



SAUDI COMMITTEE FOR  
PALESTINIAN RELIEF



UNITED NATIONS  
DEVELOPMENT PROGRAMME

**ITB 2012-463**

**PAL 10-49740 /Construction of 300 Residential Units in Rafah**

**Package #9: Completion of Construction 16 buildings (36 residential units) in Rafah.**

**SECTION 9: PRICE SCHEDULE (Bill of Quantities)**

## **Preamble**

- 1 .The Price Schedule must provide a detailed cost breakdown for each item.
2. Technical descriptions for each proposed item must provide sufficient detail to allow UNDP to determine compliance of Bid with specifications as per Schedule of Requirements and Technical Specifications of this ITB.
3. All prices/rates quoted must be exclusive of all taxes, since the United Nations, including its subsidiary organs, is exempt from taxes.
4. In addition to the hard copy, if possible please provide also the information on diskette (IBM compatible).

**Bill No (1)****1. Mobilization & Demobilization**

<b>Item No.</b>	<b>Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Rate US \$ (letters)</b>	<b>Unit Rate US \$ (Numbers)</b>	<b>Total Amount US \$</b>
	All works according to particular specifications, and supervisor engineer instructions.					
0/1	Preparation the existing site include: 1- Supply Site office, shed, equipments, and furniture for both supervision and contractor. 2- Access road to and through the site. <u>3- Transportation &amp; Communication for the contractor team and for the supervision engineers as well</u>	LS	1			
0/2	Dismantle and remove all facilities, services, furniture, shed and any equipment related to the project supervisor and contractor office.As per the engineer instructon.	LS	1			
	<b>Total</b>					

**Bill No (2)****1. Excavation And Earth works**

<b>Item No.</b>	<b>Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Rate US \$ (letters)</b>	<b>Unit Rate US \$ (Numbers)</b>	<b>Total Amount US \$</b>
	<b>Excavation And Earth works for new buildings</b> Contractor shall take into consideration that all – direct and indirect works and expenses required for the completion of the coming items are included in the unit price. All works must be according to drawings, specification and engineer instructions. Rates shall include : 1. Shore up the sides of excavation and take all precautions to keep the adjacent buildings and existing infrastructure utilities (sewage, water, electricity and telecommunication works )safe. And repair any damage occur in the site. 2. Cleaning the site and removing all debris and rubbles to approved dump site. 3.Approval of Bench mark and leveling network before excavation works. 4. Backfilling in layers not more than 25cm thick for each layer and compaction to 97% of MDD. 5. Safety precautions to protect neighbor utilizes and persons. 6. All required Tests should be accommodated by an approved lab. 7. Laying out the buildings coordinates to be carried out by professional surveyor using <b>total station device</b> . 8.price include leveling and backfilling from imported sand to make up level around buildings up to the top of external ground beams levels. 9.All the above mentioned and following specifications is part of the contractor obligations.					
1/1	Excavation in sandy soil or any other soils including backfilling with selected or imported sand material around foundations & any other element up to ground slab level in layers not more than 25cm thick for each layer with compaction to 97% of MDD. The price also includes transportation of the disapproved excavated material to approved dump area according to supervision engineer's instructions.	LS	16			
	<b>Total</b>					

**Bill No (2)****2. Concrete Works.**

Item No.	Description	Unit	Quantity	Unit Rate US \$ (letters)	Unit Rate US \$ (Numbers)	Total Amount US \$
	<p>Rates of Concrete Works shall include:-</p> <p>1. All form works and shuttering (new lumber for shuttering painted by special oil ) 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. Fuel or burned oil is not accepted to be used for painting the lumber before use the form.</p> <p>3. Supplying, Casting, vibrating and curing as per specifications.</p> <p>4. Approved additives and admixtures.</p> <p>5. Incurred costs on New Concrete Job Mix Designs, Sampling , testing and providing test results certificates, storing and saving of samples.</p> <p>6. 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>7. Preliminary installations for Electrical, plumbing and floor drainage in floor slabs including final floor slab.</p> <p>8. Compaction and testing under the foundation, ground beams, and ground slabs, the compaction should not be less than 97% of MDD.</p> <p>9. All works according to specifications , drawings and supervisor engineer instructions</p> <p>Note : All prices of concrete item should include the steel reinforcement works as the following:</p> <p>10. Supply, fabricate and fix reinforcement steel (fy= 410 N/mm<sup>2</sup>) 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 tying wires, spacers, shop drawings, testing and bar bending schedules .All works according to specifications , drawings and supervisor engineer instructions</p>					
2/1	Supply and cast plain concrete B (200) kg/cm <sup>2</sup> for foundation 5 cm thick including polythene sheets as per specifications and drawings.	M <sup>3</sup>	25			
2/2	Supply and cast ready mix reinforced concrete B (250) kg/cm <sup>2</sup> for foundation .	M <sup>3</sup>	183			
2/3	Supply and cast ready mix reinforced concrete B (300) kg/cm <sup>2</sup> for columns and column necks .	M <sup>3</sup>	171			
2/4	Supply and cast ready mix reinforced concrete B(250) kg/cm <sup>2</sup> for ground beams and secondary beams including polythene sheets under the beams.	M <sup>3</sup>	187			
2/5	Supply and cast ready mix reinforced concrete B(250) kg/cm <sup>2</sup> for boundary beams around units including polythene sheets under the beams, excavation, compaction under beams and backfilling .	M <sup>3</sup>	41			

