <p>It shall be made of plywood (sandwich) with a minimum thickness of 15 mm, best quality. The chair back and seat shall be upholstered using sponge. The thickness of sponge for the chair back should not be less than 8 cm and for the seat 10 cm. Special, good quality cloth shall be used for covering the chair back and seat. The color shall be chosen by the Ministry. The wooden seat shall be fixed on the metal base using bolts, with a nut fixed on the wooden seat. The chair shall be attached to the arms' framework using bolts and a nut fixed on the chair back. A device (propeller) shall be installed at the back of the chair to control the inclination process forwards and backwards.</p>	No.	6			
Total of Bill No. (8D)						
8E	Meeting Room (TABLE + 12 CHAIRS)					
E8.1	<p>Table + 12 chairs</p> <p>Table specification as Administration offices (item D)</p> <p>Table length= 4.0 and width = 1.4m</p> <p>chairs specifications as per item no 2</p>	L.S	1			
Total of Bill No. (8E)						

No.	Item	Unit	Qty.	Unit Rate USD	Total USD	Description
8F	Changing Room					
8F-1	<p>Metal cabinet with twelve doors</p> <p>Metal framework</p> <p>The whole metal framework shall be made of metal sheets with a minimum thickness of 0.8 mm including the back of the cabinet and the internal shelves.</p> <p>All metal pieces are to be welded together properly, strongly and in conformity with regulations, using Co2 and point welding.</p> <p>Plastic heels shall be fixed at the bottom of the cabinet.</p> <p>Dimensions : Length: 193 cm, Breadth: 90 cm, Depth: 43 cm.</p> <p>Internal division</p> <p>The cabinet shall be divided into 12 compartments as shown on the attached figure.</p> <p>Two longitudinal metal partitions 0.8 mm thick shall be installed along the cabinet with a distance of 26 cm between them</p> <p>Compartments shall be separated by installing 9 fixed shelves 0.8 mm thick inside the cabinet.</p> <p>Doors</p> <p>Twelve doors for the cabinet shall be installed with properly movable hinge pillars all over the side length of the door.</p> <p>A cylindrical lock shall be installed to each door made of high quality to lock the door properly.</p>	No.	12			
Total of Bill No. (8F)						
8G	Doctor room					
8G-1	<p>Doctor desk (include on other items)</p> <p>Doctor Bed 220cm*90cm*46cm with Medical mattresses</p> <p>Curtain: Curtains With Aluminum Hangers Look Harmonious With The Walls And Looked Gorgeous Foldable</p> <p>Two Waiting chair for each room</p>	No.	2			
Total of Bill No. (8G)						

No.	Item	Unit	Qty.	Unit Rate USD	Total USD	Description
8H	Reception Counter					
8H-1	Reception counter as per drawing.	No.	1			
8H-2	Modify the existing theater reception Counter as per drawing.	No.	1			
	Total of Bill No. (8H)					
8I	POSTERS					
8I-1	Art worker poster 2x5cm sandwich wooden frame covered by beach veneer for 80 cm width x 240cm height.	No.	8			
8I-2	Ditto, but 120cm width	No.	2			
8I-3	Ditto, but 130cm width	No.	1			
8I-4	Ditto, but 215cm width	No.	1			
8I-5	Ditto, but 260cm width	No.	1			
8I-6	Ditto, but 280cm width	No.	1			
	Total of Bill No. (8I)					
8J	PODIUM DESK					
8J-1	Wooden podium desk size 66x40x125cm made of MDF and beach veneer as per drawings.	No.	1			
	Total of Bill No. (8J)					
8K	BALLROOM CURTAINS					
8K-1	Two layered curtains with full height. First layer is Purple Blackout fabric layer weaved by inner layer of white Chiffon fabric.	M2	105			
8K-2	2.8 mm Stainless steel bar (Norista) with crystal cap on both sides.	RM	28			
	Total of Bill No. (8K)					
8L	MIRRORS					
8L-1	6mm thick mirror with sandwich wood covered by beach veneer with drawers with size of 120x198cm as shown in the drawings.	No.	20			
	Total of Bill No. (8K)					
	Total of Bill (8); furnishing works					

