



Government of Japan



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DEEP/ Social Development Project

Rehabilitation of Elderly Association Building in Gaza City & Construction of Association of UNRWA's Retired Staff Club

Bill of Quantities

November, 2011

Bill No. A

Rehabilitation of Elderly Association Building in Gaza City

PRICE SCHEDULE (Bill of Quantities)

- 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)

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 making grooves and sleeves and using Tie Rods (Batant) for concrete walls ; removal of forms and cleaning of all exposed tie wires and rods.</p> <p>2. Supplying reinforcement of 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.</p> <p>3. KALKAL works for the construction and expansion joints.</p> <p>4. Supplying, Casting, vibrating and curing as per specifications.</p> <p>5. Approved additives and admixtures and Epoxy with all types for maintenance and all required materials.</p> <p>6. Incurred costs on New Concrete Job Mix Designs, Sampling , testing and providing test results certificates, storing and saving of samples.</p> <p>7. Establishments for all needed network as electrical, plumbing and floor drainage.</p> <p>8. Take all safety arrangements for the neighbors and passers in the surrounding area.</p> <p>9. Cleaning the site and removing any debris to the approved dump site.</p> <p>10. the concrete shouldn't be less than 300kg/cm2 in general , and 400kg/cm2 for the maintenance works.</p> <p>11. Removing all elements that may interrupt the implementation of works and fix it back after Complete the works.</p> <p>12. Remove the existing concrete around any new casted concrete; Ceilings, Columns, any elements specified by supervisor engineer.</p> <p>13. All works according to specifications , drawings and supervisor engineer instructions.</p>					
1/1	Supply and cast ready mix concrete B (300) kg/cm ² for columns as per specifications and drawings.	M ³	0.5			
1/2	Supply and cast ready mix concrete B (250) kg/cm ² for windows and doors sills and lintels and any decoration to the required dimensions, and all required internal wall's, beams, tiles' edge beams, and all needed as per specifications and drawings	M ³	1			
1/3	Supply and cast ready mix concrete B (250) kg/cm ² for suspended hollow block slab 25cm thick, including the hollow cement block 40 x 25 x 17cm, all concealed beams in the slab, inverted beam, drop beams, and price includes the reinforcement steel, and all electrical and mechanical connections, and all needed works for ceiling slab.	M ²	25			
1/4	Supply and cast ready mix concrete B (250) kg/cm ² with dimension (20*20cm) for top beam of the external boundary with reinforcement 4 bars diameter 10 mm and stirups 8mm per 25cm .	L.M	80			
1/5	Provide concrete Jacketing for the damaged column with 10cm encasement around the existing damaged concrete areas with vertical reinforcement steel 10mm/10cm and stirups 8mm/10cm, overlapping between stirups. The price includes fixing all damages as supervisor engineer instructions and using of special materials "Epoxy" to overlap th new reinforcement steel with the existing elements.All work should be done according to the engineer instructions, specifications and drawings.	NO.	4			
	Total					

Bill No (2)

Building Works

Item No.	Description	Unit	Quantity	Unit Rate US \$ (letters)	Unit Rate US \$ (Numbers)	Total Amount US \$
	<p>The price includes:</p> <p>1- supplying hollow cement block from good and approved factory in perfect dimensions and build it in good manner with a compressive strength 35 kg/cm² for hollow block. This item will include cement mortars, reinforced concrete infill (B250) between columns & block walls not less than (15cm wide) with 2Ø8mm/30cm horizontally and 2Ø10mm vertically ,all according to the drawings, specification and to the supervision engineer instructions.</p> <p>2- Clean and remedy of any damages may results from construction or rehabilitation works.</p> <p>3-remove any furniture, windows, curtains or any obstructions and fix it back well after complete the works.</p> <p>4- Providing samples for approval and all the required tests.</p> <p>5-Doing all needed measurements.</p>					
2/1	Supply and build hollow cement block 40x20x20cm for external boundary as per specifications and drawings.	M ²	30			
2/2	Ditto but 40x20x 10 cm thick for internal walls in the new rooms in the second floor.	M ²	20			
2/3	Ditto but for the damaged area in the internal walls, the work includes removing the damaged parts out of site as supervisor engineer instructions and the overlap between the exisiting and new walls	M ²	10			
	Total					

Bill No (3)

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>1-Supply of all needed materials, including galvanized angles for the corners of windows and openings and in any required area as well as the use of galvanized wire mesh between concrete and block work.</p> <p>2-remove of any furniture, windows, curtains or any obstructions and fix it back well after complete the works.</p> <p>3- Clean and remedy of any damages resulted from construction or rehabilitation works.</p> <p>4-doing all needed measurements.</p> <p>5-Preparation of walls 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>Trimming of concrete chippings, removing the wires and etc. and cleaning of existing surfaces to be ready for plastering.</p> <p>The work shall includes checking out all of the preliminary installation in ceilings and walls such as electrical, water supply and waste water pipes and repairing the damaged one Curing with water for at least three days for each coat.</p>					
<i>Internal Plastering</i>						
3/1	Supply and make internal plastering 15 mm thick for internal walls and ceiling. 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 (1:4:0.50) cement: sand mortar: lime . Works include all materials needed to finish the works according to specifications , drawings and supervisor engineer's instructions.	M ²	20			
3/2	Ditto but for the damaged parts of the existing building, and the work includes removing all damaged parts from the existing plastering, and curing the cracks in the building as specifications and supervisor engineer's instructions.	M ²	5			

