Lebanese Republic
Council for Development and Reconstruction

Ministry of Education and Higher Education

LEAP - Lebanon Emergency Assistance Project

Rehabilitation of Shelters (Public Schools)

Batch 4 – Lot 2 – Donieh, Tripoli

Tender Documents

Volume 3 – Bill of Quantities

(Part 2 of 2)

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Lebanon Emergency Assistance Project (LEAP)

Tender Preparation and Construction Supervision for the Rehabilitation of Schools–Shelters

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LEAP-CS-MEHE4- BATCH 4 – Bill of Quantities

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Bill № 2: Civil and Architectural Works

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: May First Public School for Girls

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
1	**SITE PREPARATION AND DEMOLITION**				
1.1	**Demolishing and Removal of Debris**				
1.1.1	The works include all types of demolition and the removal of debris and damaged elements such but not limited to, the following:				
-	Existing plastering and concrete items such as foundations, columns, slabs, etc.				
-	Damaged Tiling (floors and walls)				
-	Toilet fixtures and pipes installation of all sizes				
-	Counter tops, bases and sinks				
-	Water tanks of different types				
-	Hollow concrete block walls or concrete walls of all sizes				
-	Demolition of the existing ramps / Stairs and the execution of the given plans and specifications				
-	Including the necessary equipment for the removal of debris and all resulting materials				
-	etc.	LS	1		
	Rate or Lump Sum in Words:				
2	**SITE PREPARATION AND DEMOLITION**				
2.4	**School Fences with Related Gates**				
2.4.2	Rehabilitate Existing Fence (Strengthening & Rehabilitation)				
	Work to include				
-	Rehabilitate and support all the existing fence as per drawings				
-	Determine the places that requires support				
-	Preparation of shop drawings				
-	Replace all broken elements				
-	Redo all damaged elements and to be similar to existing elements				
-	Finishing works as existing (plastering, paints, stone cladding, etc.)				
-	Rehabilitate existing steel protection (Replace all damaged part by new similar to existing and paint with epoxy as specified)				
-	Replace existing chain link by new one (Galvanized)				
-	Reconstruct the broken and damaged parts and rehabilitate as it was with all similar materials including steel parts with related epoxy paint as per the engineer instructions	m			
	Rate or Lump Sum in Words:				

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Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
4	**MASONRY**				
4.1	**Hollow or Solid Concrete Blocks and Claustra**				
	Supply and install concrete blocks as per drawings				
	Work to include:				
-	All places as per the drawings, and the Engineer instructions.				
-	Materials				
-	Cement mortar and the use of extruded nets and reinforcement by means of metal gates and the placement of angles of galvanized steel iron of concrete columns thickness of 4 mm every 60 cm				
-	Labors and all items needed and instructions by the Engineer				
4.1.4	15 cm hollow concrete blocks	m²			
	Rate or Lump Sum in Words:				
5	**METAL WORKS**				
5.1	**Provide New Steel Work (Door & Windows)**				
5.1.3	Provide new double glazed aluminum windows with new burglar proof protection	№			
	Rate or Lump Sum in Words:				
5.2	**Rehabilitate and Maintain the Existing Steel Work (Burglar Proof Protection + Opening)**				
	Rehabilitate the existing steel windows or doors as per specifications and drawings and the Engineer instruction				
	Work to include:				
-	Remove all damaged members and replace by new ones				
-	Rub completely to secure all parts and use putty to make faces smooth				
-	Apply two layers of anti rust paint				
-	Apply putty				
-	Apply three layers of epoxy external paint				
-	All needed items as per the Engineer instructions				
5.2.1	Rehabilitate existing steel doors	№			
	Rate or Lump Sum in Words:				

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Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
5.2.2	Rehabilitate existing steel gates	№			
	Rate or Lump Sum in Words:				
5.2.6	Rehabilitate and paint existing steel window	№			
	Rate or Lump Sum in Words:				
5.5	**Rehabilitate and Maintain Steel Handrail**				
-	Rehabilitate the existing metal handrail and remove the damaged members and replace by new				
-	Reinforce the existing handrail with similar members in addition to the rail and all necessary accessories				
-	Remove existing paint & clean deeply as per SSPC code and ISO 8501				
-	Apply one layer of epoxy base paint				
-	Apply putty				
-	Apply epoxy paint as per specification				
	All needed items as per the Engineer instructions				
5.5.1	Floor Mounted	m	20		
	Rate or Lump Sum in Words:				
6	**WOOD AND PLASTICS**				
6.1	**Joinery Works**				
6.1.1	Rehabilitate Existing Kitchen Cupboards				
	Rehabilitate existing cupboards, cabinets, drawers, counters, etc., for the existing kitchen. Works to include replacing damaged elements, accessories, material, labor, equipment, maintaining support, change of the top of counter by new resin counter as specified, etc. As per engineer's approval.				
-	Repair wood elements in accordance with AWI Quality Standards requirements.				
-	Repair framing and sash members with mortise and Tenon joints. Ensure joints and connections are flush, hairline, and weather-tight.				
-	Scarf joints permitted when wood matches in color and grain texture. Form sills and stools in one piece.				
-	Fabricate components with minimum clearances and shim spacing around perimeter of assembly, yet allowing installation and dynamic movement of perimeter seal.				
6.1.1.1	Kitchen Cupboards	m			
	Rate or Lump Sum in Words:				

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Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
8	**DOOR AND WINDOWS**				
8.1	**Wooden Doors and Windows**				
	Supply and install all timber work with all related items				
	The joinery works should be of the first class type and as per specifications and drawings				
	Work to include:				
-	Material and labors				
-	All accessories to be heavy duty (Hinged, Lock, Glass vision, as required, etc.)				
-	The frame for any width (Steel, Wood, etc.)				
-	Paint as follows:				
-	Anti rust layers				
-	Putty + one layer of undercoat				
-	Three layers of epoxy paint				
-	Apply and fix 6mm wired clear glass				
-	View Permitting glass opening where needed				
-	remove the existing timber panels				
-	repair the edges				
-	The Contractor should submit shop drawings				
-	All needed items as the Engineer instructions				
8.1.1	**Timber Doors**				
	Supply and install flush timber door as per drawings with laminated plastic facing and the door should have 10cm width frame between the plywood and fill with timber beads by tongue and groove each 5cm, and the door edges should behead wood and fixed by tongue and groove frames should be as specified, with fixed glass panel vision window, and similar to existing, and to the Engineer's instructions				
-	Works included, all accessories and fittings, pre-painting and finishing paint sides of doors and box frames.				
-	All works should be done as per the Engineer instructions				
8.1.1.2	Provide new single leaf wooden door with view frame	№			
	Rate or Lump Sum in Words:				
8.1.1.3	Provide WC partition door	№			
	Rate or Lump Sum in Words:				

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Lot #: Lot 2 - Donieh, Tripoli
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Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
8.1.3	**Rehabilitate the Existing Timber Doors**				
	As stated in the Preambles of Item 8.1				
	In addition, rehabilitate the existing timber doors:				
	The minimum amount of existing timber should be removed to allow an effective repair to be formed.				
	Cut out deteriorated area of timber in sloping splice to give optimum area of surface to be glued & fixed.				
	Well-seasoned timber to be used in forming a repair with the line and density of grain (number of growth rings) of new timber matching the existing as closely as possible.				
	For all joinery work, timber with shakes, fissures, warping, heartwood, sapwood or numerous/large knots should be avoided for use in repair. Always work new material to the line of the existing and avoid unnecessary trimming of original timber. Repairs should follow any existing deformations in the line of the wood element (e.g. door or window).				
	Avoid mixing timber species between new and existing in a repair as joint between the two is likely to fail from different rates of expansion and contraction during dry & damp conditions. Where possible, spliced repairs to be designed to ensure moisture is towards the outer face of timber and that moisture does not lay on the repair joint.				
	The length of the splice is governed by section of timber and the nature of component being repaired and it should be designed to ensure an effective bond between new and existing sections of timber. Where wood element are to be dismantled as part of the repair process, always mark and record the constituent parts before dismantling. similarly, number of glass panes/quarries before removal.				
	If applicable carefully soften putty or remove wood trim and then remove glass. Use glue, to connect a new outer section of bottom rail to the existing sound timber. Drill and insert new wooden pins or fix using brass screws from inside.				
	Casements or sashes are often in sound condition but the joints have become loose due to the break down of glue and loose wedges.				
	The wedges will often be easily removable and will probably be unsuitable for re-use. It may be for the joints to be pulled together successfully.				
	Attach door frame and shims to perimeter opening to accommodate construction tolerances & all irregularities.				
	Align door plumb and level, free of warp or twist. Maintain dimensional tolerances and alignment with adjacent work. Install operating hardware.				
8.1.3.1.1	Rehabilitate and paint existing single leaf timber doors with related accessories	№			
	Rate or Lump Sum in Words:				

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Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
8.1.3.1.2	Rehabilitate existing double leaf door	№			
	Rate or Lump Sum in Words:				
8.1.3.1.4	Rehabilitate wooden windows	№			
	Rate or Lump Sum in Words:				
8.2	**Aluminum Doors and Windows**				
	Fabricate, supply and install aluminum works as manufactured by SIDEM 2000 first choice with all necessary accessories as per the drawings and the Engineer instructions, cost to include all doors and windows:				
-	Reveals hard stone 3cm thick, all around for external opening				
-	Apply EPDM around door and windows where necessary				
-	Single glass 6 mm				
-	Double glass 6-12-6 mm (Outer Glass should be Tempered)				
-	Hinges and locks				
-	Joint Filler				
-	Mosquito Screen				
-	Mesh				
-	All items needed as per the Engineer instructions				
-	All as specified and base on an approved shop drawings after exact dimensions				
8.2.1	**New Aluminum Panels (Double Glass)**				
	Supply and install the fabricated aluminum panels with double glass (6 - 12 - 6 mm) (Outer Glass should be Tempered)				
8.2.1.1	Provide new aluminum double glazed window & door panel	№			
	Rate or Lump Sum in Words:				
8.2.2	**New Aluminum Internal Door**				
	Supply and install aluminum door with frame and related strengthening stud, Works to include:				
	Materials, and accessories				
-	Labors				
-	All needed items as per the engineer instructions.				
-	Repair all around the opening				
8.2.2.1	Provide new aluminum partition door as indicated.	№			
	Rate or Lump Sum in Words:				

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Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
8.2.3	**Rehabilitation Existing Glazed Aluminum Panels (s)**				
	Replacing Broken Glass. Fixing Hardware Issues: Check the functionality of latches, hinges, and other hardware. If any parts are broken, replace them with new ones to ensure the window operates smoothly. After repairs, apply a high-quality sealant around the edges to prevent moisture intrusion. If the paint is peeling or faded, consider repainting the frame with a metal paint formulated for aluminum to enhance durability and appearance.				
8.2.3.1	Rehabilitate existing windows	№	4		
	Rate or Lump Sum in Words:				
9	**FINISHES**				
9.1	**Cement Plaster**				
	Supply and install sand cement plaster on concrete and block wall surfaces as specified				
	The plaster layer should be own a base rough layer				
	The plaster works should be on level points and each point should be at 1.5 m from the second only				
	Work to include:				
-	Materials and accessories (galvanized, wire mesh, cover beds, etc.)				
-	Labors				
-	All addition watering				
-	All tools				
-	Plaster thickness more than 2 cm				
-	All needed items as per drawings and the Engineer instructions				
9.1.1	**Internal and External Plaster Works**				
9.1.1.1	Supply and apply one layer of sand cement plaster over a rough textured layer of plaster				
	Price included all accessories, material, scaffolding and labor, etc.	m^2			
	Rate or Lump Sum in Words:				

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Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
9.1.2	**Repair of Existing Plaster (Internal - External) (Cracks, etc.)**				
9.1.2.1	Rehabilitate and repair cracked and damaged plaster indoor and outdoor				
	Work to include:				
-	Determine the location and remove all loose items around the area				
-	Remove the cracked plaster layer				
-	Remove the pulled out layers				
-	Clean the places with suitable materials				
-	Fill all cracks after widening by (No Suggestions) or approved equal.				
-	Remove loose and other deteriorated materials prior to the new repair. Take special care not to damage the adjacent original materials. Prepare mortar joints for installation of lateral reinforcement where it is required. Use thin steel bars to clean joints to maximum depth possible. Remove loose mortar. Mix mortar with minimal amount of water (potable) prior to use. All separation cracks between perpendicular walls shall be filled grout to reduce additional movement from wind loads and thermal expansion-contraction.				
-	Clear debris from crack by probing, brushing, and blowing.				
-	Force non-shrink mortar mixture into crack as deep as possible with hands, wood and metal probes. Use as dry a mix as possible. Use stone bats to fill larger crack voids. Ensure mortar is forced into smaller/deeper cracks. Mortar grout will be fluid in order to flow into crack. Either grout bags or gravity flow shall be used depending on the conditions. Fil Protect repairs from rapid drying by misting, shading, protecting from dry wind cracks in a series of applications rather than one large application. Final application shall not be flush with the surface, but shall be one half the width of the crack below the surface. Remove all tool marks with brush.				
-	Apply the finish rough plaster layer				
-	Install galvanized steel mesh 20 cm width at least				
-	Apply the second smooth plaster layer	LS			
	Rate or Lump Sum in Words:				

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Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
9.2	**Tiling Works**				
	Supply and install all tiling items for floors, with the skirting				
	Work to include all materials and labors and the Contractor should use all necessary rods and levels as per the Engineer instructions				
	Price to include:				
-	Sand below tiles				
-	Materials, tiles, mortars				
-	Labors				
-	Rubbing				
-	Filling between tiles				
-	Filling the skirting				
-	Remove unsuitable items				
-	Cleaning the places				
-	All needed items as per the Engineer instructions				
9.2.1	**New Full Mass Colored Ceramic for Floors**				
	Ceramic tiles and tilework as specified and detailed, installed complete; Including for substrate preparation, cement: sand screeds or plaster backing coats; setting, jointing and grouting; tile trim and accessories; sealants; and all other related ancillaries as indicated or required				
9.2.1.1	Supply and install anti skid colored full mass ceramic tiles for classroom (first choice) for all floor toilets, kitchen and laboratory (existing and new)	m²			
	Rate or Lump Sum in Words:				
9.2.1.2	Skirting same type of floors or as existing or required	m			
	Rate or Lump Sum in Words:				
9.2.2	**New Glazed Colored Ceramic for Walls**				
9.2.2.1	Supply and install glazed colored ceramic for walls Include Ceramic Corner (first choice)	m²			
	Rate or Lump Sum in Words:				

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Shelter: May First Public School for Girls

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
9.2.3	**New Tiles for stairs**				
	Supply and install tiles first choice for the new stair (treads 3cm thick - Risers 2cm thick) and landing - tiling 2cm and for all floors or otherwise specified color type and quality to be submitted for approval, works to include:				
-	Labor, materials and installations				
-	Under tile fill				
-	Mortar				
-	Lining				
-	Step (Tread + riser) and landing and all type of skirting				
-	And needed items to complete the works as per the Engineer instructions				
9.2.3.2	Granite 2cm Thick (Tread and Riser)	m			
	Rate or Lump Sum in Words:				
9.2.3.3	Mosaic Similar to existing 4cm Thick minimum (Tread and Riser)	m			
	Rate or Lump Sum in Words:				
9.2.4	**Repair existing broken floor tiles and skirting (all types) and reinstall by new, similar to existing for all rooms and corridors**				
9.2.4.1	Rehabilitate and repair all damaged and broken tiles, and skirting for any type (marble - ceramic - mosaic - Cement). Remove broken or damaged pieces to be replaced without affecting the adjacent undamaged areas				
	Work to include:				
-	Remove all debris as specified				
-	All materials and labors				
-	Difference tiles (shapes thickness, dimension, pattern) as needed.				
-	Cutting and repair				
-	Grouting				
-	Polish and rubbing				
-	All needed items as per Engineer comments and complete to Engineer approval.	LS	1		
	Rate or Lump Sum in Words:				

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Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
9.2.5	**Rehabilitate Existing Stair Treads and Riser**				
	Remove the broken treads and risers, install and supply new ones similar to the existing with the needed side bases, width as per site dimension with skirting and tiles for landing				
	The work to be as per the Engineer instructions				
9.2.5.1	Existing Mosaic Stair	m			
	the price including Skirting tiles & Landing				
	Rate or Lump Sum in Words:				
9.2.10	**Laminate Vinyl Tiles**				
9.2.10.1	Provide Laminate Vinyl Tiles similar to existing. The removal of existing vinyl tiles, rolls, proper levelling, surfacing of the existing concrete by casting a special layer of new concrete to ensure proper installation of the new vinyl layer as specified and as per standards. Price to include skirting	m²			
	Rate or Lump Sum in Words:				
9.4	**Gypsum Works**				
9.4.1	**New Gypsum Suspended Ceiling (Panel, Tiles):**				
9.4.1.1	Supply and install gypsum board tiles suspended ceiling (60 x 60 cm or panel board with paint)				
	Work to include:				
-	Remove the existing gypsum board tiles and move them to outside				
-	Labors				
-	Materials				
-	Accessories				
-	Angles				
-	Special Heavy duty metal suspension system				
-	All needed items as per the Engineer instructions and approval	m²			
	Rate or Lump Sum in Words:				

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Shelter: May First Public School for Girls

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
9.5	**Painting**				
9.5.1	**Wall and Ceilings Paint Works**				
	Wall paint include preparation of the base surfaces to receive the paints and apply the specified layers of putty and paint from the best quality as per specifications and as indicated in drawings				
	The base surfaces should be clean and smooth and free from any pulled out old paints before starting application of the specified primer/undercoat.				
	Apply 2 layers of putty then after smoothening, then 3 layers of the approved paint materials.				
	All works and items should be as per manufacturer recommendation, compatible with each other and as per the Engineer instructions and approval, ***All paint types must be lead-free and Low VOC (Volatile Organic Compounds)***				
9.5.1.2	Super Rubber Paint for old walls and ceilings	m²	1,700		
	Rate or Lump Sum in Words:				
9.5.1.4	Oil Paints for old walls and ceilings	m²	100		
	Rate or Lump Sum in Words:				
9.5.2	**Outside Walls Paint (Old and New Walls and Ceilings)**				
9.5.2.1	Paint for external old and new walls, smooth touch				
	Work to include:				
-	Removal of any paint or obstacle				
-	Rehabilitate the surfaces and make them goods				
-	Polyurethane where needed for cracks				
-	Apply one coat of undercoat				
-	Apply 2 coats of external paint or rolled textured paint				
-	Apply one layer of external transparent paint (acrylic styrene copolymer elastic water proof)				
-	All needed scaffolding and materials for the best execution of the works				
-	All works and items should be as per manufacturer and the Engineer instructions and approval.	m²	100		
	Rate or Lump Sum in Words:				

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Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
10	**SPECIALTIES**				
10.1	**Bathrooms Accessories**				
-	Remove and cart away old damaged fixtures				
-	Supply and install all needed accessories and make good their places and their surroundings				
-	Place all frame, cover joints (stainless steel) anti-corrosion				
-	Install items and their contact with the surfaces				
-	All works should be done as per the Engineer instructions				
10.1.4	**Mirror for Lavatories**				
	Supply and install 6mm glass mirror for lavatories with colored PVC frames as show on drawings and as stated in the specifications with all needed items and accessories				
	The mirror should be placed on 3mm thick plywood from the back				
	All works should be done as the Engineer instructions				
10.1.4.1	Mirror (Dimension as per site conditions and engineer instruction)	№			
	Rate or Lump Sum in Words:				
10.3	**Resin Work**				
10.3.1	**Drinking Basin**				
	Supply and install drinking basin as shown on drawings of resin layers 12 mm thick fixed on galvanized steel skeleton 4 x 4 cm hollow sections and as shown on drawings				
	Work to include:				
-	Materials				
-	Labors				
-	Galvanized steel skeleton				
-	All needed items and as instructed by the Engineer				
10.3.1.1	Drinking Basin -Length (up to 2.20 m)	№			
	Rate or Lump Sum in Words:				
10.3.1.6	Drinking Basin -Length (4.11 to 6.20 m)	№			
	Rate or Lump Sum in Words:				

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Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
10.3.4	**Kitchen Counter**				
	Supply and install complete counter resin type with sink (resin) for teachers' kitchen of 18mm thick including coved splash back 20cm height and the work to include:				
-	All fixing elements				
-	All stainless steel hangers				
-	All necessary accessories				
-	All needed items and as instructed by the Engineer				
10.3.4.2	Kitchen Counter - Length (1.11 to 1.75m)	№			
	Rate or Lump Sum in Words:				
	Total Bill № 2: Civil and Architectural Works				

Bill № 3: Mechanical Engineering Services

Bill № 3: Mechanical Engineering Services

Lot #: Lot 2 - Donieh, Tripoli
Shelter: May First Public School for Girls

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
1	**GENERAL TECHNICAL REQUIREMENTS**				
1.1	**General Mechanical Requirements**				
1.1.2	Prepare the shop drawings for all mechanical works and obtain approval from the Engineer before the start of executing any work.	Item	1		
	Rate or Lump Sum in Words:				
1.2	**Rehabilitation Works General Requirements**				
	Provide all necessary rehabilitation works and make all Mechanical systems in good condition complete including maintenance, cleaning, relocation works, replacing damaged items and equipment, removing and carting away resulting materials and equipment, testing and commissioning, and all other related works to ensure all Mechanical systems are properly working and functional.				
1.2.1	Maintenance and rehabilitation of existing plumbing works, including sanitary fixtures, floor drains, roof drains, manholes, pumps, WC tanks, adding where applicable all necessary valves, flush valves, etc., and all other necessary works.	Item	12		
	Rate or Lump Sum in Words:				
2	**SANITARY, WASTE & RAIN WATER PIPE WORK INSTALLATION**				
2.3	**Drain Cover**				
	Supply and install floor drain cover (P.E) 5 mm thick on drainage pipe and to be the same level of the floor tiling. Work to include all civil works and as per the Engineer instructions				
2.3.1	Cover for FCO	№			
	Rate or Lump Sum in Words:				

Bill № 3: Mechanical Engineering Services

Lot #: Lot 2 - Donieh, Tripoli
Shelter: May First Public School for Girls

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
3	**WATER PIPE WORK INSTALLATION**				
3.1	**Water Tanks**				
	Supply & install polyethylene water tank (3 layers) or more with all necessary supply and over flow connections all as per the Engineer instructions				
3.1.2	2000 liters PE water tank	№			
	Rate or Lump Sum in Words:				
5	**SANITARY FIXTURES**				
5.1	**W.C. for Kids**				
	Supply and install K.G. W.C. Flush valve with cover as manufactured by Duravit - Bambi No. 018509 or approved equal, 35 cm height max. from finished floor with timber cover.				
	Cost to include all related connections angle valves and necessary accessories as per the Engineer instructions.				
	Each W.C. should be equipped with a Flushing Hose (Grohe or Ideal standard or approved equal)				
5.1.1	EWC-03 (Wall Hang - 52 x 32 cm)	№			
	Rate or Lump Sum in Words:				
5.2	**W.C. For Non Kids**				
	Supply and install W.C. for non kids, Flush valve with cover as manufactured by Ideal Standard Item No. E876801 also the hose, or approved equal and to be 40 cm from floor finish with timber cover.				
	The work to include the installation, liking, cleaning with all necessary connection, angle valves and necessary accessories similar to the K.G.W.C.				
	Each W.C. should be equipped with a Flushing Hose (Grohe or Ideal standard or approved equal)				
5.2.1	EWC-01 (Wall Hang - 52 x 36 cm)	№			
	Rate or Lump Sum in Words:				
5.2.3	AWC-01 (Asian water closet)	№			
	Rate or Lump Sum in Words:				

Bill № 3: Mechanical Engineering Services

Lot #: Lot 2 - Donieh, Tripoli
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Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
5.3	**Lavatories for Kids in the K.G.**				
	Supply and install semi pedestal wash basin similar to Ideal Standard No. 742001 or approved equal, 45 x 36 cm, and fixed at 60 cm high from the floor finish. Cost to include all necessary connections, angle valves and accessories as required				
5.3.1	LAV-03 (semi-pedestal wash basin - 45 x 35 cm)	№			
	Rate or Lump Sum in Words:				
5.4	**Lavatories for Non Kids**				
	Supply and install semi pedestal wash basin similar to Ideal Standard No. 742001 or approved equal and fixed at 82 cm high from the floor finish. Cost to include all necessary connections, angle valves, traps and necessary accessories as specified.				
5.4.1	LAV-01 (semi-pedestal with mixers 55 x 45 cm)	№			
	Rate or Lump Sum in Words:				
5.5	**Urinal**				
	Supply and installation of high quality urinal units complete with proper wall fixation with anti-dust materials including drainage & water supply connection as per the approved shop drawings.				
	Cost to include all necessary accessories, valves, sensors to provide workable system.				
5.5.1	Urinal	№			
	Rate or Lump Sum in Words:				
5.6	**Self Close Taps on Kids & Students Lavatories**				
	Supply and install self close taps to be fixed in the lavatory body as manufactured by Grohe Item No. 36-173 with all required works and drain accessories including trap, to be connected to the new water supply and drain and as instructed by the Engineer				
5.6.1	Self Close Taps	№			
	Rate or Lump Sum in Words:				

Bill № 3: Mechanical Engineering Services

Lot #: Lot 2 - Donieh, Tripoli
Shelter: May First Public School for Girls

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
5.7	**Wall Type Self Close Taps on Drinking Basins**				
	Supply and install self close taps to be fixed in the drinking basin body as manufactured by Grohe Item No. 36-176 with all required works and drain accessories including trap and to be connected to the new water supply and drain and as instructed by the Engineer				
5.7.1	Wall Type Self Close Taps	№			
	Rate or Lump Sum in Words:				
5.8	**Kitchen Sink Accessories**				
	Supply and install kitchen sink accessories such as chrome trap, angle valve, mixers as specified				
5.8.1	Kitchen Sink Accessories	№			
	Rate or Lump Sum in Words:				
	Total Bill № 3: Mechanical Engineering Services				

Bill № 4: Electrical Engineering Services

Bill № 4: Electrical Engineering Services

Lot #: Lot 2 - Donieh, Tripoli
Shelter: May First Public School for Girls

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
1	**BASIC ELECTRICAL REQUIREMENTS**				
	The Contractor should revise all the drawings and compare them with the site conditions and redo all the design works with the necessary calculations for all the electrical installations and works. Moreover, the Contractor should submit shop drawings and as-built drawings for the maintenance use in the future.				
	The contractor should provide all the necessary maintenance works for all Electrical systems related to the KG school to ensure its proper works.				
	At the end of the project, the contractor should submit complete As-Built Drawings for all executed works with exact dimensions & sizes for easy maintenance work in the future.				
1.1	**Fixing and Repairing**				
	Check & repair all the existing cables, wires, socket outlets, lighting fixtures, lighting switches, electric fans, and protect all exposed wiring as per the site conditions, and to the satisfaction of the Engineer.				
	All as per the drawings, specifications and Engineer instructions				
1.1.1	Lighting fixtures	LS			
	Rate or Lump Sum in Words:				
1.1.2	Wires and cables	LS			
	Rate or Lump Sum in Words:				
1.1.3	Sockets and switches	LS	1		
	Rate or Lump Sum in Words:				
1.1.4	Circuit breakers	LS			
	Rate or Lump Sum in Words:				
1.1.9	All needed electrical works … etc.	LS			
	Rate or Lump Sum in Words:				

Bill № 4: Electrical Engineering Services

Lot #: Lot 2 - Donieh, Tripoli
Shelter: May First Public School for Girls

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
3	**GENERAL LIGHTING INSTALLATIONS**				
3.1	**Lighting Fixtures**				
	Supply, install and test the lighting fixtures complete with all the necessary wires conduits, boxes and accessories required to provide power to each lighting fitting from LP including the earth wire as per the drawings, specifications and Engineer instructions.				
	The Contractor should submit samples of each lighting fixture for approval.				
3.1.1	TYPE C1: Twin T8 LED Tube, surface-mount luminaire for interior, 40W, 4000K, 4700Lm. Polycarbonate, light grey, with injected polyurethane double gasket and clear UV stabilized polycarbonate cover, cos φ ≥ 0.9	№			
	Rate or Lump Sum in Words:				
3.1.3	TYPE C2: as same as TYPE C1 but Pendent mounted	№			
	Rate or Lump Sum in Words:				
3.1.4	TYPE A2 / A3: 600x600 mm LED Panel 3600lm, 33W, 4000K, 80CRI surface-mount/recessed, die-cast aluminum, IP20	№			
	Rate or Lump Sum in Words:				
3.1.6	TYPE N4 / N3: LED - 900lm - 12.5W - 3000K - 80CRI - WW Surface mounted / Recessed Downlight Round - 120 deg	№			
	Rate or Lump Sum in Words:				
3.1.10	Replace Existing lighting fixtures with TYPE L (LED)	№			
	Rate or Lump Sum in Words:				

Bill № 4: Electrical Engineering Services

Lot #: Lot 2 - Donieh, Tripoli
Shelter: May First Public School for Girls

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
4	**FIRE ALARM SYSTEM**				
	Supply and install all necessary fittings, wires conduits, boxes, plates, relays, bell modules, EOL resistors and accessories as described and as shown on drawings and all necessary connection to the management stations as intended to the satisfaction of the engineer.				
4.6	Break Glass	№			
	Rate or Lump Sum in Words:				
	Total Bill № 4: Electrical Engineering Services				

General Summary

General Summary

Lot #: Lot 2 - Donieh, Tripoli
Shelter: May First Public School for Girls

Description	Amount (US $)
Bill № 2: Civil and Architectural Works	.....
Bill № 3: Mechanical Engineering Services	.....
Bill № 4: Electrical Engineering Services	.....
* Total Amount of Bill of Quantities ……	.....
* Discount by Tenderer (_____ %) ……	.....
* Total Amount of Tender (VAT Not Applicable) ……	.....

* Total Amount of Tender in Words:

.....

.....

.....