No.	Model	Item	Unit	Qty.	Unit Rate USD	Total USD
Bill No. (9) Kitchen's Equipment						
Provisinal Items						
	Supplying, installing, commissioning & testing the following items with all the required materials to complete the job in accordance with the BOQ, drawings, specifications and the supervising engineer's instructions. -The prices should include all the materials and accessories needed to complete the job. -The Contractor has to submit Detailed Shop Drawings to be approved by the Engineer before commencement of the work. - All materials shall be produced by European manufacturers in accordance with the European Standard. -All equipment shall be produced by European manufacturers in accordance with the European Standard. -The contractor must submit the original catalogues with technical data sheets, all certified and calculation sheets test for all system component according to the required parameters and supervisor engineer instructions in addition to the certificate of origin. -Any bidder who fails to submit the supporting documents shall be considered as ineligible bidder. The Unit rates of all types of sinks shall include the following: 1- Supplying and installing Gerohi chromium Mixer tap. 2- Supplying, Installing and operating garbage disposer (Kitchen sink). 3- (2" PP) drainage pipes to the nearest floor trap complete with elbows and needed accessories.					
A- DRY STORE						
9A-1	HALLEY 2214 5023	TECNALL INSECT KILLER, 2X20 WATT. VOLTAGE: 230/50/1	Unit	1		
9A-2	SC18126	MARENO S/S 4 TIER SMOOTH SHEL VING UNIT DIM.: 1170X476X1800 MM.	Unit	2		
9A-3	SC18206	MARENO S/S 4 TIER SMOOTH SHEL VING UNIT DIM.: 1970X476X1800 MM.	Unit	2		
9A-4	SC18216	MARENO S/S 4 TIER SMOOTH SHEL VING UNIT DIM.: 2070X476X1800 MM.	Unit	1		
9A-5	SC18136	MARENO S/S 4 TIER SMOOTH SHEL VING UNIT DIM.: 1270X476X1800 MM.	Unit	1		
B- BEVERAGE AREA						
9B-1	HALLEY 2214 5023	TECNALL INSECT KILLER, 2X20 WATT. VOLTAGE: 230/50/1	Unit	1		
9B-2	ETA21S	MARENO S/S WORK TABLE WITH REAR UPSTAND AND LOWER SHELF DIM.: 2100X700X850 MM.	Unit	3		
9B-3	ETVA14DS	MARENO S/S WORK TABLE WITH REAR UPSTAND R/H. BOWL AND LOWER SHELF DIM.: 1400X700X850 MM.	Unit	1		
9B-4	LGMF	SINGLE MIXER TAP SET	Unit	1		
9B-5	PSSP	SIMPLE PLASTIC SYPHON	Unit	1		

No.	Model	Item	Unit	Qty.	Unit Rate USD	Total USD
9B-6	ETA14S	MARENO S/S WORK TABLE WITH REAR UPSTAND AND LOWER SHELF DIM.: 1400X700X850 MM.	Unit	1		
9B-7	EPP621PS	MARENO WALL MOUNTED CUPBOARD WITH SLIDING DOORS DIM.: 2100X400X660 MM.	Unit	3		
9B-8	PXR1435	MARENO S/S ADJUSTABLE WALL MOUNTED SHELF DIM.: 1400X350X40 MM.	Unit	2		
9B-9	PXS35	RACK SUPPORT	Unit	4		
9B-10	NFB70P	MARENO REFRIGERATED CABINET ONE DOOR CAPACITY: 650 LITERS TEMP.: +2 / +10 ⁰ C. DIM.: 700X830X2080 MM.	Unit	1		
9B-11	CB 1565 A	BREMA ICE CUBE MAKER Made in AISI 304 18/10 stainless steel production 155 Kg/24h bin capacity 65 Kg 1 phase electric supply kW 1.4 VOLTAGE: 220/50/1 Dim.840X740X1075 MM.	Unit	1		
9B-12	PRATICA 2GR	CARIMALI SEMI AUTOMATIC COFFEE MACHINE 2-groups. Espresso 480 cup/hr., POWER: 3.15 VOLTAGE: 230/50/1 DIM.: 585X575X500 MM.	Unit	1		
9B-13	WKT 20n VA	ANIMO HOT WATER BOILER CAPACITY: 20 LITERS WITH WATER CONNECTION OUTPUT: 30 LT./HR. POWER: 3.2 KW. VOLTAGE: 230/50/1 DIM.: 180X270X360 MM.	Unit	1		
9B-14	CE 2083//L	VEMA CENTRIFUGAL JUICE EXTRACTOR POWER: 0.4 KW. VOLTAGE: 230/50/1 DIM.: 270X340X520 MM..	Unit	1		
9B-15	F1 INOX	DIHR BLENDER CAPACITY: 2.6 LITERS POWER: 0.2 KW. VOLTAGE: 230/50/1 DIM.: 215X155X440 MM.	Unit	1		
9B-16	S55	DIHR AUTOMATIC CITRUS SQUEEZER POWER: 0.35 KW. VOLTAGE: 230/50/1 DIM.: 180X220X360 MM.	Unit	1		
9B-17	VS404SV	MARENO FLOOR DRAIN WITH WALK OVER GRID DIM.: 350X350X150 MM.	Unit	1		
9B-18	PP50	MARENO SS WASTE BIN ON WHEELS DIM.: 390X635 MM.	Unit	1		