Item No.	Description	Unit	Quantity	Unit Rate US \$ (letters)	Unit Rate US \$	Total Amount US \$
<i>External Plastering</i>						
3/3	Supply and make external plastering 20mm thick to walls with four faces : the first is the 5mm rough nail rendering (mix 1:1) cement sand; the second is 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 ²	60			
3/4	Ditto but for the damaged parts of the existing building, and the works include removing all damaged parts from the existing plastering, and treating all the cracks in the building and specifications and supervisor engineer's instructions.	M ²	100			
3/5	Supply and Paint the external walls of the building with two coats of colored emulsion (Supercryle -Extenal use). Work shall includes restoration the cracks in the elevations and filling it with special approved material "Epoxy" as specifications and supervisor engineer instructions. The price includes submitting painting samples and take the approval, also performing all required tests. All painting drums should be colored by computer as supervisor engineer's instructions.	M ²	540			
3/6	Supply and cast granulate for floors and ramps and all decoration by using colored aggregate , the rate includes galvanized steel angle and plate and all needed to complete the works as engineer's instructions and specifications.	M ²	12			
Total						

Bill No (4)

Carpentry 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>1. supplying carpentry works from good Swedish wood grade "A" approved by supervisor engineer, including frame, locks, hinges and all needed accessories</p> <p>2. Doors and frames shall be primed with sanding siller, two coats of putty, one coat of under coat and two coats oil paint as the required color approved by supervisor engineer.</p> <p>3. Hard ware locked type FERRO for all doors and bath type for Toilets doors, and galvanized steel hinges, handles type EKO, or any equivilant types approved by supervisor engineer, door stopper and all other fitting.</p> <p>4.The items include the width of leaves and frame thick as the wall width , as supervisor engineer instructions.</p> <p>5.Supply Masterkey for each floor to open all the doors in the one floor.</p> <p>6. Restorat all fininshing works around the doors plastering, painting, tiling and all needed works, as supervisor engineer instructions.</p> <p>7. submit all old materials which replaced with new one to the assocaition.</p>					
4/1	<p>Maintanance for all internal doors with different dimensions. The work includes replacing all damaged parts with new one (change the hinges, handles and locks and install frames and all needed wooden materials for frames and leaves and connected areas musn't be appear , and submit the damaged parts to the association, the work also includes repairing tiles and plaster around the doors with paint and fix it back as specifications and superviros instructions.</p>	No.	12			
4/2	<p>Supply & fix Swedish wooden door size 210*90cm, as same as the existing doors, with locks type(WALE) and hinges and handles from good approved types, the work includes frames and fix it on the wall , and it also includes painting with one primary coat ,putty and two coats of oil paint as same as the color of the exisiting doors and as specifications and superviros instructions, and make good restoration around the doors with removing the old frame carefully.</p>	No.	4			
	Total					

Bill No (5)

Painting Works

Item No.	Description	Unit	Quantity	Unit Rate US \$ (letters)	Unit Rate US \$	Total Amount US \$
	<p>Rates include:</p> <p>1-All the painting materials 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. using one coat (Pendrole) primer for wetness isolation.</p> <p>6-Smoothen surfaces of exisiting plastering and filling the cracks with SECAFLIX before painting.</p> <p>7- coloring by computer as supervisor engineer instructions.</p> <p>8- doing all needed measurements.</p>					
5/1	Supply and Paint the internal ceiling with one coat of Pendrole primer and two coats of colored (supercrille) approved as specifications , drawings and supervisor engineer instructions, and that after repairing and maintain the cracks and the damaged parts in the internal walls with removing the exisiting paint and filling all the cracks as specifications.	M ²	1200			
5/2	Ditto but one coat of (supercrille) for ceiling and the stairs bottom as supervisor engineer instructions.	M ²	400			
5/3	Supply and Paint, the internal walls of the new buildings with one coat of Pendrole primer, two coats of putty and two coats of Supercryle with approved colores by supervisor engineer and all as specifications and supervisor engineer instructions.	M ²	45			
5/4	Supply and Paint, the new ceiling with one coat of Pendrole primer and two coats of colored (supercrille) approved as specifications	M ²	20			
	Total					

Bill No (6)

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. Supply all materials from good types. The required Samples should be provided for approval. 2. Supply all needed quantities of tiles before the installation. 3. Cleaning, mechanical polishing and painting using grout. 4. Fixing Aluminum angles with required color in the interchange of tiles. 5. Removing carefully the damaged parts and Maintaining all works before and after installation. 6. Measuring the stockpiled quantities of tiles and marble as engineer instructions without measuring the interaction and intersections. 7. Cleaning the site and removing the debris to the approved dump site as supervisor engineer instructions, and isolate new sand down of tiles as supervisor engineer instructions. 8. Transmission all released peaces to the association. 9. Transporting and carefully handling the stored quantities to the site.					
6/1	Supply and install ceramic floor tiles for rooms, corridors, bathrooms and kitchens . Spain type (45*45cm) laid on 3cm mortar bed and 5cm thick sand bed including all needed materials as per specifications with ensuring the vertical and the slope of tiles. The work includes removing existing skirt and install new one suitable to the required tiles as supervisor engineer instructions.	M ²	400			
6/2	Ditto but size (30*20cm) for walls, the work includes removing existing tiles and plaster, the price includes plastering the walls with one concrete coat 5mm and cement mortar for installation, and all as specification and supervisor engineer instructions.	M ²	120			
6/3	Supply and install polished local marble (Khalili) for windows sill size 3cm, laid on 2 cm thick mortar bed including water drib 2cm away from the edge with 7mm width and 7mm depth and in any needed areas, polishing and grooving as approved by the supervisor engineer and as specification and drawings, and the work includes removing and transmit existing MOZZICO and marble to approved area by supervisor engineer.	L.m	24			
6/4	Supply and fix counter 60cm wide and 90 cm high for kitchenat including vertical dividers, internal horizontal shelves, back of cupboards, floors and granite (ORZ) or (JACARANDA) for the top surface with round edges, skirting 10 cm high and making the needed opening for basins as shown in drawings. The work shall also includes the cupboard leaves, drawers which will be made of 17mm plywood covered with colored Formica 0.5mm sheets from both sides. the price shall includes supply and install stanlesteel kitchen sink with one bowl italian ARESTON type, and mixer HAMAT type with all needed accessories as specifications and supervisor engineer instructions.	L.m	6			
6/5	Supply and finish Mozico Tiles for round balcony with 7cm thick and 25cm width, and glazed joints per 100 cm with polishing and all needed, the work includes removing and transmit existing Mozico as supervisor engineer instructions and re-finishing the area as new finishing and all as specification and drawings.	L.m	20			
	Total					