**Bill No (2)****2. Concrete Works.**

Item No.	Description	Unit	Quantity	Unit Rate US \$ (Letters)	Unit Rate US \$ (Numbers)	Total Amount US \$
2/6	Supply and cast ready mix reinforced concrete B(250) kg/cm <sup>2</sup> for the ground slab 8cm thick , including polythene sheets under the slab. and compacting the soil beneath the slab to 97% of MDD.	M2	1710			
2/7	Supply and cast ready mix reinforced concrete B (250) kg/cm <sup>2</sup> for suspended hollow block slab 25cm thick, including the hollow cement block 40 x 25 x 17cm;all drop beams in the slab ; slopes 0.5% for the final slab where the minimum depth not less than 25cm at the locations at rain water traps and ; an inverted beam at the boundary of the final roof and terrace with dimensions 20*20 cm above the slab level; the final roof should be finished be steel trowel machine.	M <sup>2</sup>	3985			
2/8	Supply and cast ready mix concrete B (250) kg/cm <sup>2</sup> for solid slab 20 cm thick for staircase the price including all drop and inverted beams in the slab ,also the price include the slopes 0.5% for the final slab where the minimum depth not less than 20cm at the locations at rain water traps everywhere in the slab and all other materials as per specifications , drawings and supervisor engineer's instructions.	M <sup>2</sup>	272			
2/9	Supply and cast ready mix reinforced concrete B (250) kg/cm2 for lintels, sills, beams, parapet beams.	M <sup>3</sup>	106			
2/10	Supply and cast ready mix concrete B (200) kg/cm2 for stub columns.	M <sup>3</sup>	13			
2/11	Supply and cast ready mix reinforced concrete B (250) kg/cm2 for stairs including flights, landings, steps, drop, inverted beams and hand rail wall including entrance stairs.	M <sup>3</sup>	156			
2/12	Ditto but for external decorations.	M <sup>3</sup>	36			
	<b>Total</b>					

**Bill No (2)****3. Building Works**

<b>Item No.</b>	<b>Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Rate US \$ (letters)</b>	<b>Unit Rate US \$ (Numbers)</b>	<b>Total Amount US \$</b>
	<p>The price include:</p> <p>1- supplying hollow or solid cement block from good and approved factory in perfect dimension and build it in good manner with a compressive strength 35 kg/cm<sup>2</sup> for hollow block and 60 kg/cm<sup>2</sup> for solid block. This item will include cement mortars, reinforced concrete infill (B250) between columns &amp; block walls (10-20 cm wide) with 1Ø8mm/40cm horizontally and 2Ø8mm vertically according to drawings, pipes encasement, false columns 20x20 cm/4.0m among the parapet wall with 4Ø12mm and bituminous paper between block work and drop beams &amp; all requirements needed to finish the works according to the drawings, specification and to the supervision engineer instructions.</p> <p>2- Providing samples for approval and all the required tests.</p>					
3/1	Supply and build hollow cement block 40x20x20cm	M <sup>2</sup>	5920			
3/2	Ditto but 40x20x 15 cm thick for staircase	M <sup>2</sup>	320			
3/3	Ditto but 40x20x 10 cm thick for internal walls.	M <sup>2</sup>	2400			
3/4	Supply and build solid cement block 40x20x20 cm, under ground beams, and external boundary for building including painting the buried parts with one coat of primer and two coats of hot bitumen.	M <sup>2</sup>	560			
	<b>Total</b>					