No.	Model	Item	Unit	Qty.	Unit Rate USD	Total USD
C- ROOM SERVICE AREA						
9C-1	HS43	MARENO WALL MOUNTED HAND WASH SINK DIM.: 500X400 MM.	Unit	1		
9C-2	ETA15S	MARENO S/S WORK TABLE WITH REAR UPSTAND AND LOWER SHELF DIM.: 1500X700X850 MM.	Unit	1		
9C-3	ETA15S	MARENO S/S WORK TABLE WITH REAR UPSTAND AND LOWER SHELF DIM.: 1500X700X850 MM.	Unit	1		
9C-4	ETA14S	MARENO S/S WORK TABLE WITH REAR UPSTAND AND LOWER SHELF DIM.: 1400X700X850 MM.	Unit	1		
9C-5	ETA16S	MARENO S/S WORK TABLE WITH REAR UPSTAND AND LOWER SHELF DIM.: 1600X700X850 MM.	Unit	1		
9C-6	ETA20S	MARENO S/S WORK TABLE WITH REAR UPSTAND AND LOWER SHELF DIM.: 2000X700X850 MM.	Unit	2		
9C-7	PXR1535	MARENO S/S ADJUSTABLE WALL MOUNTED SHELF DIM.: 1500X350X40 MM.	Unit	2		
9C-8	PXS35	RACK SUPPORT	Unit	4		
9C-9	PXR1935	MARENO S/S ADJUSTABLE WALL MOUNTED SHELF DIM.: 1900X350X40 MM.	Unit	1		
9C-10	PXS35	RACK SUPPORT	Unit	2		
9C-11	PXR1835	MARENO S/S ADJUSTABLE WALL MOUNTED SHELF DIM.: 1800X350X40 MM.	Unit	1		
9C-12	PXS35	RACK SUPPORT	Unit	2		
9C-13	PXR2035	MARENO S/S ADJUSTABLE WALL MOUNTED SHELF DIM.: 2000X350X40 MM.	Unit	2		
9C-14	PXS35	RACK SUPPORT	Unit	4		
9C-15	7240	MILAN TOAST BREAD TOASTER 4 SLOTS CAPACITY: 160 PCS./H. POWER 2.4 KW. VOLTAGE: 230/50/1 DIM.: 370X300X320 MM.	Unit	1		
9C-16	XAR2	DIHR ELECTRIC PRESS GRILL GROOVED PLATES POWER: 2.2 KW. VOLTAGE: 230/50/1 DIM.: 420X360X200 MM.	Unit	1		
9C-17	WKT 20n VA	ANIMO HOT WATER BOILER CAPACITY: 20 LITERS WITH WATER CONNECTION OUTPUT: 30 LT./HR. POWER: 3.2 KW. VOLTAGE: 230/501 DIM.: 180X270X360 MM.	Unit	1		

No.	Model	Item	Unit	Qty.	Unit Rate USD	Total USD
9C-18	CRP102	MARENO S/S SERVICE TABLE WITH 2 SHELVES. DIM.: 500X1000X1000 MM.	Unit	3		
9C-19	HALLEY 2214	TECNALL INSECT KILLER, 2X20 WATT. VOLTAGE: 230/50/1	Unit	1		
9C-20	VS404SV	MARENO FLOOR DRAIN WITH WALK OVER GRID DIM.: 350X350X150 MM.	Unit	1		
9C-21	PP50	MARENO SS WASTE BIN ON WHEELS DIM.: 390X635 MM.	Unit	1		
9C-22	NFB140N	MARENO REFRIGERATED CABINET TWO DOORS CAPACITY: 1400 LITERS TEMP.: -2 / +8 ^o C. DIM.: 1400X830X2080 MM.	Unit	1		
D- PASTRY AREA						
9D-1	HALLEY 2214 5023	TECNALL INSECT KILLER, 2X20 WATT. VOLTAGE: 230/50/1	Unit	1		
9D-2	HS43	MARENO WALL MOUNTED HAND WASH SINK DIM.: 500X400 MM.	Unit	1		
9D-3	ETA18S	MARENO S/S WORK TABLE WITH REAR UPSTAND AND LOWER SHELF DIM.: 1800X700X850 MM.	Unit	2		
9D-4	ETA12S	MARENO S/S WORK TABLE WITH REAR UPSTAND AND LOWER SHELF DIM.: 1200X700X850 MM.	Unit	1		
9D-5	ETA11S	MARENO S/S WORK TABLE WITH REAR UPSTAND AND LOWER SHELF DIM.: 1100X700X850 MM.	Unit	1		
9D-6	ETA16S	MARENO S/S WORK TABLE WITH REAR UPSTAND AND LOWER SHELF DIM.: 1600X700X850 MM.	Unit	1		
9D-7	ELN1424DS	MARENO S/S TWO BOWLS SINK UNIT WITH R/H. DRAIN BOARD WITH DRAIN & OVERFLOW TUBE DIM.: 1400X700X850 MM.	Unit	1		
9D-8	LGMF	SINGLE MIXER TAP SET	Unit	1		
9D-9	LX-SP2	DOUBLE PLASTIC SYPHON	Unit	1		
9D-10	PXR1835	MARENO S/S ADJUSTABLE WALL MOUNTED SHELF DIM.: 1800X350X40 MM.	Unit	2		
9D-11	PXS35	RACK SUPPORT	Unit	4		
9D-12	PXR1535	MARENO S/S ADJUSTABLE WALL MOUNTED SHELF DIM.: 1500X350X40 MM.	Unit	4		
9D-13	PXS35	RACK SUPPORT	Unit	8		
9D-14	C-LINE 40 3M	TEKNO STAMAP PLANETARY MIXER CAPACITY: 40 LITERS POWER: 2.2 KW. VOLTAGE:: 400/50/3	Unit	1		