Bill № 2: Civil and Architectural Works

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Abi Firas El Hamadani Mixed Public School

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
1	**SITE PREPARATION AND DEMOLITION**				
1.1	**Demolishing and Removal of Debris**				
1.1.1	The works include all types of demolition and the removal of debris and damaged elements such but not limited to, the following:				
-	Existing plastering and concrete items such as foundations, columns, slabs, etc.				
-	Damaged Tiling (floors and walls)				
-	Toilet fixtures and pipes installation of all sizes				
-	Counter tops, bases and sinks				
-	Water tanks of different types				
-	Hollow concrete block walls or concrete walls of all sizes				
-	Demolition of the existing ramps / Stairs and the execution of the given plans and specifications				
-	Including the necessary equipment for the removal of debris and all resulting materials				
-	etc.	LS	1		
	Rate or Lump Sum in Words:				
2	**SITE PREPARATION AND DEMOLITION**				
2.4	**School Fences with Related Gates**				
2.4.2	Rehabilitate Existing Fence (Strengthening & Rehabilitation)				
	Work to include				
-	Rehabilitate and support all the existing fence as per drawings				
-	Determine the places that requires support				
-	Preparation of shop drawings				
-	Replace all broken elements				
-	Redo all damaged elements and to be similar to existing elements				
-	Finishing works as existing (plastering, paints, stone cladding, etc.)				
-	Rehabilitate existing steel protection (Replace all damaged part by new similar to existing and paint with epoxy as specified)				
-	Replace existing chain link by new one (Galvanized)				
-	Reconstruct the broken and damaged parts and rehabilitate as it was with all similar materials including steel parts with related epoxy paint as per the engineer instructions	m			
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Abi Firas El Hamadani Mixed Public School

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
4	**MASONRY**				
4.1	**Hollow or Solid Concrete Blocks and Claustra**				
	Supply and install concrete blocks as per drawings				
	Work to include:				
-	All places as per the drawings, and the Engineer instructions.				
-	Materials				
-	Cement mortar and the use of extruded nets and reinforcement by means of metal gates and the placement of angles of galvanized steel iron of concrete columns thickness of 4 mm every 60 cm				
-	Labors and all items needed and instructions by the Engineer				
4.1.4	15 cm hollow concrete blocks	m²			
	Rate or Lump Sum in Words:				
5	**METAL WORKS**				
5.1	**Provide New Steel Work (Door & Windows)**				
5.1.3	Provide new double glazed aluminum windows with new burglar proof protection	№			
	Rate or Lump Sum in Words:				
5.2	**Rehabilitate and Maintain the Existing Steel Work (Burglar Proof Protection + Opening)**				
	Rehabilitate the existing steel windows or doors as per specifications and drawings and the Engineer instruction				
	Work to include:				
-	Remove all damaged members and replace by new ones				
-	Rub completely to secure all parts and use putty to make faces smooth				
-	Apply two layers of anti rust paint				
-	Apply putty				
-	Apply three layers of epoxy external paint				
-	All needed items as per the Engineer instructions				
5.2.1	Rehabilitate existing steel doors	№			
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Abi Firas El Hamadani Mixed Public School

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
5.2.2	Rehabilitate existing steel gates	№			
	Rate or Lump Sum in Words:				
5.2.6	Rehabilitate and paint existing steel window	№			
	Rate or Lump Sum in Words:				
5.5	**Rehabilitate and Maintain Steel Handrail**				
-	Rehabilitate the existing metal handrail and remove the damaged members and replace by new				
-	Reinforce the existing handrail with similar members in addition to the rail and all necessary accessories				
-	Remove existing paint & clean deeply as per SSPC code and ISO 8501				
-	Apply one layer of epoxy base paint				
-	Apply putty				
-	Apply epoxy paint as per specification				
	All needed items as per the Engineer instructions				
5.5.1	Floor Mounted	m			
	Rate or Lump Sum in Words:				
6	**WOOD AND PLASTICS**				
6.1	**Joinery Works**				
6.1.1	Rehabilitate Existing Kitchen Cupboards				
	Rehabilitate existing cupboards, cabinets, drawers, counters, etc., for the existing kitchen. Works to include replacing damaged elements, accessories, material, labor, equipment, maintaining support, change of the top of counter by new resin counter as specified, etc. As per engineer's approval.				
-	Repair wood elements in accordance with AWI Quality Standards requirements.				
-	Repair framing and sash members with mortise and Tenon joints. Ensure joints and connections are flush, hairline, and weather-tight.				
-	Scarf joints permitted when wood matches in color and grain texture. Form sills and stools in one piece.				
-	Fabricate components with minimum clearances and shim spacing around perimeter of assembly, yet allowing installation and dynamic movement of perimeter seal.				
6.1.1.1	Kitchen Cupboards	m			
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Abi Firas El Hamadani Mixed Public School

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
8	**DOOR AND WINDOWS**				
8.1	**Wooden Doors and Windows**				
	Supply and install all timber work with all related items				
	The joinery works should be of the first class type and as per specifications and drawings				
	Work to include:				
-	Material and labors				
-	All accessories to be heavy duty (Hinged, Lock, Glass vision, as required, etc.)				
-	The frame for any width (Steel, Wood, etc.)				
-	Paint as follows:				
-	Anti rust layers				
-	Putty + one layer of undercoat				
-	Three layers of epoxy paint				
-	Apply and fix 6mm wired clear glass				
-	View Permitting glass opening where needed				
-	remove the existing timber panels				
-	repair the edges				
-	The Contractor should submit shop drawings				
-	All needed items as the Engineer instructions				
8.1.1	**Timber Doors**				
	Supply and install flush timber door as per drawings with laminated plastic facing and the door should have 10cm width frame between the plywood and fill with timber beads by tongue and groove each 5cm, and the door edges should behead wood and fixed by tongue and groove frames should be as specified, with fixed glass panel vision window, and similar to existing, and to the Engineer's instructions				
-	Works included, all accessories and fittings, pre-painting and finishing paint sides of doors and box frames.				
-	All works should be done as per the Engineer instructions				
8.1.1.2	Provide new single leaf wooden door with view frame	№			
	Rate or Lump Sum in Words:				
8.1.1.3	Provide WC partition door	№			
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Abi Firas El Hamadani Mixed Public School

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
8.1.3	**Rehabilitate the Existing Timber Doors**				
	As stated in the Preambles of Item 8.1				
	In addition, rehabilitate the existing timber doors:				
	The minimum amount of existing timber should be removed to allow an effective repair to be formed.				
	Cut out deteriorated area of timber in sloping splice to give optimum area of surface to be glued & fixed.				
	Well-seasoned timber to be used in forming a repair with the line and density of grain (number of growth rings) of new timber matching the existing as closely as possible.				
	For all joinery work, timber with shakes, fissures, warping, heartwood, sapwood or numerous/large knots should be avoided for use in repair. Always work new material to the line of the existing and avoid unnecessary trimming of original timber. Repairs should follow any existing deformations in the line of the wood element (e.g. door or window).				
	Avoid mixing timber species between new and existing in a repair as joint between the two is likely to fail from different rates of expansion and contraction during dry & damp conditions. Where possible, spliced repairs to be designed to ensure moisture is towards the outer face of timber and that moisture does not lay on the repair joint.				
	The length of the splice is governed by section of timber and the nature of component being repaired and it should be designed to ensure an effective bond between new and existing sections of timber. Where wood element are to be dismantled as part of the repair process, always mark and record the constituent parts before dismantling. similarly, number of glass panes/quarries before removal.				
	If applicable carefully soften putty or remove wood trim and then remove glass. Use glue, to connect a new outer section of bottom rail to the existing sound timber. Drill and insert new wooden pins or fix using brass screws from inside.				
	Casements or sashes are often in sound condition but the joints have become loose due to the break down of glue and loose wedges.				
	The wedges will often be easily removable and will probably be unsuitable for re-use. It may be for the joints to be pulled together successfully.				
	Attach door frame and shims to perimeter opening to accommodate construction tolerances & all irregularities.				
	Align door plumb and level, free of warp or twist. Maintain dimensional tolerances and alignment with adjacent work. Install operating hardware.				
8.1.3.1.1	Rehabilitate and paint existing single leaf timber doors with related accessories	№	15		
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Abi Firas El Hamadani Mixed Public School

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
8.1.3.1.2	Rehabilitate existing double leaf door	№			
	Rate or Lump Sum in Words:				
8.1.3.1.4	Rehabilitate wooden windows	№			
	Rate or Lump Sum in Words:				
8.2	**Aluminum Doors and Windows**				
	Fabricate, supply and install aluminum works as manufactured by SIDEM 2000 first choice with all necessary accessories as per the drawings and the Engineer instructions, cost to include all doors and windows:				
-	Reveals hard stone 3cm thick, all around for external opening				
-	Apply EPDM around door and windows where necessary				
-	Single glass 6 mm				
-	Double glass 6-12-6 mm (Outer Glass should be Tempered)				
-	Hinges and locks				
-	Joint Filler				
-	Mosquito Screen				
-	Mesh				
-	All items needed as per the Engineer instructions				
-	All as specified and base on an approved shop drawings after exact dimensions				
8.2.1	**New Aluminum Panels (Double Glass)**				
	Supply and install the fabricated aluminum panels with double glass (6 - 12 - 6 mm) (Outer Glass should be Tempered)				
8.2.1.1	Provide new aluminum double glazed window & door panel	№			
	Rate or Lump Sum in Words:				
8.2.2	**New Aluminum Internal Door**				
	Supply and install aluminum door with frame and related strengthening stud, Works to include:				
	Materials, and accessories				
-	Labors				
-	All needed items as per the engineer instructions.				
-	Repair all around the opening				
8.2.2.1	Provide new aluminum partition door as indicated.	№			
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Abi Firas El Hamadani Mixed Public School

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
8.2.3	**Rehabilitation Existing Glazed Aluminum Panels (s)**				
	Replacing Broken Glass. Fixing Hardware Issues: Check the functionality of latches, hinges, and other hardware. If any parts are broken, replace them with new ones to ensure the window operates smoothly. After repairs, apply a high-quality sealant around the edges to prevent moisture intrusion. If the paint is peeling or faded, consider repainting the frame with a metal paint formulated for aluminum to enhance durability and appearance.				
8.2.3.1	Rehabilitate existing windows	№			
	Rate or Lump Sum in Words:				
9	**FINISHES**				
9.1	**Cement Plaster**				
	Supply and install sand cement plaster on concrete and block wall surfaces as specified				
	The plaster layer should be own a base rough layer				
	The plaster works should be on level points and each point should be at 1.5 m from the second only				
	Work to include:				
-	Materials and accessories (galvanized, wire mesh, cover beds, etc.)				
-	Labors				
-	All addition watering				
-	All tools				
-	Plaster thickness more than 2 cm				
-	All needed items as per drawings and the Engineer instructions				
9.1.1	**Internal and External Plaster Works**				
9.1.1.1	Supply and apply one layer of sand cement plaster over a rough textured layer of plaster				
	Price included all accessories, material, scaffolding and labor, etc.	m^2			
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Abi Firas El Hamadani Mixed Public School

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
9.1.2	**Repair of Existing Plaster (Internal - External) (Cracks, etc.)**				
9.1.2.1	Rehabilitate and repair cracked and damaged plaster indoor and outdoor				
	Work to include:				
-	Determine the location and remove all loose items around the area				
-	Remove the cracked plaster layer				
-	Remove the pulled out layers				
-	Clean the places with suitable materials				
-	Fill all cracks after widening by (No Suggestions) or approved equal.				
-	Remove loose and other deteriorated materials prior to the new repair. Take special care not to damage the adjacent original materials. Prepare mortar joints for installation of lateral reinforcement where it is required. Use thin steel bars to clean joints to maximum depth possible. Remove loose mortar. Mix mortar with minimal amount of water (potable) prior to use. All separation cracks between perpendicular walls shall be filled grout to reduce additional movement from wind loads and thermal expansion-contraction.				
-	Clear debris from crack by probing, brushing, and blowing.				
-	Force non-shrink mortar mixture into crack as deep as possible with hands, wood and metal probes. Use as dry a mix as possible. Use stone bats to fill larger crack voids. Ensure mortar is forced into smaller/deeper cracks. Mortar grout will be fluid in order to flow into crack. Either grout bags or gravity flow shall be used depending on the conditions. Fil Protect repairs from rapid drying by misting, shading, protecting from dry wind cracks in a series of applications rather than one large application. Final application shall not be flush with the surface, but shall be one half the width of the crack below the surface. Remove all tool marks with brush.				
-	Apply the finish rough plaster layer				
-	Install galvanized steel mesh 20 cm width at least				
-	Apply the second smooth plaster layer	LS			
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Abi Firas El Hamadani Mixed Public School

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
9.2	**Tiling Works**				
	Supply and install all tiling items for floors, with the skirting				
	Work to include all materials and labors and the Contractor should use all necessary rods and levels as per the Engineer instructions				
	Price to include:				
-	Sand below tiles				
-	Materials, tiles, mortars				
-	Labors				
-	Rubbing				
-	Filling between tiles				
-	Filling the skirting				
-	Remove unsuitable items				
-	Cleaning the places				
-	All needed items as per the Engineer instructions				
9.2.1	**New Full Mass Colored Ceramic for Floors**				
	Ceramic tiles and tilework as specified and detailed, installed complete; Including for substrate preparation, cement: sand screeds or plaster backing coats; setting, jointing and grouting; tile trim and accessories; sealants; and all other related ancillaries as indicated or required				
9.2.1.1	Supply and install anti skid colored full mass ceramic tiles for classroom (first choice) for all floor toilets, kitchen and laboratory (existing and new)	m²			
	Rate or Lump Sum in Words:				
9.2.1.2	Skirting same type of floors or as existing or required	m			
	Rate or Lump Sum in Words:				
9.2.2	**New Glazed Colored Ceramic for Walls**				
9.2.2.1	Supply and install glazed colored ceramic for walls Include Ceramic Corner (first choice)	m²			
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Abi Firas El Hamadani Mixed Public School

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
9.2.3	**New Tiles for stairs**				
	Supply and install tiles first choice for the new stair (treads 3cm thick - Risers 2cm thick) and landing - tiling 2cm and for all floors or otherwise specified color type and quality to be submitted for approval, works to include:				
-	Labor, materials and installations				
-	Under tile fill				
-	Mortar				
-	Lining				
-	Step (Tread + riser) and landing and all type of skirting				
-	And needed items to complete the works as per the Engineer instructions				
9.2.3.2	Granite 2cm Thick (Tread and Riser)	m			
	Rate or Lump Sum in Words:				
9.2.3.3	Mosaic Similar to existing 4cm Thick minimum (Tread and Riser)	m			
	Rate or Lump Sum in Words:				
9.2.4	**Repair existing broken floor tiles and skirting (all types) and reinstall by new, similar to existing for all rooms and corridors**				
9.2.4.1	Rehabilitate and repair all damaged and broken tiles, and skirting for any type (marble - ceramic - mosaic - Cement). Remove broken or damaged pieces to be replaced without affecting the adjacent undamaged areas				
	Work to include:				
-	Remove all debris as specified				
-	All materials and labors				
-	Difference tiles (shapes thickness, dimension, pattern) as needed.				
-	Cutting and repair				
-	Grouting				
-	Polish and rubbing				
-	All needed items as per Engineer comments and complete to Engineer approval.	LS	1		
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Abi Firas El Hamadani Mixed Public School

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
9.2.5	**Rehabilitate Existing Stair Treads and Riser**				
	Remove the broken treads and risers, install and supply new ones similar to the existing with the needed side bases, width as per site dimension with skirting and tiles for landing				
	The work to be as per the Engineer instructions				
9.2.5.1	Existing Mosaic Stair	m			
	the price including Skirting tiles & Landing				
	Rate or Lump Sum in Words:				
9.2.10	**Laminate Vinyl Tiles**				
9.2.10.1	Provide Laminate Vinyl Tiles similar to existing. The removal of existing vinyl tiles, rolls, proper levelling, surfacing of the existing concrete by casting a special layer of new concrete to ensure proper installation of the new vinyl layer as specified and as per standards. Price to include skirting	m²			
	Rate or Lump Sum in Words:				
9.4	**Gypsum Works**				
9.4.1	**New Gypsum Suspended Ceiling (Panel, Tiles):**				
9.4.1.1	Supply and install gypsum board tiles suspended ceiling (60 x 60 cm or panel board with paint)				
	Work to include:				
-	Remove the existing gypsum board tiles and move them to outside				
-	Labors				
-	Materials				
-	Accessories				
-	Angles				
-	Special Heavy duty metal suspension system				
-	All needed items as per the Engineer instructions and approval	m²			
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Abi Firas El Hamadani Mixed Public School

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
9.5	**Painting**				
9.5.1	**Wall and Ceilings Paint Works**				
	Wall paint include preparation of the base surfaces to receive the paints and apply the specified layers of putty and paint from the best quality as per specifications and as indicated in drawings				
	The base surfaces should be clean and smooth and free from any pulled out old paints before starting application of the specified primer/undercoat.				
	Apply 2 layers of putty then after smoothening, then 3 layers of the approved paint materials.				
	All works and items should be as per manufacturer recommendation, compatible with each other and as per the Engineer instructions and approval, ***All paint types must be lead-free and Low VOC (Volatile Organic Compounds)***				
9.5.1.2	Super Rubber Paint for old walls and ceilings	m²	2,700		
	Rate or Lump Sum in Words:				
9.5.1.4	Oil Paints for old walls and ceilings	m²	200		
	Rate or Lump Sum in Words:				
9.5.2	**Outside Walls Paint (Old and New Walls and Ceilings)**				
9.5.2.1	Paint for external old and new walls, smooth touch				
	Work to include:				
-	Removal of any paint or obstacle				
-	Rehabilitate the surfaces and make them goods				
-	Polyurethane where needed for cracks				
-	Apply one coat of undercoat				
-	Apply 2 coats of external paint or rolled textured paint				
-	Apply one layer of external transparent paint (acrylic styrene copolymer elastic water proof)				
-	All needed scaffolding and materials for the best execution of the works				
-	All works and items should be as per manufacturer and the Engineer instructions and approval.	m²	200		
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Abi Firas El Hamadani Mixed Public School

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
10	**SPECIALTIES**				
10.1	**Bathrooms Accessories**				
-	Remove and cart away old damaged fixtures				
-	Supply and install all needed accessories and make good their places and their surroundings				
-	Place all frame, cover joints (stainless steel) anti-corrosion				
-	Install items and their contact with the surfaces				
-	All works should be done as per the Engineer instructions				
10.1.4	**Mirror for Lavatories**				
	Supply and install 6mm glass mirror for lavatories with colored PVC frames as show on drawings and as stated in the specifications with all needed items and accessories				
	The mirror should be placed on 3mm thick plywood from the back				
	All works should be done as the Engineer instructions				
10.1.4.1	Mirror (Dimension as per site conditions and engineer instruction)	№			
	Rate or Lump Sum in Words:				
10.3	**Resin Work**				
10.3.1	**Drinking Basin**				
	Supply and install drinking basin as shown on drawings of resin layers 12 mm thick fixed on galvanized steel skeleton 4 x 4 cm hollow sections and as shown on drawings				
	Work to include:				
-	Materials				
-	Labors				
-	Galvanized steel skeleton				
-	All needed items and as instructed by the Engineer				
10.3.1.1	Drinking Basin -Length (up to 2.20 m)	№			
	Rate or Lump Sum in Words:				
10.3.1.6	Drinking Basin -Length (4.11 to 6.20 m)	№			
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Abi Firas El Hamadani Mixed Public School

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
10.3.4	**Kitchen Counter**				
	Supply and install complete counter resin type with sink (resin) for teachers' kitchen of 18mm thick including coved splash back 20cm height and the work to include:				
-	All fixing elements				
-	All stainless steel hangers				
-	All necessary accessories				
-	All needed items and as instructed by the Engineer				
10.3.4.2	Kitchen Counter - Length (1.11 to 1.75m)	№			
	Rate or Lump Sum in Words:				
	Total Bill № 2: Civil and Architectural Works				

Bill № 3: Mechanical Engineering Services

Bill № 3: Mechanical Engineering Services

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Abi Firas El Hamadani Mixed Public School

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
1	**GENERAL TECHNICAL REQUIREMENTS**				
1.1	**General Mechanical Requirements**				
1.1.2	Prepare the shop drawings for all mechanical works and obtain approval from the Engineer before the start of executing any work.	Item	1		
	Rate or Lump Sum in Words:				
1.2	**Rehabilitation Works General Requirements**				
	Provide all necessary rehabilitation works and make all Mechanical systems in good condition complete including maintenance, cleaning, relocation works, replacing damaged items and equipment, removing and carting away resulting materials and equipment, testing and commissioning, and all other related works to ensure all Mechanical systems are properly working and functional.				
1.2.1	Maintenance and rehabilitation of existing plumbing works, including sanitary fixtures, floor drains, roof drains, manholes, pumps, WC tanks, adding where applicable all necessary valves, flush valves, etc., and all other necessary works.	Item	12		
	Rate or Lump Sum in Words:				
2	**SANITARY, WASTE & RAIN WATER PIPE WORK INSTALLATION**				
2.3	**Drain Cover**				
	Supply and install floor drain cover (P.E) 5 mm thick on drainage pipe and to be the same level of the floor tiling. Work to include all civil works and as per the Engineer instructions				
2.3.1	Cover for FCO	№			
	Rate or Lump Sum in Words:				

Bill № 3: Mechanical Engineering Services

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Abi Firas El Hamadani Mixed Public School

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
3	**WATER PIPE WORK INSTALLATION**				
3.1	**Water Tanks**				
	Supply & install polyethylene water tank (3 layers) or more with all necessary supply and over flow connections all as per the Engineer instructions				
3.1.2	2000 liters PE water tank	№			
	Rate or Lump Sum in Words:				
5	**SANITARY FIXTURES**				
5.1	**W.C. for Kids**				
	Supply and install K.G. W.C. Flush valve with cover as manufactured by Duravit - Bambi No. 018509 or approved equal, 35 cm height max. from finished floor with timber cover.				
	Cost to include all related connections angle valves and necessary accessories as per the Engineer instructions.				
	Each W.C. should be equipped with a Flushing Hose (Grohe or Ideal standard or approved equal)				
5.1.1	EWC-03 (Wall Hang - 52 x 32 cm)	№			
	Rate or Lump Sum in Words:				
5.2	**W.C. For Non Kids**				
	Supply and install W.C. for non kids, Flush valve with cover as manufactured by Ideal Standard Item No. E876801 also the hose, or approved equal and to be 40 cm from floor finish with timber cover.				
	The work to include the installation, liking, cleaning with all necessary connection, angle valves and necessary accessories similar to the K.G.W.C.				
	Each W.C. should be equipped with a Flushing Hose (Grohe or Ideal standard or approved equal)				
5.2.1	EWC-01 (Wall Hang - 52 x 36 cm)	№			
	Rate or Lump Sum in Words:				
5.2.3	AWC-01 (Asian water closet)	№			
	Rate or Lump Sum in Words:				

Bill № 3: Mechanical Engineering Services

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Abi Firas El Hamadani Mixed Public School

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
5.3	**Lavatories for Kids in the K.G.**				
	Supply and install semi pedestal wash basin similar to Ideal Standard No. 742001 or approved equal, 45 x 36 cm, and fixed at 60 cm high from the floor finish. Cost to include all necessary connections, angle valves and accessories as required				
5.3.1	LAV-03 (semi-pedestal wash basin - 45 x 35 cm)	№			
	Rate or Lump Sum in Words:				
5.4	**Lavatories for Non Kids**				
	Supply and install semi pedestal wash basin similar to Ideal Standard No. 742001 or approved equal and fixed at 82 cm high from the floor finish. Cost to include all necessary connections, angle valves, traps and necessary accessories as specified.				
5.4.1	LAV-01 (semi-pedestal with mixers 55 x 45 cm)	№			
	Rate or Lump Sum in Words:				
5.5	**Urinal**				
	Supply and installation of high quality urinal units complete with proper wall fixation with anti-dust materials including drainage & water supply connection as per the approved shop drawings.				
	Cost to include all necessary accessories, valves, sensors to provide workable system.				
5.5.1	Urinal	№			
	Rate or Lump Sum in Words:				
5.6	**Self Close Taps on Kids & Students Lavatories**				
	Supply and install self close taps to be fixed in the lavatory body as manufactured by Grohe Item No. 36-173 with all required works and drain accessories including trap, to be connected to the new water supply and drain and as instructed by the Engineer				
5.6.1	Self Close Taps	№			
	Rate or Lump Sum in Words:				

Bill № 3: Mechanical Engineering Services

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Abi Firas El Hamadani Mixed Public School

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
5.7	**Wall Type Self Close Taps on Drinking Basins**				
	Supply and install self close taps to be fixed in the drinking basin body as manufactured by Grohe Item No. 36-176 with all required works and drain accessories including trap and to be connected to the new water supply and drain and as instructed by the Engineer				
5.7.1	Wall Type Self Close Taps	№			
	Rate or Lump Sum in Words:				
5.8	**Kitchen Sink Accessories**				
	Supply and install kitchen sink accessories such as chrome trap, angle valve, mixers as specified				
5.8.1	Kitchen Sink Accessories	№			
	Rate or Lump Sum in Words:				
	Total Bill № 3: Mechanical Engineering Services				

Bill № 4: Electrical Engineering Services

Bill № 4: Electrical Engineering Services

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Abi Firas El Hamadani Mixed Public School

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
1	**BASIC ELECTRICAL REQUIREMENTS**				
	The Contractor should revise all the drawings and compare them with the site conditions and redo all the design works with the necessary calculations for all the electrical installations and works. Moreover, the Contractor should submit shop drawings and as-built drawings for the maintenance use in the future.				
	The contractor should provide all the necessary maintenance works for all Electrical systems related to the KG school to ensure its proper works.				
	At the end of the project, the contractor should submit complete As-Built Drawings for all executed works with exact dimensions & sizes for easy maintenance work in the future.				
1.1	**Fixing and Repairing**				
	Check & repair all the existing cables, wires, socket outlets, lighting fixtures, lighting switches, electric fans, and protect all exposed wiring as per the site conditions, and to the satisfaction of the Engineer.				
	All as per the drawings, specifications and Engineer instructions				
1.1.1	Lighting fixtures	LS	1		
	Rate or Lump Sum in Words:				
1.1.2	Wires and cables	LS			
	Rate or Lump Sum in Words:				
1.1.3	Sockets and switches	LS	1		
	Rate or Lump Sum in Words:				
1.1.4	Circuit breakers	LS			
	Rate or Lump Sum in Words:				
1.1.9	All needed electrical works … etc.	LS			
	Rate or Lump Sum in Words:				

Bill № 4: Electrical Engineering Services

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Abi Firas El Hamadani Mixed Public School

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
3	**GENERAL LIGHTING INSTALLATIONS**				
3.1	**Lighting Fixtures**				
	Supply, install and test the lighting fixtures complete with all the necessary wires conduits, boxes and accessories required to provide power to each lighting fitting from LP including the earth wire as per the drawings, specifications and Engineer instructions.				
	The Contractor should submit samples of each lighting fixture for approval.				
3.1.1	TYPE C1: Twin T8 LED Tube, surface-mount luminaire for interior, 40W, 4000K, 4700Lm. Polycarbonate, light grey, with injected polyurethane double gasket and clear UV stabilized polycarbonate cover, cos φ ≥ 0.9	№			
	Rate or Lump Sum in Words:				
3.1.3	TYPE C2: as same as TYPE C1 but Pendent mounted	№			
	Rate or Lump Sum in Words:				
3.1.4	TYPE A2 / A3: 600x600 mm LED Panel 3600lm, 33W, 4000K, 80CRI surface-mount/recessed, die-cast aluminum, IP20	№			
	Rate or Lump Sum in Words:				
3.1.6	TYPE N4 / N3: LED - 900lm - 12.5W - 3000K - 80CRI - WW Surface mounted / Recessed Downlight Round - 120 deg	№			
	Rate or Lump Sum in Words:				
3.1.10	Replace Existing lighting fixtures with TYPE L (LED)	№			
	Rate or Lump Sum in Words:				

Bill № 4: Electrical Engineering Services

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Abi Firas El Hamadani Mixed Public School

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
4	**FIRE ALARM SYSTEM**				
	Supply and install all necessary fittings, wires conduits, boxes, plates, relays, bell modules, EOL resistors and accessories as described and as shown on drawings and all necessary connection to the management stations as intended to the satisfaction of the engineer.				
4.6	Break Glass	№			
	Rate or Lump Sum in Words:				
	Total Bill № 4: Electrical Engineering Services				

General Summary

General Summary

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Abi Firas El Hamadani Mixed Public School

Description	Amount (US $)
Bill № 2: Civil and Architectural Works	.....
Bill № 3: Mechanical Engineering Services	.....
Bill № 4: Electrical Engineering Services	.....
* Total Amount of Bill of Quantities ……	.....
* Discount by Tenderer (_____ %) ……	.....
* Total Amount of Tender (VAT Not Applicable) ……	.....

* Total Amount of Tender in Words:

.....

.....

.....

Bill № 2: Civil and Architectural Works

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Ebn Rashed Public School for Girls

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
1	**SITE PREPARATION AND DEMOLITION**				
1.1	**Demolishing and Removal of Debris**				
1.1.1	The works include all types of demolition and the removal of debris and damaged elements such but not limited to, the following:				
-	Existing plastering and concrete items such as foundations, columns, slabs, etc.				
-	Damaged Tiling (floors and walls)				
-	Toilet fixtures and pipes installation of all sizes				
-	Counter tops, bases and sinks				
-	Water tanks of different types				
-	Hollow concrete block walls or concrete walls of all sizes				
-	Demolition of the existing ramps / Stairs and the execution of the given plans and specifications				
-	Including the necessary equipment for the removal of debris and all resulting materials				
-	etc.	LS	1		
	Rate or Lump Sum in Words:				
2	**SITE PREPARATION AND DEMOLITION**				
2.4	**School Fences with Related Gates**				
2.4.2	Rehabilitate Existing Fence (Strengthening & Rehabilitation)				
	Work to include				
-	Rehabilitate and support all the existing fence as per drawings				
-	Determine the places that requires support				
-	Preparation of shop drawings				
-	Replace all broken elements				
-	Redo all damaged elements and to be similar to existing elements				
-	Finishing works as existing (plastering, paints, stone cladding, etc.)				
-	Rehabilitate existing steel protection (Replace all damaged part by new similar to existing and paint with epoxy as specified)				
-	Replace existing chain link by new one (Galvanized)				
-	Reconstruct the broken and damaged parts and rehabilitate as it was with all similar materials including steel parts with related epoxy paint as per the engineer instructions	m			
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Ebn Rashed Public School for Girls

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
4	**MASONRY**				
4.1	**Hollow or Solid Concrete Blocks and Claustra**				
	Supply and install concrete blocks as per drawings				
	Work to include:				
-	All places as per the drawings, and the Engineer instructions.				
-	Materials				
-	Cement mortar and the use of extruded nets and reinforcement by means of metal gates and the placement of angles of galvanized steel iron of concrete columns thickness of 4 mm every 60 cm				
-	Labors and all items needed and instructions by the Engineer				
4.1.4	15 cm hollow concrete blocks	m²			
	Rate or Lump Sum in Words:				
5	**METAL WORKS**				
5.1	**Provide New Steel Work (Door & Windows)**				
5.1.3	Provide new double glazed aluminum windows with new burglar proof protection	№			
	Rate or Lump Sum in Words:				
5.2	**Rehabilitate and Maintain the Existing Steel Work (Burglar Proof Protection + Opening)**				
	Rehabilitate the existing steel windows or doors as per specifications and drawings and the Engineer instruction				
	Work to include:				
-	Remove all damaged members and replace by new ones				
-	Rub completely to secure all parts and use putty to make faces smooth				
-	Apply two layers of anti rust paint				
-	Apply putty				
-	Apply three layers of epoxy external paint				
-	All needed items as per the Engineer instructions				
5.2.1	Rehabilitate existing steel doors	№	4		
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Ebn Rashed Public School for Girls

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
5.2.2	Rehabilitate existing steel gates	№			
	Rate or Lump Sum in Words:				
5.2.6	Rehabilitate and paint existing steel window	№			
	Rate or Lump Sum in Words:				
5.5	**Rehabilitate and Maintain Steel Handrail**				
-	Rehabilitate the existing metal handrail and remove the damaged members and replace by new				
-	Reinforce the existing handrail with similar members in addition to the rail and all necessary accessories				
-	Remove existing paint & clean deeply as per SSPC code and ISO 8501				
-	Apply one layer of epoxy base paint				
-	Apply putty				
-	Apply epoxy paint as per specification				
	All needed items as per the Engineer instructions				
5.5.1	Floor Mounted	m	30		
	Rate or Lump Sum in Words:				
6	**WOOD AND PLASTICS**				
6.1	**Joinery Works**				
6.1.1	Rehabilitate Existing Kitchen Cupboards				
	Rehabilitate existing cupboards, cabinets, drawers, counters, etc., for the existing kitchen. Works to include replacing damaged elements, accessories, material, labor, equipment, maintaining support, change of the top of counter by new resin counter as specified, etc. As per engineer's approval.				
-	Repair wood elements in accordance with AWI Quality Standards requirements.				
-	Repair framing and sash members with mortise and Tenon joints. Ensure joints and connections are flush, hairline, and weather-tight.				
-	Scarf joints permitted when wood matches in color and grain texture. Form sills and stools in one piece.				
-	Fabricate components with minimum clearances and shim spacing around perimeter of assembly, yet allowing installation and dynamic movement of perimeter seal.				
6.1.1.1	Kitchen Cupboards	m			
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Ebn Rashed Public School for Girls

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
8	**DOOR AND WINDOWS**				
8.1	**Wooden Doors and Windows**				
	Supply and install all timber work with all related items				
	The joinery works should be of the first class type and as per specifications and drawings				
	Work to include:				
-	Material and labors				
-	All accessories to be heavy duty (Hinged, Lock, Glass vision, as required, etc.)				
-	The frame for any width (Steel, Wood, etc.)				
-	Paint as follows:				
-	Anti rust layers				
-	Putty + one layer of undercoat				
-	Three layers of epoxy paint				
-	Apply and fix 6mm wired clear glass				
-	View Permitting glass opening where needed				
-	remove the existing timber panels				
-	repair the edges				
-	The Contractor should submit shop drawings				
-	All needed items as the Engineer instructions				
8.1.1	**Timber Doors**				
	Supply and install flush timber door as per drawings with laminated plastic facing and the door should have 10cm width frame between the plywood and fill with timber beads by tongue and groove each 5cm, and the door edges should behead wood and fixed by tongue and groove frames should be as specified, with fixed glass panel vision window, and similar to existing, and to the Engineer's instructions				
-	Works included, all accessories and fittings, pre-painting and finishing paint sides of doors and box frames.				
-	All works should be done as per the Engineer instructions				
8.1.1.2	Provide new single leaf wooden door with view frame	№			
	Rate or Lump Sum in Words:				
8.1.1.3	Provide WC partition door	№			
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Ebn Rashed Public School for Girls