Bill No (7)

Aluminum works

Item No.	Description	Unit	Quantity	Unit Rate US \$ (letters)	Unit Rate US \$	Total Amount US \$
	Supply and install aluminum windows including all needed 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 (KALIL) 7000 or 4500 with three rails with all required accessories, and install FIBER mesh leaf according to the specifications and engineer instructions 3. using colored aluminum or metallic or as per supervisor engineer instructions. 4. the movable handles must be (K.B200) type . 5.install reflector glasses 4mm thick from good types and approved by supervisor engineer instructions. 6. leaves which more than 1*1m should include vertical aluminum dividers as supervisor engineer instructions. 7.Hardware, ironmongery and accessories should be made of aluminum 8. All tests for thickness and painting .					
7/1	Supply and fix colored aluminum window section 7000 overall size 120 x160cm, sliding with three rails, Fiberglass mesh leaf, ironmongery and hardware as per specifications and drawings and engineer's instructions.	No.	9			
7/2	Ditto, but overall size 120x 125cm .	No.	5			
7/3	Ditto, but overall size 100 x110cm .	No.	6			
7/4	Supply and fix security steel screen typical to the existing one in the building complete with frame, galvanized steel mesh, security bars, ironmongery. The work includes painting with one coat (Pendrole) primer and two coats of oil paint in approved color by supervisor engineer. he works shall include prepare Shopdrawings and get the approval of supervisor engineer.	M ²	20			
7/5	Ditto but by using the existing steel security with adjustments and needed maintainance and painting as specifications.	M ²	15			

Item No.	Description	Unit	Quantity	Unit Rate US \$ (letters)	Unit Rate US \$	Total Amount US \$
7/6	Supply and fix two leaves steel door size (220*120cm). The price includes the internal dividers and steel sheet metal 2mm thick from both sides with Z angles frames fixed on the existing wooden frame. The price also includes install all needed accessories, lock (Waley Type) or equivalent, and painting with one coat primer and three coats of colored oil paint as supervisor engineer instructions and specifications.	No.	3			
	Total					

Bill No (8)

Electrical works

Item No.	Description	Unit	Quantity	Unit Rate US \$ (letters)	Unit Rate US \$ (Numbers)	Total Amount US \$
	Rates shall include : 1. Supplying, Installing, Testing and Commissioning all electrical works with their connection, PVC conduits, pipes, boxes, clamps and all needed fittings and accessories to perform a good workmanship according to drawings and engineer instructions. 2. The work includes period of maintenance needed for each device as specifications. 3. Repair what was damaged after establishment. 4. The installation and maintenance should be supervised by specialist in devices. 5. The work includes releasing and removing all old devices and transmit it to the association. 6. fitting and maintain all the electrical networks in the building before and after restoration as specifications.					
8/1	Dismantle the existing socket and supply, install, Test and commission 3 pin, 220V/13A socket outlet with wires, conduits and all needed accessories.	No	20			
8/2	Supply, install, test and commission (2x36W) fluorescent fixture with all wires, PVC, chock coil, conduits and all needed accessories. Type is Gaash or Equivelent	No	10			
8/3	Supply, install, test and commission water proof circular glob with 26W PL lamp for toilets with all wires, conduits, pipes and all needed accessories. (IP 54). Type is Gassh or Equivelent	No	4			
8/4	Supply, install, test and commission single pole On/Off switch with all wires, conduits, pipes and all needed accessories. Type is BITCHINO or Equivelent	No	10			
8/5	Supply and install 16A, power socket outlet including PVC conduits, wires and all accessories for connection and commissioning.	No	10			
8/6	Supply and install telephone socket (BITCHINO or Equivelent) complete with all needed accessories for connection and commissioning, as supervisor engineer instructions and specifications.	No	2			
8/7	Ditto but satellite socket (BITCHINO or Equivelent).	No	4			
8/8	Ditto but computer socket (BITCHINO or Equivelent).	No	1			
8/9	Supply & install completed device Italian (VARVEZA) type (internal and external, including 4 switches for gate, 4 hands and all needed switches, the price includes locks ISEO type and all wires and cables needed for internal and external network.	No	1			
8/10	Supply and install local Distribution Board (SDB) size (60*40*20 cm) Type is Moeller with Bus bars, neutrals, Earthing and Circuit Breakers, E.L.C.B, Wires and all needed accessories according to the engineer instructions.	No	1			
8/11	Supply and install 1/0.60 KV, XLPE cable (4x10 mm ²). Type is superior or Synergyes or euivalent. The item shall include replacing the damaged cables.	L.M	30			
8/12	Ditto but size (3x4 mm ²)	L.M	40			
8/13	Ditto but size (3x6 mm ²)	L.M	40			
	Total					

Bill No (9)