No.	Model	Item	Unit	Qty.	Unit Rate USD	Total USD
9D-15	NFB70P	MARENO REFRIGERATED CABINET ONE DOOR CAPACITY: 650 LITERS TEMP.: +2 / +10 ⁰ C. DIM.: 700X830X2080 MM.	Unit	1		
9D-16	NFB70F	MARENO FREEZER CABINET ONE DOOR CAPACITY: 650 LITERS TEMP.: -15 / -25 ⁰ C. DIM.: 700X830X2080 MM.	Unit	1		
9D-17	BPP 11/12	SSP WALL TYPE S/S EXHAUST HOOD WITH GREASE FILTERS & LIGHTS DIM.: 1200X1100X500 MM.	Unit	1		
9D-18	VS404SV	MARENO FLOOR DRAIN WITH WALK OVER GRID DIM.: 350X350X150 MM.	Unit	1		
9D-19	PP50	MARENO SS WASTE BIN ON WHEELS DIM.: 390X635 MM.	Unit	1		
9D-20	MICGM101	MARENO, GAS CMBI OVEN DIRECT STEAM. DOUBLE GLASS DOOR. CAPACITY: 10XGN 1/1 POWER: 0.5 KW. VOLTAGE: 230/50/1 DIM.: 812X725X1145 MM.	Unit	1		
9D-21	GN 1/1 H 6.5	S/S GN 1/1 CONTAINER	Unit	10		
9D-22	MIPT811	S/S STAND WITH SIDE RUNNERS CAP. 8 GN 1/1	Unit	1		
E- MEAT & FISH PREP. AREA						
9E.1	HALLEY 2214 5023	TECNALL INSECT KILLER, 2X20 WATT. VOLTAGE: 230/50/1	Unit	1		
9E.2	CPI7	MARENO CHOPPING BLOCK S/S SUPPORT, POLIETHILEN ATOXIC TOP 50 MM. DIM.: 505X700X900 MM.	Unit	2		
9E.3	ELN1225S	MARENO S/S TWO BOWLS SINK UNIT WITH DRAIN & OVERFLOW TUBE DIM.: 1200X700X850 MM.	Unit	2		
9E.4	LGMF	SINGLE MIXER TAP SET	Unit	2		
9E.5	LX-SP2	DOUBLE PLASTIC SYPHON	Unit	2		
9E.6	ETLC12	MARENO MEAT PROCESSING TABLE DIM.: 1200X700X850 MM.	Unit	1		
9E.7	PSSP	SIMPLE PLASTIC SYPHON	Unit	1		
9E.8	ETA13S	MARENO S/S WORK TABLE WITH REAR UPSTAND AND LOWER SHELF DIM.: 1300X700X850 MM.	Unit	1		
9E.9	ETA21S	MARENO S/S WORK TABLE WITH REAR UPSTAND AND LOWER SHELF DIM.: 2100X700X850 MM.	Unit	1		
9E.10	PXR2135	MARENO S/S ADJUSTABLE WALL MOUNTED SHELF DIM.: 2100X350X40 MM.	Unit	3		
9E.11	PXS35	RACK SUPPORT	Unit	6		

No.	Model	Item	Unit	Qty.	Unit Rate USD	Total USD
9E.12	PXR1335	MARENO S/S ADJUSTABLE WALL MOUNTED SHELF DIM.: 1300X350X40 MM.	Unit	1		
9E.13	PXS35	RACK SUPPORT	Unit	2		
9E.14	SO 183 A	SAP BONE SAW CUTTING BLADE 1830 MM. VOLTAGE: 400/50/3	Unit	1		
9E.15	FRIULINOX	FRIULINOX WALK IN COLD / FREEZER ROOM. WITH WALL PARTITION INSULAT THICKNESS 100 MM. PANELS. PLASTIC COATED SHEET PANELS WITH POLYURETHANE INSULATION WITH 2 DOOR 80X190 CM. H. EXT. DIM.: 4040X1640X2200 MM.	Unit	1		
9E.16	FR943032	FRIULINOX COOLING UNIT. SEMI HERMETIC COMPRESSOR. POWER: 1 HP. VOLTAGE: 400/50/3 TEMP.: -20 ⁰ C.	Unit	1		
9E.17	FR942012	FRIULINOX COOLING UNIT. SEMI HERMETIC COMPRESSOR. POWER: 0.5 HP. VOLTAGE: 400/50/3 TEMP.: -2 ⁰ C.	Unit	1		
9E.18	SCF18-146	MARENO S/S 4 TIER PERFORATED SHELVING UNIT DIM.: 1370X476X1800 MM.	Unit	2		
9E.19	SCF18-146	MARENO S/S 4 TIER PERFORATED SHELVING UNIT DIM.: 1370X476X1800 MM.	Unit	2		
9E.20	VS404SV	MARENO FLOOR DRAIN WITH WALK OVER GRID DIM.: 350X350X150 MM.	Unit	4		
9E.21	PP50	MARENO SS WASTE BIN ON WHEELS DIM.: 390X635 MM.	Unit	2		
9E.22	TC 32 EXPORT	SAP MEAT MINCER OUTPUT: 600 KG/H. POWER: 2.2 hp. VOLTAGE: 400/50/3 DIM.: 470x300x450 mm.	Unit	1		
F- VEGETABLE PREP. AREA						
9F-1	HS43	MARENO WALL MOUNTED HAND WASH SINK DIM.: 500X400 MM.	Unit	1		
9F-2	ETLV14	MARENO VEGETABLE PROCESSING TABLE DIM.: 1400X700X850 MM.	Unit	1		
9F-3	PSSP	SIMPLE PLASTIC SYPHON	Unit	1		
9F-4	ELN1424DS	MARENO S/S TWO BOWLS SINK UNIT WITH R/H. DRAIN BOARD WITH DRAIN & OVERFLOW TUBE DIM.: 1400X700X850 MM.	Unit	1		
9F-5	LGMF	SINGLE MIXER TAP SET	Unit	1		
9F-6	LX-SP2	DOUBLE PLASTIC SYPHON	Unit	1		