**Bill No (2)****4. Plastering Works**

Item No.	Description	Unit	Quantity	Unit Rate US \$ (letters)	Unit Rate US \$	Total Amount US \$
	<p>All works must be according to drawings, specification and engineer instructions. Rates shall include :</p> <p>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>Preparation works by covering all conduits of electricity, water supplies , etc, with a galvanized wire mesh at least 20cm width coated by mortar (1:1) cement : sand and the work includes removal of wires and nails and cleaning of surfaces to be ready for plastering.</p> <p>Contractor shall take into consideration that all – direct and indirect works and expenses required for the completion of the coming items are included in the unit price.</p> <p>Trimming of concrete chippings, removing the wires and etc. and cleaning of existing surfaces to be ready for plastering.</p> <p>The work shall include checking out all of the preliminary installation in ceilings and walls such as electrical, water supply and waste water pipes and repairing the damages if any.</p> <p>This should be done prior to commencement of plastering and after obtaining a written approval from the supervision engineer.</p> <p>Curing with water for at least three days for each coat.</p>					
<b>Internal Plastering</b>						
4/1	Supply and make internal plastering 13 mm thick for ceiling and soffits. The work includes rough primer nail rendering to form a key with (mix 1:1) cement sand, second layer 13mm: Base-Coat "Rendering" with (1:3:0.25) cement: sand mortar: lime and third layer: Finishing Coat with (1:1:1) cement: sand mortar: lime . Works include all materials needed to finish the works according to specifications , drawings and supervisor engineer's instructions	M <sup>2</sup>	5510			
4/2	Ditto, but internal plastering 15 mm thick for internal walls, parabet walls and Windows edges.	M <sup>2</sup>	14180			
<b>External Plastering</b>						
4/3	Supply and make external plastering 20mm thick to walls with four faces : the first is the rough nail rendering (mix 1:1) cement sand; the second is 5mm thick mortar (mix 1: 2) cement:sand, the third is the undercoat 13mm (mix 1: 3 :0.25) cement:sand:lime, the forth is two coats of Tyrolean finish ( mix 1: 3) white cement to fine aggregate (Quartz) and all is according to specifications , drawings and supervisor engineer's instructions	M <sup>2</sup>	7320			
4/4	Supply and make external plastering 20mm thick for decorates at four faces : the first is the rough nail rendering (mix 1:1) cement:sand, the second is 5mm thick mortar (mix 1: 2) cement:sand, the third is the undercoat 13mm (mix 1: 3 :0.25) cement:sand:lime; the forth is make Finishing Coat, smooth surface with (1:1:1) cement:sand mortar:lime. and all this is according to specifications , drawings and supervisor engineer's instructions	M <sup>2</sup>	700			
	<b>Total</b>					



## Bill No (2)

## 5. Tiling and Marble Works

Item No.	Description	Unit	Quantity	Unit Rate US \$ (letters)	Unit Rate US \$ (Numbers)	Total Amount US \$
	All works must be according to drawings, specification and engineer instructions. Rates shall include : 1. Samples for approval and all the required tests. 2. Cleaning, mechanical polishing and pointing using grout. 3. Insulation works under ceramic floor tiles for upstairs bath rooms and kitchens using primer coat, two hot bitumen coats (75/25) 4. Plastic angle beads for ceramic wall tiles and Aluminum angle for ceramic of walls at the corners and top and sides of ceramic edges. 5. Local marble must be Grade (A) free cracks and clay flaws. 6. Measuring the stockpiled quantities of tiles and obtaining the engineer approval prior to shipment to the site. 7. Transporting and carefully handling the stored quantities to the site.					
5/1	Supply and install mozaico floor tiles (Baladi), grade A, size 25cmx25cmx2.5cm laid on 2cm mortar bed and 5 cm thick sand bed including terrazzo skirting 25cmx 7cmx1cm including all needed materials as per specifications , drawings and supervisor engineer instructions	M <sup>2</sup>	3185			
5/2	Supply and fix non-slip color ceramic floor tiles Grade A Spain made or equivalent, size 33x33x0.60cm for bath rooms, toilets, kitchens , bedded on cement and sand mortar 1:3 laid on a dry mixed sand and cement backfill, the price including skirting 7cm height wherever no wall tiles required, pointing using special pre-mix grout and final polishing as per specifications , drawings and supervisor engineer instructions	M <sup>2</sup>	720			
5/3	Supply and fix color glazed ceramic wall tiles, Grade A Spain made or equivalent, size 25x40x0.60cm for bath rooms, toilets, kitchens, bedded in cement and sand mortar 1:3 to walls. Price to include lime free key nail then plain plaster layers and pointing using special pre- mixed grout as specifications, drawings and supervisor engineer instructions	M <sup>2</sup>	1080			
5/4	Supply and lay precast reinforced mozaico stair treads size 35 cm wide x 4cm thick chamfered once , rebated once and laid on 2cm thick mortar bed same color and kind of the floor tiles and the price including mozaico stair risers size 12.4cm high x2cm thick and skirting 20cm high x2cm thick on the both sides, grouting and polishing as specification and drawing.	NO	940			
5/5	Supply and install mozaico window sill size 26 cm wide x 5cm thick for units and roof entrances, flat's entrances, and guest room entrance laid on 2 cm thick mortar bed including polishing and grooving as approved by the representative engineer and as specification and drawings.	L.m	417			
5/6	Ditto but 36 cm wide for wider windows sills	L.m	48			
5/7	Supply and cast mozaico coping for handrail 15cm wide x 5cm thick of the same kind and color of the floor tiles including smoothing the surfaces and edges as per specifications and drawings.	L.m	304			
5/8	Supply and erect Rosa bitta counter top 60cm wide for kitchen cupboard, including local marble shelves and vertical dividers, back of cupboard, floors and skirting .Vertical dividers and floor should be 3cm thick, but back and shelves 2cm, making opening for kitchen sink with size (60cm x40cm), and another suitable opening for gas pipe. as per specification, drawings and engineer instructions	L.m	127			
<b>Total</b>						