Plumbing works

Item No.	Description	Unit	Quantity	Unit Rate US \$ (letters)	Unit Rate US \$ (Numbers)	Total Amount US \$
	<p>The unit rate should include the followings:</p> <p>1- Remove the existing network completely and install new network for water and (waste water) including all needed pipes, manhol and etc. The work includes re-finishing around the old network as same as the new network according to the supervisor instructions.</p> <p>2 -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>3- Supply the required materials and tack the approval from the supervisor engineer.</p> <p>4- Connect the internal drainage system with the external main networks for both sewage and water networks. The price includes all the internal connections , Golany pipes, ties, valves and all needed fittings as per engineer .</p> <p>5- Submitting shopdrawing for water supply and waste water networks for approval prior to commencement of the</p> <p>6-Submitting samples for all required material with catalogue indicating its specifications.</p> <p>7-All required tests , pressure for water network , hydraulic test for sewage lines .</p>					
9/1	Supply & fix water line 3/4" (Golany) type with pressure bear not less than (10 Bars) according to the international specifications, the line is from the external water source to the ground water storage and then to the upper storage on the roof. The price includes all needed connections and fixing to the wall in addition to filling and excavation works, and all according to supervisor engineer instructions.	L.m	50			
9/2	Supply and fix white glazed fireclay European 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" , including all water supply pipes 16mm(Golany) to the nearest dist. box (DB), flushing hose sprayer, angle valves, UPVC drainage pipe connecting to the nearest manhole or sewage header as per specifications , drawings and supervisor engineer instructions.	No.	3			
9/3	Supply and fix white glazed fire clay hand wash basin (Vitra type-grade A) or equivalent, complete with all water supply pipes (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 to the nearest floor trap, and all as supervisor engineer instructions.	No	3			
9/4	Supply and fix Toilet roll holder .	No	3			
9/5	Supply &fix mirror 70cm length , 60cm width, from approved types , chamfered all the edges, fixed with chromium plated dome headed screws and rubber washers.	No	3			

Item No.	Description	Unit	Quantity	Unit Rate US \$ (letters)	Unit Rate US \$ (Numbers)	Total Amount US \$
9/6	Supply and install on the roof high quality plastic water tank 1500 liter capacity. The price includes float valve, overflow pipe (1" diam) and drip tray with all connections to the rising main and distribution pipe work and stop valves 1". The tanks must be made from black strong plastic includes caps, manual and electrical jack, glassed sign with all necessary opens and painting of the water tank. The price also includes galvanized steel holders 130*130cm angles form with height not less than 50cm and size 5*5cm. All works should be done according to specification and engineer instructions.	No	2			
9/7	Supply and install Water Distribution Boxe with frame made from swidesh wood and includes aluminum leaves with it keys, including all needed accessories and fittings. The price includes copper distributions for cold and hot water 1/2" diameter in addition to valves on all feeding point 16mm pipes in the D.B, air valves for hot and cold water, holders and plastic cylinders and all as per drawings, specifications and engineer instructions.	No	3			
9/8	Supply and install Galvanized steel pipe (1") Grade A to connect the water supply line with water meter. The rate includes supply and install all necessary fittings, non return valves ,connectors, clamps, supports, 4" PVC sleeves to protect the pipes inside the walls, excavation and backfilling and suitable isolation and all as per specifications, drawings and engineer instructions.	L.m	30			
9/9	Ditto but (3/4") for cold and hot water laid on the roof of the building.	L.m	20			
9/10	Supply and fix high quality water mixer (Hamat type). The price shall include supply and install hose, stand and all needed fittings, pipes, and connections to water network with all required fittings to complete the work according to the specifications and engineer instructions.	No	3			
9/11	Supply & install Solar System from approved type with heater 150 liter capacity covered with ceramic from inside , mirror 2m length and 1.2m width (FLAT PLATE COLLECTORS) type, float valve, overflow pipe (1" diam) and drip tray, made from copper pipes includes all needed connections, safety valve, steel base and ladder with all accessories to complete work and all as specification and drawings.	No	1			
9/12	Supply & install and connect 60 liter water heater covered with ceramic from inside, includes all pipes, air release valve, fittings, water supply connections and electrical switch (GEVISS) type with all needed wires to connect with the sub distribution board, and all as supervisor engineer instructions.	No	1			
9/13	Supply and install concrete manhole of external diameter 60 cm according to the required level, concrete cover with iron frame 40cm opening, 5 ton bearing capacity, including excavation, backfilling, hunching and internal fiberglass isolation and all needed to complete the work according to specifications and engineer instructions.	No	3			

Item No.	Description	Unit	Quantity	Unit Rate US \$ (letters)	Unit Rate US \$ (Numbers)	Total Amount US \$
9/14	Supply and fix floor trap 4" diameter, 2.5mm thick for baths, kitchens and balconies complete with steel cover, heavy duty brass grating and 4" & 2" PVC drainage pipe to the nearest manhole or the next vertical pipes including heavy duty S trap where needed as per specifications, drawings and supervisor engineer instructions.	No	6			
9/15	Supply and fix floor trap for rain water drain, complete with mesh cover for cleaning, and with all needed connections, as per specifications, drawings and supervisor engineer instructions.	No	3			
9/16	Supply and install PVC 4" internal drainage pipes for vertical embedded pipes in the walls 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	60			
9/17	Ditto but PVC pipes 3" for rain water drain, from the top of roof to the ground level.	L.m	20			
9/18	Ditto but UPVC 6" pipes for external drainage.	L.m	20			
9/19	Supply & install fire extinguisher rollers LAHAVOT type covering area not less than 25m with 2" diameter including all connections, pipes and valves fixed in each floor, 6kg Gas fire extinguisher and 6kg dry powder fire extinguisher includes all needed accessories as colored aluminum cupboard fixed on the wall. All works should be according to specification and supervisor engineer instructions.	No	3			
	Total					