No.	Model	Item	Unit	Qty.	Unit Rate USD	Total USD
9F-7	ETA20S	MARENO S/S WORK TABLE WITH REAR UPSTAND AND LOWER SHELF DIM.: 2000X700X850 MM.	Unit	2		
9F-8	PXR1435	MARENO S/S ADJUSTABLE WALL MOUNTED SHELF DIM.: 1400X350X40 MM.	Unit	2		
9F-9	PXS35	RACK SUPPORT	Unit	4		
9F-10	PXR2035	MARENO S/S ADJUSTABLE WALL MOUNTED SHELF DIM.: 2000X350X40 MM.	Unit	2		
9F-11	PXS35	RACK SUPPORT	Unit	4		
9F-12	PL 20 EXPORT	SAP POTATO PEELER CAPACITY: 20 KG. POWER: 0.75 KW. VOLTAGE: 400/50/3 OUTPUT: 240 KG/H. DIM.: 450X55X950 MM.	Unit	1		
9F-13		S/S TABLE EQUIPPED WITH FILTER	Unit	1		
9F-14	MOD 2004 M EXPORT	SAP VEG. SLICER WITH 5 CUTTING DISKS VOLTAGE: 230/50/1	Unit	1		
9F-15	MOD 2004 LT 5	SAP VEGETABLE CUTTER/MIXER CAPACITY: 5 LITERS POWER: 0.96 KW. VOLTAGE: 230/50/1 DIM.: 410X310X340 MM.	Unit	1		
9F-16	HALLEY 2214 5023	TECNALL INSECT KILLER, 2X20 WATT. VOLTAGE: 230/50/1	Unit	1		
9F-17	VS404SV	MARENO FLOOR DRAIN WITH WALK OVER GRID DIM.: 350X350X150 MM.	Unit	2		
9F-18	PP50	MARENO SS WASTE BIN ON WHEELS DIM.: 390X635 MM.	Unit	1		
G- COLD ROOM						
9G-1	FRIULINOX	FRIULINOX WALK IN COLD ROOM. WITH WALL PARTITION INSULAT THICKNESS 100 MM. PANELS. PLASTIC COATED SHEET PANELS WITH POLYURETHANE INSULATION WITH 2 DOORS 80X190 CM. H. EXT. DIM.: 3040X3640X2200 MM.	Unit	1		
9G-2	FR942012	FRIULINOX COOLING UNIT. SEMI HERMETIC COMPRESSOR. POWER: 0.5 HP. VOLTAGE: 400/50/3 TEMP.: -2 ⁰ C.	Unit	2		
9G-3	SCF18-146	MARENO S/S 4 TIER PERFORATED SHELVING UNIT DIM.: 1370X476X1800 MM.	Unit	8		
9G-4	VS404SV	MARENO FLOOR DRAIN WITH WALK OVER GRID DIM.: 350X350X150 MM.	Unit	2		
H- DRY STORE						
9H-1	SC18216	MARENO S/S 4 TIER SMOOTH SHELVING UNIT DIM.: 2070X476X1800 MM.	Unit	4		


No.	Model	Item	Unit	Qty.	Unit Rate USD	Total USD
I- DRY STORE						
9I-1	HS43	MARENO WALL MOUNTED HAND WASH SINK DIM.: 500X400 MM.	Unit	1		
9I-2	ETA18S	MARENO S/S WORK TABLE WITH REAR UPSTAND AND LOWER SHELF DIM.: 1800X700X850 MM.	Unit	1		
9I-3	ETA14S	MARENO S/S WORK TABLE WITH REAR UPSTAND AND LOWER SHELF DIM.: 1400X700X850 MM.	Unit	1		
9I-4	ETVA16DS	MARENO S/S WORK TABLE WITH REAR UPSTAND R/H. BOWL AND LOWER SHELF DIM.: 1600X700X850 MM.	Unit	1		
9I-5	LGMF	SINGLE MIXER TAP SET	Unit	1		
9I-6	PSSP	SIMPLE PLASTIC SYPHON	Unit	1		
9I-7	ETA16S	MARENO S/S WORK TABLE WITH REAR UPSTAND AND LOWER SHELF DIM.: 1600X700X850 MM.	Unit	1		
9I-8	PXR1635	MARENO S/S ADJUSTABLE WALL MOUNTED SHELF DIM.: 1600X350X40 MM.	Unit	1		
9I-9	PXS35	RACK SUPPORT	Unit	2		
9I-10	PXR1735	MARENO S/S ADJUSTABLE WALL MOUNTED SHELF DIM.: 1700X350X40 MM.	Unit	2		
9I-11	PXS35	RACK SUPPORT	Unit	4		
9I-12	PXR2135	MARENO S/S ADJUSTABLE WALL MOUNTED SHELF DIM.: 2100X350X40 MM.	Unit	1		
9I-13	PXS35	RACK SUPPORT	Unit	2		
9I-14	NFB140P	MARENO REFRIGERATED CABINET TWO DOORS CAPACITY: 1400 LITERS TEMP.: +2 / +10 ⁰ C. DIM.: 1400X830X2080 MM.	Unit	1		
9I-15	AF 300 A EXPORT	SAP MEAT SLICER CUTTING BLADE DIAM. 300 MM. VOLTAGE: 23050/1	Unit	1		
9I-16	MOD 2004 LT 5	SAP VEGETABLE CUTTER/MIXER CAPACITY: 5 LITERS POWER: 0.96 KW. VOLTAGE: 230/50/1 DIM.: 410X310X340 MM.	Unit	1		
9I-17	S55	DIHR AUTOMATIC CITRUS SQUEEZER POWER: 0.35 KW. VOLTAGE: 230/50/1 DIM.: 180X220X360 MM.	Unit	1		
9I-18	HALLEY 2214 5023	TECNALL INSECT KILLER, 2X20 WATT. VOLTAGE: 230/50/1	Unit	1		
9I-19	VS404SV	MARENO FLOOR DRAIN WITH WALK OVER GRID DIM.: 350X350X150 MM.	Unit	1		