Contractor's Signature and Seal

**Bill No (2)****6. Painting Works**

<b>Item No.</b>	<b>Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Rate US \$ (letters)</b>	<b>Unit Rate US \$</b>	<b>Total Amount US \$</b>
	<p>Rates include:</p> <p>1-All the painting materials used should be approved and tested by approved local laboratory and have the final approved from the supervisor engineer.</p> <p>2- The surface must be dry and clean before painting.</p> <p>3- All painting works should provide the required coverage.</p> <p>4- All paint works must be according to specifications , drawings and supervisor engineer instructions.</p> <p>5- Contractor shall take into consideration that all – direct and indirect works and expenses required for the completion of the coming items are included in the unit price.</p> <p>6-Smoothen surfaces of existing plastering before the Commencement paint</p> <p>7- Providing scaffolding to carry out the external painting</p>					
6/1	Supply and Paint the internal walls and ceiling with at least two coats of colored (Poliside) approved as specifications , drawings and supervisor engineer instructions	M <sup>2</sup>	17070			
6/2	Supply and Paint, external decorations with one coat of Pendrole primer and at least two coats of External quality of colored emulsion (Weather Shield) or equal approved as specification and drawings	M <sup>2</sup>	700			
	<b>Total</b>					

Contractor's Signature and Seal

**Bill No (2)****7. Carpentry works**

<b>Item No.</b>	<b>Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Rate US \$ (letters)</b>	<b>Unit Rate US \$</b>	<b>Total Amount US \$</b>
	All works must be according to drawings, specification and engineer instructions. Rates shall include : 1. supplying carpentry works from good Swedish wood grade "A" including frame, cover mould, architrave. 2. Painting of Frame sides ,exposed to walls, with cold Bitumen in addition to complete painting of the bottom 10cm 3. Fixing Wooden frame with 3 galvanized steel angled plates 3mm thick per side. 4. Hard ware locked type Wally switch or equivalent for all doors and bath type for Toilets doors, and brass hinges 10cm height, door stopper ,and all other fitting. 5. Flushed doors and frames shall be primed with sanding siller, two coats of putty, one coat of under coat and two coats oil paint. 6. Paneled solid doors and frames shall be primed with sanding siller, two coats of Varnish Paint, one coat of Lucker paint.					
7/1	Supply, fix & paint paneled solid wooden door (mokubj) type D1, overall size 100 x 225cm , the price includes the frame, architrave, leaves, loak, and all the required accessories .	No.	36			
7/2	Ditto but D2, overall size 90x225cm .	No.	36			
7/3	Supply, fix & paint flushed compressed wooden door type D3, using Sweden wood, overall size 90 x 225cm ,the internal fillers from white wood with 3cm maximum distance between fillers, and 3cm minimum width for each one, the price includes the frame, plywood min thick 4mm, architrave, leaves, lock, and all the required accessories .	No.	170			
7/4	Supply, fix & paint flushed compressed wooden door type D4 for baths & kitchen, toilet and washing room , using Sweden wood, overall size 80 x 225cm ,the internal fillers from white wood with 3cm maximum distance between fillers, and 3cm minimum width for each one, the price includes the frame, plywood min thick 4mm, architrave, leaves, lock, and all the required accessories .	No.	72			
	<b>Total</b>					