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
8.1.3	**Rehabilitate the Existing Timber Doors**				
	As stated in the Preambles of Item 8.1				
	In addition, rehabilitate the existing timber doors:				
	The minimum amount of existing timber should be removed to allow an effective repair to be formed.				
	Cut out deteriorated area of timber in sloping splice to give optimum area of surface to be glued & fixed.				
	Well-seasoned timber to be used in forming a repair with the line and density of grain (number of growth rings) of new timber matching the existing as closely as possible.				
	For all joinery work, timber with shakes, fissures, warping, heartwood, sapwood or numerous/large knots should be avoided for use in repair. Always work new material to the line of the existing and avoid unnecessary trimming of original timber. Repairs should follow any existing deformations in the line of the wood element (e.g. door or window).				
	Avoid mixing timber species between new and existing in a repair as joint between the two is likely to fail from different rates of expansion and contraction during dry & damp conditions. Where possible, spliced repairs to be designed to ensure moisture is towards the outer face of timber and that moisture does not lay on the repair joint.				
	The length of the splice is governed by section of timber and the nature of component being repaired and it should be designed to ensure an effective bond between new and existing sections of timber. Where wood element are to be dismantled as part of the repair process, always mark and record the constituent parts before dismantling. similarly, number of glass panes/quarries before removal.				
	If applicable carefully soften putty or remove wood trim and then remove glass. Use glue, to connect a new outer section of bottom rail to the existing sound timber. Drill and insert new wooden pins or fix using brass screws from inside.				
	Casements or sashes are often in sound condition but the joints have become loose due to the break down of glue and loose wedges.				
	The wedges will often be easily removable and will probably be unsuitable for re-use. It may be for the joints to be pulled together successfully.				
	Attach door frame and shims to perimeter opening to accommodate construction tolerances & all irregularities.				
	Align door plumb and level, free of warp or twist. Maintain dimensional tolerances and alignment with adjacent work. Install operating hardware.				
8.1.3.1.1	Rehabilitate and paint existing single leaf timber doors with related accessories	№			
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Ebn Rashed Public School for Girls

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
8.1.3.1.2	Rehabilitate existing double leaf door	№			
	Rate or Lump Sum in Words:				
8.1.3.1.4	Rehabilitate wooden windows	№	20		
	Rate or Lump Sum in Words:				
8.2	**Aluminum Doors and Windows**				
	Fabricate, supply and install aluminum works as manufactured by SIDEM 2000 first choice with all necessary accessories as per the drawings and the Engineer instructions, cost to include all doors and windows:				
-	Reveals hard stone 3cm thick, all around for external opening				
-	Apply EPDM around door and windows where necessary				
-	Single glass 6 mm				
-	Double glass 6-12-6 mm (Outer Glass should be Tempered)				
-	Hinges and locks				
-	Joint Filler				
-	Mosquito Screen				
-	Mesh				
-	All items needed as per the Engineer instructions				
-	All as specified and base on an approved shop drawings after exact dimensions				
8.2.1	**New Aluminum Panels (Double Glass)**				
	Supply and install the fabricated aluminum panels with double glass (6 - 12 - 6 mm) (Outer Glass should be Tempered)				
8.2.1.1	Provide new aluminum double glazed window & door panel	№			
	Rate or Lump Sum in Words:				
8.2.2	**New Aluminum Internal Door**				
	Supply and install aluminum door with frame and related strengthening stud, Works to include:				
	Materials, and accessories				
-	Labors				
-	All needed items as per the engineer instructions.				
-	Repair all around the opening				
8.2.2.1	Provide new aluminum partition door as indicated.	№			
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Ebn Rashed Public School for Girls

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
8.2.3	**Rehabilitation Existing Glazed Aluminum Panels (s)**				
	Replacing Broken Glass. Fixing Hardware Issues: Check the functionality of latches, hinges, and other hardware. If any parts are broken, replace them with new ones to ensure the window operates smoothly. After repairs, apply a high-quality sealant around the edges to prevent moisture intrusion. If the paint is peeling or faded, consider repainting the frame with a metal paint formulated for aluminum to enhance durability and appearance.				
8.2.3.1	Rehabilitate existing windows	№	3		
	Rate or Lump Sum in Words:				
9	**FINISHES**				
9.1	**Cement Plaster**				
	Supply and install sand cement plaster on concrete and block wall surfaces as specified				
	The plaster layer should be own a base rough layer				
	The plaster works should be on level points and each point should be at 1.5 m from the second only				
	Work to include:				
-	Materials and accessories (galvanized, wire mesh, cover beds, etc.)				
-	Labors				
-	All addition watering				
-	All tools				
-	Plaster thickness more than 2 cm				
-	All needed items as per drawings and the Engineer instructions				
9.1.1	**Internal and External Plaster Works**				
9.1.1.1	Supply and apply one layer of sand cement plaster over a rough textured layer of plaster				
	Price included all accessories, material, scaffolding and labor, etc.	m^2			
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Ebn Rashed Public School for Girls

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
9.1.2	**Repair of Existing Plaster (Internal - External) (Cracks, etc.)**				
9.1.2.1	Rehabilitate and repair cracked and damaged plaster indoor and outdoor				
	Work to include:				
-	Determine the location and remove all loose items around the area				
-	Remove the cracked plaster layer				
-	Remove the pulled out layers				
-	Clean the places with suitable materials				
-	Fill all cracks after widening by (No Suggestions) or approved equal.				
-	Remove loose and other deteriorated materials prior to the new repair. Take special care not to damage the adjacent original materials. Prepare mortar joints for installation of lateral reinforcement where it is required. Use thin steel bars to clean joints to maximum depth possible. Remove loose mortar. Mix mortar with minimal amount of water (potable) prior to use. All separation cracks between perpendicular walls shall be filled grout to reduce additional movement from wind loads and thermal expansion-contraction.				
-	Clear debris from crack by probing, brushing, and blowing.				
-	Force non-shrink mortar mixture into crack as deep as possible with hands, wood and metal probes. Use as dry a mix as possible. Use stone bats to fill larger crack voids. Ensure mortar is forced into smaller/deeper cracks. Mortar grout will be fluid in order to flow into crack. Either grout bags or gravity flow shall be used depending on the conditions. Fil Protect repairs from rapid drying by misting, shading, protecting from dry wind cracks in a series of applications rather than one large application. Final application shall not be flush with the surface, but shall be one half the width of the crack below the surface. Remove all tool marks with brush.				
-	Apply the finish rough plaster layer				
-	Install galvanized steel mesh 20 cm width at least				
-	Apply the second smooth plaster layer	LS			
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Ebn Rashed Public School for Girls

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
9.2	**Tiling Works**				
	Supply and install all tiling items for floors, with the skirting				
	Work to include all materials and labors and the Contractor should use all necessary rods and levels as per the Engineer instructions				
	Price to include:				
-	Sand below tiles				
-	Materials, tiles, mortars				
-	Labors				
-	Rubbing				
-	Filling between tiles				
-	Filling the skirting				
-	Remove unsuitable items				
-	Cleaning the places				
-	All needed items as per the Engineer instructions				
9.2.1	**New Full Mass Colored Ceramic for Floors**				
	Ceramic tiles and tilework as specified and detailed, installed complete; Including for substrate preparation, cement: sand screeds or plaster backing coats; setting, jointing and grouting; tile trim and accessories; sealants; and all other related ancillaries as indicated or required				
9.2.1.1	Supply and install anti skid colored full mass ceramic tiles for classroom (first choice) for all floor toilets, kitchen and laboratory (existing and new)	m²			
	Rate or Lump Sum in Words:				
9.2.1.2	Skirting same type of floors or as existing or required	m			
	Rate or Lump Sum in Words:				
9.2.2	**New Glazed Colored Ceramic for Walls**				
9.2.2.1	Supply and install glazed colored ceramic for walls Include Ceramic Corner (first choice)	m²			
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Ebn Rashed Public School for Girls

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
9.2.3	**New Tiles for stairs**				
	Supply and install tiles first choice for the new stair (treads 3cm thick - Risers 2cm thick) and landing - tiling 2cm and for all floors or otherwise specified color type and quality to be submitted for approval, works to include:				
-	Labor, materials and installations				
-	Under tile fill				
-	Mortar				
-	Lining				
-	Step (Tread + riser) and landing and all type of skirting				
-	And needed items to complete the works as per the Engineer instructions				
9.2.3.2	Granite 2cm Thick (Tread and Riser)	m			
	Rate or Lump Sum in Words:				
9.2.3.3	Mosaic Similar to existing 4cm Thick minimum (Tread and Riser)	m			
	Rate or Lump Sum in Words:				
9.2.4	**Repair existing broken floor tiles and skirting (all types) and reinstall by new, similar to existing for all rooms and corridors**				
9.2.4.1	Rehabilitate and repair all damaged and broken tiles, and skirting for any type (marble - ceramic - mosaic - Cement). Remove broken or damaged pieces to be replaced without affecting the adjacent undamaged areas				
	Work to include:				
-	Remove all debris as specified				
-	All materials and labors				
-	Difference tiles (shapes thickness, dimension, pattern) as needed.				
-	Cutting and repair				
-	Grouting				
-	Polish and rubbing				
-	All needed items as per Engineer comments and complete to Engineer approval.	LS	1		
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Ebn Rashed Public School for Girls

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
9.2.5	**Rehabilitate Existing Stair Treads and Riser**				
	Remove the broken treads and risers, install and supply new ones similar to the existing with the needed side bases, width as per site dimension with skirting and tiles for landing				
	The work to be as per the Engineer instructions				
9.2.5.1	Existing Mosaic Stair	m			
	the price including Skirting tiles & Landing				
	Rate or Lump Sum in Words:				
9.2.10	**Laminate Vinyl Tiles**				
9.2.10.1	Provide Laminate Vinyl Tiles similar to existing. The removal of existing vinyl tiles, rolls, proper levelling, surfacing of the existing concrete by casting a special layer of new concrete to ensure proper installation of the new vinyl layer as specified and as per standards. Price to include skirting	m²			
	Rate or Lump Sum in Words:				
9.4	**Gypsum Works**				
9.4.1	**New Gypsum Suspended Ceiling (Panel, Tiles):**				
9.4.1.1	Supply and install gypsum board tiles suspended ceiling (60 x 60 cm or panel board with paint)				
	Work to include:				
-	Remove the existing gypsum board tiles and move them to outside				
-	Labors				
-	Materials				
-	Accessories				
-	Angles				
-	Special Heavy duty metal suspension system				
-	All needed items as per the Engineer instructions and approval	m²			
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Ebn Rashed Public School for Girls

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
9.5	**Painting**				
9.5.1	**Wall and Ceilings Paint Works**				
	Wall paint include preparation of the base surfaces to receive the paints and apply the specified layers of putty and paint from the best quality as per specifications and as indicated in drawings				
	The base surfaces should be clean and smooth and free from any pulled out old paints before starting application of the specified primer/undercoat.				
	Apply 2 layers of putty then after smoothening, then 3 layers of the approved paint materials.				
	All works and items should be as per manufacturer recommendation, compatible with each other and as per the Engineer instructions and approval, ***All paint types must be lead-free and Low VOC (Volatile Organic Compounds)***				
9.5.1.2	Super Rubber Paint for old walls and ceilings	m²	1,000		
	Rate or Lump Sum in Words:				
9.5.1.4	Oil Paints for old walls and ceilings	m²	100		
	Rate or Lump Sum in Words:				
9.5.2	**Outside Walls Paint (Old and New Walls and Ceilings)**				
9.5.2.1	Paint for external old and new walls, smooth touch				
	Work to include:				
-	Removal of any paint or obstacle				
-	Rehabilitate the surfaces and make them goods				
-	Polyurethane where needed for cracks				
-	Apply one coat of undercoat				
-	Apply 2 coats of external paint or rolled textured paint				
-	Apply one layer of external transparent paint (acrylic styrene copolymer elastic water proof)				
-	All needed scaffolding and materials for the best execution of the works				
-	All works and items should be as per manufacturer and the Engineer instructions and approval.	m²	100		
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Ebn Rashed Public School for Girls

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
10	**SPECIALTIES**				
10.1	**Bathrooms Accessories**				
-	Remove and cart away old damaged fixtures				
-	Supply and install all needed accessories and make good their places and their surroundings				
-	Place all frame, cover joints (stainless steel) anti-corrosion				
-	Install items and their contact with the surfaces				
-	All works should be done as per the Engineer instructions				
10.1.4	**Mirror for Lavatories**				
	Supply and install 6mm glass mirror for lavatories with colored PVC frames as show on drawings and as stated in the specifications with all needed items and accessories				
	The mirror should be placed on 3mm thick plywood from the back				
	All works should be done as the Engineer instructions				
10.1.4.1	Mirror (Dimension as per site conditions and engineer instruction)	№			
	Rate or Lump Sum in Words:				
10.3	**Resin Work**				
10.3.1	**Drinking Basin**				
	Supply and install drinking basin as shown on drawings of resin layers 12 mm thick fixed on galvanized steel skeleton 4 x 4 cm hollow sections and as shown on drawings				
	Work to include:				
-	Materials				
-	Labors				
-	Galvanized steel skeleton				
-	All needed items and as instructed by the Engineer				
10.3.1.1	Drinking Basin -Length (up to 2.20 m)	№			
	Rate or Lump Sum in Words:				
10.3.1.6	Drinking Basin -Length (4.11 to 6.20 m)	№			
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Ebn Rashed Public School for Girls

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
10.3.4	**Kitchen Counter**				
	Supply and install complete counter resin type with sink (resin) for teachers' kitchen of 18mm thick including coved splash back 20cm height and the work to include:				
-	All fixing elements				
-	All stainless steel hangers				
-	All necessary accessories				
-	All needed items and as instructed by the Engineer				
10.3.4.2	Kitchen Counter - Length (1.11 to 1.75m)	№			
	Rate or Lump Sum in Words:				
	Total Bill № 2: Civil and Architectural Works				

Bill № 3: Mechanical Engineering Services

Bill № 3: Mechanical Engineering Services

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Ebn Rashed Public School for Girls

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
1	**GENERAL TECHNICAL REQUIREMENTS**				
1.1	**General Mechanical Requirements**				
1.1.2	Prepare the shop drawings for all mechanical works and obtain approval from the Engineer before the start of executing any work.	Item	1		
	Rate or Lump Sum in Words:				
1.2	**Rehabilitation Works General Requirements**				
	Provide all necessary rehabilitation works and make all Mechanical systems in good condition complete including maintenance, cleaning, relocation works, replacing damaged items and equipment, removing and carting away resulting materials and equipment, testing and commissioning, and all other related works to ensure all Mechanical systems are properly working and functional.				
1.2.1	Maintenance and rehabilitation of existing plumbing works, including sanitary fixtures, floor drains, roof drains, manholes, pumps, WC tanks, adding where applicable all necessary valves, flush valves, etc., and all other necessary works.	Item	11		
	Rate or Lump Sum in Words:				
2	**SANITARY, WASTE & RAIN WATER PIPE WORK INSTALLATION**				
2.3	**Drain Cover**				
	Supply and install floor drain cover (P.E) 5 mm thick on drainage pipe and to be the same level of the floor tiling. Work to include all civil works and as per the Engineer instructions				
2.3.1	Cover for FCO	№			
	Rate or Lump Sum in Words:				

Bill № 3: Mechanical Engineering Services

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Ebn Rashed Public School for Girls

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
3	**WATER PIPE WORK INSTALLATION**				
3.1	**Water Tanks**				
	Supply & install polyethylene water tank (3 layers) or more with all necessary supply and over flow connections all as per the Engineer instructions				
3.1.2	2000 liters PE water tank	№			
	Rate or Lump Sum in Words:				
5	**SANITARY FIXTURES**				
5.1	**W.C. for Kids**				
	Supply and install K.G. W.C. Flush valve with cover as manufactured by Duravit - Bambi No. 018509 or approved equal, 35 cm height max. from finished floor with timber cover.				
	Cost to include all related connections angle valves and necessary accessories as per the Engineer instructions.				
	Each W.C. should be equipped with a Flushing Hose (Grohe or Ideal standard or approved equal)				
5.1.1	EWC-03 (Wall Hang - 52 x 32 cm)	№			
	Rate or Lump Sum in Words:				
5.2	**W.C. For Non Kids**				
	Supply and install W.C. for non kids, Flush valve with cover as manufactured by Ideal Standard Item No. E876801 also the hose, or approved equal and to be 40 cm from floor finish with timber cover.				
	The work to include the installation, liking, cleaning with all necessary connection, angle valves and necessary accessories similar to the K.G.W.C.				
	Each W.C. should be equipped with a Flushing Hose (Grohe or Ideal standard or approved equal)				
5.2.1	EWC-01 (Wall Hang - 52 x 36 cm)	№			
	Rate or Lump Sum in Words:				
5.2.3	AWC-01 (Asian water closet)	№	5		
	Rate or Lump Sum in Words:				

Bill № 3: Mechanical Engineering Services

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Ebn Rashed Public School for Girls

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
5.3	**Lavatories for Kids in the K.G.**				
	Supply and install semi pedestal wash basin similar to Ideal Standard No. 742001 or approved equal, 45 x 36 cm, and fixed at 60 cm high from the floor finish. Cost to include all necessary connections, angle valves and accessories as required				
5.3.1	LAV-03 (semi-pedestal wash basin - 45 x 35 cm)	№			
	Rate or Lump Sum in Words:				
5.4	**Lavatories for Non Kids**				
	Supply and install semi pedestal wash basin similar to Ideal Standard No. 742001 or approved equal and fixed at 82 cm high from the floor finish. Cost to include all necessary connections, angle valves, traps and necessary accessories as specified.				
5.4.1	LAV-01 (semi-pedestal with mixers 55 x 45 cm)	№			
	Rate or Lump Sum in Words:				
5.5	**Urinal**				
	Supply and installation of high quality urinal units complete with proper wall fixation with anti-dust materials including drainage & water supply connection as per the approved shop drawings.				
	Cost to include all necessary accessories, valves, sensors to provide workable system.				
5.5.1	Urinal	№			
	Rate or Lump Sum in Words:				
5.6	**Self Close Taps on Kids & Students Lavatories**				
	Supply and install self close taps to be fixed in the lavatory body as manufactured by Grohe Item No. 36-173 with all required works and drain accessories including trap, to be connected to the new water supply and drain and as instructed by the Engineer				
5.6.1	Self Close Taps	№			
	Rate or Lump Sum in Words:				

Bill № 3: Mechanical Engineering Services

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Ebn Rashed Public School for Girls

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
5.7	**Wall Type Self Close Taps on Drinking Basins**				
	Supply and install self close taps to be fixed in the drinking basin body as manufactured by Grohe Item No. 36-176 with all required works and drain accessories including trap and to be connected to the new water supply and drain and as instructed by the Engineer				
5.7.1	Wall Type Self Close Taps	№			
	Rate or Lump Sum in Words:				
5.8	**Kitchen Sink Accessories**				
	Supply and install kitchen sink accessories such as chrome trap, angle valve, mixers as specified				
5.8.1	Kitchen Sink Accessories	№			
	Rate or Lump Sum in Words:				
	Total Bill № 3: Mechanical Engineering Services				

Bill № 4: Electrical Engineering Services

Bill № 4: Electrical Engineering Services

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Ebn Rashed Public School for Girls

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
1	**BASIC ELECTRICAL REQUIREMENTS**				
	The Contractor should revise all the drawings and compare them with the site conditions and redo all the design works with the necessary calculations for all the electrical installations and works. Moreover, the Contractor should submit shop drawings and as-built drawings for the maintenance use in the future.				
	The contractor should provide all the necessary maintenance works for all Electrical systems related to the KG school to ensure its proper works.				
	At the end of the project, the contractor should submit complete As-Built Drawings for all executed works with exact dimensions & sizes for easy maintenance work in the future.				
1.1	**Fixing and Repairing**				
	Check & repair all the existing cables, wires, socket outlets, lighting fixtures, lighting switches, electric fans, and protect all exposed wiring as per the site conditions, and to the satisfaction of the Engineer.				
	All as per the drawings, specifications and Engineer instructions				
1.1.1	Lighting fixtures	LS			
	Rate or Lump Sum in Words:				
1.1.2	Wires and cables	LS			
	Rate or Lump Sum in Words:				
1.1.3	Sockets and switches	LS	1		
	Rate or Lump Sum in Words:				
1.1.4	Circuit breakers	LS			
	Rate or Lump Sum in Words:				
1.1.9	All needed electrical works … etc.	LS			
	Rate or Lump Sum in Words:				

Bill № 4: Electrical Engineering Services

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Ebn Rashed Public School for Girls

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
3	**GENERAL LIGHTING INSTALLATIONS**				
3.1	**Lighting Fixtures**				
	Supply, install and test the lighting fixtures complete with all the necessary wires conduits, boxes and accessories required to provide power to each lighting fitting from LP including the earth wire as per the drawings, specifications and Engineer instructions.				
	The Contractor should submit samples of each lighting fixture for approval.				
3.1.1	TYPE C1: Twin T8 LED Tube, surface-mount luminaire for interior, 40W, 4000K, 4700Lm. Polycarbonate, light grey, with injected polyurethane double gasket and clear UV stabilized polycarbonate cover, cos φ ≥ 0.9	№			
	Rate or Lump Sum in Words:				
3.1.3	TYPE C2: as same as TYPE C1 but Pendent mounted	№			
	Rate or Lump Sum in Words:				
3.1.4	TYPE A2 / A3: 600x600 mm LED Panel 3600lm, 33W, 4000K, 80CRI surface-mount/recessed, die-cast aluminum, IP20	№			
	Rate or Lump Sum in Words:				
3.1.6	TYPE N4 / N3: LED - 900lm - 12.5W - 3000K - 80CRI - WW Surface mounted / Recessed Downlight Round - 120 deg	№			
	Rate or Lump Sum in Words:				
3.1.10	Replace Existing lighting fixtures with TYPE L (LED)	№			
	Rate or Lump Sum in Words:				

Bill № 4: Electrical Engineering Services

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Ebn Rashed Public School for Girls

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
4	**FIRE ALARM SYSTEM**				
	Supply and install all necessary fittings, wires conduits, boxes, plates, relays, bell modules, EOL resistors and accessories as described and as shown on drawings and all necessary connection to the management stations as intended to the satisfaction of the engineer.				
4.6	Break Glass	№			
	Rate or Lump Sum in Words:				
	Total Bill № 4: Electrical Engineering Services				

General Summary

General Summary

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Ebn Rashed Public School for Girls

Description	Amount (US $)
Bill № 2: Civil and Architectural Works	.....
Bill № 3: Mechanical Engineering Services	.....
Bill № 4: Electrical Engineering Services	.....
* Total Amount of Bill of Quantities ……	.....
* Discount by Tenderer (_____ %) ……	.....
* Total Amount of Tender (VAT Not Applicable) ……	.....

* Total Amount of Tender in Words:

.....

.....

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Bill № 2: Civil and Architectural Works

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Dahr El Maghr Third Public Kindergarten

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
1	**SITE PREPARATION AND DEMOLITION**				
1.1	**Demolishing and Removal of Debris**				
1.1.1	The works include all types of demolition and the removal of debris and damaged elements such but not limited to, the following:				
-	Existing plastering and concrete items such as foundations, columns, slabs, etc.				
-	Damaged Tiling (floors and walls)				
-	Toilet fixtures and pipes installation of all sizes				
-	Counter tops, bases and sinks				
-	Water tanks of different types				
-	Hollow concrete block walls or concrete walls of all sizes				
-	Demolition of the existing ramps / Stairs and the execution of the given plans and specifications				
-	Including the necessary equipment for the removal of debris and all resulting materials				
-	etc.	LS	1		
	Rate or Lump Sum in Words:				
2	**SITE PREPARATION AND DEMOLITION**				
2.4	**School Fences with Related Gates**				
2.4.2	Rehabilitate Existing Fence (Strengthening & Rehabilitation)				
	Work to include				
-	Rehabilitate and support all the existing fence as per drawings				
-	Determine the places that requires support				
-	Preparation of shop drawings				
-	Replace all broken elements				
-	Redo all damaged elements and to be similar to existing elements				
-	Finishing works as existing (plastering, paints, stone cladding, etc.)				
-	Rehabilitate existing steel protection (Replace all damaged part by new similar to existing and paint with epoxy as specified)				
-	Replace existing chain link by new one (Galvanized)				
-	Reconstruct the broken and damaged parts and rehabilitate as it was with all similar materials including steel parts with related epoxy paint as per the engineer instructions	m			
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Dahr El Maghr Third Public Kindergarten

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
4	**MASONRY**				
4.1	**Hollow or Solid Concrete Blocks and Claustra**				
	Supply and install concrete blocks as per drawings				
	Work to include:				
-	All places as per the drawings, and the Engineer instructions.				
-	Materials				
-	Cement mortar and the use of extruded nets and reinforcement by means of metal gates and the placement of angles of galvanized steel iron of concrete columns thickness of 4 mm every 60 cm				
-	Labors and all items needed and instructions by the Engineer				
4.1.4	15 cm hollow concrete blocks	m²			
	Rate or Lump Sum in Words:				
5	**METAL WORKS**				
5.1	**Provide New Steel Work (Door & Windows)**				
5.1.3	Provide new double glazed aluminum windows with new burglar proof protection	№			
	Rate or Lump Sum in Words:				
5.2	**Rehabilitate and Maintain the Existing Steel Work (Burglar Proof Protection + Opening)**				
	Rehabilitate the existing steel windows or doors as per specifications and drawings and the Engineer instruction				
	Work to include:				
-	Remove all damaged members and replace by new ones				
-	Rub completely to secure all parts and use putty to make faces smooth				
-	Apply two layers of anti rust paint				
-	Apply putty				
-	Apply three layers of epoxy external paint				
-	All needed items as per the Engineer instructions				
5.2.1	Rehabilitate existing steel doors	№	1		
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Dahr El Maghr Third Public Kindergarten

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
5.2.2	Rehabilitate existing steel gates	№			
	Rate or Lump Sum in Words:				
5.2.6	Rehabilitate and paint existing steel window	№			
	Rate or Lump Sum in Words:				
5.5	**Rehabilitate and Maintain Steel Handrail**				
-	Rehabilitate the existing metal handrail and remove the damaged members and replace by new				
-	Reinforce the existing handrail with similar members in addition to the rail and all necessary accessories				
-	Remove existing paint & clean deeply as per SSPC code and ISO 8501				
-	Apply one layer of epoxy base paint				
-	Apply putty				
-	Apply epoxy paint as per specification				
	All needed items as per the Engineer instructions				
5.5.1	Floor Mounted	m	30		
	Rate or Lump Sum in Words:				
6	**WOOD AND PLASTICS**				
6.1	**Joinery Works**				
6.1.1	Rehabilitate Existing Kitchen Cupboards				
	Rehabilitate existing cupboards, cabinets, drawers, counters, etc., for the existing kitchen. Works to include replacing damaged elements, accessories, material, labor, equipment, maintaining support, change of the top of counter by new resin counter as specified, etc. As per engineer's approval.				
-	Repair wood elements in accordance with AWI Quality Standards requirements.				
-	Repair framing and sash members with mortise and Tenon joints. Ensure joints and connections are flush, hairline, and weather-tight.				
-	Scarf joints permitted when wood matches in color and grain texture. Form sills and stools in one piece.				
-	Fabricate components with minimum clearances and shim spacing around perimeter of assembly, yet allowing installation and dynamic movement of perimeter seal.				
6.1.1.1	Kitchen Cupboards	m			
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Dahr El Maghr Third Public Kindergarten

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
8	**DOOR AND WINDOWS**				
8.1	**Wooden Doors and Windows**				
	Supply and install all timber work with all related items				
	The joinery works should be of the first class type and as per specifications and drawings				
	Work to include:				
-	Material and labors				
-	All accessories to be heavy duty (Hinged, Lock, Glass vision, as required, etc.)				
-	The frame for any width (Steel, Wood, etc.)				
-	Paint as follows:				
-	Anti rust layers				
-	Putty + one layer of undercoat				
-	Three layers of epoxy paint				
-	Apply and fix 6mm wired clear glass				
-	View Permitting glass opening where needed				
-	remove the existing timber panels				
-	repair the edges				
-	The Contractor should submit shop drawings				
-	All needed items as the Engineer instructions				
8.1.1	**Timber Doors**				
	Supply and install flush timber door as per drawings with laminated plastic facing and the door should have 10cm width frame between the plywood and fill with timber beads by tongue and groove each 5cm, and the door edges should behead wood and fixed by tongue and groove frames should be as specified, with fixed glass panel vision window, and similar to existing, and to the Engineer's instructions				
-	Works included, all accessories and fittings, pre-painting and finishing paint sides of doors and box frames.				
-	All works should be done as per the Engineer instructions				
8.1.1.2	Provide new single leaf wooden door with view frame	№			
	Rate or Lump Sum in Words:				
8.1.1.3	Provide WC partition door	№			
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Dahr El Maghr Third Public Kindergarten

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
8.1.3	**Rehabilitate the Existing Timber Doors**				
	As stated in the Preambles of Item 8.1				
	In addition, rehabilitate the existing timber doors:				
	The minimum amount of existing timber should be removed to allow an effective repair to be formed.				
	Cut out deteriorated area of timber in sloping splice to give optimum area of surface to be glued & fixed.				
	Well-seasoned timber to be used in forming a repair with the line and density of grain (number of growth rings) of new timber matching the existing as closely as possible.				
	For all joinery work, timber with shakes, fissures, warping, heartwood, sapwood or numerous/large knots should be avoided for use in repair. Always work new material to the line of the existing and avoid unnecessary trimming of original timber. Repairs should follow any existing deformations in the line of the wood element (e.g. door or window).				
	Avoid mixing timber species between new and existing in a repair as joint between the two is likely to fail from different rates of expansion and contraction during dry & damp conditions. Where possible, spliced repairs to be designed to ensure moisture is towards the outer face of timber and that moisture does not lay on the repair joint.				
	The length of the splice is governed by section of timber and the nature of component being repaired and it should be designed to ensure an effective bond between new and existing sections of timber. Where wood element are to be dismantled as part of the repair process, always mark and record the constituent parts before dismantling. similarly, number of glass panes/quarries before removal.				
	If applicable carefully soften putty or remove wood trim and then remove glass. Use glue, to connect a new outer section of bottom rail to the existing sound timber. Drill and insert new wooden pins or fix using brass screws from inside.				
	Casements or sashes are often in sound condition but the joints have become loose due to the break down of glue and loose wedges.				
	The wedges will often be easily removable and will probably be unsuitable for re-use. It may be for the joints to be pulled together successfully.				
	Attach door frame and shims to perimeter opening to accommodate construction tolerances & all irregularities.				
	Align door plumb and level, free of warp or twist. Maintain dimensional tolerances and alignment with adjacent work. Install operating hardware.				
8.1.3.1.1	Rehabilitate and paint existing single leaf timber doors with related accessories	№			
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Dahr El Maghr Third Public Kindergarten

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
8.1.3.1.2	Rehabilitate existing double leaf door	№			
	Rate or Lump Sum in Words:				
8.1.3.1.4	Rehabilitate wooden windows	№			
	Rate or Lump Sum in Words:				
8.2	**Aluminum Doors and Windows**				
	Fabricate, supply and install aluminum works as manufactured by SIDEM 2000 first choice with all necessary accessories as per the drawings and the Engineer instructions, cost to include all doors and windows:				
-	Reveals hard stone 3cm thick, all around for external opening				
-	Apply EPDM around door and windows where necessary				
-	Single glass 6 mm				
-	Double glass 6-12-6 mm (Outer Glass should be Tempered)				
-	Hinges and locks				
-	Joint Filler				
-	Mosquito Screen				
-	Mesh				
-	All items needed as per the Engineer instructions				
-	All as specified and base on an approved shop drawings after exact dimensions				
8.2.1	**New Aluminum Panels (Double Glass)**				
	Supply and install the fabricated aluminum panels with double glass (6 - 12 - 6 mm) (Outer Glass should be Tempered)				
8.2.1.1	Provide new aluminum double glazed window & door panel	№			
	Rate or Lump Sum in Words:				
8.2.2	**New Aluminum Internal Door**				
	Supply and install aluminum door with frame and related strengthening stud, Works to include:				
	Materials, and accessories				
-	Labors				
-	All needed items as per the engineer instructions.				
-	Repair all around the opening				
8.2.2.1	Provide new aluminum partition door as indicated.	№			
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Dahr El Maghr Third Public Kindergarten

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
8.2.3	**Rehabilitation Existing Glazed Aluminum Panels (s)**				
	Replacing Broken Glass. Fixing Hardware Issues: Check the functionality of latches, hinges, and other hardware. If any parts are broken, replace them with new ones to ensure the window operates smoothly. After repairs, apply a high-quality sealant around the edges to prevent moisture intrusion. If the paint is peeling or faded, consider repainting the frame with a metal paint formulated for aluminum to enhance durability and appearance.				
8.2.3.1	Rehabilitate existing windows	№			
	Rate or Lump Sum in Words:				
9	**FINISHES**				
9.1	**Cement Plaster**				
	Supply and install sand cement plaster on concrete and block wall surfaces as specified				
	The plaster layer should be own a base rough layer				
	The plaster works should be on level points and each point should be at 1.5 m from the second only				
	Work to include:				
-	Materials and accessories (galvanized, wire mesh, cover beds, etc.)				
-	Labors				
-	All addition watering				
-	All tools				
-	Plaster thickness more than 2 cm				
-	All needed items as per drawings and the Engineer instructions				
9.1.1	**Internal and External Plaster Works**				
9.1.1.1	Supply and apply one layer of sand cement plaster over a rough textured layer of plaster				
	Price included all accessories, material, scaffolding and labor, etc.	m^2			
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Dahr El Maghr Third Public Kindergarten