No.	Model	Item	Unit	Qty.	Unit Rate USD	Total USD
9I-20	PP50	MARENO SS WASTE BIN ON WHEELS DIM.: 390X635 MM.	Unit	1		
J- COOKING AREA						
9J-1	ET15S	MARENO S/S WORK TABLE WITH LOWER SHELF DIM.: 1500X700X850 MM.	Unit	2		
9J-2	ETV20DS	MARENO S/S WORK TABLE WITH R/H. BOWL AND LOWER SHELF DIM.: 2000X700X850 MM.	Unit	1		
9J-3	LGMF	SINGLE MIXER TAP SET	Unit	1		
9J-4	PSSP	SIMPLE PLASTIC SYPHON	Unit	1		
9J-5	HS43	MARENO WALL MOUNTED HAND WASH SINK DIM.: 500X400 MM.	Unit	1		
9J-6	NEN96	MARENO S/S NEUTRAL WORKTOP DIM.: 600X900X250 MM.	Unit	1		
9J-7	NBV96	MARENO S/S OPEN BASE UNIT DIM.: 600X765X620 MM.	Unit	1		
9J-8	NPC98G	MARENO GAS PASTA COOKER CAPACITY: 2X42 LITER WELLS DIM.: 800X900X870 MM.	Unit	1		
9J-9	XPC-C1/3	1/3 BASKET IN STAINLESS STEEL	Unit	6		
9J-10	NF98G15	MARENO GAS DEEP FAT FRYER CAPACITY: 2X15 LITER WELLS COMPLETE WITH 2 BASKETS, 2 LIDS AND 2 BOTTOM GRIDS DIM.: 800X900X870 MM.	Unit	1		
9J-11	XFR9BR	MARENO ENAMELLED STEEL OIL COLLECTION TRAY	Unit	1		
9J-12	NSP94E	MARENO HEATED FOOD CONTAINER POWER: 2 KW. VOLTAGE: 230/50/1 DIM.: 400X900X250 MM.	Unit	1		
9J-13	NBV94	MARENO S/S OPEN BASE UNIT DIM.: 400X765X620 MM.	Unit	1		
9J-14	NEN98	MARENO S/S NEUTRAL WORKTOP DIM.: 800X900X250 MM.	Unit	3		
9J-15	NBV98	MARENO S/S OPEN BASE UNIT DIM.: 800X765X620 MM.	Unit	3		
9J-16	NGPL98G	MARENO GAS CHARCOAL GRILL WITH 2 FISH GRIDS & 4 BAGS LAVASTONE EACH 6 KG. DIM.: 800X900X250 MM.	Unit	1		
9J-17	NBV98	MARENO S/S OPEN BASE UNIT DIM.: 800X765X620 MM.	Unit	1		
9J-18	NFT98GL	MARENO GAS FRY TOP SMOOTH PLATE DIM.: 800X900X250 MM.	Unit	1		
9J-19	NBV98	MARENO S/S OPEN BASE UNIT DIM.: 800X765X620 MM.	Unit	1		
9J-20	NC9FG8G32	MARENO GAS COOKING RANGE 4 GAS BURNERS ON GAS OVEN DIM.: 800X900X870 MM.	Unit	1		