**Bill No (2)****8. Metal works**

Item No.	Description	Unit	Quantity	Unit Rate US \$ (letters)	Unit Rate US \$ (Numbers)	Total Amount US \$
	All works must be according to drawings, specification and engineer instructions. Rates shall include : 1. Submitting samples for approval of material, accerrories, color and fixation method. 2.All metal works include the fixation for frames and leaves and all required accessories according to the engineer's instructions. 3. Painting after smoothing and filling all the voids with putty, primer coat, undercoat and two oil coats and in case of galvanized steel the primer should be poly zinc.					
8/1	Supply and fix steel single door SD1 (110 x230cm) for entrance, complete with frame 2mm thick, reinforced glass 6 mm, ironmongery, hardware and oil painting, electrical switch and all requirement as latches, locks...etc as per specifications , drawings and supervisor engineer instructions	No	16			
8/2	Supply and fix steel plate door SD2 (90 x230cm) for roof, complete with frame 3mm thick, ironmongery, hardware and oil painting, Wally switch and all requirement as latches, locks...etc, all works as per specifications , drawings and supervisor engineer instructions	No	16			
	<b>Total</b>					

**Bill No (2)****9. Aluminum works**

<b>Item No.</b>	<b>Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Rate US \$ (letters)</b>	<b>Unit Rate US \$</b>	<b>Total Amount US \$</b>
	All works must be according to drawings, specifications and engineer's instructions. Rates shall include : 1. Submitting samples for approval of material, accessories, color and fixation method. 2. Supply and install the required profile 7000 and 4500 with minimum thickness 1.5 mm from approved source by the Palestinian standard institution with all required accessories according to the engineer's instructions. 3. Hardware, ironmongery and accessories should be made of aluminum 4. All tests for thickness and painting .					
9/1	Supply and fix colored aluminum window section 7000 type AW1, overall size 100 x 140cm, sliding with three rails including fly screen leaf for bedrooms and living, complete with frame, glass 4mm thick, ironmongery and hardware as per specifications and drawings and engineer's instructions.	No.	162			
9/2	Ditto but, Type AW2 overall size 80 x 140cm for kitchens.	No.	36			
9/3	Supply and fix colored aluminum window hinged type. section 4500 type AW3, overall size 70 x 100 cm, complete with frame, two hinges at the mid (Jack type), glass 4mm thick, ironmongery and hardware and as per specifications and drawings.	No.	36			
9/4	Supply and fix colored aluminum window louver type, AW5 overall size 60 x 100cm for staircase. complete with frame, glass strips 4mm thick, ironmongery and hardware as per specifications, drawings and engineer's instructions.	No.	72			
9/5	Ditto but, AW4 60 x 60cm for W.C.	No.	72			
	<b>Total</b>					

## Bill No (2)

## 10. Plumbing works

Item No.	Description	Unit	Quantity	Unit Rate US \$ (letters)	Unit Rate US \$ (Numbers)	Total Amount US \$
	<p>All Plumbing works include the required units and its accessories as described in the items and the rates include:</p> <p>1- All the plumbing units should be from the best quality and has trade mark.</p> <p>2- Submitting shop drawing for water supply and waste water networks for approval prior to commencement of the</p> <p>3- Submitting samples for all required material with catalogue indicating its specifications.</p> <p>4- All required tests , pressure for water net work , hydraulic test for sewage lines</p> <p>5- Cleaning and disinfecting all water pipes.</p> <p>6- 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>7- All hot and cold water pipes for the points of fixtures to the nearest distribution board.</p> <p>8- All plumbing works ( wash basin, kitchen sink, gully traps, etc...) include the connection to the nearest trap, WC to the nearest vertical sewage header in the typical floors and WC in the GF to the nearest manhole and include all accessories including PVC S and caps for all the ends of pipes at parapet.</p> <p>9- The work shall include the connection of new manholes to the existing sewage net work</p> <p>10- All external inspection elbows should be covered by galvanized steel plate with thick 2mm .</p>					
10/1	Supply and fix white glazed fire clay hand wash basin size 52cm x45cm (Vitra type - grade A ) or equivalent, complete with all water supply pipes 16mm (Golany) to the nearest distribution box (DB), waste fitting, trap, plug and chain, chromium water mixer (Tebisa jack, wall mounted type or equivalent), glazed fire clay soap holder, and the drainage line 2" to the nearest floor trap.	No	72			
10/2	Supply and fix white glazed fire clay sink 40x60cm (HARSA) or equivalent, complete with all water supply pipes 16mm (Golany) to the nearest distribution box (DB), waste fitting, trap, plug and chain, chromium water mixer (Tebisa jack, wall mounted type or equivalent), and the drainage line 2" to the nearest floor trap.	No	36			
10/3	Supply and fix bath shower mixer (Tebisa jack type) or equivalent including sprayer, hose, stand, including all needed fittings, pipes, and connections to water network to reach the distribution box. The price include making suitable hunch in floor ceramic with size 70 x 70 cm including its floor trap, and all the discharge requirements to the nearest trap, all required fittings for work completion .	No	36			
10/4	Supply and fix white glazed fireclay European W.C. suite (Vitra type - grade A ), or equivalent complete with heavy duty cover , 9 liter plastic double action flushing cistern, and fixed chromium plated tap 1/2" Tibesa type or equivalent, including all water supply pipes 16mm(Golany) to the nearest dist. box (DB), flushing hose sprayer, glazed fire clay paper holder, angle valves, UPVC drainage pipe connecting to the nearest manhole or sewage header as per specifications , drawings and supervisor engineer instructions.	No	36			