Bill No (10)

Roofing works

Item No.	Description	Unit	Quantity	Unit Rate US \$ (letters)	Unit Rate US \$ (Numbers)	Total Amount US \$
10/1	Supply and fix high quality colored curtain cloth (Turkish type), 2 layers with height not less than 2.8m, complete with curtain railing and all accessories needed as per specifications and drawings.	L.M	30			
10/2	Supply and paint special isolation paints (Poly Roof Paint Type). The price includes cement triangle 1:1 and 15cm high in both directions. All works should be completed according to the specifications and	m2	240			
	Total					

Bill No. A: Rehabilitation of Elderly Association Building in Gaza City

Summary

Bill No.	Description	Total (Us \$)
1	Concrete Works	
2	Building works	
3	Plastering works	
4	Carpentry works	
5	Painting works	
6	Tiling & Marble works	
7	Aluminum works	
8	Electrical works	
9	Plumbing works	
10	Roofing works	
	VAT(0%)	
	TOTAL	

Bill No. B
Construction of Association of UNRWA's Retired Staff Club

PRICE SCHEDULE (Bill of Quantities)

- 1 .The Price Schedule must provide a detailed cost breakdown for each item.
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Bill No (1)

Excavation And Earth works

Item No.	Description	Unit	Quantity	Unit Rate US \$ (letters)	Unit Rate US \$ (Numbers)	Total Amount US \$
	<p>Excavation And Earth works for new buildings 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 All works must be according to drawings, specification and engineer instructions. Rates shall include :</p> <ol style="list-style-type: none"> 1. Shore up the sides of excavation and take all precautions to keep the adjacent buildings safe. 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 total station device. 8. 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	1			
	Total					

Bill No (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> <ol style="list-style-type: none"> 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. 2. Supplying reinforcement of 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 3. Supplying, Casting, vibrating and curing as per specifications. 4. Approved additives and admixtures. 5. Incurred costs on New Concrete Job Mix Designs, Sampling , testing and providing test results certificates, storing and saving of samples. 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. 7. Preliminary installations for Electrical, plumbing and floor drainage in floor slabs. 8. Compaction and testing under the foundation, ground beams, and ground slabs, the compaction should not be less than 97% of MDD. 9. All works according to specifications , drawings and supervisor engineer instructions 					
2/1	Supply and cast plain concrete B (200) kg/cm ² for foundation 5 cm thick including polythene sheets as per specifications and drawings.	M ³	3			
2/2	Supply and cast ready mix concrete B (250) kg/cm ² for foundation .	M ³	25			
2/3	Supply and cast ready mix concrete B (300) kg/cm ² for columns and column necks .	M ³	10			
2/4	Supply and cast ready mix concrete B(250) kg/cm ² for ground beams including polythene sheets under the beams.	M ³	9			
2/5	Supply and cast ready mix concrete B(250) kg/cm ² for Frame beams. The quantity should be measured from slab bottom .	M ³	4			
2/6	Supply and cast ready mix concrete B(250) kg/cm ² for Edge beams	M ³	3			
2/7	Supply and cast ready mix concrete B (250) kg/cm ² for suspended hollow block slab 21cm thick, including the hollow cement block 40 x 25 x 14cm;all concealed beams in the slab ; an inverted beam at the boundary of the final roof ; the final roof should be finished by steel trowelled machine.	M ²	102			

Item No.	Description	Unit	Quantity	Unit Rate US \$ (letters)	Unit Rate US \$ (Numbers)	Total Amount US \$
2/8	Supply and cast ready mix concrete B(250) kg/cm ² for the ground slab 10cm thick , including polythene sheets under the slab. and compacting the soil beneath the slab to 97% of MDD.	M ²	86			
2/9	Supply and cast ready mix concrete B(250) kg/cm ² for Canopies with Fair face finish	M ³	2			
2/10	Supply and cast ready mix concrete B (250) kg/cm ² for lintels, sills, beams, parapet beams, existing slab ,and concrete infill (B250) between columns & the existing block walls.	M ³	4			
2/11	Supply and cast ready mix concrete B (200) kg/cm ² for ramp 300cm length, 100cm width, 10cm thick, including RC rail .	M ³	3			
	Total					

Bill No (3)

Building Works

Item No.	Description	Unit	Quantity	Unit Rate US \$ (letters)	Unit Rate US \$ (Numbers)	Total Amount US \$
	<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/cm² for hollow block and 60 kg/cm² for solid block. This item will include cement mortars, reinforced concrete infill (B250) between columns & block walls (10-20 cm wide) with 2Ø8mm/40cm horizontally and 2Ø10mm 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 & 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 for external walls and building's parrapet.	M ²	120			
3/2	Ditto but 40x20x 15 cm thick for internal walls.	M ²	35			
3/3	Ditto but 40x20x 10 cm thick for internal walls.	M ²	18			
	Total					

Bill No (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 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>					
Internal Plastering						
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 (1:4:0.50) cement: sand mortar: lime . Works include all materials needed to finish the works according to specifications , drawings and supervisor engineer's instructions	M ²	110			
4/2	Ditto, but internal plastering 15 mm thick for internal walls and Windows edges.	M ²	120			
External Plastering						
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 ²	230			
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 (1:4:0.50) cement:sand mortar:lime. and all this is according to specifications , drawings and supervisor engineer's instructions	M ²	40			
Total						

Bill No (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. 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 marble ships floor tiles . grade A, size 30cmx30cmx3cm laid on 2cm mortar bed and 10 cm thick sand bed and terrazzo skirting 30cmx 7cmx1cm including all needed materials as per specifications , drawings and supervisor engineer instructions	M ²	75			
5/2	Supply and fix non-slip color ceramic floor tiles Grade A Spain made or equivalent, size 33 x33x0.60cm for bath rooms, toilets, bedded on cement and sand mortar 1:3 laid on a dry mixed sand and cement backfill, the price , pointing using special pre-mix grout and final polishing as per specifications , drawings and supervisor engineer instructions	M ²	19			
5/3	Supply and fix color glazed ceramic wall tiles, Grade A Spain made or equivalent, size 33x45x60cm for bath rooms, toilets, 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 ²	90			
5/4	Supply and lay precast reinforced marble ships stair treads size 35 cm wide x 5cm thick chamfered once , rebated once and laid on 2cm thick mortar bed same color and kind of the floor tiles and the price including marble ships stair risers size 12.4cm high x2cm thick and skirting 20cm x2cm thick on the both sides, grouting and polishing as specification and drawing.	L.m	4			
5/5	Supply and fix local marble 2 cm thick for kitchen at 160cm length, 60 cm wide and 87 cm high including vertical dividers, internal horizontal shelves, back of cupboards, floors and granite (Tiger eye) for the top surface with round edges, skirting 10 cm high and making the needed opening for basins as shown in drawings. The work shall also include the cupboard leaves, drawers which will be made of 17mm plywood covered with colored Formica 0.5mm sheets from both sides	L.m	2			
5/6	Supply and install local marble (Khalili) window sill size 26 cm width x 3cm thick units, laid on 2 cm thick mortar bed including water drib , polishing and grooving as approved by the representative engineer and as specification and drawings.	L.m	26			
	Total					

Bill No (6)

Painting Works

Item No.	Description	Unit	Quantity	Unit Rate US \$ (letters)	Unit Rate US \$	Total Amount US \$
	<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 ceiling with one coat of Pendrole primer and at least two coats of colored (Supercryle) approved as specifications , drawings and supervisor engineer instructions	M ²	115			
'6/2	Supply and Paint the internal walls with one coat of Pendrole primer and at least two coats of colored (Supercryle) approved as specifications , drawings and supervisor engineer instructions	M ²	75			
6/3	Supply and Paint, external walls 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 ²	270			
	Total					

Bill No (7)

Carpentry 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>1. supplying carpentry works from good Swedish wood grade "A" including frame, cover mould, architrave.</p> <p>2. Painting of Frame sides ,exposed to walls, with cold Bitumen in addition to complete painting of the bottom 10cm</p> <p>3. Fixing Wooden frame with 3 galvanized steel angled plates 3mm thick per side.</p> <p>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.</p> <p>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.</p> <p>6. Paneled solid doors and frames shall be primed with sanding siller, two coats of Varnish Paint, one coat of Lucker paint.</p> <p>7.The items include 15cm Aluminum kick plate 1mm thick from both sides (Just for baths & kitchen, and washing room),</p>					
7/1	Supply, fix & paint flushed compressed wooden door type D2 for changing 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 WaLLY type with high quality door hands (Hasne type or equavilent) and all the required accessories .	No.	2			
7/2	Ditto but D3, overall size 70x225 cm but for toilet .		1			
	Total					

Bill No (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 Mul-T lock metal door double leaves MLD1 (140 x215cm) for entrance, complete with frame 3mm thick,channel sheet metal, stop polyurethane, ironmongery, hardware and painting, switch and all requirement as latches,original locks...etc as per specifications , drawings and supervisor engineer instructions	No	1			
8/2	Supply and fix steel security screen type S1-1 overall size 330*147cm, complete with frame galvanized steel mesh, security bars 12*12mm (120mm center to center),ironmongery, hardware,priming and painting.	No	3			
8/3	ditto but for type S2-1 overall size 330*60cm.	No	4			
8/4	ditto but for type S3-1 overall size 60*63cm.	No	3			
8/5	ditto but for type S4-1 overall size 147*100cm	No	1			
8/6	Supply and fix steel railing for ramp and stairs at the entrance, as per specifications , drawings and supervisor engineer instructions	L.M	6			
	Total					

Bill No (9)

Aluminum and Metal works

Item No.	Description	Unit	Quantity	Unit Rate US \$ (letters)	Unit Rate US \$	Total Amount US \$
	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 W1, overall size 330 x140cm, sliding with three rails including fly screen leaf , complete with frame, glass 4mm thick, ironmongery and hardware as per specifications and drawings and engineer's instructions.	No.	3			
9/2	Ditto but, Type W2 overall size 330 x 60cm .	No.	4			
9/3	Ditto but, Type W4 overall size 147 x 100cm .	No.	1			
9/4	Supply and fix colored aluminum window hinged type. section 4500 type W3, overall size 60 x60 cm, complete with frame, two hinges at the mid (Jack type), glass 4mm thick, ironmongery and hardware and as per specifications and drawings.	No.	3			
9/5	Supply and fix colored aluminum sliding door 1088 type D4, overall size 0.80*2.00cm, sliding , complete with frame, colored aluminum plate 3mm thick, ironmongery and hardware as per specifications and drawings and engineer's instructions.	NO.	2			
9/6	Supply and fix high quality curtain cloth 3m length for the windows, complete with curtain railing and all accessories needed as per specifications and drawings.	L.M	25			
	Total					

Bill No (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 shopdrawing for water supply and waste water networks for approval prior to commencement of the work.</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 desinfecting 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>					
10/1	Supply and fix white glazed fire clay hand wash basin size 55cm 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	1			
10/2	Supply & fix porcelain kitchen sink size 55cm*45cm with one bowl built in the granite work top for kitchenat including water supply pipes ½", waste fitting, trap, plug & ½" swan neck chromium plated water mixer 1/2" dia. Jack type) (From Artema-Armix or Hamat -Eris or approved equivalent) & the drainage line to floor trap & all needed accessories, and fix all water supply pipes for water filter .All as per specifications, drawings and the engineer instructions.	No.	1			
10/3	Supply and fix bath shower mixer (Hamat jack type) including sprayer, hose, stand, glazed fire clay soap holder, including all needed fittings, pipes, and connections to water network to reach the distribution box. including its floor trap, and all the discharge requirements to the nearest trap, all required fittings for work completion .	No	2			
10/4	Supply and fix white glazed fire Painted Ceramic shower tray size 70cm x70cm or equivalent, complete with all water supply pipes 16mm (Golany) to the nearest distribution box (DB), waste fitting, trap, plug and chain, glazed fire clay soap holder, and the drainage line 2" to the nearest floor trap.	No	2			

Item No.	Description	Unit	Quantity	Unit Rate US \$ (letters)	Unit Rate US \$ (Numbers)	Total Amount US \$
10/5	Supply and fix white glazed fireclay European 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, angle valves, UPVC drainage pipe connecting to the nearest manhole or sewage header as per specifications , drawings and supervisor engineer instructions.	No	1			
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	4			
10/7	Supply and fix Toilet roll holder .	No	1			
10/8	Supply and fix Towel rail 45cm long, to the approval of the director of works.	No	1			
10/9	Supply and fix soap holder, white glazed, to the approval of the director works.	No	1			
10/10	Supply &fix mirror 45*60cm, chamfered all the edges, fixed with chromium plated dome headed screws and rubber washers o concrete or blockwork.	No	1			
10/11	Supply and install PVC 4" internal drainage pipes for vertical embedded pipes in the walls 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	10			
10/12	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	15			
10/13	Supply and install UPVC 6" pipes , SN4 for external drainage, with sockets. The work includes excavating of trenches (depth up to 1.50m), bedding, compacted backfilling with clean sand, connecting to the manholes and hydraulic test according to the specifications and drawings	L.m	60			
10/14	Supply and install concrete manhole of internal diameter 60 cm depth up to 1.50m, according to the required level, with concrete cover with iron frame 50cm opening, 8 ton bearing capacity, including excavation, backfilling, hunching and making good according to specification ,drawing, and the engineer instructions.	No	4			
10/15	Supply and install concrete manhole of internal diameter 80 cm depth up to 1.50m, according to the required level, with concrete cover with iron frame 50cm opening, 8 ton bearing capacity, including excavation, backfilling, hunching and making good according to specification ,drawing, and the engineer instructions.	No	3			
	Hot and cold water system : Supply, install, test , operate, and sterilize the water system in the 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					

Item No.	Description	Unit	Quantity	Unit Rate US \$ (letters)	Unit Rate US \$ (Numbers)	Total Amount US \$
10/16	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 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	1			
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	50			
10/18	Ditto but (3/4") for cold and hot water laid on the roof of the building.	L.m	50			
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	50			
10/20	Supply & install, water meter device, type (ABB) or equivalent 1", jointing, valves, non-return valves and connection to both feeder 1" galvanized steel pipes and 20mm MDPE pipes including galvanized steel box for protection and all required fittings and accessories as per specifications , drawings and supervisor engineer instructions	No	1			
10/21	Supply & install solar system with water storage plastic tank 10500 liter capacity, approved type, float valve, overflow pipe (1"diam) and drip tray, with all connections to the rising main and distribution pipe work and stop valves 1", and painted steel foundation from welded angles 45x45x4.5mm 2m high , 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	1			
10/22	Supply, paint, fix and disinfect cold water storage plastic tank 1500 liter capacity , approved type, float valve, overflow pipe (1"diam) and drip tray, with all connections to the rising main and distribution pipe work and stop valves 1", and painted steel foundation from welded angles 45x45x4.5mm 50cm high , 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	2			
10/23	Supply & install and connect 80 liter water heater porcelain internal costed with piping and electrical connections, thermostat, air release valve, complete with 2.5 mm2 wiring " Local made". The rate shall be deemed to include all pipes, fittings and water supply connections.	No	1			

Item No.	Description	Unit	Quantity	Unit Rate US \$ (letters)	Unit Rate US \$ (Numbers)	Total Amount US \$
	Fire extinguisher cylinder					
10/24	6 kg to match local standards, ABC dry powder fire extinguisher, including fixing to walls.	No	1			
10/25	6 kg to match local standards, Hallo 1301 fire extinguisher, including fixing to walls.	No	1			
	Total					

Bill No (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.					
	Switches					
11/1	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 ² . The work includes all accessories needed for connection and commissioning.	No	4			
11/2	Ditto but water proof for changing rooms and shower,	No	5			
	Sockets					
11/3	Supply and install 16A, 3 Pin power socket outlet GEWISS or equivalent, including PVC conduits, wires 2.5mm ² and all accessories for connection and commissioning.	No	8			
11/4	Ditto but 20A water heater with lamp with pipes and box.	No	1			
11/5	Ditto but 16A water proof,3-phase socket outlet for changing room.	No	2			
11/6	Ditto but satellite socket (Gewiss) complete with coaxial cable 75 ohm, conduites box and all materials to reach the sub-distribution box..	No	1			
11/7	Supply and install telephone socket (Gewiss) complete with 4x0.6mm cable with pipes with Junction box(T.J.B) 20*20cm, and box and all materials.	No	3			
11/8	Air condition socket 20Amp A/C on/off switch the work include 3*4mm ² cable to be connected between DB and A/C switch, type is "AVE" or equal approved.	No	2			
11/9	Only preliminary installation work for Extract fan 6" including pvc sleeve 6" pipe 25cm length, including conduits, wires 1.5 mm ² , and all necessary civil works needed according to drawings, specifications and Engineer's instructions.	No	2			
11/10	Ditto but 20A water filter with pipes and box.	No	1			
	lighting					
11/11	Supply and install ceiling pendant mounting lighting luminary with PL lamp 2*40w including pvc conduits, box, wires, and all accessories required.	No	6			
11/12	Supply and install Globe lighting fixture with 2*18w lamp waterproof (GAASH) or equivalent including all conduits, wires 1.5mm ² ,boxes,etc...	No	7			

Contractor's Signature and Seal

Construction of Association of UNRWA's Retired Staff

Item No.	Description	Unit	Quantity	Unit Rate US \$ (letters)	Unit Rate US \$ (Numbers)	Total Amount US \$
	Cables					
11/13	Supply, install, connect and commission, CU-XLPE 4 x 10 mm ² in 4" 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	120			
11/14	Ditto but 5 x 6 mm ² from M.D.B to SDB.	L.m	10			
	Main Distribution Board, (MDB)					
11/15	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.	No	1			
11/16	Supply, install, main Communication Board for telephone with capacity of 12 breakers.The body is made of galvanized steel with 2mm thickness and hot dipped paint with grey color . The board contains the terminal block, locks and accessories .The price includes the pvc conduits from the ground floor every apartment and all required works. Note : The MDB should be approved from GEDCO.	No	1			

Item No.	Description	Unit	Quantity	Unit Rate US \$ (letters)	Unit Rate US \$ (Numbers)	Total Amount US \$
11/17	<p>Earthing System :Supply, install, and commission complete earthing system includes the following:</p> <p>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 . The price includes:</p> <p>Copper electrodes with diameter 19mm inside 60cm manhole with its standard cover.</p> <p>The wire of 35mm² NYA from manhole to MDB and 10mm² NYA from main water pipe to MDB.</p> <p>All civil works required.</p> <p>The resistance of the system must not exceed 2 ohm.</p>	L.S	1			
11/18	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	2			
	Total					

Bill No (12)

Roofing works

Item No.	Description	Unit	Quantity	Unit Rate US \$ (letters)	Unit Rate US \$ (Numbers)	Total Amount US \$
12/1	Supply and cast foam concrete with fine aggregates for roof screeding of ranging thickness 80mm with a minimum thickness of 5cm at rain water outlets, and sand angle fillets size 5cmx5cm as per specifications, drawings and the engineer's instructions.	m2	77			
12/2	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	77			
	Total					

Bill No (13)

External works

Item No.	Description	Unit	Quantity	Unit Rate US \$ (letters)	Unit Rate US \$ (Numbers)	Total Amount US \$
Paths, Pavings and Steps						
13/1	Leveling from natural ground level up to the required site designed levels. The works including: The compaction of the soil surfaces to get (98% MDD). The excavated material should be removed out from the site to the approved places. All as per specifications, drawings and the engineer's instructions.	m3	25			
13/2	Supply, fill by using approved material (clean kurkar), which shall be spread in layers not exceeding 25cm each one & compacted (98%) to reach up the required levels according to the specifications & the engineer's instructions.	m3	30			
13/3	Supply and cast 10 cm thick smooth R.C. ready mix concrete 250 kg/cm2 with steel mesh T8/20cm each way & edge beams for the aprons.	m2	150			
13/4	Supply and cast 1cm thick smooth decorative granulated floor, the rate include galvanized steel angle and plate.	m2	90			
Boundary walls and Entrance gates:						
13/5	Supply, fix and paint double external galvanized steel door type D5 size 140x200cm complete with frame, ironmongery Wally switch type, latch, lock...etc. According to drawings, specifications and the engineer's instructions.	No	1			
13/6	Ditto but type D6 size 360*200cm.	No	1			
13/7	Leveling from natural ground level up to the required site designed levels for foundations. The works including: The compaction of the soil surfaces to get (98% MDD). The excavated material should be removed out from the site to the approved places. All as per specifications, drawings and the engineer's instructions.	m3	40			
13/8	Supply and cast plain concrete B (200) kg/cm2 for foundation 10cm thick including polythene sheets as per specifications and drawings.	m3	5			
13/9	Supply & cast ready mix concrete (300kg/cm2) for reinforced concrete foundations.	m3	4			
13/10	Ditto but for columns	m3	4			
13/11	Ditto but for beams	m3	9			
13/12	Supply & built solid block walling 15cm thick including supplying all materials (block size 15 x 20 x 40cm).	m2	170			

Item No.	Description	Unit	Quantity	Unit Rate US \$ (letters)	Unit Rate US \$ (Numbers)	Total Amount US \$
13/13	Supply and execute expansion joint at both sides of columns as detailed in drawings including flexcell sheets 18mm thick, (THIOMOFLEX 600) mastic 20mm thick & cover the joints with aluminum strip size 75x6mm or aluminum angle 57x57x6mm with rubbers fixed to aluminum strip 37x6mm screwed to the walls or the soffits from one side, as per drawings, specifications and the engineer's instructions.	L.m	20			
13/14	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	m2	400			
	Total					

**Bill No. B:Construction of Association of UNRWA's Retired Staff
Club Gaza City
Summary**

Bill No	Description	Total (Us \$)
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	
12	Roofing works	
13	External works	
	VAT(0%)	
	TOTAL	

Summary

Bill No	Description	Total (Us \$)
1	Bill No. A: Rehabilitation of Elderly Association Building in Gaza City	
2	Bill No. B: Construction of Association of UNRWA's Retired Staff Club Gaza City	
VAT(0%)		0.0
TOTAL		

Total in numbers

Total in letters

Name of the contractor

Authorized signature

Signature and Sealing.....

Title

Telephone.....

Fax

Mobile