No.	Model	Item	Unit	Qty.	Unit Rate USD	Total USD
9J-21	MICGM101	MARENO, GAS CMBI OVEN DIRECT STEAM. DOUBLE GLASS DOOR. CAPACITY: 10XGN 1/1 POWER: 0.5 KW. VOLTAGE: 230/50/1 DIM.: 812X725X1145 MM.	Unit	1		
9J-22	GN 1/1 H 6.5	S/S GN 1/1 CONTAINER	Unit	10		
9J-23	MIPT811	S/S STAND WITH SIDE RUNNERS CAP. 8 GN 1/1	Unit	1		
9J-24	BCP 22/52	SSP ISLAND TYPE S/S EXHAUST HOOD WITH GREASE FILTERS & LIGHTS DIM.: 5200X1100X500 MM. FANS & DUCT WORKS NOT INCLUDED	Unit	1		
9J-25	VS408SV	MARENO FLOOR DRAIN WITH WALK OVER GRID DIM.: 750X350X175 MM.	Unit	2		
9J-26	CPV	MARENO S/S TRAY TROLLEY CAPACITY.: 32 GN 1/1 OR 16 GN 2/1 DIM.: 600X650X1600 MM.	Unit	6		
9J-27	VS404SV	MARENO FLOOR DRAIN WITH WALK OVER GRID DIM.: 350X350X150 MM.	Unit	1		
9J-28	NBR98GI	MARENO GAS TILTING BRATT PAN MANUAL TILTING S/S CONSTRUCTION WITH S/S PAN BOTTOM. CAPACITY: 80 LITERS DIM.: 800X900X870 MM.	Unit	1		
9J-28	NPI98G10	MARENO GAS BOILING PAN INDIRECT HEATED S/S CONSTRUCTION. CAPACITY: 100 LITERS POWER: 0.3 KW. VOLTAGE: 230/50/1 DIM.: 800X900X870 MM. 11- POT WASH AREA	Unit	1		
9J-29	ETA12S	MARENO S/S WORK TABLE WITH REAR UPSTAND AND LOWER SHELF DIM.: 1200X700X850 MM.	Unit	1		
9J-30	ELP182S	MARENO S/S TWO BOWLS POT WASH SINK UNIT DIM.: 1400X700X850 MM.	Unit	1		
9J-31	LX-SP2	DOUBLE PLASTIC SYPHON	Unit	1		
9J-32	DO11	SHOWER COMPLETE WITH SINGLE TAP	Unit	1		
9J-33	PXR1535	MARENO S/S ADJUSTABLE WALL MOUNTED SHELF DIM.: 1500X350X40 MM.	Unit	2		
9J-34	PXS35	RACK SUPPORT	Unit	4		
9J-35	VS404SV	MARENO FLOOR DRAIN WITH WALK OVER GRID DIM.: 350X350X150 MM.	Unit	1		
9J-36	PP50	MARENO SS WASTE BIN ON WHEELS DIM.: 390X635 MM.	Unit	1		

No.	Model	Item	Unit	Qty.	Unit Rate USD	Total USD
K- DISH WASH AREA						
9K-1	TSC18D	MARENO S/S SCRAPING TABLE WITH SINK AND SCRAPING HOLE DIM.: 1800X750X870 MM.	Unit	1		
9K-2	PSSP	SIMPLE PLASTIC SYPHON	Unit	1		
9K-3	MHT11	MARENO HOOD TYPE DISH WASHER CAPACITY: 1200 PLATES/HR. POWER: 10.3 KW. VOLTAGE: 400/50/3 DIM.: 650X730X1450 MM.	Unit	1		
9K-4	TS 12	MARENO SERVICE TABLE WITH INTERMEDIATE SHELF DIM.: 1200X550X870 MM.	Unit	1		
9K-5	DO11	SHOWER COMPLETE WITH SINGLE TAP	Unit	1		
9K-6	PP50	MARENO SS WASTE BIN ON WHEELS DIM.: 390X635 MM.	Unit	1		
9K-7	SCF18-166	MARENO S/S 4 TIER PERFORATED SHELVING UNIT DIM.: 1570X476X1800 MM.	Unit	1		
9K-8	SCF18-146	MARENO S/S 4 TIER PERFORATED SHELVING UNIT DIM.: 1370X476X1800 MM.	Unit	1		
9K-9	SCF18-166	MARENO S/S 4 TIER PERFORATED SHELVING UNIT DIM.: 1570X476X1800 MM.	Unit	2		
9K-10	SCF18-186	MARENO S/S 4 TIER PERFORATED SHELVING UNIT DIM.: 1670X476X1800 MM.	Unit	1		
9K-11	CCL	MARENO DISHWASHER BASKET TROLLEY DIM.: 530X530X850 MM.	Unit	2		
9K-12	HALLEY 2214 5023	TECNALL INSECT KILLER, 2X20 WATT. VOLTAGE: 230/50/1	Unit	1		
9K-13	VS404SV	MARENO FLOOR DRAIN WITH WALK OVER GRID DIM.: 350X350X150 MM.	Unit	1		
Total Bill (9) : KITCHEN'S EQUIPMENT						

No.	Item	Unit	Qty.	Unit Rate USD	Total USD	Description
Bill No. (10) LAUNDARY ROOM'S EQUIPMENT						
	<p>Supplying, installing, commissioning & testing the following items with all the required materials to complete the job in accordance with the BOQ, drawings, specifications and the supervising engineer's instructions.</p> <p>-The prices should include all the materials and accessories needed to complete the job.</p> <p>-The Contractor has to submit Detailed Shop Drawings to be approved by the Engineer before commencement of the work.</p> <p>-All equipment shall be produced by European manufacturers in accordance with the European Standard.</p> <p>-The contractor must submit the original catalogues with technical data sheets, all certified and calculation sheets test for all system component according to the required parameters and supervisor engineer instructions in addition to the certificate of origin.</p> <p>-Any bidder who fails to submit the supporting documents shall be considered as ineligible bidder.</p>					
10.2	<p>Front-Loading Washer Machine (6Kg)</p> <p>Power SUPPLY : 220-240 V , 50hZ</p> <p>Size :27"(W) x 34" (D) x46.9" (H)</p> <p>Capacity : 6 Kg</p> <p>Weight : 308 pounds</p> <p>Drum Material : stainless steel</p> <p>Warranty : 3- Years</p>	No.	2			
10.2	<p>Front-Loading Washer (14Kg)</p> <p>Power SUPPLY : 220-240 V , 50hZ</p> <p>Size : 686mm(W) x 767mm (D) x 982mm (H)</p> <p>Weight : 94Kg</p> <p>Wash capacity / Max . Watt : 14Kg (2200 W)</p> <p>Dry capacity / Max . Watt : 5 Kg (2150 W)</p> <p>Spin speed : 400/600/800/1000/1200</p> <p>Water consumption : 65.5 l</p> <p>Drum Material : stainless steel</p> <p>Permissible water pressure : 1.0 - 10Kg/cm2 (100-1000KPa)</p> <p>Warranty : 3- Years</p>	No.	2			