**10. Plumbing works**

Item No.	Description	Unit	Quantity	Unit Rate US \$ (letters)	Unit Rate US \$ (Numbers)	Total Amount US \$
10/5	Supply and fix white glazed fireclay Oriental W.C. suite (Vitra type - grade A ), or equivalent complete with 9 liter plastic double action flushing cistern, and fixed chromium plated tap 1/2" Tibesa type or equivalent, including all water supply pipes 16mm(Golany) to the nearest dist. box (DB), flushing hose sprayer, glazed fire clay paper holder, angle valves, UPVC drainage pipe connecting to the nearest manhole or sewage header as per specifications , drawings and supervisor engineer instructions.	No	36			
10/6	Supply and fix floor trap 4" diameter, 2.5mm thick for baths, kitchens and balconies ,complete with concrete protection, heavy duty brass grating and 4" & 2" PVC drainage pipe to the nearest manhole or next vertical pipes including heavy duty S trap where needed as per specifications , drawings and supervisor engineer instructions	No	160			
10/7	Supply and install PVC 4" internal drainage pipes for vertical embedded pipes in the walls connect to manholes, including all connections, Tees, bends, fittings, and 4" PVC vent for upper end of pipes as per specifications, drawings and supervisor engineer instructions	L.m	840			
10/8	Supply and install PVC pipes 3", for rain water drain, with 3" PVC vent with ballon and galvanized steel mesh for upper end of vertical pipes. The work include all Tees, bends, and all related work accessories and fittings according to the specifications , drawings and supervisor engineer's instructions.	L.m	530			
10/9	Supply and install UPVC 6" pipes , SN4 for external drainage, with sockets. The work includes excavating of trenches (depth up to 2.0m), bedding, compacted backfilling with clean sand, connecting to the manholes and hydraulic test according to the specifications and drawings	L.m	320			
10/10	Ditto but UPVC 6" pipes , SN8	L.m	120			
10/11	Supply and install pre-cast reinforced concrete manhole B300 of internal diameter 80 cm depth up to 2.0m, walls ,foundation and slab thickness 12cm according to the required level, with iron cover with frame 60cm opening, 25 ton bearing capacity, including excavation, backfilling, hunching and making good according to specification ,drawing, and the engineer instructions.	No	10			
10/12	Supply and install pre-cast reinforced concrete manhole B300 of internal diameter 60 cm depth up to 1.50m, walls ,foundation and slab thickness 10cm according to the required level, with iron cover with frame 50cm opening, 8 ton bearing capacity, including excavation, backfilling, hunching and making good according to specification ,drawing, and the engineer instructions.	No	60			
	<b>Hot and cold water system :</b> <b>Supply, install, test , operate, and sterilize the water system in each building . Rates include the connections and valves and all that is necessary for the operation of the system as per specifications , drawings and instructions supervising engineer</b>					
10/13	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 leaves with locks frame 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 .	No	36			

Contractor's Signature and Seal

**10. Plumbing works**

Item No.	Description	Unit	Quantity	Unit Rate US \$ (letters)	Unit Rate US \$ (Numbers)	Total Amount US \$
10/14	Supply and fix short water tap (Tebeasa type) or equivalent for laundry including all needed fittings, and (Golany) pipes to the nearest dist. box. The price includes 2" PVC drainage pipe to nearest ground trap as per specifications, drawings, and engineer instructions	No	72			
10/15	Only preparation for water filter point inside kitchen cup board including all needed, fittings, (Golany) pipes connection to the nearest dist. box, and all needed works as per specifications, drawings, and engineer instructions.	No	36			
10/16	Only preparation for gas point for the kitchen including sleeves 2" PVC pipes, gas valve and 3/8" copper pipes from the level of sidewalk to the level of kitchen cup board for each unit as per specifications, drawings, and engineer instructions.	NO	36			
10/17	Supply and install Galvanized steel pipe (1") Grade A, including insulation with asphalt paper. The (1") Galvanized steel pipe connects the supply line with water meter. The rate includes supply and install all necessary fittings, non return valves, unions, clamps, supports, 4" PVC sleeves to protect the pipes inside the walls, and excavation and backfilling as per specifications, drawings and engineer instructions	L.m	16			
10/18	Ditto but (3/4") for cold and hot water laid on the roof of the building.	L.m	480			
10/19	Ditto but 20mm MDPE pipes for cold and hot water lines connected from water meter to roof water tanks and from roof water tanks to water dist. Box. The price include 4" PVC pipes embedded in the walls.	L.m	680			
10/20	Supply & install, water meter device, type (ABB) or equivalent 3/4", jointing, valves, non-return valves and connection to both feeder 1" galvanized steel pipes and 20mm MDPE pipes including galvanized steel box with locks for protection and all required fittings and accessories as per specifications, drawings and supervisor engineer instructions	No	36			
10/21	Supply, paint, fix and disinfect cold water storage plastic tank 1500 liter capacity with approved type not less than 32 kg weight, float valve, washing valve with all connections to the rising main and distribution pipe work and stop valves 3/4", and painted steel foundation from welded angles 45x45x4.5mm in dimensions 110x110x50cm, 2.5cm new hard wood on the complete area under the tanks, with all accessories as specification and drawings. the rate includes painting of the water tank.	No	36			
	<b>Total</b>					



**Bill No (2)****11. Electrical works**

Item No.	Description	Unit	Quantity	Unit Rate US \$ (letters)	Unit Rate US \$ (Numbers)	Total Amount US \$
	The following items shall include supply, install, connect and commission lighting and power socket outlets, including PVC conduits, conduit fittings, pull boxes, wires, cables, accessories and circuit wiring between fittings, switches or socket outlet up to its sub-panel board. As shown on drawings & specifications.					
<b>1)</b>	<b>Switches</b>					
a	Supply and install single pole 10A ON/OFF switch type GEWISS or equivalent white complete with the internal box, pipes, support frame and cover plate wires 1.5mm <sup>2</sup> . The work includes all accessories needed for connection and commissioning.	No	112			
b	Ditto but double pole and with pipes and box.	No	216			
c	Ditto but three pole and with pipes and box.	No	90			
d	Ditto but push-button switch with lamp indicator for staircases. type GEWISS with pipes and box.	No	68			
e	Ditto but push-button bell switch with signal lamp including pipes and box.	No	36			
<b>2)</b>	<b>Sockets</b>					
a	Supply and install 16A, 3 Pin power socket outlet GEWISS or equivalent, including PVC conduits, wires 2.5mm <sup>2</sup> and all accessories for connection and commissioning.	No	396			
b	Ditto but waterproof type with pipes and box.	No	188			
c	Ditto but satellite socket (Gewiss) complete with coaxial cable 75 ohm, conduits box and all materials to reach the sub-distribution box in the staircase.	No	72			
d	Supply and install telephone socket (Gewiss) complete with 4x0.6mm cable with pipes and box and all materials to reach the sub-distribution box in the staircase.	No	108			
<b>3)</b>	Supply and install electrical bell approved quality with wires 1.5mm <sup>2</sup> and all necessary works needed according to drawings, specifications and Engineer's instructions.	No	36			
<b>4)</b>	Only preliminary installation work for Extract fan 6" including pvc sleeve 6" pipe 25cm length closed with plastic cover from inside, including conduits, wires 1.5 mm <sup>2</sup> , and all necessary civil works needed according to drawings, specifications and Engineer's instructions.	No	108			

**Bill No (2)****11. Electrical works**

Item No.	Description	Unit	Quantity	Unit Rate US \$ (letters)	Unit Rate US \$ (Numbers)	Total Amount US \$
<b>5)</b>	<b>lighting</b>					
a	Supply and install ceiling pendant mounting lighting luminary with lamp 60w including pvc conduits, box, wires, and all accessories required.	No	270			
b	Ditto but wall mounted with lamp 10w, including pipes and box.	No	90			
c	Supply and install Globe lighting fixture with 60w lamp (GAASH) or equivalent including all conduits, wires 1.5mm <sup>2</sup> , boxes, etc...	No	256			
d	Ditto but waterproof with pipes and box	No	37			
e	Only preliminary installation work for fluorescent luminaries on walls for rooms and kitchens , and all necessary works including boxes conduits, wires, needed according to drawings, specifications and Engineer's instructions.	No	198			
<b>6)</b>	<b>Cables</b>					
a	Supply, install, connect and commission, CU-XLPE 4 x 16 mm <sup>2</sup> in 3" PVC conduits from the external pillar passing through manhole to M.D.B complete with fittings , excavations , back-filling warning type (for under ground cables) and all necessary civil works needed to connect the cable with the electricity source according to drawings, specifications and Engineer's instructions.	L.m	100			
b	Ditto but 3 x 4 mm <sup>2</sup> from M.D.B to service board.	L.m	96			
c	Ditto but 3 x 10 mm <sup>2</sup> from M.D.B to the flat D.B.S	L.m	800			
<b>7)</b>	<b>Main Distribution Board, (MDB)</b>					
a	Supply and install and operate Main Distribution Board, (MDB) local made , the body is made of galvanized steel with 2mm thickness and hot dipped paint with grey color. The size of the board is suitable for all components and accessories with spare space of 30%. the item include the KWH meters ( Iskra made or equivalent ) , KVAR meters (Iskra made of equiv.) the main fuse switch circuit breakers (siemens made or equiv., the capacitors measuring meters (Voltmeter and Ammeter) indicating lamps, the protection required for the measuring meters, various bus bars , terminal blocks and all accessories required. as detailed in the drawings, specifications and Engineer's approval.  Note : The MDB should be approved from GEDCO.	No	16			

## Bill No (2)

## 11. Electrical works

Item No.	Description	Unit	Quantity	Unit Rate US \$ (letters)	Unit Rate US \$ (Numbers)	Total Amount US \$
8)	<b>Sub Distribution Board, (SDB)</b>					
a	Supply and install and operate PVC Sub Distribution Board with capacity of 24 breakers (Gewiss made or equiv..) including the ELCB ,the main MCB , the partial MCBs all accessories required, passage and connections boxes, as detailed in the drawings, specifications and engineers approved (SDB flat).	No	36			
b	Ditto But services board with capacity of 12 breakers with circuit Breakers, ELCB, timer, step relays and contactors to operate the staircase lighting (DB GS) as detailed in the drawings.	No	16			
c	Supply, install, and commission main Communication Board comprised of two parts for Telephone and Intercom.The body is made of galvanized steel with 2mm thickness and hot dipped paint with grey color . The board contains the terminal block, locks, pass PVC box on each apartment and accessories .The price includes the pvc conduits from the ground floor every apartment and all required works.	No	36			
9)	Supply and install two pvc boxes for sattellite and telephone services one in the staircase and the other on the roof for every apartment. The sizes of boxes should fit the stallite and tel. cables and Connection + 30% spare space. The item should include the conduit between the two boxes	No	16			
10)	<b>Earthing System</b> :Supply, install, and commission complete earthing system includes the following: Hot galvanized steel strip 30mmx3mm welded to the external steel beams at ground floor with two ends , one at the MDB and the other at one corner of the building . Cupper electrodes with diameter 19mm inside 60cm manhole with its standard cover. The wire of 35mm2 NYA from manhole to MDB and 10mm2 NYA from main water pipe to MDB. All civil works required. The resistance of the system must not exceed 2 ohm.	L.S	16			
11)	Intercom System :-Supply and install commission complete intercom system including the following : The main door station with 3 push-buttons and the amplifier (2A-220 volts) The internal hand sets 3 no , the main door lock and all cables, conduits required FARFISA made or equivalent.	L.S	8			
12)	Intercom System :-Supply and install commission complete intercom system including the following : The main door station with 2 push-buttons and the amplifier (2A-220 volts) The internal hand sets 2 no , the main door lock and all cables, conduits required FARFISA made or equivalent.	L.S	8			
13)	Supply, install, connect & commission Elect. manhole, 60cm dia.for the main cable of the building complete with heavy duty cover 8 ton capacity written electricity by Arabic and English , including excavation, backfilling and aggregate beddings shown on drawings.	No	32			
Contractor's Signature and Seal <b>Total</b>						

## Summary

Bill No	Item	Description	Total (Us \$)
Bill No (1)		Mobilization & Demobilization	
Bill No (2)	1	Excavation works	
	2	Concrete Works	
	3	Building works	
	4	Plastering works	
	5	Tilling & Marble works	
	6	Painting works	
	7	Carpentry works	
	8	Metal works	
	9	Aluminum WORKS	
	10	Plumbing works	
	11	Electrical works	
		VAT(0%)	
		TOTAL	

Total in numbers .....

Total in letters .....

Name of the contractor .....

Authorized signature .....

Signature and Sealing.....

Title .....

Telephone.....

Fax .....

Mobile .....