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
9.1.2	**Repair of Existing Plaster (Internal - External) (Cracks, etc.)**				
9.1.2.1	Rehabilitate and repair cracked and damaged plaster indoor and outdoor				
	Work to include:				
-	Determine the location and remove all loose items around the area				
-	Remove the cracked plaster layer				
-	Remove the pulled out layers				
-	Clean the places with suitable materials				
-	Fill all cracks after widening by (No Suggestions) or approved equal.				
-	Remove loose and other deteriorated materials prior to the new repair. Take special care not to damage the adjacent original materials. Prepare mortar joints for installation of lateral reinforcement where it is required. Use thin steel bars to clean joints to maximum depth possible. Remove loose mortar. Mix mortar with minimal amount of water (potable) prior to use. All separation cracks between perpendicular walls shall be filled grout to reduce additional movement from wind loads and thermal expansion-contraction.				
-	Clear debris from crack by probing, brushing, and blowing.				
-	Force non-shrink mortar mixture into crack as deep as possible with hands, wood and metal probes. Use as dry a mix as possible. Use stone bats to fill larger crack voids. Ensure mortar is forced into smaller/deeper cracks. Mortar grout will be fluid in order to flow into crack. Either grout bags or gravity flow shall be used depending on the conditions. Fil Protect repairs from rapid drying by misting, shading, protecting from dry wind cracks in a series of applications rather than one large application. Final application shall not be flush with the surface, but shall be one half the width of the crack below the surface. Remove all tool marks with brush.				
-	Apply the finish rough plaster layer				
-	Install galvanized steel mesh 20 cm width at least				
-	Apply the second smooth plaster layer	LS	1		
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Dahr El Maghr Third Public Kindergarten

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
9.2	**Tiling Works**				
	Supply and install all tiling items for floors, with the skirting				
	Work to include all materials and labors and the Contractor should use all necessary rods and levels as per the Engineer instructions				
	Price to include:				
-	Sand below tiles				
-	Materials, tiles, mortars				
-	Labors				
-	Rubbing				
-	Filling between tiles				
-	Filling the skirting				
-	Remove unsuitable items				
-	Cleaning the places				
-	All needed items as per the Engineer instructions				
9.2.1	**New Full Mass Colored Ceramic for Floors**				
	Ceramic tiles and tilework as specified and detailed, installed complete; Including for substrate preparation, cement: sand screeds or plaster backing coats; setting, jointing and grouting; tile trim and accessories; sealants; and all other related ancillaries as indicated or required				
9.2.1.1	Supply and install anti skid colored full mass ceramic tiles for classroom (first choice) for all floor toilets, kitchen and laboratory (existing and new)	m²			
	Rate or Lump Sum in Words:				
9.2.1.2	Skirting same type of floors or as existing or required	m			
	Rate or Lump Sum in Words:				
9.2.2	**New Glazed Colored Ceramic for Walls**				
9.2.2.1	Supply and install glazed colored ceramic for walls Include Ceramic Corner (first choice)	m²			
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Dahr El Maghr Third Public Kindergarten

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
9.2.3	**New Tiles for stairs**				
	Supply and install tiles first choice for the new stair (treads 3cm thick - Risers 2cm thick) and landing - tiling 2cm and for all floors or otherwise specified color type and quality to be submitted for approval, works to include:				
-	Labor, materials and installations				
-	Under tile fill				
-	Mortar				
-	Lining				
-	Step (Tread + riser) and landing and all type of skirting				
-	And needed items to complete the works as per the Engineer instructions				
9.2.3.2	Granite 2cm Thick (Tread and Riser)	m			
	Rate or Lump Sum in Words:				
9.2.3.3	Mosaic Similar to existing 4cm Thick minimum (Tread and Riser)	m			
	Rate or Lump Sum in Words:				
9.2.4	**Repair existing broken floor tiles and skirting (all types) and reinstall by new, similar to existing for all rooms and corridors**				
9.2.4.1	Rehabilitate and repair all damaged and broken tiles, and skirting for any type (marble - ceramic - mosaic - Cement). Remove broken or damaged pieces to be replaced without affecting the adjacent undamaged areas				
	Work to include:				
-	Remove all debris as specified				
-	All materials and labors				
-	Difference tiles (shapes thickness, dimension, pattern) as needed.				
-	Cutting and repair				
-	Grouting				
-	Polish and rubbing				
-	All needed items as per Engineer comments and complete to Engineer approval.	LS	1		
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Dahr El Maghr Third Public Kindergarten

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
9.2.5	**Rehabilitate Existing Stair Treads and Riser**				
	Remove the broken treads and risers, install and supply new ones similar to the existing with the needed side bases, width as per site dimension with skirting and tiles for landing				
	The work to be as per the Engineer instructions				
9.2.5.1	Existing Mosaic Stair	m			
	the price including Skirting tiles & Landing				
	Rate or Lump Sum in Words:				
9.2.10	**Laminate Vinyl Tiles**				
9.2.10.1	Provide Laminate Vinyl Tiles similar to existing. The removal of existing vinyl tiles, rolls, proper levelling, surfacing of the existing concrete by casting a special layer of new concrete to ensure proper installation of the new vinyl layer as specified and as per standards. Price to include skirting	m²			
	Rate or Lump Sum in Words:				
9.4	**Gypsum Works**				
9.4.1	**New Gypsum Suspended Ceiling (Panel, Tiles):**				
9.4.1.1	Supply and install gypsum board tiles suspended ceiling (60 x 60 cm or panel board with paint)				
	Work to include:				
-	Remove the existing gypsum board tiles and move them to outside				
-	Labors				
-	Materials				
-	Accessories				
-	Angles				
-	Special Heavy duty metal suspension system				
-	All needed items as per the Engineer instructions and approval	m²	25		
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Dahr El Maghr Third Public Kindergarten

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
9.5	**Painting**				
9.5.1	**Wall and Ceilings Paint Works**				
	Wall paint include preparation of the base surfaces to receive the paints and apply the specified layers of putty and paint from the best quality as per specifications and as indicated in drawings				
	The base surfaces should be clean and smooth and free from any pulled out old paints before starting application of the specified primer/undercoat.				
	Apply 2 layers of putty then after smoothening, then 3 layers of the approved paint materials.				
	All works and items should be as per manufacturer recommendation, compatible with each other and as per the Engineer instructions and approval, ***All paint types must be lead-free and Low VOC (Volatile Organic Compounds)***				
9.5.1.2	Super Rubber Paint for old walls and ceilings	m²	150		
	Rate or Lump Sum in Words:				
9.5.1.4	Oil Paints for old walls and ceilings	m²	150		
	Rate or Lump Sum in Words:				
9.5.2	**Outside Walls Paint (Old and New Walls and Ceilings)**				
9.5.2.1	Paint for external old and new walls, smooth touch				
	Work to include:				
-	Removal of any paint or obstacle				
-	Rehabilitate the surfaces and make them goods				
-	Polyurethane where needed for cracks				
-	Apply one coat of undercoat				
-	Apply 2 coats of external paint or rolled textured paint				
-	Apply one layer of external transparent paint (acrylic styrene copolymer elastic water proof)				
-	All needed scaffolding and materials for the best execution of the works				
-	All works and items should be as per manufacturer and the Engineer instructions and approval.	m²	150		
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Dahr El Maghr Third Public Kindergarten

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
10	**SPECIALTIES**				
10.1	**Bathrooms Accessories**				
-	Remove and cart away old damaged fixtures				
-	Supply and install all needed accessories and make good their places and their surroundings				
-	Place all frame, cover joints (stainless steel) anti-corrosion				
-	Install items and their contact with the surfaces				
-	All works should be done as per the Engineer instructions				
10.1.4	**Mirror for Lavatories**				
	Supply and install 6mm glass mirror for lavatories with colored PVC frames as show on drawings and as stated in the specifications with all needed items and accessories				
	The mirror should be placed on 3mm thick plywood from the back				
	All works should be done as the Engineer instructions				
10.1.4.1	Mirror (Dimension as per site conditions and engineer instruction)	№			
	Rate or Lump Sum in Words:				
10.3	**Resin Work**				
10.3.1	**Drinking Basin**				
	Supply and install drinking basin as shown on drawings of resin layers 12 mm thick fixed on galvanized steel skeleton 4 x 4 cm hollow sections and as shown on drawings				
	Work to include:				
-	Materials				
-	Labors				
-	Galvanized steel skeleton				
-	All needed items and as instructed by the Engineer				
10.3.1.1	Drinking Basin -Length (up to 2.20 m)	№			
	Rate or Lump Sum in Words:				
10.3.1.6	Drinking Basin -Length (4.11 to 6.20 m)	№			
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Dahr El Maghr Third Public Kindergarten

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
10.3.4	**Kitchen Counter**				
	Supply and install complete counter resin type with sink (resin) for teachers' kitchen of 18mm thick including coved splash back 20cm height and the work to include:				
-	All fixing elements				
-	All stainless steel hangers				
-	All necessary accessories				
-	All needed items and as instructed by the Engineer				
10.3.4.2	Kitchen Counter - Length (1.11 to 1.75m)	№			
	Rate or Lump Sum in Words:				
	Total Bill № 2: Civil and Architectural Works				

Bill № 3: Mechanical Engineering Services

Bill № 3: Mechanical Engineering Services

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Dahr El Maghr Third Public Kindergarten

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
1	**GENERAL TECHNICAL REQUIREMENTS**				
1.1	**General Mechanical Requirements**				
1.1.2	Prepare the shop drawings for all mechanical works and obtain approval from the Engineer before the start of executing any work.	Item	1		
	Rate or Lump Sum in Words:				
1.2	**Rehabilitation Works General Requirements**				
	Provide all necessary rehabilitation works and make all Mechanical systems in good condition complete including maintenance, cleaning, relocation works, replacing damaged items and equipment, removing and carting away resulting materials and equipment, testing and commissioning, and all other related works to ensure all Mechanical systems are properly working and functional.				
1.2.1	Maintenance and rehabilitation of existing plumbing works, including sanitary fixtures, floor drains, roof drains, manholes, pumps, WC tanks, adding where applicable all necessary valves, flush valves, etc., and all other necessary works.	Item	10		
	Rate or Lump Sum in Words:				
2	**SANITARY, WASTE & RAIN WATER PIPE WORK INSTALLATION**				
2.3	**Drain Cover**				
	Supply and install floor drain cover (P.E) 5 mm thick on drainage pipe and to be the same level of the floor tiling. Work to include all civil works and as per the Engineer instructions				
2.3.1	Cover for FCO	№			
	Rate or Lump Sum in Words:				

Bill № 3: Mechanical Engineering Services

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Dahr El Maghr Third Public Kindergarten

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
3	**WATER PIPE WORK INSTALLATION**				
3.1	**Water Tanks**				
	Supply & install polyethylene water tank (3 layers) or more with all necessary supply and over flow connections all as per the Engineer instructions				
3.1.2	2000 liters PE water tank	№			
	Rate or Lump Sum in Words:				
5	**SANITARY FIXTURES**				
5.1	**W.C. for Kids**				
	Supply and install K.G. W.C. Flush valve with cover as manufactured by Duravit - Bambi No. 018509 or approved equal, 35 cm height max. from finished floor with timber cover.				
	Cost to include all related connections angle valves and necessary accessories as per the Engineer instructions.				
	Each W.C. should be equipped with a Flushing Hose (Grohe or Ideal standard or approved equal)				
5.1.1	EWC-03 (Wall Hang - 52 x 32 cm)	№			
	Rate or Lump Sum in Words:				
5.2	**W.C. For Non Kids**				
	Supply and install W.C. for non kids, Flush valve with cover as manufactured by Ideal Standard Item No. E876801 also the hose, or approved equal and to be 40 cm from floor finish with timber cover.				
	The work to include the installation, liking, cleaning with all necessary connection, angle valves and necessary accessories similar to the K.G.W.C.				
	Each W.C. should be equipped with a Flushing Hose (Grohe or Ideal standard or approved equal)				
5.2.1	EWC-01 (Wall Hang - 52 x 36 cm)	№			
	Rate or Lump Sum in Words:				
5.2.3	AWC-01 (Asian water closet)	№			
	Rate or Lump Sum in Words:				

Bill № 3: Mechanical Engineering Services

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Dahr El Maghr Third Public Kindergarten

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
5.3	**Lavatories for Kids in the K.G.**				
	Supply and install semi pedestal wash basin similar to Ideal Standard No. 742001 or approved equal, 45 x 36 cm, and fixed at 60 cm high from the floor finish. Cost to include all necessary connections, angle valves and accessories as required				
5.3.1	LAV-03 (semi-pedestal wash basin - 45 x 35 cm)	№			
	Rate or Lump Sum in Words:				
5.4	**Lavatories for Non Kids**				
	Supply and install semi pedestal wash basin similar to Ideal Standard No. 742001 or approved equal and fixed at 82 cm high from the floor finish. Cost to include all necessary connections, angle valves, traps and necessary accessories as specified.				
5.4.1	LAV-01 (semi-pedestal with mixers 55 x 45 cm)	№			
	Rate or Lump Sum in Words:				
5.5	**Urinal**				
	Supply and installation of high quality urinal units complete with proper wall fixation with anti-dust materials including drainage & water supply connection as per the approved shop drawings.				
	Cost to include all necessary accessories, valves, sensors to provide workable system.				
5.5.1	Urinal	№			
	Rate or Lump Sum in Words:				
5.6	**Self Close Taps on Kids & Students Lavatories**				
	Supply and install self close taps to be fixed in the lavatory body as manufactured by Grohe Item No. 36-173 with all required works and drain accessories including trap, to be connected to the new water supply and drain and as instructed by the Engineer				
5.6.1	Self Close Taps	№			
	Rate or Lump Sum in Words:				

Bill № 3: Mechanical Engineering Services

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Dahr El Maghr Third Public Kindergarten

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
5.7	**Wall Type Self Close Taps on Drinking Basins**				
	Supply and install self close taps to be fixed in the drinking basin body as manufactured by Grohe Item No. 36-176 with all required works and drain accessories including trap and to be connected to the new water supply and drain and as instructed by the Engineer				
5.7.1	Wall Type Self Close Taps	№			
	Rate or Lump Sum in Words:				
5.8	**Kitchen Sink Accessories**				
	Supply and install kitchen sink accessories such as chrome trap, angle valve, mixers as specified				
5.8.1	Kitchen Sink Accessories	№			
	Rate or Lump Sum in Words:				
	Total Bill № 3: Mechanical Engineering Services				

Bill № 4: Electrical Engineering Services

Bill № 4: Electrical Engineering Services

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Dahr El Maghr Third Public Kindergarten

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
1	**BASIC ELECTRICAL REQUIREMENTS**				
	The Contractor should revise all the drawings and compare them with the site conditions and redo all the design works with the necessary calculations for all the electrical installations and works. Moreover, the Contractor should submit shop drawings and as-built drawings for the maintenance use in the future.				
	The contractor should provide all the necessary maintenance works for all Electrical systems related to the KG school to ensure its proper works.				
	At the end of the project, the contractor should submit complete As-Built Drawings for all executed works with exact dimensions & sizes for easy maintenance work in the future.				
1.1	**Fixing and Repairing**				
	Check & repair all the existing cables, wires, socket outlets, lighting fixtures, lighting switches, electric fans, and protect all exposed wiring as per the site conditions, and to the satisfaction of the Engineer.				
	All as per the drawings, specifications and Engineer instructions				
1.1.1	Lighting fixtures	LS	1		
	Rate or Lump Sum in Words:				
1.1.2	Wires and cables	LS			
	Rate or Lump Sum in Words:				
1.1.3	Sockets and switches	LS	1		
	Rate or Lump Sum in Words:				
1.1.4	Circuit breakers	LS			
	Rate or Lump Sum in Words:				
1.1.9	All needed electrical works … etc.	LS			
	Rate or Lump Sum in Words:				

Bill № 4: Electrical Engineering Services

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Dahr El Maghr Third Public Kindergarten

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
3	**GENERAL LIGHTING INSTALLATIONS**				
3.1	**Lighting Fixtures**				
	Supply, install and test the lighting fixtures complete with all the necessary wires conduits, boxes and accessories required to provide power to each lighting fitting from LP including the earth wire as per the drawings, specifications and Engineer instructions.				
	The Contractor should submit samples of each lighting fixture for approval.				
3.1.1	TYPE C1: Twin T8 LED Tube, surface-mount luminaire for interior, 40W, 4000K, 4700Lm. Polycarbonate, light grey, with injected polyurethane double gasket and clear UV stabilized polycarbonate cover, cos φ ≥ 0.9	№			
	Rate or Lump Sum in Words:				
3.1.3	TYPE C2: as same as TYPE C1 but Pendent mounted	№			
	Rate or Lump Sum in Words:				
3.1.4	TYPE A2 / A3: 600x600 mm LED Panel 3600lm, 33W, 4000K, 80CRI surface-mount/recessed, die-cast aluminum, IP20	№			
	Rate or Lump Sum in Words:				
3.1.6	TYPE N4 / N3: LED - 900lm - 12.5W - 3000K - 80CRI - WW Surface mounted / Recessed Downlight Round - 120 deg	№			
	Rate or Lump Sum in Words:				
3.1.10	Replace Existing lighting fixtures with TYPE L (LED)	№			
	Rate or Lump Sum in Words:				

Bill № 4: Electrical Engineering Services

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Dahr El Maghr Third Public Kindergarten

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
4	**FIRE ALARM SYSTEM**				
	Supply and install all necessary fittings, wires conduits, boxes, plates, relays, bell modules, EOL resistors and accessories as described and as shown on drawings and all necessary connection to the management stations as intended to the satisfaction of the engineer.				
4.6	Break Glass	№			
	Rate or Lump Sum in Words:				
	Total Bill № 4: Electrical Engineering Services				

General Summary

General Summary

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Dahr El Maghr Third Public Kindergarten

Description	Amount (US $)
Bill № 2: Civil and Architectural Works	.....
Bill № 3: Mechanical Engineering Services	.....
Bill № 4: Electrical Engineering Services	.....
* Total Amount of Bill of Quantities ……	.....
* Discount by Tenderer (_____ %) ……	.....
* Total Amount of Tender (VAT Not Applicable) ……	.....

* Total Amount of Tender in Words:

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Bill № 2: Civil and Architectural Works

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Baal Mohsen Mixed Public Kindergartens

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
1	**SITE PREPARATION AND DEMOLITION**				
1.1	**Demolishing and Removal of Debris**				
1.1.1	The works include all types of demolition and the removal of debris and damaged elements such but not limited to, the following:				
-	Existing plastering and concrete items such as foundations, columns, slabs, etc.				
-	Damaged Tiling (floors and walls)				
-	Toilet fixtures and pipes installation of all sizes				
-	Counter tops, bases and sinks				
-	Water tanks of different types				
-	Hollow concrete block walls or concrete walls of all sizes				
-	Demolition of the existing ramps / Stairs and the execution of the given plans and specifications				
-	Including the necessary equipment for the removal of debris and all resulting materials				
-	etc.	LS	1		
	Rate or Lump Sum in Words:				
2	**SITE PREPARATION AND DEMOLITION**				
2.4	**School Fences with Related Gates**				
2.4.2	Rehabilitate Existing Fence (Strengthening & Rehabilitation)				
	Work to include				
-	Rehabilitate and support all the existing fence as per drawings				
-	Determine the places that requires support				
-	Preparation of shop drawings				
-	Replace all broken elements				
-	Redo all damaged elements and to be similar to existing elements				
-	Finishing works as existing (plastering, paints, stone cladding, etc.)				
-	Rehabilitate existing steel protection (Replace all damaged part by new similar to existing and paint with epoxy as specified)				
-	Replace existing chain link by new one (Galvanized)				
-	Reconstruct the broken and damaged parts and rehabilitate as it was with all similar materials including steel parts with related epoxy paint as per the engineer instructions	m			
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Baal Mohsen Mixed Public Kindergartens

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
4	**MASONRY**				
4.1	**Hollow or Solid Concrete Blocks and Claustra**				
	Supply and install concrete blocks as per drawings				
	Work to include:				
-	All places as per the drawings, and the Engineer instructions.				
-	Materials				
-	Cement mortar and the use of extruded nets and reinforcement by means of metal gates and the placement of angles of galvanized steel iron of concrete columns thickness of 4 mm every 60 cm				
-	Labors and all items needed and instructions by the Engineer				
4.1.4	15 cm hollow concrete blocks	m²			
	Rate or Lump Sum in Words:				
5	**METAL WORKS**				
5.1	**Provide New Steel Work (Door & Windows)**				
5.1.3	Provide new double glazed aluminum windows with new burglar proof protection	№			
	Rate or Lump Sum in Words:				
5.2	**Rehabilitate and Maintain the Existing Steel Work (Burglar Proof Protection + Opening)**				
	Rehabilitate the existing steel windows or doors as per specifications and drawings and the Engineer instruction				
	Work to include:				
-	Remove all damaged members and replace by new ones				
-	Rub completely to secure all parts and use putty to make faces smooth				
-	Apply two layers of anti rust paint				
-	Apply putty				
-	Apply three layers of epoxy external paint				
-	All needed items as per the Engineer instructions				
5.2.1	Rehabilitate existing steel doors	№			
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Baal Mohsen Mixed Public Kindergartens

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
5.2.2	Rehabilitate existing steel gates	№			
	Rate or Lump Sum in Words:				
5.2.6	Rehabilitate and paint existing steel window	№			
	Rate or Lump Sum in Words:				
5.5	**Rehabilitate and Maintain Steel Handrail**				
-	Rehabilitate the existing metal handrail and remove the damaged members and replace by new				
-	Reinforce the existing handrail with similar members in addition to the rail and all necessary accessories				
-	Remove existing paint & clean deeply as per SSPC code and ISO 8501				
-	Apply one layer of epoxy base paint				
-	Apply putty				
-	Apply epoxy paint as per specification				
	All needed items as per the Engineer instructions				
5.5.1	Floor Mounted	m			
	Rate or Lump Sum in Words:				
6	**WOOD AND PLASTICS**				
6.1	**Joinery Works**				
6.1.1	Rehabilitate Existing Kitchen Cupboards				
	Rehabilitate existing cupboards, cabinets, drawers, counters, etc., for the existing kitchen. Works to include replacing damaged elements, accessories, material, labor, equipment, maintaining support, change of the top of counter by new resin counter as specified, etc. As per engineer's approval.				
-	Repair wood elements in accordance with AWI Quality Standards requirements.				
-	Repair framing and sash members with mortise and Tenon joints. Ensure joints and connections are flush, hairline, and weather-tight.				
-	Scarf joints permitted when wood matches in color and grain texture. Form sills and stools in one piece.				
-	Fabricate components with minimum clearances and shim spacing around perimeter of assembly, yet allowing installation and dynamic movement of perimeter seal.				
6.1.1.1	Kitchen Cupboards	m			
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Baal Mohsen Mixed Public Kindergartens

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
8	**DOOR AND WINDOWS**				
8.1	**Wooden Doors and Windows**				
	Supply and install all timber work with all related items				
	The joinery works should be of the first class type and as per specifications and drawings				
	Work to include:				
-	Material and labors				
-	All accessories to be heavy duty (Hinged, Lock, Glass vision, as required, etc.)				
-	The frame for any width (Steel, Wood, etc.)				
-	Paint as follows:				
-	Anti rust layers				
-	Putty + one layer of undercoat				
-	Three layers of epoxy paint				
-	Apply and fix 6mm wired clear glass				
-	View Permitting glass opening where needed				
-	remove the existing timber panels				
-	repair the edges				
-	The Contractor should submit shop drawings				
-	All needed items as the Engineer instructions				
8.1.1	**Timber Doors**				
	Supply and install flush timber door as per drawings with laminated plastic facing and the door should have 10cm width frame between the plywood and fill with timber beads by tongue and groove each 5cm, and the door edges should behead wood and fixed by tongue and groove frames should be as specified, with fixed glass panel vision window, and similar to existing, and to the Engineer's instructions				
-	Works included, all accessories and fittings, pre-painting and finishing paint sides of doors and box frames.				
-	All works should be done as per the Engineer instructions				
8.1.1.2	Provide new single leaf wooden door with view frame	№			
	Rate or Lump Sum in Words:				
8.1.1.3	Provide WC partition door	№			
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Baal Mohsen Mixed Public Kindergartens

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
8.1.3	**Rehabilitate the Existing Timber Doors**				
	As stated in the Preambles of Item 8.1				
	In addition, rehabilitate the existing timber doors:				
	The minimum amount of existing timber should be removed to allow an effective repair to be formed.				
	Cut out deteriorated area of timber in sloping splice to give optimum area of surface to be glued & fixed.				
	Well-seasoned timber to be used in forming a repair with the line and density of grain (number of growth rings) of new timber matching the existing as closely as possible.				
	For all joinery work, timber with shakes, fissures, warping, heartwood, sapwood or numerous/large knots should be avoided for use in repair. Always work new material to the line of the existing and avoid unnecessary trimming of original timber. Repairs should follow any existing deformations in the line of the wood element (e.g. door or window).				
	Avoid mixing timber species between new and existing in a repair as joint between the two is likely to fail from different rates of expansion and contraction during dry & damp conditions. Where possible, spliced repairs to be designed to ensure moisture is towards the outer face of timber and that moisture does not lay on the repair joint.				
	The length of the splice is governed by section of timber and the nature of component being repaired and it should be designed to ensure an effective bond between new and existing sections of timber. Where wood element are to be dismantled as part of the repair process, always mark and record the constituent parts before dismantling. similarly, number of glass panes/quarries before removal.				
	If applicable carefully soften putty or remove wood trim and then remove glass. Use glue, to connect a new outer section of bottom rail to the existing sound timber. Drill and insert new wooden pins or fix using brass screws from inside.				
	Casements or sashes are often in sound condition but the joints have become loose due to the break down of glue and loose wedges.				
	The wedges will often be easily removable and will probably be unsuitable for re-use. It may be for the joints to be pulled together successfully.				
	Attach door frame and shims to perimeter opening to accommodate construction tolerances & all irregularities.				
	Align door plumb and level, free of warp or twist. Maintain dimensional tolerances and alignment with adjacent work. Install operating hardware.				
8.1.3.1.1	Rehabilitate and paint existing single leaf timber doors with related accessories	№	10		
	Rate or Lump Sum in Words:				

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Shelter: Baal Mohsen Mixed Public Kindergartens

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
8.1.3.1.2	Rehabilitate existing double leaf door	№			
	Rate or Lump Sum in Words:				
8.1.3.1.4	Rehabilitate wooden windows	№			
	Rate or Lump Sum in Words:				
8.2	**Aluminum Doors and Windows**				
	Fabricate, supply and install aluminum works as manufactured by SIDEM 2000 first choice with all necessary accessories as per the drawings and the Engineer instructions, cost to include all doors and windows:				
-	Reveals hard stone 3cm thick, all around for external opening				
-	Apply EPDM around door and windows where necessary				
-	Single glass 6 mm				
-	Double glass 6-12-6 mm (Outer Glass should be Tempered)				
-	Hinges and locks				
-	Joint Filler				
-	Mosquito Screen				
-	Mesh				
-	All items needed as per the Engineer instructions				
-	All as specified and base on an approved shop drawings after exact dimensions				
8.2.1	**New Aluminum Panels (Double Glass)**				
	Supply and install the fabricated aluminum panels with double glass (6 - 12 - 6 mm) (Outer Glass should be Tempered)				
8.2.1.1	Provide new aluminum double glazed window & door panel	№			
	Rate or Lump Sum in Words:				
8.2.2	**New Aluminum Internal Door**				
	Supply and install aluminum door with frame and related strengthening stud, Works to include:				
	Materials, and accessories				
-	Labors				
-	All needed items as per the engineer instructions.				
-	Repair all around the opening				
8.2.2.1	Provide new aluminum partition door as indicated.	№			
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Baal Mohsen Mixed Public Kindergartens

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
8.2.3	**Rehabilitation Existing Glazed Aluminum Panels (s)**				
	Replacing Broken Glass. Fixing Hardware Issues: Check the functionality of latches, hinges, and other hardware. If any parts are broken, replace them with new ones to ensure the window operates smoothly. After repairs, apply a high-quality sealant around the edges to prevent moisture intrusion. If the paint is peeling or faded, consider repainting the frame with a metal paint formulated for aluminum to enhance durability and appearance.				
8.2.3.1	Rehabilitate existing windows	№			
	Rate or Lump Sum in Words:				
9	**FINISHES**				
9.1	**Cement Plaster**				
	Supply and install sand cement plaster on concrete and block wall surfaces as specified				
	The plaster layer should be own a base rough layer				
	The plaster works should be on level points and each point should be at 1.5 m from the second only				
	Work to include:				
-	Materials and accessories (galvanized, wire mesh, cover beds, etc.)				
-	Labors				
-	All addition watering				
-	All tools				
-	Plaster thickness more than 2 cm				
-	All needed items as per drawings and the Engineer instructions				
9.1.1	**Internal and External Plaster Works**				
9.1.1.1	Supply and apply one layer of sand cement plaster over a rough textured layer of plaster				
	Price included all accessories, material, scaffolding and labor, etc.	m^2			
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Baal Mohsen Mixed Public Kindergartens

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
9.1.2	**Repair of Existing Plaster (Internal - External) (Cracks, etc.)**				
9.1.2.1	Rehabilitate and repair cracked and damaged plaster indoor and outdoor				
	Work to include:				
-	Determine the location and remove all loose items around the area				
-	Remove the cracked plaster layer				
-	Remove the pulled out layers				
-	Clean the places with suitable materials				
-	Fill all cracks after widening by (No Suggestions) or approved equal.				
-	Remove loose and other deteriorated materials prior to the new repair. Take special care not to damage the adjacent original materials. Prepare mortar joints for installation of lateral reinforcement where it is required. Use thin steel bars to clean joints to maximum depth possible. Remove loose mortar. Mix mortar with minimal amount of water (potable) prior to use. All separation cracks between perpendicular walls shall be filled grout to reduce additional movement from wind loads and thermal expansion-contraction.				
-	Clear debris from crack by probing, brushing, and blowing.				
-	Force non-shrink mortar mixture into crack as deep as possible with hands, wood and metal probes. Use as dry a mix as possible. Use stone bats to fill larger crack voids. Ensure mortar is forced into smaller/deeper cracks. Mortar grout will be fluid in order to flow into crack. Either grout bags or gravity flow shall be used depending on the conditions. Fil Protect repairs from rapid drying by misting, shading, protecting from dry wind cracks in a series of applications rather than one large application. Final application shall not be flush with the surface, but shall be one half the width of the crack below the surface. Remove all tool marks with brush.				
-	Apply the finish rough plaster layer				
-	Install galvanized steel mesh 20 cm width at least				
-	Apply the second smooth plaster layer	LS	1		
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Baal Mohsen Mixed Public Kindergartens

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
9.2	**Tiling Works**				
	Supply and install all tiling items for floors, with the skirting				
	Work to include all materials and labors and the Contractor should use all necessary rods and levels as per the Engineer instructions				
	Price to include:				
-	Sand below tiles				
-	Materials, tiles, mortars				
-	Labors				
-	Rubbing				
-	Filling between tiles				
-	Filling the skirting				
-	Remove unsuitable items				
-	Cleaning the places				
-	All needed items as per the Engineer instructions				
9.2.1	**New Full Mass Colored Ceramic for Floors**				
	Ceramic tiles and tilework as specified and detailed, installed complete; Including for substrate preparation, cement: sand screeds or plaster backing coats; setting, jointing and grouting; tile trim and accessories; sealants; and all other related ancillaries as indicated or required				
9.2.1.1	Supply and install anti skid colored full mass ceramic tiles for classroom (first choice) for all floor toilets, kitchen and laboratory (existing and new)	m²			
	Rate or Lump Sum in Words:				
9.2.1.2	Skirting same type of floors or as existing or required	m			
	Rate or Lump Sum in Words:				
9.2.2	**New Glazed Colored Ceramic for Walls**				
9.2.2.1	Supply and install glazed colored ceramic for walls Include Ceramic Corner (first choice)	m²			
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Baal Mohsen Mixed Public Kindergartens

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
9.2.3	**New Tiles for stairs**				
	Supply and install tiles first choice for the new stair (treads 3cm thick - Risers 2cm thick) and landing - tiling 2cm and for all floors or otherwise specified color type and quality to be submitted for approval, works to include:				
-	Labor, materials and installations				
-	Under tile fill				
-	Mortar				
-	Lining				
-	Step (Tread + riser) and landing and all type of skirting				
-	And needed items to complete the works as per the Engineer instructions				
9.2.3.2	Granite 2cm Thick (Tread and Riser)	m			
	Rate or Lump Sum in Words:				
9.2.3.3	Mosaic Similar to existing 4cm Thick minimum (Tread and Riser)	m			
	Rate or Lump Sum in Words:				
9.2.4	**Repair existing broken floor tiles and skirting (all types) and reinstall by new, similar to existing for all rooms and corridors**				
9.2.4.1	Rehabilitate and repair all damaged and broken tiles, and skirting for any type (marble - ceramic - mosaic - Cement). Remove broken or damaged pieces to be replaced without affecting the adjacent undamaged areas				
	Work to include:				
-	Remove all debris as specified				
-	All materials and labors				
-	Difference tiles (shapes thickness, dimension, pattern) as needed.				
-	Cutting and repair				
-	Grouting				
-	Polish and rubbing				
-	All needed items as per Engineer comments and complete to Engineer approval.	LS	1		
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Baal Mohsen Mixed Public Kindergartens

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
9.2.5	**Rehabilitate Existing Stair Treads and Riser**				
	Remove the broken treads and risers, install and supply new ones similar to the existing with the needed side bases, width as per site dimension with skirting and tiles for landing				
	The work to be as per the Engineer instructions				
9.2.5.1	Existing Mosaic Stair	m			
	the price including Skirting tiles & Landing				
	Rate or Lump Sum in Words:				
9.2.10	**Laminate Vinyl Tiles**				
9.2.10.1	Provide Laminate Vinyl Tiles similar to existing. The removal of existing vinyl tiles, rolls, proper levelling, surfacing of the existing concrete by casting a special layer of new concrete to ensure proper installation of the new vinyl layer as specified and as per standards. Price to include skirting	m²			
	Rate or Lump Sum in Words:				
9.4	**Gypsum Works**				
9.4.1	**New Gypsum Suspended Ceiling (Panel, Tiles):**				
9.4.1.1	Supply and install gypsum board tiles suspended ceiling (60 x 60 cm or panel board with paint)				
	Work to include:				
-	Remove the existing gypsum board tiles and move them to outside				
-	Labors				
-	Materials				
-	Accessories				
-	Angles				
-	Special Heavy duty metal suspension system				
-	All needed items as per the Engineer instructions and approval	m²			
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Baal Mohsen Mixed Public Kindergartens

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
9.5	**Painting**				
9.5.1	**Wall and Ceilings Paint Works**				
	Wall paint include preparation of the base surfaces to receive the paints and apply the specified layers of putty and paint from the best quality as per specifications and as indicated in drawings				
	The base surfaces should be clean and smooth and free from any pulled out old paints before starting application of the specified primer/undercoat.				
	Apply 2 layers of putty then after smoothening, then 3 layers of the approved paint materials.				
	All works and items should be as per manufacturer recommendation, compatible with each other and as per the Engineer instructions and approval, ***All paint types must be lead-free and Low VOC (Volatile Organic Compounds)***				
9.5.1.2	Super Rubber Paint for old walls and ceilings	m²	1,000		
	Rate or Lump Sum in Words:				
9.5.1.4	Oil Paints for old walls and ceilings	m²	150		
	Rate or Lump Sum in Words:				
9.5.2	**Outside Walls Paint (Old and New Walls and Ceilings)**				
9.5.2.1	Paint for external old and new walls, smooth touch				
	Work to include:				
-	Removal of any paint or obstacle				
-	Rehabilitate the surfaces and make them goods				
-	Polyurethane where needed for cracks				
-	Apply one coat of undercoat				
-	Apply 2 coats of external paint or rolled textured paint				
-	Apply one layer of external transparent paint (acrylic styrene copolymer elastic water proof)				
-	All needed scaffolding and materials for the best execution of the works				
-	All works and items should be as per manufacturer and the Engineer instructions and approval.	m²	150		
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Baal Mohsen Mixed Public Kindergartens

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
10	**SPECIALTIES**				
10.1	**Bathrooms Accessories**				
-	Remove and cart away old damaged fixtures				
-	Supply and install all needed accessories and make good their places and their surroundings				
-	Place all frame, cover joints (stainless steel) anti-corrosion				
-	Install items and their contact with the surfaces				
-	All works should be done as per the Engineer instructions				
10.1.4	**Mirror for Lavatories**				
	Supply and install 6mm glass mirror for lavatories with colored PVC frames as show on drawings and as stated in the specifications with all needed items and accessories				
	The mirror should be placed on 3mm thick plywood from the back				
	All works should be done as the Engineer instructions				
10.1.4.1	Mirror (Dimension as per site conditions and engineer instruction)	№			
	Rate or Lump Sum in Words:				
10.3	**Resin Work**				
10.3.1	**Drinking Basin**				
	Supply and install drinking basin as shown on drawings of resin layers 12 mm thick fixed on galvanized steel skeleton 4 x 4 cm hollow sections and as shown on drawings				
	Work to include:				
-	Materials				
-	Labors				
-	Galvanized steel skeleton				
-	All needed items and as instructed by the Engineer				
10.3.1.1	Drinking Basin -Length (up to 2.20 m)	№			
	Rate or Lump Sum in Words:				
10.3.1.6	Drinking Basin -Length (4.11 to 6.20 m)	№			
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Baal Mohsen Mixed Public Kindergartens

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
10.3.4	**Kitchen Counter**				
	Supply and install complete counter resin type with sink (resin) for teachers' kitchen of 18mm thick including coved splash back 20cm height and the work to include:				
-	All fixing elements				
-	All stainless steel hangers				
-	All necessary accessories				
-	All needed items and as instructed by the Engineer				
10.3.4.2	Kitchen Counter - Length (1.11 to 1.75m)	№			
	Rate or Lump Sum in Words:				
	Total Bill № 2: Civil and Architectural Works				

Bill № 3: Mechanical Engineering Services

Bill № 3: Mechanical Engineering Services

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Baal Mohsen Mixed Public Kindergartens

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
1	**GENERAL TECHNICAL REQUIREMENTS**				
1.1	**General Mechanical Requirements**				
1.1.2	Prepare the shop drawings for all mechanical works and obtain approval from the Engineer before the start of executing any work.	Item	1		
	Rate or Lump Sum in Words:				
1.2	**Rehabilitation Works General Requirements**				
	Provide all necessary rehabilitation works and make all Mechanical systems in good condition complete including maintenance, cleaning, relocation works, replacing damaged items and equipment, removing and carting away resulting materials and equipment, testing and commissioning, and all other related works to ensure all Mechanical systems are properly working and functional.				
1.2.1	Maintenance and rehabilitation of existing plumbing works, including sanitary fixtures, floor drains, roof drains, manholes, pumps, WC tanks, adding where applicable all necessary valves, flush valves, etc., and all other necessary works.	Item	14		
	Rate or Lump Sum in Words:				
2	**SANITARY, WASTE & RAIN WATER PIPE WORK INSTALLATION**				
2.3	**Drain Cover**				
	Supply and install floor drain cover (P.E) 5 mm thick on drainage pipe and to be the same level of the floor tiling. Work to include all civil works and as per the Engineer instructions				
2.3.1	Cover for FCO	№			
	Rate or Lump Sum in Words:				

Bill № 3: Mechanical Engineering Services

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Baal Mohsen Mixed Public Kindergartens

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
3	**WATER PIPE WORK INSTALLATION**				
3.1	**Water Tanks**				
	Supply & install polyethylene water tank (3 layers) or more with all necessary supply and over flow connections all as per the Engineer instructions				
3.1.2	2000 liters PE water tank	№			
	Rate or Lump Sum in Words:				
5	**SANITARY FIXTURES**				
5.1	**W.C. for Kids**				
	Supply and install K.G. W.C. Flush valve with cover as manufactured by Duravit - Bambi No. 018509 or approved equal, 35 cm height max. from finished floor with timber cover.				
	Cost to include all related connections angle valves and necessary accessories as per the Engineer instructions.				
	Each W.C. should be equipped with a Flushing Hose (Grohe or Ideal standard or approved equal)				
5.1.1	EWC-03 (Wall Hang - 52 x 32 cm)	№			
	Rate or Lump Sum in Words:				
5.2	**W.C. For Non Kids**				
	Supply and install W.C. for non kids, Flush valve with cover as manufactured by Ideal Standard Item No. E876801 also the hose, or approved equal and to be 40 cm from floor finish with timber cover.				
	The work to include the installation, liking, cleaning with all necessary connection, angle valves and necessary accessories similar to the K.G.W.C.				
	Each W.C. should be equipped with a Flushing Hose (Grohe or Ideal standard or approved equal)				
5.2.1	EWC-01 (Wall Hang - 52 x 36 cm)	№			
	Rate or Lump Sum in Words:				
5.2.3	AWC-01 (Asian water closet)	№	6		
	Rate or Lump Sum in Words:				

Bill № 3: Mechanical Engineering Services

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Baal Mohsen Mixed Public Kindergartens

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
5.3	**Lavatories for Kids in the K.G.**				
	Supply and install semi pedestal wash basin similar to Ideal Standard No. 742001 or approved equal, 45 x 36 cm, and fixed at 60 cm high from the floor finish. Cost to include all necessary connections, angle valves and accessories as required				
5.3.1	LAV-03 (semi-pedestal wash basin - 45 x 35 cm)	№			
	Rate or Lump Sum in Words:				
5.4	**Lavatories for Non Kids**				
	Supply and install semi pedestal wash basin similar to Ideal Standard No. 742001 or approved equal and fixed at 82 cm high from the floor finish. Cost to include all necessary connections, angle valves, traps and necessary accessories as specified.				
5.4.1	LAV-01 (semi-pedestal with mixers 55 x 45 cm)	№			
	Rate or Lump Sum in Words:				
5.5	**Urinal**				
	Supply and installation of high quality urinal units complete with proper wall fixation with anti-dust materials including drainage & water supply connection as per the approved shop drawings.				
	Cost to include all necessary accessories, valves, sensors to provide workable system.				
5.5.1	Urinal	№			
	Rate or Lump Sum in Words:				
5.6	**Self Close Taps on Kids & Students Lavatories**				
	Supply and install self close taps to be fixed in the lavatory body as manufactured by Grohe Item No. 36-173 with all required works and drain accessories including trap, to be connected to the new water supply and drain and as instructed by the Engineer				
5.6.1	Self Close Taps	№			
	Rate or Lump Sum in Words:				

Bill № 3: Mechanical Engineering Services

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Baal Mohsen Mixed Public Kindergartens

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
5.7	**Wall Type Self Close Taps on Drinking Basins**				
	Supply and install self close taps to be fixed in the drinking basin body as manufactured by Grohe Item No. 36-176 with all required works and drain accessories including trap and to be connected to the new water supply and drain and as instructed by the Engineer				
5.7.1	Wall Type Self Close Taps	№			
	Rate or Lump Sum in Words:				
5.8	**Kitchen Sink Accessories**				
	Supply and install kitchen sink accessories such as chrome trap, angle valve, mixers as specified				
5.8.1	Kitchen Sink Accessories	№			
	Rate or Lump Sum in Words:				
	Total Bill № 3: Mechanical Engineering Services				

Bill № 4: Electrical Engineering Services

Bill № 4: Electrical Engineering Services

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Baal Mohsen Mixed Public Kindergartens

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
1	**BASIC ELECTRICAL REQUIREMENTS**				
	The Contractor should revise all the drawings and compare them with the site conditions and redo all the design works with the necessary calculations for all the electrical installations and works. Moreover, the Contractor should submit shop drawings and as-built drawings for the maintenance use in the future.				
	The contractor should provide all the necessary maintenance works for all Electrical systems related to the KG school to ensure its proper works.				
	At the end of the project, the contractor should submit complete As-Built Drawings for all executed works with exact dimensions & sizes for easy maintenance work in the future.				
1.1	**Fixing and Repairing**				
	Check & repair all the existing cables, wires, socket outlets, lighting fixtures, lighting switches, electric fans, and protect all exposed wiring as per the site conditions, and to the satisfaction of the Engineer.				
	All as per the drawings, specifications and Engineer instructions				
1.1.1	Lighting fixtures	LS			
	Rate or Lump Sum in Words:				
1.1.2	Wires and cables	LS			
	Rate or Lump Sum in Words:				
1.1.3	Sockets and switches	LS			
	Rate or Lump Sum in Words:				
1.1.4	Circuit breakers	LS			
	Rate or Lump Sum in Words:				
1.1.9	All needed electrical works … etc.	LS			
	Rate or Lump Sum in Words:				

Bill № 4: Electrical Engineering Services

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Baal Mohsen Mixed Public Kindergartens

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
3	**GENERAL LIGHTING INSTALLATIONS**				
3.1	**Lighting Fixtures**				
	Supply, install and test the lighting fixtures complete with all the necessary wires conduits, boxes and accessories required to provide power to each lighting fitting from LP including the earth wire as per the drawings, specifications and Engineer instructions.				
	The Contractor should submit samples of each lighting fixture for approval.				
3.1.1	TYPE C1: Twin T8 LED Tube, surface-mount luminaire for interior, 40W, 4000K, 4700Lm. Polycarbonate, light grey, with injected polyurethane double gasket and clear UV stabilized polycarbonate cover, cos φ ≥ 0.9	№			
	Rate or Lump Sum in Words:				
3.1.3	TYPE C2: as same as TYPE C1 but Pendent mounted	№			
	Rate or Lump Sum in Words:				
3.1.4	TYPE A2 / A3: 600x600 mm LED Panel 3600lm, 33W, 4000K, 80CRI surface-mount/recessed, die-cast aluminum, IP20	№			
	Rate or Lump Sum in Words:				
3.1.6	TYPE N4 / N3: LED - 900lm - 12.5W - 3000K - 80CRI - WW Surface mounted / Recessed Downlight Round - 120 deg	№			
	Rate or Lump Sum in Words:				
3.1.10	Replace Existing lighting fixtures with TYPE L (LED)	№			
	Rate or Lump Sum in Words:				

Bill № 4: Electrical Engineering Services

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Baal Mohsen Mixed Public Kindergartens

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
4	**FIRE ALARM SYSTEM**				
	Supply and install all necessary fittings, wires conduits, boxes, plates, relays, bell modules, EOL resistors and accessories as described and as shown on drawings and all necessary connection to the management stations as intended to the satisfaction of the engineer.				
4.6	Break Glass	№			
	Rate or Lump Sum in Words:				
	Total Bill № 4: Electrical Engineering Services				

General Summary

General Summary

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Baal Mohsen Mixed Public Kindergartens

Description	Amount (US $)
Bill № 2: Civil and Architectural Works	.....
Bill № 3: Mechanical Engineering Services	.....
Bill № 4: Electrical Engineering Services	.....
* Total Amount of Bill of Quantities ……	.....
* Discount by Tenderer (_____ %) ……	.....
* Total Amount of Tender (VAT Not Applicable) ……	.....

* Total Amount of Tender in Words:

.....

.....

.....

Bill № 2: Civil and Architectural Works

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Baal Mohsen Mixed Public School

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
1	**SITE PREPARATION AND DEMOLITION**				
1.1	**Demolishing and Removal of Debris**				
1.1.1	The works include all types of demolition and the removal of debris and damaged elements such but not limited to, the following:				
-	Existing plastering and concrete items such as foundations, columns, slabs, etc.				
-	Damaged Tiling (floors and walls)				
-	Toilet fixtures and pipes installation of all sizes				
-	Counter tops, bases and sinks				
-	Water tanks of different types				
-	Hollow concrete block walls or concrete walls of all sizes				
-	Demolition of the existing ramps / Stairs and the execution of the given plans and specifications				
-	Including the necessary equipment for the removal of debris and all resulting materials				
-	etc.	LS	1		
	Rate or Lump Sum in Words:				
2	**SITE PREPARATION AND DEMOLITION**				
2.4	**School Fences with Related Gates**				
2.4.2	Rehabilitate Existing Fence (Strengthening & Rehabilitation)				
	Work to include				
-	Rehabilitate and support all the existing fence as per drawings				
-	Determine the places that requires support				
-	Preparation of shop drawings				
-	Replace all broken elements				
-	Redo all damaged elements and to be similar to existing elements				
-	Finishing works as existing (plastering, paints, stone cladding, etc.)				
-	Rehabilitate existing steel protection (Replace all damaged part by new similar to existing and paint with epoxy as specified)				
-	Replace existing chain link by new one (Galvanized)				
-	Reconstruct the broken and damaged parts and rehabilitate as it was with all similar materials including steel parts with related epoxy paint as per the engineer instructions	m			
	Rate or Lump Sum in Words:				

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Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
4	**MASONRY**				
4.1	**Hollow or Solid Concrete Blocks and Claustra**				
	Supply and install concrete blocks as per drawings				
	Work to include:				
-	All places as per the drawings, and the Engineer instructions.				
-	Materials				
-	Cement mortar and the use of extruded nets and reinforcement by means of metal gates and the placement of angles of galvanized steel iron of concrete columns thickness of 4 mm every 60 cm				
-	Labors and all items needed and instructions by the Engineer				
4.1.4	15 cm hollow concrete blocks	m²			
	Rate or Lump Sum in Words:				
5	**METAL WORKS**				
5.1	**Provide New Steel Work (Door & Windows)**				
5.1.3	Provide new double glazed aluminum windows with new burglar proof protection	№			
	Rate or Lump Sum in Words:				
5.2	**Rehabilitate and Maintain the Existing Steel Work (Burglar Proof Protection + Opening)**				
	Rehabilitate the existing steel windows or doors as per specifications and drawings and the Engineer instruction				
	Work to include:				
-	Remove all damaged members and replace by new ones				
-	Rub completely to secure all parts and use putty to make faces smooth				
-	Apply two layers of anti rust paint				
-	Apply putty				
-	Apply three layers of epoxy external paint				
-	All needed items as per the Engineer instructions				
5.2.1	Rehabilitate existing steel doors	№			
	Rate or Lump Sum in Words:				

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Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
5.2.2	Rehabilitate existing steel gates	№			
	Rate or Lump Sum in Words:				
5.2.6	Rehabilitate and paint existing steel window	№			
	Rate or Lump Sum in Words:				
5.5	**Rehabilitate and Maintain Steel Handrail**				
-	Rehabilitate the existing metal handrail and remove the damaged members and replace by new				
-	Reinforce the existing handrail with similar members in addition to the rail and all necessary accessories				
-	Remove existing paint & clean deeply as per SSPC code and ISO 8501				
-	Apply one layer of epoxy base paint				
-	Apply putty				
-	Apply epoxy paint as per specification				
	All needed items as per the Engineer instructions				
5.5.1	Floor Mounted	m			
	Rate or Lump Sum in Words:				
6	**WOOD AND PLASTICS**				
6.1	**Joinery Works**				
6.1.1	Rehabilitate Existing Kitchen Cupboards				
	Rehabilitate existing cupboards, cabinets, drawers, counters, etc., for the existing kitchen. Works to include replacing damaged elements, accessories, material, labor, equipment, maintaining support, change of the top of counter by new resin counter as specified, etc. As per engineer's approval.				
-	Repair wood elements in accordance with AWI Quality Standards requirements.				
-	Repair framing and sash members with mortise and Tenon joints. Ensure joints and connections are flush, hairline, and weather-tight.				
-	Scarf joints permitted when wood matches in color and grain texture. Form sills and stools in one piece.				
-	Fabricate components with minimum clearances and shim spacing around perimeter of assembly, yet allowing installation and dynamic movement of perimeter seal.				
6.1.1.1	Kitchen Cupboards	m			
	Rate or Lump Sum in Words:				

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Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
8	**DOOR AND WINDOWS**				
8.1	**Wooden Doors and Windows**				
	Supply and install all timber work with all related items				
	The joinery works should be of the first class type and as per specifications and drawings				
	Work to include:				
-	Material and labors				
-	All accessories to be heavy duty (Hinged, Lock, Glass vision, as required, etc.)				
-	The frame for any width (Steel, Wood, etc.)				
-	Paint as follows:				
-	Anti rust layers				
-	Putty + one layer of undercoat				
-	Three layers of epoxy paint				
-	Apply and fix 6mm wired clear glass				
-	View Permitting glass opening where needed				
-	remove the existing timber panels				
-	repair the edges				
-	The Contractor should submit shop drawings				
-	All needed items as the Engineer instructions				
8.1.1	**Timber Doors**				
	Supply and install flush timber door as per drawings with laminated plastic facing and the door should have 10cm width frame between the plywood and fill with timber beads by tongue and groove each 5cm, and the door edges should behead wood and fixed by tongue and groove frames should be as specified, with fixed glass panel vision window, and similar to existing, and to the Engineer's instructions				
-	Works included, all accessories and fittings, pre-painting and finishing paint sides of doors and box frames.				
-	All works should be done as per the Engineer instructions				
8.1.1.2	Provide new single leaf wooden door with view frame	№			
	Rate or Lump Sum in Words:				
8.1.1.3	Provide WC partition door	№			
	Rate or Lump Sum in Words:				

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Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
8.1.3	**Rehabilitate the Existing Timber Doors**				
	As stated in the Preambles of Item 8.1				
	In addition, rehabilitate the existing timber doors:				
	The minimum amount of existing timber should be removed to allow an effective repair to be formed.				
	Cut out deteriorated area of timber in sloping splice to give optimum area of surface to be glued & fixed.				
	Well-seasoned timber to be used in forming a repair with the line and density of grain (number of growth rings) of new timber matching the existing as closely as possible.				
	For all joinery work, timber with shakes, fissures, warping, heartwood, sapwood or numerous/large knots should be avoided for use in repair. Always work new material to the line of the existing and avoid unnecessary trimming of original timber. Repairs should follow any existing deformations in the line of the wood element (e.g. door or window).				
	Avoid mixing timber species between new and existing in a repair as joint between the two is likely to fail from different rates of expansion and contraction during dry & damp conditions. Where possible, spliced repairs to be designed to ensure moisture is towards the outer face of timber and that moisture does not lay on the repair joint.				
	The length of the splice is governed by section of timber and the nature of component being repaired and it should be designed to ensure an effective bond between new and existing sections of timber. Where wood element are to be dismantled as part of the repair process, always mark and record the constituent parts before dismantling. similarly, number of glass panes/quarries before removal.				
	If applicable carefully soften putty or remove wood trim and then remove glass. Use glue, to connect a new outer section of bottom rail to the existing sound timber. Drill and insert new wooden pins or fix using brass screws from inside.				
	Casements or sashes are often in sound condition but the joints have become loose due to the break down of glue and loose wedges.				
	The wedges will often be easily removable and will probably be unsuitable for re-use. It may be for the joints to be pulled together successfully.				
	Attach door frame and shims to perimeter opening to accommodate construction tolerances & all irregularities.				
	Align door plumb and level, free of warp or twist. Maintain dimensional tolerances and alignment with adjacent work. Install operating hardware.				
8.1.3.1.1	Rehabilitate and paint existing single leaf timber doors with related accessories	№	85		
	Rate or Lump Sum in Words:				

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Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
8.1.3.1.2	Rehabilitate existing double leaf door	№			
	Rate or Lump Sum in Words:				
8.1.3.1.4	Rehabilitate wooden windows	№			
	Rate or Lump Sum in Words:				
8.2	**Aluminum Doors and Windows**				
	Fabricate, supply and install aluminum works as manufactured by SIDEM 2000 first choice with all necessary accessories as per the drawings and the Engineer instructions, cost to include all doors and windows:				
-	Reveals hard stone 3cm thick, all around for external opening				
-	Apply EPDM around door and windows where necessary				
-	Single glass 6 mm				
-	Double glass 6-12-6 mm (Outer Glass should be Tempered)				
-	Hinges and locks				
-	Joint Filler				
-	Mosquito Screen				
-	Mesh				
-	All items needed as per the Engineer instructions				
-	All as specified and base on an approved shop drawings after exact dimensions				
8.2.1	**New Aluminum Panels (Double Glass)**				
	Supply and install the fabricated aluminum panels with double glass (6 - 12 - 6 mm) (Outer Glass should be Tempered)				
8.2.1.1	Provide new aluminum double glazed window & door panel	№			
	Rate or Lump Sum in Words:				
8.2.2	**New Aluminum Internal Door**				
	Supply and install aluminum door with frame and related strengthening stud, Works to include:				
	Materials, and accessories				
-	Labors				
-	All needed items as per the engineer instructions.				
-	Repair all around the opening				
8.2.2.1	Provide new aluminum partition door as indicated.	№			
	Rate or Lump Sum in Words:				

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Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
8.2.3	**Rehabilitation Existing Glazed Aluminum Panels (s)**				
	Replacing Broken Glass. Fixing Hardware Issues: Check the functionality of latches, hinges, and other hardware. If any parts are broken, replace them with new ones to ensure the window operates smoothly. After repairs, apply a high-quality sealant around the edges to prevent moisture intrusion. If the paint is peeling or faded, consider repainting the frame with a metal paint formulated for aluminum to enhance durability and appearance.				
8.2.3.1	Rehabilitate existing windows	№	2		
	Rate or Lump Sum in Words:				
9	**FINISHES**				
9.1	**Cement Plaster**				
	Supply and install sand cement plaster on concrete and block wall surfaces as specified				
	The plaster layer should be own a base rough layer				
	The plaster works should be on level points and each point should be at 1.5 m from the second only				
	Work to include:				
-	Materials and accessories (galvanized, wire mesh, cover beds, etc.)				
-	Labors				
-	All addition watering				
-	All tools				
-	Plaster thickness more than 2 cm				
-	All needed items as per drawings and the Engineer instructions				
9.1.1	**Internal and External Plaster Works**				
9.1.1.1	Supply and apply one layer of sand cement plaster over a rough textured layer of plaster				
	Price included all accessories, material, scaffolding and labor, etc.	m^2			
	Rate or Lump Sum in Words:				

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Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
9.1.2	**Repair of Existing Plaster (Internal - External) (Cracks, etc.)**				
9.1.2.1	Rehabilitate and repair cracked and damaged plaster indoor and outdoor				
	Work to include:				
-	Determine the location and remove all loose items around the area				
-	Remove the cracked plaster layer				
-	Remove the pulled out layers				
-	Clean the places with suitable materials				
-	Fill all cracks after widening by (No Suggestions) or approved equal.				
-	Remove loose and other deteriorated materials prior to the new repair. Take special care not to damage the adjacent original materials. Prepare mortar joints for installation of lateral reinforcement where it is required. Use thin steel bars to clean joints to maximum depth possible. Remove loose mortar. Mix mortar with minimal amount of water (potable) prior to use. All separation cracks between perpendicular walls shall be filled grout to reduce additional movement from wind loads and thermal expansion-contraction.				
-	Clear debris from crack by probing, brushing, and blowing.				
-	Force non-shrink mortar mixture into crack as deep as possible with hands, wood and metal probes. Use as dry a mix as possible. Use stone bats to fill larger crack voids. Ensure mortar is forced into smaller/deeper cracks. Mortar grout will be fluid in order to flow into crack. Either grout bags or gravity flow shall be used depending on the conditions. Fil Protect repairs from rapid drying by misting, shading, protecting from dry wind cracks in a series of applications rather than one large application. Final application shall not be flush with the surface, but shall be one half the width of the crack below the surface. Remove all tool marks with brush.				
-	Apply the finish rough plaster layer				
-	Install galvanized steel mesh 20 cm width at least				
-	Apply the second smooth plaster layer	LS			
	Rate or Lump Sum in Words:				

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Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
9.2	**Tiling Works**				
	Supply and install all tiling items for floors, with the skirting				
	Work to include all materials and labors and the Contractor should use all necessary rods and levels as per the Engineer instructions				
	Price to include:				
-	Sand below tiles				
-	Materials, tiles, mortars				
-	Labors				
-	Rubbing				
-	Filling between tiles				
-	Filling the skirting				
-	Remove unsuitable items				
-	Cleaning the places				
-	All needed items as per the Engineer instructions				
9.2.1	**New Full Mass Colored Ceramic for Floors**				
	Ceramic tiles and tilework as specified and detailed, installed complete; Including for substrate preparation, cement: sand screeds or plaster backing coats; setting, jointing and grouting; tile trim and accessories; sealants; and all other related ancillaries as indicated or required				
9.2.1.1	Supply and install anti skid colored full mass ceramic tiles for classroom (first choice) for all floor toilets, kitchen and laboratory (existing and new)	m²			
	Rate or Lump Sum in Words:				
9.2.1.2	Skirting same type of floors or as existing or required	m			
	Rate or Lump Sum in Words:				
9.2.2	**New Glazed Colored Ceramic for Walls**				
9.2.2.1	Supply and install glazed colored ceramic for walls Include Ceramic Corner (first choice)	m²			
	Rate or Lump Sum in Words:				

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Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
9.2.3	**New Tiles for stairs**				
	Supply and install tiles first choice for the new stair (treads 3cm thick - Risers 2cm thick) and landing - tiling 2cm and for all floors or otherwise specified color type and quality to be submitted for approval, works to include:				
-	Labor, materials and installations				
-	Under tile fill				
-	Mortar				
-	Lining				
-	Step (Tread + riser) and landing and all type of skirting				
-	And needed items to complete the works as per the Engineer instructions				
9.2.3.2	Granite 2cm Thick (Tread and Riser)	m			
	Rate or Lump Sum in Words:				
9.2.3.3	Mosaic Similar to existing 4cm Thick minimum (Tread and Riser)	m			
	Rate or Lump Sum in Words:				
9.2.4	**Repair existing broken floor tiles and skirting (all types) and reinstall by new, similar to existing for all rooms and corridors**				
9.2.4.1	Rehabilitate and repair all damaged and broken tiles, and skirting for any type (marble - ceramic - mosaic - Cement). Remove broken or damaged pieces to be replaced without affecting the adjacent undamaged areas				
	Work to include:				
-	Remove all debris as specified				
-	All materials and labors				
-	Difference tiles (shapes thickness, dimension, pattern) as needed.				
-	Cutting and repair				
-	Grouting				
-	Polish and rubbing				
-	All needed items as per Engineer comments and complete to Engineer approval.	LS	1		
	Rate or Lump Sum in Words:				

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Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
9.2.5	**Rehabilitate Existing Stair Treads and Riser**				
	Remove the broken treads and risers, install and supply new ones similar to the existing with the needed side bases, width as per site dimension with skirting and tiles for landing				
	The work to be as per the Engineer instructions				
9.2.5.1	Existing Mosaic Stair	m			
	the price including Skirting tiles & Landing				
	Rate or Lump Sum in Words:				
9.2.10	**Laminate Vinyl Tiles**				
9.2.10.1	Provide Laminate Vinyl Tiles similar to existing. The removal of existing vinyl tiles, rolls, proper levelling, surfacing of the existing concrete by casting a special layer of new concrete to ensure proper installation of the new vinyl layer as specified and as per standards. Price to include skirting	m²			
	Rate or Lump Sum in Words:				
9.4	**Gypsum Works**				
9.4.1	**New Gypsum Suspended Ceiling (Panel, Tiles):**				
9.4.1.1	Supply and install gypsum board tiles suspended ceiling (60 x 60 cm or panel board with paint)				
	Work to include:				
-	Remove the existing gypsum board tiles and move them to outside				
-	Labors				
-	Materials				
-	Accessories				
-	Angles				
-	Special Heavy duty metal suspension system				
-	All needed items as per the Engineer instructions and approval	m²			
	Rate or Lump Sum in Words:				

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Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
9.5	**Painting**				
9.5.1	**Wall and Ceilings Paint Works**				
	Wall paint include preparation of the base surfaces to receive the paints and apply the specified layers of putty and paint from the best quality as per specifications and as indicated in drawings				
	The base surfaces should be clean and smooth and free from any pulled out old paints before starting application of the specified primer/undercoat.				
	Apply 2 layers of putty then after smoothening, then 3 layers of the approved paint materials.				
	All works and items should be as per manufacturer recommendation, compatible with each other and as per the Engineer instructions and approval, ***All paint types must be lead-free and Low VOC (Volatile Organic Compounds)***				
9.5.1.2	Super Rubber Paint for old walls and ceilings	m²	3,000		
	Rate or Lump Sum in Words:				
9.5.1.4	Oil Paints for old walls and ceilings	m²	200		
	Rate or Lump Sum in Words:				
9.5.2	**Outside Walls Paint (Old and New Walls and Ceilings)**				
9.5.2.1	Paint for external old and new walls, smooth touch				
	Work to include:				
-	Removal of any paint or obstacle				
-	Rehabilitate the surfaces and make them goods				
-	Polyurethane where needed for cracks				
-	Apply one coat of undercoat				
-	Apply 2 coats of external paint or rolled textured paint				
-	Apply one layer of external transparent paint (acrylic styrene copolymer elastic water proof)				
-	All needed scaffolding and materials for the best execution of the works				
-	All works and items should be as per manufacturer and the Engineer instructions and approval.	m²	200		
	Rate or Lump Sum in Words:				

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Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
10	**SPECIALTIES**				
10.1	**Bathrooms Accessories**				
-	Remove and cart away old damaged fixtures				
-	Supply and install all needed accessories and make good their places and their surroundings				
-	Place all frame, cover joints (stainless steel) anti-corrosion				
-	Install items and their contact with the surfaces				
-	All works should be done as per the Engineer instructions				
10.1.4	**Mirror for Lavatories**				
	Supply and install 6mm glass mirror for lavatories with colored PVC frames as show on drawings and as stated in the specifications with all needed items and accessories				
	The mirror should be placed on 3mm thick plywood from the back				
	All works should be done as the Engineer instructions				
10.1.4.1	Mirror (Dimension as per site conditions and engineer instruction)	№			
	Rate or Lump Sum in Words:				
10.3	**Resin Work**				
10.3.1	**Drinking Basin**				
	Supply and install drinking basin as shown on drawings of resin layers 12 mm thick fixed on galvanized steel skeleton 4 x 4 cm hollow sections and as shown on drawings				
	Work to include:				
-	Materials				
-	Labors				
-	Galvanized steel skeleton				
-	All needed items and as instructed by the Engineer				
10.3.1.1	Drinking Basin -Length (up to 2.20 m)	№			
	Rate or Lump Sum in Words:				
10.3.1.6	Drinking Basin -Length (4.11 to 6.20 m)	№			
	Rate or Lump Sum in Words:				

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Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
10.3.4	**Kitchen Counter**				
	Supply and install complete counter resin type with sink (resin) for teachers' kitchen of 18mm thick including coved splash back 20cm height and the work to include:				
-	All fixing elements				
-	All stainless steel hangers				
-	All necessary accessories				
-	All needed items and as instructed by the Engineer				
10.3.4.2	Kitchen Counter - Length (1.11 to 1.75m)	№			
	Rate or Lump Sum in Words:				
	Total Bill № 2: Civil and Architectural Works				

Bill № 3: Mechanical Engineering Services

Bill № 3: Mechanical Engineering Services

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Baal Mohsen Mixed Public School

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
1	**GENERAL TECHNICAL REQUIREMENTS**				
1.1	**General Mechanical Requirements**				
1.1.2	Prepare the shop drawings for all mechanical works and obtain approval from the Engineer before the start of executing any work.	Item	1		
	Rate or Lump Sum in Words:				
1.2	**Rehabilitation Works General Requirements**				
	Provide all necessary rehabilitation works and make all Mechanical systems in good condition complete including maintenance, cleaning, relocation works, replacing damaged items and equipment, removing and carting away resulting materials and equipment, testing and commissioning, and all other related works to ensure all Mechanical systems are properly working and functional.				
1.2.1	Maintenance and rehabilitation of existing plumbing works, including sanitary fixtures, floor drains, roof drains, manholes, pumps, WC tanks, adding where applicable all necessary valves, flush valves, etc., and all other necessary works.	Item	12		
	Rate or Lump Sum in Words:				
2	**SANITARY, WASTE & RAIN WATER PIPE WORK INSTALLATION**				
2.3	**Drain Cover**				
	Supply and install floor drain cover (P.E) 5 mm thick on drainage pipe and to be the same level of the floor tiling. Work to include all civil works and as per the Engineer instructions				
2.3.1	Cover for FCO	№			
	Rate or Lump Sum in Words:				

Bill № 3: Mechanical Engineering Services

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Baal Mohsen Mixed Public School

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
3	**WATER PIPE WORK INSTALLATION**				
3.1	**Water Tanks**				
	Supply & install polyethylene water tank (3 layers) or more with all necessary supply and over flow connections all as per the Engineer instructions				
3.1.2	2000 liters PE water tank	№			
	Rate or Lump Sum in Words:				
5	**SANITARY FIXTURES**				
5.1	**W.C. for Kids**				
	Supply and install K.G. W.C. Flush valve with cover as manufactured by Duravit - Bambi No. 018509 or approved equal, 35 cm height max. from finished floor with timber cover.				
	Cost to include all related connections angle valves and necessary accessories as per the Engineer instructions.				
	Each W.C. should be equipped with a Flushing Hose (Grohe or Ideal standard or approved equal)				
5.1.1	EWC-03 (Wall Hang - 52 x 32 cm)	№			
	Rate or Lump Sum in Words:				
5.2	**W.C. For Non Kids**				
	Supply and install W.C. for non kids, Flush valve with cover as manufactured by Ideal Standard Item No. E876801 also the hose, or approved equal and to be 40 cm from floor finish with timber cover.				
	The work to include the installation, liking, cleaning with all necessary connection, angle valves and necessary accessories similar to the K.G.W.C.				
	Each W.C. should be equipped with a Flushing Hose (Grohe or Ideal standard or approved equal)				
5.2.1	EWC-01 (Wall Hang - 52 x 36 cm)	№			
	Rate or Lump Sum in Words:				
5.2.3	AWC-01 (Asian water closet)	№	4		
	Rate or Lump Sum in Words:				

Bill № 3: Mechanical Engineering Services

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Baal Mohsen Mixed Public School

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
5.3	**Lavatories for Kids in the K.G.**				
	Supply and install semi pedestal wash basin similar to Ideal Standard No. 742001 or approved equal, 45 x 36 cm, and fixed at 60 cm high from the floor finish. Cost to include all necessary connections, angle valves and accessories as required				
5.3.1	LAV-03 (semi-pedestal wash basin - 45 x 35 cm)	№			
	Rate or Lump Sum in Words:				
5.4	**Lavatories for Non Kids**				
	Supply and install semi pedestal wash basin similar to Ideal Standard No. 742001 or approved equal and fixed at 82 cm high from the floor finish. Cost to include all necessary connections, angle valves, traps and necessary accessories as specified.				
5.4.1	LAV-01 (semi-pedestal with mixers 55 x 45 cm)	№			
	Rate or Lump Sum in Words:				
5.5	**Urinal**				
	Supply and installation of high quality urinal units complete with proper wall fixation with anti-dust materials including drainage & water supply connection as per the approved shop drawings.				
	Cost to include all necessary accessories, valves, sensors to provide workable system.				
5.5.1	Urinal	№			
	Rate or Lump Sum in Words:				
5.6	**Self Close Taps on Kids & Students Lavatories**				
	Supply and install self close taps to be fixed in the lavatory body as manufactured by Grohe Item No. 36-173 with all required works and drain accessories including trap, to be connected to the new water supply and drain and as instructed by the Engineer				
5.6.1	Self Close Taps	№			
	Rate or Lump Sum in Words:				

Bill № 3: Mechanical Engineering Services

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Baal Mohsen Mixed Public School

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
5.7	**Wall Type Self Close Taps on Drinking Basins**				
	Supply and install self close taps to be fixed in the drinking basin body as manufactured by Grohe Item No. 36-176 with all required works and drain accessories including trap and to be connected to the new water supply and drain and as instructed by the Engineer				
5.7.1	Wall Type Self Close Taps	№	10		
	Rate or Lump Sum in Words:				
5.8	**Kitchen Sink Accessories**				
	Supply and install kitchen sink accessories such as chrome trap, angle valve, mixers as specified				
5.8.1	Kitchen Sink Accessories	№			
	Rate or Lump Sum in Words:				
	Total Bill № 3: Mechanical Engineering Services				

Bill № 4: Electrical Engineering Services

Bill № 4: Electrical Engineering Services

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Baal Mohsen Mixed Public School

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
1	**BASIC ELECTRICAL REQUIREMENTS**				
	The Contractor should revise all the drawings and compare them with the site conditions and redo all the design works with the necessary calculations for all the electrical installations and works. Moreover, the Contractor should submit shop drawings and as-built drawings for the maintenance use in the future.				
	The contractor should provide all the necessary maintenance works for all Electrical systems related to the KG school to ensure its proper works.				
	At the end of the project, the contractor should submit complete As-Built Drawings for all executed works with exact dimensions & sizes for easy maintenance work in the future.				
1.1	**Fixing and Repairing**				
	Check & repair all the existing cables, wires, socket outlets, lighting fixtures, lighting switches, electric fans, and protect all exposed wiring as per the site conditions, and to the satisfaction of the Engineer.				
	All as per the drawings, specifications and Engineer instructions				
1.1.1	Lighting fixtures	LS			
	Rate or Lump Sum in Words:				
1.1.2	Wires and cables	LS			
	Rate or Lump Sum in Words:				
1.1.3	Sockets and switches	LS	1		
	Rate or Lump Sum in Words:				
1.1.4	Circuit breakers	LS			
	Rate or Lump Sum in Words:				
1.1.9	All needed electrical works … etc.	LS			
	Rate or Lump Sum in Words:				

Bill № 4: Electrical Engineering Services

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Baal Mohsen Mixed Public School

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
3	**GENERAL LIGHTING INSTALLATIONS**				
3.1	**Lighting Fixtures**				
	Supply, install and test the lighting fixtures complete with all the necessary wires conduits, boxes and accessories required to provide power to each lighting fitting from LP including the earth wire as per the drawings, specifications and Engineer instructions.				
	The Contractor should submit samples of each lighting fixture for approval.				
3.1.1	TYPE C1: Twin T8 LED Tube, surface-mount luminaire for interior, 40W, 4000K, 4700Lm. Polycarbonate, light grey, with injected polyurethane double gasket and clear UV stabilized polycarbonate cover, cos φ ≥ 0.9	№			
	Rate or Lump Sum in Words:				
3.1.3	TYPE C2: as same as TYPE C1 but Pendent mounted	№			
	Rate or Lump Sum in Words:				
3.1.4	TYPE A2 / A3: 600x600 mm LED Panel 3600lm, 33W, 4000K, 80CRI surface-mount/recessed, die-cast aluminum, IP20	№			
	Rate or Lump Sum in Words:				
3.1.6	TYPE N4 / N3: LED - 900lm - 12.5W - 3000K - 80CRI - WW Surface mounted / Recessed Downlight Round - 120 deg	№			
	Rate or Lump Sum in Words:				
3.1.10	Replace Existing lighting fixtures with TYPE L (LED)	№			
	Rate or Lump Sum in Words:				

Bill № 4: Electrical Engineering Services

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Baal Mohsen Mixed Public School

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
4	**FIRE ALARM SYSTEM**				
	Supply and install all necessary fittings, wires conduits, boxes, plates, relays, bell modules, EOL resistors and accessories as described and as shown on drawings and all necessary connection to the management stations as intended to the satisfaction of the engineer.				
4.6	Break Glass	№			
	Rate or Lump Sum in Words:				
	Total Bill № 4: Electrical Engineering Services				

General Summary

General Summary

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Baal Mohsen Mixed Public School

Description	Amount (US $)
Bill № 2: Civil and Architectural Works	.....
Bill № 3: Mechanical Engineering Services	.....
Bill № 4: Electrical Engineering Services	.....
* Total Amount of Bill of Quantities ……	.....
* Discount by Tenderer (_____ %) ……	.....
* Total Amount of Tender (VAT Not Applicable) ……	.....

* Total Amount of Tender in Words:

.....

.....

.....

Bill № 2: Civil and Architectural Works

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: May Second Public School for Girls

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
1	**SITE PREPARATION AND DEMOLITION**				
1.1	**Demolishing and Removal of Debris**				
1.1.1	The works include all types of demolition and the removal of debris and damaged elements such but not limited to, the following:				
-	Existing plastering and concrete items such as foundations, columns, slabs, etc.				
-	Damaged Tiling (floors and walls)				
-	Toilet fixtures and pipes installation of all sizes				
-	Counter tops, bases and sinks				
-	Water tanks of different types				
-	Hollow concrete block walls or concrete walls of all sizes				
-	Demolition of the existing ramps / Stairs and the execution of the given plans and specifications				
-	Including the necessary equipment for the removal of debris and all resulting materials				
-	etc.	LS	1		
	Rate or Lump Sum in Words:				
2	**SITE PREPARATION AND DEMOLITION**				
2.4	**School Fences with Related Gates**				
2.4.2	Rehabilitate Existing Fence (Strengthening & Rehabilitation)				
	Work to include				
-	Rehabilitate and support all the existing fence as per drawings				
-	Determine the places that requires support				
-	Preparation of shop drawings				
-	Replace all broken elements				
-	Redo all damaged elements and to be similar to existing elements				
-	Finishing works as existing (plastering, paints, stone cladding, etc.)				
-	Rehabilitate existing steel protection (Replace all damaged part by new similar to existing and paint with epoxy as specified)				
-	Replace existing chain link by new one (Galvanized)				
-	Reconstruct the broken and damaged parts and rehabilitate as it was with all similar materials including steel parts with related epoxy paint as per the engineer instructions	m			
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: May Second Public School for Girls

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
4	**MASONRY**				
4.1	**Hollow or Solid Concrete Blocks and Claustra**				
	Supply and install concrete blocks as per drawings				
	Work to include:				
-	All places as per the drawings, and the Engineer instructions.				
-	Materials				
-	Cement mortar and the use of extruded nets and reinforcement by means of metal gates and the placement of angles of galvanized steel iron of concrete columns thickness of 4 mm every 60 cm				
-	Labors and all items needed and instructions by the Engineer				
4.1.4	15 cm hollow concrete blocks	m²			
	Rate or Lump Sum in Words:				
5	**METAL WORKS**				
5.1	**Provide New Steel Work (Door & Windows)**				
5.1.3	Provide new double glazed aluminum windows with new burglar proof protection	№			
	Rate or Lump Sum in Words:				
5.2	**Rehabilitate and Maintain the Existing Steel Work (Burglar Proof Protection + Opening)**				
	Rehabilitate the existing steel windows or doors as per specifications and drawings and the Engineer instruction				
	Work to include:				
-	Remove all damaged members and replace by new ones				
-	Rub completely to secure all parts and use putty to make faces smooth				
-	Apply two layers of anti rust paint				
-	Apply putty				
-	Apply three layers of epoxy external paint				
-	All needed items as per the Engineer instructions				
5.2.1	Rehabilitate existing steel doors	№			
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: May Second Public School for Girls

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
5.2.2	Rehabilitate existing steel gates	№			
	Rate or Lump Sum in Words:				
5.2.6	Rehabilitate and paint existing steel window	№			
	Rate or Lump Sum in Words:				
5.5	**Rehabilitate and Maintain Steel Handrail**				
-	Rehabilitate the existing metal handrail and remove the damaged members and replace by new				
-	Reinforce the existing handrail with similar members in addition to the rail and all necessary accessories				
-	Remove existing paint & clean deeply as per SSPC code and ISO 8501				
-	Apply one layer of epoxy base paint				
-	Apply putty				
-	Apply epoxy paint as per specification				
	All needed items as per the Engineer instructions				
5.5.1	Floor Mounted	m			
	Rate or Lump Sum in Words:				
6	**WOOD AND PLASTICS**				
6.1	**Joinery Works**				
6.1.1	Rehabilitate Existing Kitchen Cupboards				
	Rehabilitate existing cupboards, cabinets, drawers, counters, etc., for the existing kitchen. Works to include replacing damaged elements, accessories, material, labor, equipment, maintaining support, change of the top of counter by new resin counter as specified, etc. As per engineer's approval.				
-	Repair wood elements in accordance with AWI Quality Standards requirements.				
-	Repair framing and sash members with mortise and Tenon joints. Ensure joints and connections are flush, hairline, and weather-tight.				
-	Scarf joints permitted when wood matches in color and grain texture. Form sills and stools in one piece.				
-	Fabricate components with minimum clearances and shim spacing around perimeter of assembly, yet allowing installation and dynamic movement of perimeter seal.				
6.1.1.1	Kitchen Cupboards	m			
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: May Second Public School for Girls

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
8	**DOOR AND WINDOWS**				
8.1	**Wooden Doors and Windows**				
	Supply and install all timber work with all related items				
	The joinery works should be of the first class type and as per specifications and drawings				
	Work to include:				
-	Material and labors				
-	All accessories to be heavy duty (Hinged, Lock, Glass vision, as required, etc.)				
-	The frame for any width (Steel, Wood, etc.)				
-	Paint as follows:				
-	Anti rust layers				
-	Putty + one layer of undercoat				
-	Three layers of epoxy paint				
-	Apply and fix 6mm wired clear glass				
-	View Permitting glass opening where needed				
-	remove the existing timber panels				
-	repair the edges				
-	The Contractor should submit shop drawings				
-	All needed items as the Engineer instructions				
8.1.1	**Timber Doors**				
	Supply and install flush timber door as per drawings with laminated plastic facing and the door should have 10cm width frame between the plywood and fill with timber beads by tongue and groove each 5cm, and the door edges should behead wood and fixed by tongue and groove frames should be as specified, with fixed glass panel vision window, and similar to existing, and to the Engineer's instructions				
-	Works included, all accessories and fittings, pre-painting and finishing paint sides of doors and box frames.				
-	All works should be done as per the Engineer instructions				
8.1.1.2	Provide new single leaf wooden door with view frame	№			
	Rate or Lump Sum in Words:				
8.1.1.3	Provide WC partition door	№			
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: May Second Public School for Girls

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
8.1.3	**Rehabilitate the Existing Timber Doors**				
	As stated in the Preambles of Item 8.1				
	In addition, rehabilitate the existing timber doors:				
	The minimum amount of existing timber should be removed to allow an effective repair to be formed.				
	Cut out deteriorated area of timber in sloping splice to give optimum area of surface to be glued & fixed.				
	Well-seasoned timber to be used in forming a repair with the line and density of grain (number of growth rings) of new timber matching the existing as closely as possible.				
	For all joinery work, timber with shakes, fissures, warping, heartwood, sapwood or numerous/large knots should be avoided for use in repair. Always work new material to the line of the existing and avoid unnecessary trimming of original timber. Repairs should follow any existing deformations in the line of the wood element (e.g. door or window).				
	Avoid mixing timber species between new and existing in a repair as joint between the two is likely to fail from different rates of expansion and contraction during dry & damp conditions. Where possible, spliced repairs to be designed to ensure moisture is towards the outer face of timber and that moisture does not lay on the repair joint.				
	The length of the splice is governed by section of timber and the nature of component being repaired and it should be designed to ensure an effective bond between new and existing sections of timber. Where wood element are to be dismantled as part of the repair process, always mark and record the constituent parts before dismantling. similarly, number of glass panes/quarries before removal.				
	If applicable carefully soften putty or remove wood trim and then remove glass. Use glue, to connect a new outer section of bottom rail to the existing sound timber. Drill and insert new wooden pins or fix using brass screws from inside.				
	Casements or sashes are often in sound condition but the joints have become loose due to the break down of glue and loose wedges.				
	The wedges will often be easily removable and will probably be unsuitable for re-use. It may be for the joints to be pulled together successfully.				
	Attach door frame and shims to perimeter opening to accommodate construction tolerances & all irregularities.				
	Align door plumb and level, free of warp or twist. Maintain dimensional tolerances and alignment with adjacent work. Install operating hardware.				
8.1.3.1.1	Rehabilitate and paint existing single leaf timber doors with related accessories	№	25		
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: May Second Public School for Girls

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
8.1.3.1.2	Rehabilitate existing double leaf door	№			
	Rate or Lump Sum in Words:				
8.1.3.1.4	Rehabilitate wooden windows	№			
	Rate or Lump Sum in Words:				
8.2	**Aluminum Doors and Windows**				
	Fabricate, supply and install aluminum works as manufactured by SIDEM 2000 first choice with all necessary accessories as per the drawings and the Engineer instructions, cost to include all doors and windows:				
-	Reveals hard stone 3cm thick, all around for external opening				
-	Apply EPDM around door and windows where necessary				
-	Single glass 6 mm				
-	Double glass 6-12-6 mm (Outer Glass should be Tempered)				
-	Hinges and locks				
-	Joint Filler				
-	Mosquito Screen				
-	Mesh				
-	All items needed as per the Engineer instructions				
-	All as specified and base on an approved shop drawings after exact dimensions				
8.2.1	**New Aluminum Panels (Double Glass)**				
	Supply and install the fabricated aluminum panels with double glass (6 - 12 - 6 mm) (Outer Glass should be Tempered)				
8.2.1.1	Provide new aluminum double glazed window & door panel	№			
	Rate or Lump Sum in Words:				
8.2.2	**New Aluminum Internal Door**				
	Supply and install aluminum door with frame and related strengthening stud, Works to include:				
	Materials, and accessories				
-	Labors				
-	All needed items as per the engineer instructions.				
-	Repair all around the opening				
8.2.2.1	Provide new aluminum partition door as indicated.	№			
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: May Second Public School for Girls

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
8.2.3	**Rehabilitation Existing Glazed Aluminum Panels (s)**				
	Replacing Broken Glass. Fixing Hardware Issues: Check the functionality of latches, hinges, and other hardware. If any parts are broken, replace them with new ones to ensure the window operates smoothly. After repairs, apply a high-quality sealant around the edges to prevent moisture intrusion. If the paint is peeling or faded, consider repainting the frame with a metal paint formulated for aluminum to enhance durability and appearance.				
8.2.3.1	Rehabilitate existing windows	№	2		
	Rate or Lump Sum in Words:				
9	**FINISHES**				
9.1	**Cement Plaster**				
	Supply and install sand cement plaster on concrete and block wall surfaces as specified				
	The plaster layer should be own a base rough layer				
	The plaster works should be on level points and each point should be at 1.5 m from the second only				
	Work to include:				
-	Materials and accessories (galvanized, wire mesh, cover beds, etc.)				
-	Labors				
-	All addition watering				
-	All tools				
-	Plaster thickness more than 2 cm				
-	All needed items as per drawings and the Engineer instructions				
9.1.1	**Internal and External Plaster Works**				
9.1.1.1	Supply and apply one layer of sand cement plaster over a rough textured layer of plaster				
	Price included all accessories, material, scaffolding and labor, etc.	m^2			
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: May Second Public School for Girls

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
9.1.2	**Repair of Existing Plaster (Internal - External) (Cracks, etc.)**				
9.1.2.1	Rehabilitate and repair cracked and damaged plaster indoor and outdoor				
	Work to include:				
-	Determine the location and remove all loose items around the area				
-	Remove the cracked plaster layer				
-	Remove the pulled out layers				
-	Clean the places with suitable materials				
-	Fill all cracks after widening by (No Suggestions) or approved equal.				
-	Remove loose and other deteriorated materials prior to the new repair. Take special care not to damage the adjacent original materials. Prepare mortar joints for installation of lateral reinforcement where it is required. Use thin steel bars to clean joints to maximum depth possible. Remove loose mortar. Mix mortar with minimal amount of water (potable) prior to use. All separation cracks between perpendicular walls shall be filled grout to reduce additional movement from wind loads and thermal expansion-contraction.				
-	Clear debris from crack by probing, brushing, and blowing.				
-	Force non-shrink mortar mixture into crack as deep as possible with hands, wood and metal probes. Use as dry a mix as possible. Use stone bats to fill larger crack voids. Ensure mortar is forced into smaller/deeper cracks. Mortar grout will be fluid in order to flow into crack. Either grout bags or gravity flow shall be used depending on the conditions. Fil Protect repairs from rapid drying by misting, shading, protecting from dry wind cracks in a series of applications rather than one large application. Final application shall not be flush with the surface, but shall be one half the width of the crack below the surface. Remove all tool marks with brush.				
-	Apply the finish rough plaster layer				
-	Install galvanized steel mesh 20 cm width at least				
-	Apply the second smooth plaster layer	LS			
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: May Second Public School for Girls

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
9.2	**Tiling Works**				
	Supply and install all tiling items for floors, with the skirting				
	Work to include all materials and labors and the Contractor should use all necessary rods and levels as per the Engineer instructions				
	Price to include:				
-	Sand below tiles				
-	Materials, tiles, mortars				
-	Labors				
-	Rubbing				
-	Filling between tiles				
-	Filling the skirting				
-	Remove unsuitable items				
-	Cleaning the places				
-	All needed items as per the Engineer instructions				
9.2.1	**New Full Mass Colored Ceramic for Floors**				
	Ceramic tiles and tilework as specified and detailed, installed complete; Including for substrate preparation, cement: sand screeds or plaster backing coats; setting, jointing and grouting; tile trim and accessories; sealants; and all other related ancillaries as indicated or required				
9.2.1.1	Supply and install anti skid colored full mass ceramic tiles for classroom (first choice) for all floor toilets, kitchen and laboratory (existing and new)	m²			
	Rate or Lump Sum in Words:				
9.2.1.2	Skirting same type of floors or as existing or required	m			
	Rate or Lump Sum in Words:				
9.2.2	**New Glazed Colored Ceramic for Walls**				
9.2.2.1	Supply and install glazed colored ceramic for walls Include Ceramic Corner (first choice)	m²			
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: May Second Public School for Girls

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
9.2.3	**New Tiles for stairs**				
	Supply and install tiles first choice for the new stair (treads 3cm thick - Risers 2cm thick) and landing - tiling 2cm and for all floors or otherwise specified color type and quality to be submitted for approval, works to include:				
-	Labor, materials and installations				
-	Under tile fill				
-	Mortar				
-	Lining				
-	Step (Tread + riser) and landing and all type of skirting				
-	And needed items to complete the works as per the Engineer instructions				
9.2.3.2	Granite 2cm Thick (Tread and Riser)	m			
	Rate or Lump Sum in Words:				
9.2.3.3	Mosaic Similar to existing 4cm Thick minimum (Tread and Riser)	m			
	Rate or Lump Sum in Words:				
9.2.4	**Repair existing broken floor tiles and skirting (all types) and reinstall by new, similar to existing for all rooms and corridors**				
9.2.4.1	Rehabilitate and repair all damaged and broken tiles, and skirting for any type (marble - ceramic - mosaic - Cement). Remove broken or damaged pieces to be replaced without affecting the adjacent undamaged areas				
	Work to include:				
-	Remove all debris as specified				
-	All materials and labors				
-	Difference tiles (shapes thickness, dimension, pattern) as needed.				
-	Cutting and repair				
-	Grouting				
-	Polish and rubbing				
-	All needed items as per Engineer comments and complete to Engineer approval.	LS	1		
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: May Second Public School for Girls

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
9.2.5	**Rehabilitate Existing Stair Treads and Riser**				
	Remove the broken treads and risers, install and supply new ones similar to the existing with the needed side bases, width as per site dimension with skirting and tiles for landing				
	The work to be as per the Engineer instructions				
9.2.5.1	Existing Mosaic Stair	m			
	the price including Skirting tiles & Landing				
	Rate or Lump Sum in Words:				
9.2.10	**Laminate Vinyl Tiles**				
9.2.10.1	Provide Laminate Vinyl Tiles similar to existing. The removal of existing vinyl tiles, rolls, proper levelling, surfacing of the existing concrete by casting a special layer of new concrete to ensure proper installation of the new vinyl layer as specified and as per standards. Price to include skirting	m²			
	Rate or Lump Sum in Words:				
9.4	**Gypsum Works**				
9.4.1	**New Gypsum Suspended Ceiling (Panel, Tiles):**				
9.4.1.1	Supply and install gypsum board tiles suspended ceiling (60 x 60 cm or panel board with paint)				
	Work to include:				
-	Remove the existing gypsum board tiles and move them to outside				
-	Labors				
-	Materials				
-	Accessories				
-	Angles				
-	Special Heavy duty metal suspension system				
-	All needed items as per the Engineer instructions and approval	m²			
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: May Second Public School for Girls

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
9.5	**Painting**				
9.5.1	**Wall and Ceilings Paint Works**				
	Wall paint include preparation of the base surfaces to receive the paints and apply the specified layers of putty and paint from the best quality as per specifications and as indicated in drawings				
	The base surfaces should be clean and smooth and free from any pulled out old paints before starting application of the specified primer/undercoat.				
	Apply 2 layers of putty then after smoothening, then 3 layers of the approved paint materials.				
	All works and items should be as per manufacturer recommendation, compatible with each other and as per the Engineer instructions and approval, ***All paint types must be lead-free and Low VOC (Volatile Organic Compounds)***				
9.5.1.2	Super Rubber Paint for old walls and ceilings	m²	3,000		
	Rate or Lump Sum in Words:				
9.5.1.4	Oil Paints for old walls and ceilings	m²	150		
	Rate or Lump Sum in Words:				
9.5.2	**Outside Walls Paint (Old and New Walls and Ceilings)**				
9.5.2.1	Paint for external old and new walls, smooth touch				
	Work to include:				
-	Removal of any paint or obstacle				
-	Rehabilitate the surfaces and make them goods				
-	Polyurethane where needed for cracks				
-	Apply one coat of undercoat				
-	Apply 2 coats of external paint or rolled textured paint				
-	Apply one layer of external transparent paint (acrylic styrene copolymer elastic water proof)				
-	All needed scaffolding and materials for the best execution of the works				
-	All works and items should be as per manufacturer and the Engineer instructions and approval.	m²	150		
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: May Second Public School for Girls

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
10	**SPECIALTIES**				
10.1	**Bathrooms Accessories**				
-	Remove and cart away old damaged fixtures				
-	Supply and install all needed accessories and make good their places and their surroundings				
-	Place all frame, cover joints (stainless steel) anti-corrosion				
-	Install items and their contact with the surfaces				
-	All works should be done as per the Engineer instructions				
10.1.4	**Mirror for Lavatories**				
	Supply and install 6mm glass mirror for lavatories with colored PVC frames as show on drawings and as stated in the specifications with all needed items and accessories				
	The mirror should be placed on 3mm thick plywood from the back				
	All works should be done as the Engineer instructions				
10.1.4.1	Mirror (Dimension as per site conditions and engineer instruction)	№			
	Rate or Lump Sum in Words:				
10.3	**Resin Work**				
10.3.1	**Drinking Basin**				
	Supply and install drinking basin as shown on drawings of resin layers 12 mm thick fixed on galvanized steel skeleton 4 x 4 cm hollow sections and as shown on drawings				
	Work to include:				
-	Materials				
-	Labors				
-	Galvanized steel skeleton				
-	All needed items and as instructed by the Engineer				
10.3.1.1	Drinking Basin -Length (up to 2.20 m)	№			
	Rate or Lump Sum in Words:				
10.3.1.6	Drinking Basin -Length (4.11 to 6.20 m)	№			
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: May Second Public School for Girls

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
10.3.4	**Kitchen Counter**				
	Supply and install complete counter resin type with sink (resin) for teachers' kitchen of 18mm thick including coved splash back 20cm height and the work to include:				
-	All fixing elements				
-	All stainless steel hangers				
-	All necessary accessories				
-	All needed items and as instructed by the Engineer				
10.3.4.2	Kitchen Counter - Length (1.11 to 1.75m)	№			
	Rate or Lump Sum in Words:				
	Total Bill № 2: Civil and Architectural Works				

Bill № 3: Mechanical Engineering Services

Bill № 3: Mechanical Engineering Services

Lot #: Lot 2 - Donieh, Tripoli
Shelter: May Second Public School for Girls

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
1	**GENERAL TECHNICAL REQUIREMENTS**				
1.1	**General Mechanical Requirements**				
1.1.2	Prepare the shop drawings for all mechanical works and obtain approval from the Engineer before the start of executing any work.	Item	1		
	Rate or Lump Sum in Words:				
1.2	**Rehabilitation Works General Requirements**				
	Provide all necessary rehabilitation works and make all Mechanical systems in good condition complete including maintenance, cleaning, relocation works, replacing damaged items and equipment, removing and carting away resulting materials and equipment, testing and commissioning, and all other related works to ensure all Mechanical systems are properly working and functional.				
1.2.1	Maintenance and rehabilitation of existing plumbing works, including sanitary fixtures, floor drains, roof drains, manholes, pumps, WC tanks, adding where applicable all necessary valves, flush valves, etc., and all other necessary works.	Item	11		
	Rate or Lump Sum in Words:				
2	**SANITARY, WASTE & RAIN WATER PIPE WORK INSTALLATION**				
2.3	**Drain Cover**				
	Supply and install floor drain cover (P.E) 5 mm thick on drainage pipe and to be the same level of the floor tiling. Work to include all civil works and as per the Engineer instructions				
2.3.1	Cover for FCO	№			
	Rate or Lump Sum in Words:				

Bill № 3: Mechanical Engineering Services

Lot #: Lot 2 - Donieh, Tripoli
Shelter: May Second Public School for Girls

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
3	**WATER PIPE WORK INSTALLATION**				
3.1	**Water Tanks**				
	Supply & install polyethylene water tank (3 layers) or more with all necessary supply and over flow connections all as per the Engineer instructions				
3.1.2	2000 liters PE water tank	№			
	Rate or Lump Sum in Words:				
5	**SANITARY FIXTURES**				
5.1	**W.C. for Kids**				
	Supply and install K.G. W.C. Flush valve with cover as manufactured by Duravit - Bambi No. 018509 or approved equal, 35 cm height max. from finished floor with timber cover.				
	Cost to include all related connections angle valves and necessary accessories as per the Engineer instructions.				
	Each W.C. should be equipped with a Flushing Hose (Grohe or Ideal standard or approved equal)				
5.1.1	EWC-03 (Wall Hang - 52 x 32 cm)	№			
	Rate or Lump Sum in Words:				
5.2	**W.C. For Non Kids**				
	Supply and install W.C. for non kids, Flush valve with cover as manufactured by Ideal Standard Item No. E876801 also the hose, or approved equal and to be 40 cm from floor finish with timber cover.				
	The work to include the installation, liking, cleaning with all necessary connection, angle valves and necessary accessories similar to the K.G.W.C.				
	Each W.C. should be equipped with a Flushing Hose (Grohe or Ideal standard or approved equal)				
5.2.1	EWC-01 (Wall Hang - 52 x 36 cm)	№			
	Rate or Lump Sum in Words:				
5.2.3	AWC-01 (Asian water closet)	№			
	Rate or Lump Sum in Words:				

Bill № 3: Mechanical Engineering Services

Lot #: Lot 2 - Donieh, Tripoli
Shelter: May Second Public School for Girls

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
5.3	**Lavatories for Kids in the K.G.**				
	Supply and install semi pedestal wash basin similar to Ideal Standard No. 742001 or approved equal, 45 x 36 cm, and fixed at 60 cm high from the floor finish. Cost to include all necessary connections, angle valves and accessories as required				
5.3.1	LAV-03 (semi-pedestal wash basin - 45 x 35 cm)	№			
	Rate or Lump Sum in Words:				
5.4	**Lavatories for Non Kids**				
	Supply and install semi pedestal wash basin similar to Ideal Standard No. 742001 or approved equal and fixed at 82 cm high from the floor finish. Cost to include all necessary connections, angle valves, traps and necessary accessories as specified.				
5.4.1	LAV-01 (semi-pedestal with mixers 55 x 45 cm)	№			
	Rate or Lump Sum in Words:				
5.5	**Urinal**				
	Supply and installation of high quality urinal units complete with proper wall fixation with anti-dust materials including drainage & water supply connection as per the approved shop drawings.				
	Cost to include all necessary accessories, valves, sensors to provide workable system.				
5.5.1	Urinal	№			
	Rate or Lump Sum in Words:				
5.6	**Self Close Taps on Kids & Students Lavatories**				
	Supply and install self close taps to be fixed in the lavatory body as manufactured by Grohe Item No. 36-173 with all required works and drain accessories including trap, to be connected to the new water supply and drain and as instructed by the Engineer				
5.6.1	Self Close Taps	№			
	Rate or Lump Sum in Words:				

Bill № 3: Mechanical Engineering Services

Lot #: Lot 2 - Donieh, Tripoli
Shelter: May Second Public School for Girls

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
5.7	**Wall Type Self Close Taps on Drinking Basins**				
	Supply and install self close taps to be fixed in the drinking basin body as manufactured by Grohe Item No. 36-176 with all required works and drain accessories including trap and to be connected to the new water supply and drain and as instructed by the Engineer				
5.7.1	Wall Type Self Close Taps	№			
	Rate or Lump Sum in Words:				
5.8	**Kitchen Sink Accessories**				
	Supply and install kitchen sink accessories such as chrome trap, angle valve, mixers as specified				
5.8.1	Kitchen Sink Accessories	№			
	Rate or Lump Sum in Words:				
	Total Bill № 3: Mechanical Engineering Services				

Bill № 4: Electrical Engineering Services

Bill № 4: Electrical Engineering Services

Lot #: Lot 2 - Donieh, Tripoli
Shelter: May Second Public School for Girls

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
1	**BASIC ELECTRICAL REQUIREMENTS**				
	The Contractor should revise all the drawings and compare them with the site conditions and redo all the design works with the necessary calculations for all the electrical installations and works. Moreover, the Contractor should submit shop drawings and as-built drawings for the maintenance use in the future.				
	The contractor should provide all the necessary maintenance works for all Electrical systems related to the KG school to ensure its proper works.				
	At the end of the project, the contractor should submit complete As-Built Drawings for all executed works with exact dimensions & sizes for easy maintenance work in the future.				
1.1	**Fixing and Repairing**				
	Check & repair all the existing cables, wires, socket outlets, lighting fixtures, lighting switches, electric fans, and protect all exposed wiring as per the site conditions, and to the satisfaction of the Engineer.				
	All as per the drawings, specifications and Engineer instructions				
1.1.1	Lighting fixtures	LS	1		
	Rate or Lump Sum in Words:				
1.1.2	Wires and cables	LS			
	Rate or Lump Sum in Words:				
1.1.3	Sockets and switches	LS	1		
	Rate or Lump Sum in Words:				
1.1.4	Circuit breakers	LS	1		
	Rate or Lump Sum in Words:				
1.1.9	All needed electrical works … etc.	LS			
	Rate or Lump Sum in Words:				

Bill № 4: Electrical Engineering Services

Lot #: Lot 2 - Donieh, Tripoli
Shelter: May Second Public School for Girls

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
3	**GENERAL LIGHTING INSTALLATIONS**				
3.1	**Lighting Fixtures**				
	Supply, install and test the lighting fixtures complete with all the necessary wires conduits, boxes and accessories required to provide power to each lighting fitting from LP including the earth wire as per the drawings, specifications and Engineer instructions.				
	The Contractor should submit samples of each lighting fixture for approval.				
3.1.1	TYPE C1: Twin T8 LED Tube, surface-mount luminaire for interior, 40W, 4000K, 4700Lm. Polycarbonate, light grey, with injected polyurethane double gasket and clear UV stabilized polycarbonate cover, cos φ ≥ 0.9	№			
	Rate or Lump Sum in Words:				
3.1.3	TYPE C2: as same as TYPE C1 but Pendent mounted	№			
	Rate or Lump Sum in Words:				
3.1.4	TYPE A2 / A3: 600x600 mm LED Panel 3600lm, 33W, 4000K, 80CRI surface-mount/recessed, die-cast aluminum, IP20	№			
	Rate or Lump Sum in Words:				
3.1.6	TYPE N4 / N3: LED - 900lm - 12.5W - 3000K - 80CRI - WW Surface mounted / Recessed Downlight Round - 120 deg	№			
	Rate or Lump Sum in Words:				
3.1.10	Replace Existing lighting fixtures with TYPE L (LED)	№			
	Rate or Lump Sum in Words:				

Bill № 4: Electrical Engineering Services

Lot #: Lot 2 - Donieh, Tripoli
Shelter: May Second Public School for Girls

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
4	**FIRE ALARM SYSTEM**				
	Supply and install all necessary fittings, wires conduits, boxes, plates, relays, bell modules, EOL resistors and accessories as described and as shown on drawings and all necessary connection to the management stations as intended to the satisfaction of the engineer.				
4.6	Break Glass	№			
	Rate or Lump Sum in Words:				
	Total Bill № 4: Electrical Engineering Services				

General Summary

General Summary

Lot #: Lot 2 - Donieh, Tripoli
Shelter: May Second Public School for Girls

Description	Amount (US $)
Bill № 2: Civil and Architectural Works	.....
Bill № 3: Mechanical Engineering Services	.....
Bill № 4: Electrical Engineering Services	.....
* Total Amount of Bill of Quantities ……	.....
* Discount by Tenderer (_____ %) ……	.....
* Total Amount of Tender (VAT Not Applicable) ……	.....

* Total Amount of Tender in Words:

.....

.....

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Bill № 2: Civil and Architectural Works

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: El Jdideh Public School for Boys

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
1	**SITE PREPARATION AND DEMOLITION**				
1.1	**Demolishing and Removal of Debris**				
1.1.1	The works include all types of demolition and the removal of debris and damaged elements such but not limited to, the following:				
-	Existing plastering and concrete items such as foundations, columns, slabs, etc.				
-	Damaged Tiling (floors and walls)				
-	Toilet fixtures and pipes installation of all sizes				
-	Counter tops, bases and sinks				
-	Water tanks of different types				
-	Hollow concrete block walls or concrete walls of all sizes				
-	Demolition of the existing ramps / Stairs and the execution of the given plans and specifications				
-	Including the necessary equipment for the removal of debris and all resulting materials				
-	etc.	LS	1		
	Rate or Lump Sum in Words:				
2	**SITE PREPARATION AND DEMOLITION**				
2.4	**School Fences with Related Gates**				
2.4.2	Rehabilitate Existing Fence (Strengthening & Rehabilitation)				
	Work to include				
-	Rehabilitate and support all the existing fence as per drawings				
-	Determine the places that requires support				
-	Preparation of shop drawings				
-	Replace all broken elements				
-	Redo all damaged elements and to be similar to existing elements				
-	Finishing works as existing (plastering, paints, stone cladding, etc.)				
-	Rehabilitate existing steel protection (Replace all damaged part by new similar to existing and paint with epoxy as specified)				
-	Replace existing chain link by new one (Galvanized)				
-	Reconstruct the broken and damaged parts and rehabilitate as it was with all similar materials including steel parts with related epoxy paint as per the engineer instructions	m			
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: El Jdideh Public School for Boys

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
4	**MASONRY**				
4.1	**Hollow or Solid Concrete Blocks and Claustra**				
	Supply and install concrete blocks as per drawings				
	Work to include:				
-	All places as per the drawings, and the Engineer instructions.				
-	Materials				
-	Cement mortar and the use of extruded nets and reinforcement by means of metal gates and the placement of angles of galvanized steel iron of concrete columns thickness of 4 mm every 60 cm				
-	Labors and all items needed and instructions by the Engineer				
4.1.4	15 cm hollow concrete blocks	m²			
	Rate or Lump Sum in Words:				
5	**METAL WORKS**				
5.1	**Provide New Steel Work (Door & Windows)**				
5.1.3	Provide new double glazed aluminum windows with new burglar proof protection	№			
	Rate or Lump Sum in Words:				
5.2	**Rehabilitate and Maintain the Existing Steel Work (Burglar Proof Protection + Opening)**				
	Rehabilitate the existing steel windows or doors as per specifications and drawings and the Engineer instruction				
	Work to include:				
-	Remove all damaged members and replace by new ones				
-	Rub completely to secure all parts and use putty to make faces smooth				
-	Apply two layers of anti rust paint				
-	Apply putty				
-	Apply three layers of epoxy external paint				
-	All needed items as per the Engineer instructions				
5.2.1	Rehabilitate existing steel doors	№			
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: El Jdideh Public School for Boys

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
5.2.2	Rehabilitate existing steel gates	№			
	Rate or Lump Sum in Words:				
5.2.6	Rehabilitate and paint existing steel window	№			
	Rate or Lump Sum in Words:				
5.5	**Rehabilitate and Maintain Steel Handrail**				
-	Rehabilitate the existing metal handrail and remove the damaged members and replace by new				
-	Reinforce the existing handrail with similar members in addition to the rail and all necessary accessories				
-	Remove existing paint & clean deeply as per SSPC code and ISO 8501				
-	Apply one layer of epoxy base paint				
-	Apply putty				
-	Apply epoxy paint as per specification				
	All needed items as per the Engineer instructions				
5.5.1	Floor Mounted	m			
	Rate or Lump Sum in Words:				
6	**WOOD AND PLASTICS**				
6.1	**Joinery Works**				
6.1.1	Rehabilitate Existing Kitchen Cupboards				
	Rehabilitate existing cupboards, cabinets, drawers, counters, etc., for the existing kitchen. Works to include replacing damaged elements, accessories, material, labor, equipment, maintaining support, change of the top of counter by new resin counter as specified, etc. As per engineer's approval.				
-	Repair wood elements in accordance with AWI Quality Standards requirements.				
-	Repair framing and sash members with mortise and Tenon joints. Ensure joints and connections are flush, hairline, and weather-tight.				
-	Scarf joints permitted when wood matches in color and grain texture. Form sills and stools in one piece.				
-	Fabricate components with minimum clearances and shim spacing around perimeter of assembly, yet allowing installation and dynamic movement of perimeter seal.				
6.1.1.1	Kitchen Cupboards	m			
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: El Jdideh Public School for Boys

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
8	**DOOR AND WINDOWS**				
8.1	**Wooden Doors and Windows**				
	Supply and install all timber work with all related items				
	The joinery works should be of the first class type and as per specifications and drawings				
	Work to include:				
-	Material and labors				
-	All accessories to be heavy duty (Hinged, Lock, Glass vision, as required, etc.)				
-	The frame for any width (Steel, Wood, etc.)				
-	Paint as follows:				
-	Anti rust layers				
-	Putty + one layer of undercoat				
-	Three layers of epoxy paint				
-	Apply and fix 6mm wired clear glass				
-	View Permitting glass opening where needed				
-	remove the existing timber panels				
-	repair the edges				
-	The Contractor should submit shop drawings				
-	All needed items as the Engineer instructions				
8.1.1	**Timber Doors**				
	Supply and install flush timber door as per drawings with laminated plastic facing and the door should have 10cm width frame between the plywood and fill with timber beads by tongue and groove each 5cm, and the door edges should behead wood and fixed by tongue and groove frames should be as specified, with fixed glass panel vision window, and similar to existing, and to the Engineer's instructions				
-	Works included, all accessories and fittings, pre-painting and finishing paint sides of doors and box frames.				
-	All works should be done as per the Engineer instructions				
8.1.1.2	Provide new single leaf wooden door with view frame	№			
	Rate or Lump Sum in Words:				
8.1.1.3	Provide WC partition door	№			
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: El Jdideh Public School for Boys

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
8.1.3	**Rehabilitate the Existing Timber Doors**				
	As stated in the Preambles of Item 8.1				
	In addition, rehabilitate the existing timber doors:				
	The minimum amount of existing timber should be removed to allow an effective repair to be formed.				
	Cut out deteriorated area of timber in sloping splice to give optimum area of surface to be glued & fixed.				
	Well-seasoned timber to be used in forming a repair with the line and density of grain (number of growth rings) of new timber matching the existing as closely as possible.				
	For all joinery work, timber with shakes, fissures, warping, heartwood, sapwood or numerous/large knots should be avoided for use in repair. Always work new material to the line of the existing and avoid unnecessary trimming of original timber. Repairs should follow any existing deformations in the line of the wood element (e.g. door or window).				
	Avoid mixing timber species between new and existing in a repair as joint between the two is likely to fail from different rates of expansion and contraction during dry & damp conditions. Where possible, spliced repairs to be designed to ensure moisture is towards the outer face of timber and that moisture does not lay on the repair joint.				
	The length of the splice is governed by section of timber and the nature of component being repaired and it should be designed to ensure an effective bond between new and existing sections of timber. Where wood element are to be dismantled as part of the repair process, always mark and record the constituent parts before dismantling. similarly, number of glass panes/quarries before removal.				
	If applicable carefully soften putty or remove wood trim and then remove glass. Use glue, to connect a new outer section of bottom rail to the existing sound timber. Drill and insert new wooden pins or fix using brass screws from inside.				
	Casements or sashes are often in sound condition but the joints have become loose due to the break down of glue and loose wedges.				
	The wedges will often be easily removable and will probably be unsuitable for re-use. It may be for the joints to be pulled together successfully.				
	Attach door frame and shims to perimeter opening to accommodate construction tolerances & all irregularities.				
	Align door plumb and level, free of warp or twist. Maintain dimensional tolerances and alignment with adjacent work. Install operating hardware.				
8.1.3.1.1	Rehabilitate and paint existing single leaf timber doors with related accessories	№	12		
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: El Jdideh Public School for Boys

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
8.1.3.1.2	Rehabilitate existing double leaf door	№			
	Rate or Lump Sum in Words:				
8.1.3.1.4	Rehabilitate wooden windows	№			
	Rate or Lump Sum in Words:				
8.2	**Aluminum Doors and Windows**				
	Fabricate, supply and install aluminum works as manufactured by SIDEM 2000 first choice with all necessary accessories as per the drawings and the Engineer instructions, cost to include all doors and windows:				
-	Reveals hard stone 3cm thick, all around for external opening				
-	Apply EPDM around door and windows where necessary				
-	Single glass 6 mm				
-	Double glass 6-12-6 mm (Outer Glass should be Tempered)				
-	Hinges and locks				
-	Joint Filler				
-	Mosquito Screen				
-	Mesh				
-	All items needed as per the Engineer instructions				
-	All as specified and base on an approved shop drawings after exact dimensions				
8.2.1	**New Aluminum Panels (Double Glass)**				
	Supply and install the fabricated aluminum panels with double glass (6 - 12 - 6 mm) (Outer Glass should be Tempered)				
8.2.1.1	Provide new aluminum double glazed window & door panel	№			
	Rate or Lump Sum in Words:				
8.2.2	**New Aluminum Internal Door**				
	Supply and install aluminum door with frame and related strengthening stud, Works to include:				
	Materials, and accessories				
-	Labors				
-	All needed items as per the engineer instructions.				
-	Repair all around the opening				
8.2.2.1	Provide new aluminum partition door as indicated.	№			
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: El Jdideh Public School for Boys

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
8.2.3	**Rehabilitation Existing Glazed Aluminum Panels (s)**				
	Replacing Broken Glass. Fixing Hardware Issues: Check the functionality of latches, hinges, and other hardware. If any parts are broken, replace them with new ones to ensure the window operates smoothly. After repairs, apply a high-quality sealant around the edges to prevent moisture intrusion. If the paint is peeling or faded, consider repainting the frame with a metal paint formulated for aluminum to enhance durability and appearance.				
8.2.3.1	Rehabilitate existing windows	№	7		
	Rate or Lump Sum in Words:				
9	**FINISHES**				
9.1	**Cement Plaster**				
	Supply and install sand cement plaster on concrete and block wall surfaces as specified				
	The plaster layer should be own a base rough layer				
	The plaster works should be on level points and each point should be at 1.5 m from the second only				
	Work to include:				
-	Materials and accessories (galvanized, wire mesh, cover beds, etc.)				
-	Labors				
-	All addition watering				
-	All tools				
-	Plaster thickness more than 2 cm				
-	All needed items as per drawings and the Engineer instructions				
9.1.1	**Internal and External Plaster Works**				
9.1.1.1	Supply and apply one layer of sand cement plaster over a rough textured layer of plaster				
	Price included all accessories, material, scaffolding and labor, etc.	m²			
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: El Jdideh Public School for Boys

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
9.1.2	**Repair of Existing Plaster (Internal - External) (Cracks, etc.)**				
9.1.2.1	Rehabilitate and repair cracked and damaged plaster indoor and outdoor				
	Work to include:				
-	Determine the location and remove all loose items around the area				
-	Remove the cracked plaster layer				
-	Remove the pulled out layers				
-	Clean the places with suitable materials				
-	Fill all cracks after widening by (No Suggestions) or approved equal.				
-	Remove loose and other deteriorated materials prior to the new repair. Take special care not to damage the adjacent original materials. Prepare mortar joints for installation of lateral reinforcement where it is required. Use thin steel bars to clean joints to maximum depth possible. Remove loose mortar. Mix mortar with minimal amount of water (potable) prior to use. All separation cracks between perpendicular walls shall be filled grout to reduce additional movement from wind loads and thermal expansion-contraction.				
-	Clear debris from crack by probing, brushing, and blowing.				
-	Force non-shrink mortar mixture into crack as deep as possible with hands, wood and metal probes. Use as dry a mix as possible. Use stone bats to fill larger crack voids. Ensure mortar is forced into smaller/deeper cracks. Mortar grout will be fluid in order to flow into crack. Either grout bags or gravity flow shall be used depending on the conditions. Fil Protect repairs from rapid drying by misting, shading, protecting from dry wind cracks in a series of applications rather than one large application. Final application shall not be flush with the surface, but shall be one half the width of the crack below the surface. Remove all tool marks with brush.				
-	Apply the finish rough plaster layer				
-	Install galvanized steel mesh 20 cm width at least				
-	Apply the second smooth plaster layer	LS			
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: El Jdideh Public School for Boys

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
9.2	**Tiling Works**				
	Supply and install all tiling items for floors, with the skirting				
	Work to include all materials and labors and the Contractor should use all necessary rods and levels as per the Engineer instructions				
	Price to include:				
-	Sand below tiles				
-	Materials, tiles, mortars				
-	Labors				
-	Rubbing				
-	Filling between tiles				
-	Filling the skirting				
-	Remove unsuitable items				
-	Cleaning the places				
-	All needed items as per the Engineer instructions				
9.2.1	**New Full Mass Colored Ceramic for Floors**				
	Ceramic tiles and tilework as specified and detailed, installed complete; Including for substrate preparation, cement: sand screeds or plaster backing coats; setting, jointing and grouting; tile trim and accessories; sealants; and all other related ancillaries as indicated or required				
9.2.1.1	Supply and install anti skid colored full mass ceramic tiles for classroom (first choice) for all floor toilets, kitchen and laboratory (existing and new)	m²			
	Rate or Lump Sum in Words:				
9.2.1.2	Skirting same type of floors or as existing or required	m			
	Rate or Lump Sum in Words:				
9.2.2	**New Glazed Colored Ceramic for Walls**				
9.2.2.1	Supply and install glazed colored ceramic for walls Include Ceramic Corner (first choice)	m²			
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: El Jdideh Public School for Boys

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
9.2.3	**New Tiles for stairs**				
	Supply and install tiles first choice for the new stair (treads 3cm thick - Risers 2cm thick) and landing - tiling 2cm and for all floors or otherwise specified color type and quality to be submitted for approval, works to include:				
-	Labor, materials and installations				
-	Under tile fill				
-	Mortar				
-	Lining				
-	Step (Tread + riser) and landing and all type of skirting				
-	And needed items to complete the works as per the Engineer instructions				
9.2.3.2	Granite 2cm Thick (Tread and Riser)	m			
	Rate or Lump Sum in Words:				
9.2.3.3	Mosaic Similar to existing 4cm Thick minimum (Tread and Riser)	m			
	Rate or Lump Sum in Words:				
9.2.4	**Repair existing broken floor tiles and skirting (all types) and reinstall by new, similar to existing for all rooms and corridors**				
9.2.4.1	Rehabilitate and repair all damaged and broken tiles, and skirting for any type (marble - ceramic - mosaic - Cement). Remove broken or damaged pieces to be replaced without affecting the adjacent undamaged areas				
	Work to include:				
-	Remove all debris as specified				
-	All materials and labors				
-	Difference tiles (shapes thickness, dimension, pattern) as needed.				
-	Cutting and repair				
-	Grouting				
-	Polish and rubbing				
-	All needed items as per Engineer comments and complete to Engineer approval.	LS	1		
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: El Jdideh Public School for Boys

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
9.2.5	**Rehabilitate Existing Stair Treads and Riser**				
	Remove the broken treads and risers, install and supply new ones similar to the existing with the needed side bases, width as per site dimension with skirting and tiles for landing				
	The work to be as per the Engineer instructions				
9.2.5.1	Existing Mosaic Stair	m			
	the price including Skirting tiles & Landing				
	Rate or Lump Sum in Words:				
9.2.10	**Laminate Vinyl Tiles**				
9.2.10.1	Provide Laminate Vinyl Tiles similar to existing. The removal of existing vinyl tiles, rolls, proper levelling, surfacing of the existing concrete by casting a special layer of new concrete to ensure proper installation of the new vinyl layer as specified and as per standards. Price to include skirting	m²			
	Rate or Lump Sum in Words:				
9.4	**Gypsum Works**				
9.4.1	**New Gypsum Suspended Ceiling (Panel, Tiles):**				
9.4.1.1	Supply and install gypsum board tiles suspended ceiling (60 x 60 cm or panel board with paint)				
	Work to include:				
-	Remove the existing gypsum board tiles and move them to outside				
-	Labors				
-	Materials				
-	Accessories				
-	Angles				
-	Special Heavy duty metal suspension system				
-	All needed items as per the Engineer instructions and approval	m²	12		
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: El Jdideh Public School for Boys

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
9.5	**Painting**				
9.5.1	**Wall and Ceilings Paint Works**				
	Wall paint include preparation of the base surfaces to receive the paints and apply the specified layers of putty and paint from the best quality as per specifications and as indicated in drawings				
	The base surfaces should be clean and smooth and free from any pulled out old paints before starting application of the specified primer/undercoat.				
	Apply 2 layers of putty then after smoothening, then 3 layers of the approved paint materials.				
	All works and items should be as per manufacturer recommendation, compatible with each other and as per the Engineer instructions and approval, ***All paint types must be lead-free and Low VOC (Volatile Organic Compounds)***				
9.5.1.2	Super Rubber Paint for old walls and ceilings	m²	2,000		
	Rate or Lump Sum in Words:				
9.5.1.4	Oil Paints for old walls and ceilings	m²	200		
	Rate or Lump Sum in Words:				
9.5.2	**Outside Walls Paint (Old and New Walls and Ceilings)**				
9.5.2.1	Paint for external old and new walls, smooth touch				
	Work to include:				
-	Removal of any paint or obstacle				
-	Rehabilitate the surfaces and make them goods				
-	Polyurethane where needed for cracks				
-	Apply one coat of undercoat				
-	Apply 2 coats of external paint or rolled textured paint				
-	Apply one layer of external transparent paint (acrylic styrene copolymer elastic water proof)				
-	All needed scaffolding and materials for the best execution of the works				
-	All works and items should be as per manufacturer and the Engineer instructions and approval.	m²	200		
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: El Jdideh Public School for Boys

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
10	**SPECIALTIES**				
10.1	**Bathrooms Accessories**				
-	Remove and cart away old damaged fixtures				
-	Supply and install all needed accessories and make good their places and their surroundings				
-	Place all frame, cover joints (stainless steel) anti-corrosion				
-	Install items and their contact with the surfaces				
-	All works should be done as per the Engineer instructions				
10.1.4	**Mirror for Lavatories**				
	Supply and install 6mm glass mirror for lavatories with colored PVC frames as show on drawings and as stated in the specifications with all needed items and accessories				
	The mirror should be placed on 3mm thick plywood from the back				
	All works should be done as the Engineer instructions				
10.1.4.1	Mirror (Dimension as per site conditions and engineer instruction)	№			
	Rate or Lump Sum in Words:				
10.3	**Resin Work**				
10.3.1	**Drinking Basin**				
	Supply and install drinking basin as shown on drawings of resin layers 12 mm thick fixed on galvanized steel skeleton 4 x 4 cm hollow sections and as shown on drawings				
	Work to include:				
-	Materials				
-	Labors				
-	Galvanized steel skeleton				
-	All needed items and as instructed by the Engineer				
10.3.1.1	Drinking Basin -Length (up to 2.20 m)	№			
	Rate or Lump Sum in Words:				
10.3.1.6	Drinking Basin -Length (4.11 to 6.20 m)	№			
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: El Jdideh Public School for Boys

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
10.3.4	**Kitchen Counter**				
	Supply and install complete counter resin type with sink (resin) for teachers' kitchen of 18mm thick including coved splash back 20cm height and the work to include:				
-	All fixing elements				
-	All stainless steel hangers				
-	All necessary accessories				
-	All needed items and as instructed by the Engineer				
10.3.4.2	Kitchen Counter - Length (1.11 to 1.75m)	№			
	Rate or Lump Sum in Words:				
	Total Bill № 2: Civil and Architectural Works				

Bill № 3: Mechanical Engineering Services

Bill № 3: Mechanical Engineering Services

Lot #: Lot 2 - Donieh, Tripoli
Shelter: El Jdideh Public School for Boys

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
1	**GENERAL TECHNICAL REQUIREMENTS**				
1.1	**General Mechanical Requirements**				
1.1.2	Prepare the shop drawings for all mechanical works and obtain approval from the Engineer before the start of executing any work.	Item	1		
	Rate or Lump Sum in Words:				
1.2	**Rehabilitation Works General Requirements**				
	Provide all necessary rehabilitation works and make all Mechanical systems in good condition complete including maintenance, cleaning, relocation works, replacing damaged items and equipment, removing and carting away resulting materials and equipment, testing and commissioning, and all other related works to ensure all Mechanical systems are properly working and functional.				
1.2.1	Maintenance and rehabilitation of existing plumbing works, including sanitary fixtures, floor drains, roof drains, manholes, pumps, WC tanks, adding where applicable all necessary valves, flush valves, etc., and all other necessary works.	Item	10		
	Rate or Lump Sum in Words:				
2	**SANITARY, WASTE & RAIN WATER PIPE WORK INSTALLATION**				
2.3	**Drain Cover**				
	Supply and install floor drain cover (P.E) 5 mm thick on drainage pipe and to be the same level of the floor tiling. Work to include all civil works and as per the Engineer instructions				
2.3.1	Cover for FCO	№			
	Rate or Lump Sum in Words:				

Bill № 3: Mechanical Engineering Services

Lot #: Lot 2 - Donieh, Tripoli
Shelter: El Jdideh Public School for Boys

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
3	**WATER PIPE WORK INSTALLATION**				
3.1	**Water Tanks**				
	Supply & install polyethylene water tank (3 layers) or more with all necessary supply and over flow connections all as per the Engineer instructions				
3.1.2	2000 liters PE water tank	№			
	Rate or Lump Sum in Words:				
5	**SANITARY FIXTURES**				
5.1	**W.C. for Kids**				
	Supply and install K.G. W.C. Flush valve with cover as manufactured by Duravit - Bambi No. 018509 or approved equal, 35 cm height max. from finished floor with timber cover.				
	Cost to include all related connections angle valves and necessary accessories as per the Engineer instructions.				
	Each W.C. should be equipped with a Flushing Hose (Grohe or Ideal standard or approved equal)				
5.1.1	EWC-03 (Wall Hang - 52 x 32 cm)	№			
	Rate or Lump Sum in Words:				
5.2	**W.C. For Non Kids**				
	Supply and install W.C. for non kids, Flush valve with cover as manufactured by Ideal Standard Item No. E876801 also the hose, or approved equal and to be 40 cm from floor finish with timber cover.				
	The work to include the installation, liking, cleaning with all necessary connection, angle valves and necessary accessories similar to the K.G.W.C.				
	Each W.C. should be equipped with a Flushing Hose (Grohe or Ideal standard or approved equal)				
5.2.1	EWC-01 (Wall Hang - 52 x 36 cm)	№			
	Rate or Lump Sum in Words:				
5.2.3	AWC-01 (Asian water closet)	№			
	Rate or Lump Sum in Words:				

Bill № 3: Mechanical Engineering Services

Lot #: Lot 2 - Donieh, Tripoli
Shelter: El Jdideh Public School for Boys

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
5.3	**Lavatories for Kids in the K.G.**				
	Supply and install semi pedestal wash basin similar to Ideal Standard No. 742001 or approved equal, 45 x 36 cm, and fixed at 60 cm high from the floor finish. Cost to include all necessary connections, angle valves and accessories as required				
5.3.1	LAV-03 (semi-pedestal wash basin - 45 x 35 cm)	№			
	Rate or Lump Sum in Words:				
5.4	**Lavatories for Non Kids**				
	Supply and install semi pedestal wash basin similar to Ideal Standard No. 742001 or approved equal and fixed at 82 cm high from the floor finish. Cost to include all necessary connections, angle valves, traps and necessary accessories as specified.				
5.4.1	LAV-01 (semi-pedestal with mixers 55 x 45 cm)	№			
	Rate or Lump Sum in Words:				
5.5	**Urinal**				
	Supply and installation of high quality urinal units complete with proper wall fixation with anti-dust materials including drainage & water supply connection as per the approved shop drawings.				
	Cost to include all necessary accessories, valves, sensors to provide workable system.				
5.5.1	Urinal	№			
	Rate or Lump Sum in Words:				
5.6	**Self Close Taps on Kids & Students Lavatories**				
	Supply and install self close taps to be fixed in the lavatory body as manufactured by Grohe Item No. 36-173 with all required works and drain accessories including trap, to be connected to the new water supply and drain and as instructed by the Engineer				
5.6.1	Self Close Taps	№			
	Rate or Lump Sum in Words:				

Bill № 3: Mechanical Engineering Services

Lot #: Lot 2 - Donieh, Tripoli
Shelter: El Jdideh Public School for Boys

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
5.7	**Wall Type Self Close Taps on Drinking Basins**				
	Supply and install self close taps to be fixed in the drinking basin body as manufactured by Grohe Item No. 36-176 with all required works and drain accessories including trap and to be connected to the new water supply and drain and as instructed by the Engineer				
5.7.1	Wall Type Self Close Taps	№			
	Rate or Lump Sum in Words:				
5.8	**Kitchen Sink Accessories**				
	Supply and install kitchen sink accessories such as chrome trap, angle valve, mixers as specified				
5.8.1	Kitchen Sink Accessories	№			
	Rate or Lump Sum in Words:				
	Total Bill № 3: Mechanical Engineering Services				

Bill № 4: Electrical Engineering Services

Bill № 4: Electrical Engineering Services

Lot #: Lot 2 - Donieh, Tripoli
Shelter: El Jdideh Public School for Boys

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
1	**BASIC ELECTRICAL REQUIREMENTS**				
	The Contractor should revise all the drawings and compare them with the site conditions and redo all the design works with the necessary calculations for all the electrical installations and works. Moreover, the Contractor should submit shop drawings and as-built drawings for the maintenance use in the future.				
	The contractor should provide all the necessary maintenance works for all Electrical systems related to the KG school to ensure its proper works.				
	At the end of the project, the contractor should submit complete As-Built Drawings for all executed works with exact dimensions & sizes for easy maintenance work in the future.				
1.1	**Fixing and Repairing**				
	Check & repair all the existing cables, wires, socket outlets, lighting fixtures, lighting switches, electric fans, and protect all exposed wiring as per the site conditions, and to the satisfaction of the Engineer.				
	All as per the drawings, specifications and Engineer instructions				
1.1.1	Lighting fixtures	LS			
	Rate or Lump Sum in Words:				
1.1.2	Wires and cables	LS			
	Rate or Lump Sum in Words:				
1.1.3	Sockets and switches	LS			
	Rate or Lump Sum in Words:				
1.1.4	Circuit breakers	LS			
	Rate or Lump Sum in Words:				
1.1.9	All needed electrical works … etc.	LS			
	Rate or Lump Sum in Words:				

Bill № 4: Electrical Engineering Services

Lot #: Lot 2 - Donieh, Tripoli
Shelter: El Jdideh Public School for Boys

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
3	**GENERAL LIGHTING INSTALLATIONS**				
3.1	**Lighting Fixtures**				
	Supply, install and test the lighting fixtures complete with all the necessary wires conduits, boxes and accessories required to provide power to each lighting fitting from LP including the earth wire as per the drawings, specifications and Engineer instructions.				
	The Contractor should submit samples of each lighting fixture for approval.				
3.1.1	TYPE C1: Twin T8 LED Tube, surface-mount luminaire for interior, 40W, 4000K, 4700Lm. Polycarbonate, light grey, with injected polyurethane double gasket and clear UV stabilized polycarbonate cover, cos φ ≥ 0.9	№			
	Rate or Lump Sum in Words:				
3.1.3	TYPE C2: as same as TYPE C1 but Pendent mounted	№			
	Rate or Lump Sum in Words:				
3.1.4	TYPE A2 / A3: 600x600 mm LED Panel 3600lm, 33W, 4000K, 80CRI surface-mount/recessed, die-cast aluminum, IP20	№			
	Rate or Lump Sum in Words:				
3.1.6	TYPE N4 / N3: LED - 900lm - 12.5W - 3000K - 80CRI - WW Surface mounted / Recessed Downlight Round - 120 deg	№			
	Rate or Lump Sum in Words:				
3.1.10	Replace Existing lighting fixtures with TYPE L (LED)	№			
	Rate or Lump Sum in Words:				

Bill № 4: Electrical Engineering Services

Lot #: Lot 2 - Donieh, Tripoli
Shelter: El Jdideh Public School for Boys

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
4	**FIRE ALARM SYSTEM**				
	Supply and install all necessary fittings, wires conduits, boxes, plates, relays, bell modules, EOL resistors and accessories as described and as shown on drawings and all necessary connection to the management stations as intended to the satisfaction of the engineer.				
4.6	Break Glass	№			
	Rate or Lump Sum in Words:				
	Total Bill № 4: Electrical Engineering Services				

General Summary

General Summary

Lot #: Lot 2 - Donieh, Tripoli
Shelter: El Jdideh Public School for Boys

Description	Amount (US $)
Bill № 2: Civil and Architectural Works	.....
Bill № 3: Mechanical Engineering Services	.....
Bill № 4: Electrical Engineering Services	.....
* Total Amount of Bill of Quantities ……	.....
* Discount by Tenderer (_____ %) ……	.....
* Total Amount of Tender (VAT Not Applicable) ……	.....

* Total Amount of Tender in Words:

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Bill № 2: Civil and Architectural Works

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Farah Antoun Public School for Boys

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
1	**SITE PREPARATION AND DEMOLITION**				
1.1	**Demolishing and Removal of Debris**				
1.1.1	The works include all types of demolition and the removal of debris and damaged elements such but not limited to, the following:				
-	Existing plastering and concrete items such as foundations, columns, slabs, etc.				
-	Damaged Tiling (floors and walls)				
-	Toilet fixtures and pipes installation of all sizes				
-	Counter tops, bases and sinks				
-	Water tanks of different types				
-	Hollow concrete block walls or concrete walls of all sizes				
-	Demolition of the existing ramps / Stairs and the execution of the given plans and specifications				
-	Including the necessary equipment for the removal of debris and all resulting materials				
-	etc.	LS	1		
	Rate or Lump Sum in Words:				
2	**SITE PREPARATION AND DEMOLITION**				
2.4	**School Fences with Related Gates**				
2.4.2	Rehabilitate Existing Fence (Strengthening & Rehabilitation)				
	Work to include				
-	Rehabilitate and support all the existing fence as per drawings				
-	Determine the places that requires support				
-	Preparation of shop drawings				
-	Replace all broken elements				
-	Redo all damaged elements and to be similar to existing elements				
-	Finishing works as existing (plastering, paints, stone cladding, etc.)				
-	Rehabilitate existing steel protection (Replace all damaged part by new similar to existing and paint with epoxy as specified)				
-	Replace existing chain link by new one (Galvanized)				
-	Reconstruct the broken and damaged parts and rehabilitate as it was with all similar materials including steel parts with related epoxy paint as per the engineer instructions	m			
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Farah Antoun Public School for Boys

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
4	**MASONRY**				
4.1	**Hollow or Solid Concrete Blocks and Claustra**				
	Supply and install concrete blocks as per drawings				
	Work to include:				
-	All places as per the drawings, and the Engineer instructions.				
-	Materials				
-	Cement mortar and the use of extruded nets and reinforcement by means of metal gates and the placement of angles of galvanized steel iron of concrete columns thickness of 4 mm every 60 cm				
-	Labors and all items needed and instructions by the Engineer				
4.1.4	15 cm hollow concrete blocks	m²			
	Rate or Lump Sum in Words:				
5	**METAL WORKS**				
5.1	**Provide New Steel Work (Door & Windows)**				
5.1.3	Provide new double glazed aluminum windows with new burglar proof protection	№			
	Rate or Lump Sum in Words:				
5.2	**Rehabilitate and Maintain the Existing Steel Work (Burglar Proof Protection + Opening)**				
	Rehabilitate the existing steel windows or doors as per specifications and drawings and the Engineer instruction				
	Work to include:				
-	Remove all damaged members and replace by new ones				
-	Rub completely to secure all parts and use putty to make faces smooth				
-	Apply two layers of anti rust paint				
-	Apply putty				
-	Apply three layers of epoxy external paint				
-	All needed items as per the Engineer instructions				
5.2.1	Rehabilitate existing steel doors	№			
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Farah Antoun Public School for Boys

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
5.2.2	Rehabilitate existing steel gates	№			
	Rate or Lump Sum in Words:				
5.2.6	Rehabilitate and paint existing steel window	№			
	Rate or Lump Sum in Words:				
5.5	**Rehabilitate and Maintain Steel Handrail**				
-	Rehabilitate the existing metal handrail and remove the damaged members and replace by new				
-	Reinforce the existing handrail with similar members in addition to the rail and all necessary accessories				
-	Remove existing paint & clean deeply as per SSPC code and ISO 8501				
-	Apply one layer of epoxy base paint				
-	Apply putty				
-	Apply epoxy paint as per specification				
	All needed items as per the Engineer instructions				
5.5.1	Floor Mounted	m			
	Rate or Lump Sum in Words:				
6	**WOOD AND PLASTICS**				
6.1	**Joinery Works**				
6.1.1	Rehabilitate Existing Kitchen Cupboards				
	Rehabilitate existing cupboards, cabinets, drawers, counters, etc., for the existing kitchen. Works to include replacing damaged elements, accessories, material, labor, equipment, maintaining support, change of the top of counter by new resin counter as specified, etc. As per engineer's approval.				
-	Repair wood elements in accordance with AWI Quality Standards requirements.				
-	Repair framing and sash members with mortise and Tenon joints. Ensure joints and connections are flush, hairline, and weather-tight.				
-	Scarf joints permitted when wood matches in color and grain texture. Form sills and stools in one piece.				
-	Fabricate components with minimum clearances and shim spacing around perimeter of assembly, yet allowing installation and dynamic movement of perimeter seal.				
6.1.1.1	Kitchen Cupboards	m			
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Farah Antoun Public School for Boys

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
8	**DOOR AND WINDOWS**				
8.1	**Wooden Doors and Windows**				
	Supply and install all timber work with all related items				
	The joinery works should be of the first class type and as per specifications and drawings				
	Work to include:				
-	Material and labors				
-	All accessories to be heavy duty (Hinged, Lock, Glass vision, as required, etc.)				
-	The frame for any width (Steel, Wood, etc.)				
-	Paint as follows:				
-	Anti rust layers				
-	Putty + one layer of undercoat				
-	Three layers of epoxy paint				
-	Apply and fix 6mm wired clear glass				
-	View Permitting glass opening where needed				
-	remove the existing timber panels				
-	repair the edges				
-	The Contractor should submit shop drawings				
-	All needed items as the Engineer instructions				
8.1.1	**Timber Doors**				
	Supply and install flush timber door as per drawings with laminated plastic facing and the door should have 10cm width frame between the plywood and fill with timber beads by tongue and groove each 5cm, and the door edges should behead wood and fixed by tongue and groove frames should be as specified, with fixed glass panel vision window, and similar to existing, and to the Engineer's instructions				
-	Works included, all accessories and fittings, pre-painting and finishing paint sides of doors and box frames.				
-	All works should be done as per the Engineer instructions				
8.1.1.2	Provide new single leaf wooden door with view frame	№			
	Rate or Lump Sum in Words:				
8.1.1.3	Provide WC partition door	№			
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Farah Antoun Public School for Boys

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
8.1.3	**Rehabilitate the Existing Timber Doors**				
	As stated in the Preambles of Item 8.1				
	In addition, rehabilitate the existing timber doors:				
	The minimum amount of existing timber should be removed to allow an effective repair to be formed.				
	Cut out deteriorated area of timber in sloping splice to give optimum area of surface to be glued & fixed.				
	Well-seasoned timber to be used in forming a repair with the line and density of grain (number of growth rings) of new timber matching the existing as closely as possible.				
	For all joinery work, timber with shakes, fissures, warping, heartwood, sapwood or numerous/large knots should be avoided for use in repair. Always work new material to the line of the existing and avoid unnecessary trimming of original timber. Repairs should follow any existing deformations in the line of the wood element (e.g. door or window).				
	Avoid mixing timber species between new and existing in a repair as joint between the two is likely to fail from different rates of expansion and contraction during dry & damp conditions. Where possible, spliced repairs to be designed to ensure moisture is towards the outer face of timber and that moisture does not lay on the repair joint.				
	The length of the splice is governed by section of timber and the nature of component being repaired and it should be designed to ensure an effective bond between new and existing sections of timber. Where wood element are to be dismantled as part of the repair process, always mark and record the constituent parts before dismantling. similarly, number of glass panes/quarries before removal.				
	If applicable carefully soften putty or remove wood trim and then remove glass. Use glue, to connect a new outer section of bottom rail to the existing sound timber. Drill and insert new wooden pins or fix using brass screws from inside.				
	Casements or sashes are often in sound condition but the joints have become loose due to the break down of glue and loose wedges.				
	The wedges will often be easily removable and will probably be unsuitable for re-use. It may be for the joints to be pulled together successfully.				
	Attach door frame and shims to perimeter opening to accommodate construction tolerances & all irregularities.				
	Align door plumb and level, free of warp or twist. Maintain dimensional tolerances and alignment with adjacent work. Install operating hardware.				
8.1.3.1.1	Rehabilitate and paint existing single leaf timber doors with related accessories	№	20		
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Farah Antoun Public School for Boys

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
8.1.3.1.2	Rehabilitate existing double leaf door	№			
	Rate or Lump Sum in Words:				
8.1.3.1.4	Rehabilitate wooden windows	№			
	Rate or Lump Sum in Words:				
8.2	**Aluminum Doors and Windows**				
	Fabricate, supply and install aluminum works as manufactured by SIDEM 2000 first choice with all necessary accessories as per the drawings and the Engineer instructions, cost to include all doors and windows:				
-	Reveals hard stone 3cm thick, all around for external opening				
-	Apply EPDM around door and windows where necessary				
-	Single glass 6 mm				
-	Double glass 6-12-6 mm (Outer Glass should be Tempered)				
-	Hinges and locks				
-	Joint Filler				
-	Mosquito Screen				
-	Mesh				
-	All items needed as per the Engineer instructions				
-	All as specified and base on an approved shop drawings after exact dimensions				
8.2.1	**New Aluminum Panels (Double Glass)**				
	Supply and install the fabricated aluminum panels with double glass (6 - 12 - 6 mm) (Outer Glass should be Tempered)				
8.2.1.1	Provide new aluminum double glazed window & door panel	№			
	Rate or Lump Sum in Words:				
8.2.2	**New Aluminum Internal Door**				
	Supply and install aluminum door with frame and related strengthening stud, Works to include:				
	Materials, and accessories				
-	Labors				
-	All needed items as per the engineer instructions.				
-	Repair all around the opening				
8.2.2.1	Provide new aluminum partition door as indicated.	№			
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Farah Antoun Public School for Boys

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
8.2.3	**Rehabilitation Existing Glazed Aluminum Panels (s)**				
	Replacing Broken Glass. Fixing Hardware Issues: Check the functionality of latches, hinges, and other hardware. If any parts are broken, replace them with new ones to ensure the window operates smoothly. After repairs, apply a high-quality sealant around the edges to prevent moisture intrusion. If the paint is peeling or faded, consider repainting the frame with a metal paint formulated for aluminum to enhance durability and appearance.				
8.2.3.1	Rehabilitate existing windows	№	7		
	Rate or Lump Sum in Words:				
9	**FINISHES**				
9.1	**Cement Plaster**				
	Supply and install sand cement plaster on concrete and block wall surfaces as specified				
	The plaster layer should be own a base rough layer				
	The plaster works should be on level points and each point should be at 1.5 m from the second only				
	Work to include:				
-	Materials and accessories (galvanized, wire mesh, cover beds, etc.)				
-	Labors				
-	All addition watering				
-	All tools				
-	Plaster thickness more than 2 cm				
-	All needed items as per drawings and the Engineer instructions				
9.1.1	**Internal and External Plaster Works**				
9.1.1.1	Supply and apply one layer of sand cement plaster over a rough textured layer of plaster				
	Price included all accessories, material, scaffolding and labor, etc.	m²			
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Farah Antoun Public School for Boys

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
9.1.2	**Repair of Existing Plaster (Internal - External) (Cracks, etc.)**				
9.1.2.1	Rehabilitate and repair cracked and damaged plaster indoor and outdoor				
	Work to include:				
-	Determine the location and remove all loose items around the area				
-	Remove the cracked plaster layer				
-	Remove the pulled out layers				
-	Clean the places with suitable materials				
-	Fill all cracks after widening by (No Suggestions) or approved equal.				
-	Remove loose and other deteriorated materials prior to the new repair. Take special care not to damage the adjacent original materials. Prepare mortar joints for installation of lateral reinforcement where it is required. Use thin steel bars to clean joints to maximum depth possible. Remove loose mortar. Mix mortar with minimal amount of water (potable) prior to use. All separation cracks between perpendicular walls shall be filled grout to reduce additional movement from wind loads and thermal expansion-contraction.				
-	Clear debris from crack by probing, brushing, and blowing.				
-	Force non-shrink mortar mixture into crack as deep as possible with hands, wood and metal probes. Use as dry a mix as possible. Use stone bats to fill larger crack voids. Ensure mortar is forced into smaller/deeper cracks. Mortar grout will be fluid in order to flow into crack. Either grout bags or gravity flow shall be used depending on the conditions. Fil Protect repairs from rapid drying by misting, shading, protecting from dry wind cracks in a series of applications rather than one large application. Final application shall not be flush with the surface, but shall be one half the width of the crack below the surface. Remove all tool marks with brush.				
-	Apply the finish rough plaster layer				
-	Install galvanized steel mesh 20 cm width at least				
-	Apply the second smooth plaster layer	LS			
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Farah Antoun Public School for Boys

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
9.2	**Tiling Works**				
	Supply and install all tiling items for floors, with the skirting				
	Work to include all materials and labors and the Contractor should use all necessary rods and levels as per the Engineer instructions				
	Price to include:				
-	Sand below tiles				
-	Materials, tiles, mortars				
-	Labors				
-	Rubbing				
-	Filling between tiles				
-	Filling the skirting				
-	Remove unsuitable items				
-	Cleaning the places				
-	All needed items as per the Engineer instructions				
9.2.1	**New Full Mass Colored Ceramic for Floors**				
	Ceramic tiles and tilework as specified and detailed, installed complete; Including for substrate preparation, cement: sand screeds or plaster backing coats; setting, jointing and grouting; tile trim and accessories; sealants; and all other related ancillaries as indicated or required				
9.2.1.1	Supply and install anti skid colored full mass ceramic tiles for classroom (first choice) for all floor toilets, kitchen and laboratory (existing and new)	m²			
	Rate or Lump Sum in Words:				
9.2.1.2	Skirting same type of floors or as existing or required	m			
	Rate or Lump Sum in Words:				
9.2.2	**New Glazed Colored Ceramic for Walls**				
9.2.2.1	Supply and install glazed colored ceramic for walls Include Ceramic Corner (first choice)	m²			
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Farah Antoun Public School for Boys

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
9.2.3	**New Tiles for stairs**				
	Supply and install tiles first choice for the new stair (treads 3cm thick - Risers 2cm thick) and landing - tiling 2cm and for all floors or otherwise specified color type and quality to be submitted for approval, works to include:				
-	Labor, materials and installations				
-	Under tile fill				
-	Mortar				
-	Lining				
-	Step (Tread + riser) and landing and all type of skirting				
-	And needed items to complete the works as per the Engineer instructions				
9.2.3.2	Granite 2cm Thick (Tread and Riser)	m			
	Rate or Lump Sum in Words:				
9.2.3.3	Mosaic Similar to existing 4cm Thick minimum (Tread and Riser)	m			
	Rate or Lump Sum in Words:				
9.2.4	**Repair existing broken floor tiles and skirting (all types) and reinstall by new, similar to existing for all rooms and corridors**				
9.2.4.1	Rehabilitate and repair all damaged and broken tiles, and skirting for any type (marble - ceramic - mosaic - Cement). Remove broken or damaged pieces to be replaced without affecting the adjacent undamaged areas				
	Work to include:				
-	Remove all debris as specified				
-	All materials and labors				
-	Difference tiles (shapes thickness, dimension, pattern) as needed.				
-	Cutting and repair				
-	Grouting				
-	Polish and rubbing				
-	All needed items as per Engineer comments and complete to Engineer approval.	LS	1		
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Farah Antoun Public School for Boys

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
9.2.5	**Rehabilitate Existing Stair Treads and Riser**				
	Remove the broken treads and risers, install and supply new ones similar to the existing with the needed side bases, width as per site dimension with skirting and tiles for landing				
	The work to be as per the Engineer instructions				
9.2.5.1	Existing Mosaic Stair	m			
	the price including Skirting tiles & Landing				
	Rate or Lump Sum in Words:				
9.2.10	**Laminate Vinyl Tiles**				
9.2.10.1	Provide Laminate Vinyl Tiles similar to existing. The removal of existing vinyl tiles, rolls, proper levelling, surfacing of the existing concrete by casting a special layer of new concrete to ensure proper installation of the new vinyl layer as specified and as per standards. Price to include skirting	m²			
	Rate or Lump Sum in Words:				
9.4	**Gypsum Works**				
9.4.1	**New Gypsum Suspended Ceiling (Panel, Tiles):**				
9.4.1.1	Supply and install gypsum board tiles suspended ceiling (60 x 60 cm or panel board with paint)				
	Work to include:				
-	Remove the existing gypsum board tiles and move them to outside				
-	Labors				
-	Materials				
-	Accessories				
-	Angles				
-	Special Heavy duty metal suspension system				
-	All needed items as per the Engineer instructions and approval	m²	12		
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Farah Antoun Public School for Boys

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
9.5	**Painting**				
9.5.1	**Wall and Ceilings Paint Works**				
	Wall paint include preparation of the base surfaces to receive the paints and apply the specified layers of putty and paint from the best quality as per specifications and as indicated in drawings				
	The base surfaces should be clean and smooth and free from any pulled out old paints before starting application of the specified primer/undercoat.				
	Apply 2 layers of putty then after smoothening, then 3 layers of the approved paint materials.				
	All works and items should be as per manufacturer recommendation, compatible with each other and as per the Engineer instructions and approval, ***All paint types must be lead-free and Low VOC (Volatile Organic Compounds)***				
9.5.1.2	Super Rubber Paint for old walls and ceilings	m²	2,000		
	Rate or Lump Sum in Words:				
9.5.1.4	Oil Paints for old walls and ceilings	m²	250		
	Rate or Lump Sum in Words:				
9.5.2	**Outside Walls Paint (Old and New Walls and Ceilings)**				
9.5.2.1	Paint for external old and new walls, smooth touch				
	Work to include:				
-	Removal of any paint or obstacle				
-	Rehabilitate the surfaces and make them goods				
-	Polyurethane where needed for cracks				
-	Apply one coat of undercoat				
-	Apply 2 coats of external paint or rolled textured paint				
-	Apply one layer of external transparent paint (acrylic styrene copolymer elastic water proof)				
-	All needed scaffolding and materials for the best execution of the works				
-	All works and items should be as per manufacturer and the Engineer instructions and approval.	m²	250		
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Farah Antoun Public School for Boys

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
10	**SPECIALTIES**				
10.1	**Bathrooms Accessories**				
-	Remove and cart away old damaged fixtures				
-	Supply and install all needed accessories and make good their places and their surroundings				
-	Place all frame, cover joints (stainless steel) anti-corrosion				
-	Install items and their contact with the surfaces				
-	All works should be done as per the Engineer instructions				
10.1.4	**Mirror for Lavatories**				
	Supply and install 6mm glass mirror for lavatories with colored PVC frames as show on drawings and as stated in the specifications with all needed items and accessories				
	The mirror should be placed on 3mm thick plywood from the back				
	All works should be done as the Engineer instructions				
10.1.4.1	Mirror (Dimension as per site conditions and engineer instruction)	№			
	Rate or Lump Sum in Words:				
10.3	**Resin Work**				
10.3.1	**Drinking Basin**				
	Supply and install drinking basin as shown on drawings of resin layers 12 mm thick fixed on galvanized steel skeleton 4 x 4 cm hollow sections and as shown on drawings				
	Work to include:				
-	Materials				
-	Labors				
-	Galvanized steel skeleton				
-	All needed items and as instructed by the Engineer				
10.3.1.1	Drinking Basin -Length (up to 2.20 m)	№			
	Rate or Lump Sum in Words:				
10.3.1.6	Drinking Basin -Length (4.11 to 6.20 m)	№			
	Rate or Lump Sum in Words:				

Bill № 2: Civil and Architectural Works

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Farah Antoun Public School for Boys

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
10.3.4	**Kitchen Counter**				
	Supply and install complete counter resin type with sink (resin) for teachers' kitchen of 18mm thick including coved splash back 20cm height and the work to include:				
-	All fixing elements				
-	All stainless steel hangers				
-	All necessary accessories				
-	All needed items and as instructed by the Engineer				
10.3.4.2	Kitchen Counter - Length (1.11 to 1.75m)	№			
	Rate or Lump Sum in Words:				
	Total Bill № 2: Civil and Architectural Works				

Bill № 3: Mechanical Engineering Services

Bill № 3: Mechanical Engineering Services

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Farah Antoun Public School for Boys

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
1	**GENERAL TECHNICAL REQUIREMENTS**				
1.1	**General Mechanical Requirements**				
1.1.2	Prepare the shop drawings for all mechanical works and obtain approval from the Engineer before the start of executing any work.	Item	1		
	Rate or Lump Sum in Words:				
1.2	**Rehabilitation Works General Requirements**				
	Provide all necessary rehabilitation works and make all Mechanical systems in good condition complete including maintenance, cleaning, relocation works, replacing damaged items and equipment, removing and carting away resulting materials and equipment, testing and commissioning, and all other related works to ensure all Mechanical systems are properly working and functional.				
1.2.1	Maintenance and rehabilitation of existing plumbing works, including sanitary fixtures, floor drains, roof drains, manholes, pumps, WC tanks, adding where applicable all necessary valves, flush valves, etc., and all other necessary works.	Item	14		
	Rate or Lump Sum in Words:				
2	**SANITARY, WASTE & RAIN WATER PIPE WORK INSTALLATION**				
2.3	**Drain Cover**				
	Supply and install floor drain cover (P.E) 5 mm thick on drainage pipe and to be the same level of the floor tiling. Work to include all civil works and as per the Engineer instructions				
2.3.1	Cover for FCO	№			
	Rate or Lump Sum in Words:				

Bill № 3: Mechanical Engineering Services

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Farah Antoun Public School for Boys

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
3	**WATER PIPE WORK INSTALLATION**				
3.1	**Water Tanks**				
	Supply & install polyethylene water tank (3 layers) or more with all necessary supply and over flow connections all as per the Engineer instructions				
3.1.2	2000 liters PE water tank	№			
	Rate or Lump Sum in Words:				
5	**SANITARY FIXTURES**				
5.1	**W.C. for Kids**				
	Supply and install K.G. W.C. Flush valve with cover as manufactured by Duravit - Bambi No. 018509 or approved equal, 35 cm height max. from finished floor with timber cover.				
	Cost to include all related connections angle valves and necessary accessories as per the Engineer instructions.				
	Each W.C. should be equipped with a Flushing Hose (Grohe or Ideal standard or approved equal)				
5.1.1	EWC-03 (Wall Hang - 52 x 32 cm)	№			
	Rate or Lump Sum in Words:				
5.2	**W.C. For Non Kids**				
	Supply and install W.C. for non kids, Flush valve with cover as manufactured by Ideal Standard Item No. E876801 also the hose, or approved equal and to be 40 cm from floor finish with timber cover.				
	The work to include the installation, liking, cleaning with all necessary connection, angle valves and necessary accessories similar to the K.G.W.C.				
	Each W.C. should be equipped with a Flushing Hose (Grohe or Ideal standard or approved equal)				
5.2.1	EWC-01 (Wall Hang - 52 x 36 cm)	№			
	Rate or Lump Sum in Words:				
5.2.3	AWC-01 (Asian water closet)	№			
	Rate or Lump Sum in Words:				

Bill № 3: Mechanical Engineering Services

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Farah Antoun Public School for Boys

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
5.3	**Lavatories for Kids in the K.G.**				
	Supply and install semi pedestal wash basin similar to Ideal Standard No. 742001 or approved equal, 45 x 36 cm, and fixed at 60 cm high from the floor finish. Cost to include all necessary connections, angle valves and accessories as required				
5.3.1	LAV-03 (semi-pedestal wash basin - 45 x 35 cm)	№			
	Rate or Lump Sum in Words:				
5.4	**Lavatories for Non Kids**				
	Supply and install semi pedestal wash basin similar to Ideal Standard No. 742001 or approved equal and fixed at 82 cm high from the floor finish. Cost to include all necessary connections, angle valves, traps and necessary accessories as specified.				
5.4.1	LAV-01 (semi-pedestal with mixers 55 x 45 cm)	№			
	Rate or Lump Sum in Words:				
5.5	**Urinal**				
	Supply and installation of high quality urinal units complete with proper wall fixation with anti-dust materials including drainage & water supply connection as per the approved shop drawings.				
	Cost to include all necessary accessories, valves, sensors to provide workable system.				
5.5.1	Urinal	№			
	Rate or Lump Sum in Words:				
5.6	**Self Close Taps on Kids & Students Lavatories**				
	Supply and install self close taps to be fixed in the lavatory body as manufactured by Grohe Item No. 36-173 with all required works and drain accessories including trap, to be connected to the new water supply and drain and as instructed by the Engineer				
5.6.1	Self Close Taps	№			
	Rate or Lump Sum in Words:				

Bill № 3: Mechanical Engineering Services

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Farah Antoun Public School for Boys

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
5.7	**Wall Type Self Close Taps on Drinking Basins**				
	Supply and install self close taps to be fixed in the drinking basin body as manufactured by Grohe Item No. 36-176 with all required works and drain accessories including trap and to be connected to the new water supply and drain and as instructed by the Engineer				
5.7.1	Wall Type Self Close Taps	№	12		
	Rate or Lump Sum in Words:				
5.8	**Kitchen Sink Accessories**				
	Supply and install kitchen sink accessories such as chrome trap, angle valve, mixers as specified				
5.8.1	Kitchen Sink Accessories	№			
	Rate or Lump Sum in Words:				
	Total Bill № 3: Mechanical Engineering Services				

Bill № 4: Electrical Engineering Services

Bill № 4: Electrical Engineering Services

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Farah Antoun Public School for Boys

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
1	**BASIC ELECTRICAL REQUIREMENTS**				
	The Contractor should revise all the drawings and compare them with the site conditions and redo all the design works with the necessary calculations for all the electrical installations and works. Moreover, the Contractor should submit shop drawings and as-built drawings for the maintenance use in the future.				
	The contractor should provide all the necessary maintenance works for all Electrical systems related to the KG school to ensure its proper works.				
	At the end of the project, the contractor should submit complete As-Built Drawings for all executed works with exact dimensions & sizes for easy maintenance work in the future.				
1.1	**Fixing and Repairing**				
	Check & repair all the existing cables, wires, socket outlets, lighting fixtures, lighting switches, electric fans, and protect all exposed wiring as per the site conditions, and to the satisfaction of the Engineer.				
	All as per the drawings, specifications and Engineer instructions				
1.1.1	Lighting fixtures	LS			
	Rate or Lump Sum in Words:				
1.1.2	Wires and cables	LS	1		
	Rate or Lump Sum in Words:				
1.1.3	Sockets and switches	LS	1		
	Rate or Lump Sum in Words:				
1.1.4	Circuit breakers	LS			
	Rate or Lump Sum in Words:				
1.1.9	All needed electrical works … etc.	LS			
	Rate or Lump Sum in Words:				

Bill № 4: Electrical Engineering Services

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Farah Antoun Public School for Boys

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
3	**GENERAL LIGHTING INSTALLATIONS**				
3.1	**Lighting Fixtures**				
	Supply, install and test the lighting fixtures complete with all the necessary wires conduits, boxes and accessories required to provide power to each lighting fitting from LP including the earth wire as per the drawings, specifications and Engineer instructions.				
	The Contractor should submit samples of each lighting fixture for approval.				
3.1.1	TYPE C1: Twin T8 LED Tube, surface-mount luminaire for interior, 40W, 4000K, 4700Lm. Polycarbonate, light grey, with injected polyurethane double gasket and clear UV stabilized polycarbonate cover, cos φ ≥ 0.9	№			
	Rate or Lump Sum in Words:				
3.1.3	TYPE C2: as same as TYPE C1 but Pendent mounted	№			
	Rate or Lump Sum in Words:				
3.1.4	TYPE A2 / A3: 600x600 mm LED Panel 3600lm, 33W, 4000K, 80CRI surface-mount/recessed, die-cast aluminum, IP20	№			
	Rate or Lump Sum in Words:				
3.1.6	TYPE N4 / N3: LED - 900lm - 12.5W - 3000K - 80CRI - WW Surface mounted / Recessed Downlight Round - 120 deg	№			
	Rate or Lump Sum in Words:				
3.1.10	Replace Existing lighting fixtures with TYPE L (LED)	№			
	Rate or Lump Sum in Words:				

Bill № 4: Electrical Engineering Services

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Farah Antoun Public School for Boys

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
4	**FIRE ALARM SYSTEM**				
	Supply and install all necessary fittings, wires conduits, boxes, plates, relays, bell modules, EOL resistors and accessories as described and as shown on drawings and all necessary connection to the management stations as intended to the satisfaction of the engineer.				
4.6	Break Glass	№			
	Rate or Lump Sum in Words:				
	Total Bill № 4: Electrical Engineering Services				

General Summary

General Summary

Lot #: Lot 2 - Donieh, Tripoli
Shelter: Farah Antoun Public School for Boys

Description	Amount (US $)
Bill № 2: Civil and Architectural Works	.....
Bill № 3: Mechanical Engineering Services	.....
Bill № 4: Electrical Engineering Services	.....
* Total Amount of Bill of Quantities ……	.....
* Discount by Tenderer (_____ %) ……	.....
* Total Amount of Tender (VAT Not Applicable) ……	.....

* Total Amount of Tender in Words:

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