No.	Item	Unit	Qty.	Unit Rate USD	Total USD	Description
10.3	<p>Industrial Laundry Machine (50kg) Washing capacity (KG) : 50 Drum dimension(mm) : Φ1080×630 Roller speed(r/min) : 45 High extract speed (R.p.m) : 780 Motor power(kw) : 5.5 Frequency power(kw) : 7.5 Steam pressure (Mpa) : 0.3-0.4 Steam consumption : 0.9 Air pressure(Mpa) : 0.4 - 0.6 Dimension(mm) : 1600x1650x1980</p> <p>Washer Extractor Description</p> <ol style="list-style-type: none"> 1. Shell and bladder adopt high quality stainless steel, acid and alkali resistance, anti-corrosion, good appearance, long life. 2. Equipment with mechanical suspension shock structure, low noise, high washing, need no excessive stable foundations. 3. Adopted imported seal, sealing is good, no leakage. 4. Electricity heating water detergent. 5. It have two functions: Washing and dewatering. 6. Washing capacity is vary 15kg to 100kg. <p>Washer Extractor</p> <ol style="list-style-type: none"> 1. Large capacity, easy operate. 2. Washing machine adopts a single piece SUS304 stainless steel to ensure the stability. 3. Adopt full computerized control and LCD display, frequency adjust speed. 4. Over all modeling beautiful, strong and durable. 5. Approved by CE and ISO9001 system. <p>warranty : 3 Years</p>	No.	2			
Total of Bill No. (11) LAUNDARY ROOM'S EQUIPMENT						

No.	Item	Unit	Qty.	Unit Rate USD	Total USD
Bill No. (11) Computers Lab					
	<p>Supplying, installing, commissioning & testing the following items with all the required materials to complete the job in accordance with the BOQ, drawings, specifications and the supervising engineer's instructions.</p> <p>-The prices should include all the materials and accessories needed to complete the job.</p> <p>-The contractor has to maintain the following systems and submit warranties for two years.</p> <p>-The Contractor has to submit Detailed Shop Drawings to be approved by the Engineer before commencement of the work.</p> <p>-All equipment shall be produced by European manufacturers in accordance with the European Standard.</p> <p>-The contractor must submit the original catalogues with technical data sheets, all certified and calculation sheets test for all system component according to the required parameters and supervisor engineer instructions in addition to the certificate of origin.</p> <p>-Any bidder who fails to submit the supporting documents shall be considered as ineligible bidder.</p>				
11.1	<p>Desk top PC HP 290 G1 or equivalent Intel Core i7 7th Generation. 16 GB H.D 1 TB 7200 rpm. Graphics card NVIDIA® GeForce® GT 730 22" wide Screen with HDMI, VGA inputs. Logitech QuickCam C920 known brand wireless Keyboard , wireless Mouse , Speakers Smart UPS 620 VA.</p>	set	25		
11.2	<p>Laptop: MSI GF72VR 7RF ProcessorIntel Core i7-7700HQ (Intel Core i7) Graphics adapterNVIDIA GeForce GTX 1060 (Laptop) - 6144 MB, Core: 1405 MHz, Memory: 2002 MHz, GeForce Game Ready Driver 387.92, NVIDIA Optimus Memory16384 MB , 2x8 GB, DDR4-2400 Display17.3 inch 16:9, 1920 x 1080 pixel 127 PPI, No, Chi Mei CMN1747, TN LED, glossy: no MainboardIntel HM175 (Skylake PCH-H) , 256 GB SSD + 1 TB 7200 RPM Weight2.698 kg (= 95.17 oz / 5.95 pounds), Power Supply: 585 g (= 20.64 oz / 1.29 pounds) Original Windows 10 Pro Battery: 6 cell (GS6) (with wireless mouse) and Original MSI laptop bag</p>	set	7		
11.3	Netsupport School for computers lab for windows, tablets (Android & iOS) including server licesnse	license	50		
11.4	Laser Printer: HP Laser Jet M426 fdw (4*1)	Set	6		
11.5	LCD Projector + Holder: projector Epson S31	Set	6		
11.6	Photocopier Machine: Konica Minolta Bizhub 367 Copier, printer, scanner and fax or equivalent with finisher included	Set	3		
11.7	Vacuum Cleaner: 3000W	Set	3		
Total of Computers Lab					

Rehabilitaion, Fininshing and Furnishing of the Arab Orthodox Cultrural Center

ITB-2018-***

Overall Summary

<u>Bill</u>		<u>Total Amount \$</u>
1	Concrete & Block Works	
2	Finishing Works	
3	Carpentry & Joinery Works	
4	Aluminum & Metal Works	
5	Mechanical Works	
6	Miscellaneous Works	
7	Electrical Works	
8	Furnishing works	
9	Kitchen's Equipment (Provisional Items)	
10	Laundry Room's Equipment	
11	Computers Lab	
	TOTAL (\$)	

Total in numbers:
Total in letters:
Name of the contractor:
Authorized signature:
Signature and
Title:
Address:
Telephone:
Fax:
Mobile: