



REPUBLIC OF LEBANON
COUNCIL FOR DEVELOPMENT AND RECONSTRUCTION

Lebanese Emergency Assistant Project (LEAP)
Rehabilitation of Shelters (Public Schools)

Batch 3: Lot 2

in Caza of Zahle

VOLUME 3
BILL OF QUANTITIES

September 2026



Rafik El - Khoury & Partners
Consulting — Engineers

Lebanese Emergency Assistant Project (LEAP)
Rehabilitation of Shelters

Bill of Quantities
General summary

Cost Summary — Batch 3 Lot 2 (Zone 2 - Zahle)

School Code	School Name	
General Requirements (applicable to all schools in this Lot)		
	Provisional Sum	\$50,000.00
791	ثانوية زحلة الرسمية	
800	ثانوية حوش الامراء الرسمية	
801	مدرسة زحلة الثالثة المختلطة الرسمية	
802	متوسطة المعلقة الرسمية للبنات و الصبيان	
805	متوسطة قاع الريم الرسمية المختلطة	
808	متوسطة فرزل الرسمية	
810	ثانوية تعلبانيا الرسمية	
817	متوسطة ابلح الرسمية المختلطة	
819	نيحا المتوسطة الرسمية	
827	متوسطة دير الغزال الرسمية المختلطة	
830	متوسطة بر الياس الرسمية المختلطة	
832	مدرسة بر الياس الرسمية الابتدائية	
835	متوسطة قب الياس الرسمية المختلطة	
837	قب الياس الابتدائية الرسمية	
1415	متوسطة رعيت الرسمية المختلطة	
1496	ثانوية سعدنايل الرسمية	
1517	ابتدائية الحريرية الرسمية	
Total Amount of Bid — Lot 2		



Lebanese Emergency Assistant Project (LEAP)

Bill of Quantities

Rehabilitation of Shelters

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Lot 2 - Preamble & General Requirements (Applicable to All Schools in this Lot)

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Description

Preamble

Bill № 1: General Requirements

Preamble



Item	Description
1	<u>INTRODUCTION</u>
1.01	This is a Lump Sum Contract.
1.02	The estimated quantities set-out in the Bill of Quantities are indicative, and the actual and correct quantities needed for the execution of the Works are the sole responsibility of the Contractor. All executed and accepted Works shall be paid to the Contractor at the corresponding lump sum or rates on the estimated quantities shown in this Bill of Quantities.
1.03	Only modifications, omissions or additions in extent of work, ordered by the Employer in accordance with the Conditions of the Contract, shall be measured and paid for as executed, completed and accepted by the Employer, and shall be calculated as an addition or deduction to the Lump Sum of the Contract on the basis of the Contract rates or approved rates to be presented by the Contractor for non priced new items.
1.04	Where an item is found to have already been carried out by the Employer, the school, or any other party, the Project Manager will issue a Variation omitting it; the omission is valued from the priced BOQ and the Contract Price will be reduced accordingly, with no entitlement to loss of profit or to extension of time. This will require a dated pre-condition photographic evidence before works begin at each school during Site Handing Over.
1.05	Contractor will be paid only for works actually executed by the Contractor and certified by the Project Manager, and requires the Contractor to submit, within 5 calendar days of the Site Handing Over of each School, a modified priced BOQ per school for use in works valuation and the valuation of any omission.
1.06	The Project Manager shall not certify the value of any item not executed by the Contractor, including any item dealt with as an omission.



Item	Description
1.07	The items and the estimated quantities in the Breakdown of the Lump Sum do not necessarily contain full description of the required Works, the Contractor shall allow in his unit rates for any additional quantity and all obligations, liabilities and services stipulated in the relevant sections of all Contract Documents to provide and maintain a complete construction and installation of each item.
1.08	Before Pricing the Contract, the Contractor shall visit the Sites and shall satisfy himself as to the meaning and to the estimated quantity of each item in the Bill of Quantities. The rates inserted by the Contractor shall be deemed to cover all costs, expenses, risks, liabilities, obligations and services described in the Contract Documents, the full quantity and cost of the Works of each item as observed on Site, including all direct and indirect expenses, sundry labors, overhead and profit, and all matters for the proper construction, completion and maintenance of the Works.
1.09	The Bills of Quantities are to be read and construed in association with the Specification and this Preamble. Information which is given in the Specification is identified by cross references included in the descriptions of work in the Bill of Quantities.
1.10	The Contractor shall allow in his rates for protecting all Works against damage by whatever method deemed necessary and approved. Any work damaged during the Works shall be replaced or made good at the Contractor's expense and to Employer's satisfaction before the Works are handed over.
1.11	Where work cannot be fully described or where the quantity of work required cannot be accurately determined, it is given as an item or a Provisional Sum.
1.12	Unless the term meter, used in this Preamble, is proceeded by the words square or cubic it is deemed to be linear.
1.13	The rates inserted by the Tenderer in the Bill of Quantities shall be in words and figures. In the case of discrepancy between the two, the rates written in words shall govern.



Item	Description
2	<u>QUANTITIES</u>
2.01	Quantities set out in the Bills of Quantities are the estimated quantities and they shall not be taken as the actual and correct quantities for ordering and purchasing of
2.02	Works shall be measured net as fixed in position in accordance with the rules contained in this preamble or except where otherwise stated in a measurement rule applicable to the work.
2.03	Dimensions used in calculating quantities are taken to the nearest integer (0.5 and over is regarded as 1 and less than 0.5 is disregarded).
2.04	Quantities measured in tonnes are given to two places of decimals. Quantities measured in other units of mass are given to the nearest whole unit except that any quantity less than one unit is given as one unit.
2.05	Unless otherwise stated, where minimum deductions for voids are dealt with in this Preamble they refer only to openings which are within the boundaries of measured areas. Openings which are at the boundaries of measured areas are always deducted irrespective of size.
3	<u>DESCRIPTIONS</u>
3.01	Headings to groups of items in the Bill of Quantities are to be read as part of the descriptions of the items to which the headings apply.
3.02	Dimensions are stated in descriptions generally in the sequence, length, width, height. Where ambiguity could arise, the dimensions are identified.
3.03	Dimensions given in descriptions are in millimeters unless otherwise indicated.
3.04	Unless otherwise specifically stated in the Bill of Quantities or herein, the following are deemed to be included in all work:

- labor and all costs in construction therewith,



Item	Description
	- materials, products, goods and all costs in connection therewith, - Contractor's equipment, including but not limited to construction plant, scaffolding, tools, vehicles and the like and all costs in connection therewith, - assembling, fitting and fixing materials, products and goods in position, - any method of fixing, fixing to any nature of base or background including preparation and providing fixing materials, - breaking down for transport and installation and subsequent reassembly of composite items manufactured off - waste of materials, - square, raking and curved cutting, - work at any location or height, - work in small, isolated quantities, - protection of all work, - protection of all existing structures, utilities, site improvements, trees and vegetation, features, pavements and other facilities on and adjacent to the site, which are to remain upon completion of the work, - all other enabling tasks associated and subsidiary components and items of work which are indicated or reasonably inferred from the Specification and necessary to perform and complete the work described, - establishment and overhead charges and profit.
3.05	Except where items are included in the Bill of Quantities and are priced separately by the Contractor therein, provision of the following are deemed to be included with - site administration and security, - insurances,



Item	Description
	- bonds and guarantees, - water for the Works, - lighting and power for the Works, - temporary accommodation for the use of the Contractor and the Engineer, - temporary telephones and the cost of calls for the use of the Contractor and the Engineer, - temporary roads, hard standings, crossings and the like, - temporary fencing, hoardings, screens, fans, footways, guardrails, gantries and the like, - giving notices and making applications, including the payment of fees and charges in connection therewith, - safety, health and welfare of workpeople, - compliance with traffic regulations - maintenance of public and private roads, services and adjoining property, - control of noise and pollution, prevention of fire and compliance with all other statutory and general obligations, - removing rubbish, protective casings and coverings, and cleaning the Works on completion, - drying the Works, - testing and commissioning of service installations including the provision of fuel, - samples of materials and testing of materials including providing equipment for testing, - design, co- ordination, installation and as- built record drawings and the like, - preparation and submittal of reports, records, certificates, notices, proposals, designs, details, calculations and other information and data required by the Specification,



Item	Description
	- allow in unit rates for all other requirements, services, provisions, liabilities and obligations contained in the General Requirements and Conditions of Contract. - Maintaining, adapting, clearing away and making good are deemed to be included with the items for temporary works. - Payment of any customs and other import duties, harbor and port dues, wharf age, landing, pilotage and any other charges or dues including demurrage charges on any Goods or other things required for or in connection with the Works entering or leaving the country.
4	<u>SYMBOLS, ABBREVIATIONS & DEFINITIONS</u>
4.01	The following symbols and abbreviations are used in this Preamble and in the Bills of Quantities: Lump Sum LS Linear Meter m Square Meter m² Cubic Meter m³ Centimeter cm Millimeter mm Number № Kilogramme kg Tonne T Percentage % Nominal Diameter Φ Quantity Qty Drawing Drg / Dwg Mega Pascal MPa
4.02	The following definitions apply to all work: - 'horizontal' means level or sloping work not exceeding 15° from the horizontal - 'sloping' means sloping work exceeding 15° but not exceeding 80° to the horizontal, - 'vertical' means work exceeding 80° from the horizontal, - 'curved' means curved in any direction or in more than one direction and to any radius or radii and includes curved work to domes, vaults and the like.
4.03	The term 'extra over' means that work so described involves extra cost over the basic work in which it occurs. No deduction of the quantity of basic work is made for the extra over work.



Item	Description
5	<u>MECHANICAL ENGINEERING SERVICES PREAMBLE</u>
5.01	Mechanical equipment has been measured in complete items unless otherwise stated in the specification and bill item. The rates for all items shall include for supplying all materials, fixing, terminating and connecting all accessories and components for a complete and functional
5.02	The Contractor shall consult the relevant sections of the specification when query or doubt arise.
5.03	The Contractor shall consult with, and employ specialist sub-contractors for specific items of work as identified in the specification. All costs associated with such works shall be included in the tender. Specialist sub-contractors will be of recognized expertise, acceptable to the engineer.
5.04	All items of mechanical plant shall be connected to the control and power systems by wiring out from the mechanical control centers. All wiring shall be carried out by competent and qualified electricians under the mechanical scope of works.
5.05	Rates/prices entered against the items shall include for all costs in connection with the following:
a.	Connection items of plant and equipment as necessary to the control and power systems.
b.	Provision of starter's, protective devices, automatic change over/load shedding facilities, remote & local isolation/emergency shut off as appropriate, control functions and alarms to achieve the intent outlined in the Control Section of the Specification. All motors to be of the 'Low Energy' type as specified.
c.	Off loading, storing, connecting up, protecting as necessary, testing, flushing, cleaning, charging, balancing, commissioning and testing individual items of plant as well as complete systems installations all as specified & directed by Engineer.
d.	Supports, brackets and fixings of every description required to complete the works.
e.	Cutting or forming all holes, mortises, chases and the like in the structure to facilitate the various works and making good in all trades as necessary;



Item	Description
f.	Coordination with other associated trades, designers and specialists, at the time preparing shop drawings and during the works progress.
g.	Cost of the items in the BOQ includes all works, materials and labors of all items mentioned above.
6	<u>ELECTRICAL ENGINEERING SERVICES PREAMBLE</u>
6.01	Rates for all items of equipment and materials shall be inclusive of all labor, electric power during installation and testing oxygen, acetylene, water, transport, rigging, temporary works, stores, offices, instruments insurance, customs, duties, overhead, profit certificates, samples, tests, supply of all information and data, supply of catalogues, charts, curves, submittals and all other information and services called for in the specification, all fully connected up and good working order. Rates shall also include for:
a.	All builders work in connection with fixing of supports brackets, clips as required
b.	Cutting or forming all openings, mortises, chases, etc., in floors, walls and ceiling required for the installation and making good after
c.	Construction of manholes, handholes and the like
d.	Fitting of access doors in walls and ceilings.
e.	Supplying and fixing supports, brackets and clips as required.
f.	Cutting away and making good after all trades for frames, sleeves, cables, cable trays, chases for conduits and fixing of electrical boxes, conduits, accessories.
g.	Excavating and back filling trenches for cables, pipes and providing and laying precast concrete protective tiles.
h.	Repair, repaint and generally make good and leave in perfect condition all the work executed by him under the
I.	All other work in connection with the installation that is not measured separately.
j.	Electrical equipment is enumerated unless otherwise stated and the rates shall include for supplying all materials labor, plant, fixing, terminating and connecting accessories, etc.



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Rehabilitation of Shelters

Preamble

Lot 2 - Preamble & General Requirements (Applicable to All Schools in this Lot)

Item	Description
k.	Feeder cables are measured in linear meters from the boards to equipment, or from the distribution board to sub-main, etc. Rates shall include for the supply of materials, laying, terminating, trenching, cable trays, ducting, etc.
l.	Lighting points are enumerated and the rates shall include all necessary wires, conduits, boxes and accessories, etc., required to provide power from the LP boards switch panels and switches are measured separately.
m.	Lighting fittings are enumerated and the rates shall include the supply, installation and connections.
n.	Disconnecting/Isolating switches are enumerated and the rates shall include all necessary wires, conduits, boxes etc. If the switches are fed by cables, then the cables are measured separately.
o.	Lighting switches, sockets, fan/coil unit spur boxes, fused spurs for fans, kitchen, laundry equipment outlets, toilet fans points are enumerated and the rates for each shall include all wiring, conduits, accessories etc.
p.	Earthing systems to include for all materials, labor, fixing, terminating, earth pits, rods, conductors, excavations.
q.	Main distribution board, sub-mains, lighting and power panels, panel boards, etc., are enumerated items and rates shall include all the board installed completely as specified. (cables are measured separately)
r.	End of session bell system is one item. Bells and bell push button, are enumerated and include all conducting, wiring, controls, and all necessary accessories.
s.	Lightning protection system, roof conductors, tie conductors down conductors are measured in linear meters completely installed.
t.	Earth pits are enumerated. The cost shall include all materials, wiring, fixing, supports, etc., and bolting copper conductors to rebars to have a complete working system.
u.	The rates for automatic transfer switches include the switches completely installed with all ancillary equipment, control, modules to have a complete working system.
v.	Cost of the items in the BOQ includes all works, materials and labors of all items mentioned above.



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Lot 2 - Preamble & General Requirements (Applicable to All Schools in this Lot)

Item	Description
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End of Preamble

Bill № 1: General Requirements



Lebanese Emergency Assistant Project (LEAP)

Rehabilitation of Shelters

Lot 2 - Preamble & General Requirements (Applicable to All Schools in this Lot)

Bill of Quantities

Bill № 1: General Requirements

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
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Notes

These General Requirements are applicable to the whole of the Works.

If the Tenderer wishes to price any of the items contained herein, then each such item, clause, or sub-clause must be individually priced.

The Tenderer shall not enter lump sums covering more than one or all items, clauses and sub-clauses.

The General Requirements items shall be priced by the Contractor and shall not be considered included in the rates for Works items elsewhere in the Bill of Quantities as these Works items may be subject to omissions as described in the Preamble and in the Conditions of Contract.

1 Preliminaries

1.01 Insurance

Provide the following insurances from an approved insurance company, all as detailed in the Conditions of

- Professional Indemnity Insurance.
- Contractor's All Risk Insurance.
- Plant and Equipment Insurance.
- Workmen Compensation Insurance.
- Third Party Insurance.

LS 1

Lump Sum in Words:

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1.02 Programme of Works

Prepare and submit to the Engineer for approval a detailed Programme for the construction showing the proposed order & method to execute the Works, the dates upon which the various elements, trades, sections and items of Works will be started and completed, and the cash flow estimate, complete including monthly forty-five day program, all necessary revisions and updates, monitoring, all supporting data, computer analysis schedules, and all other related works, all to Engineer's satisfaction.

LS 1

Lump Sum in Words:

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Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1.03	<u>Mobilization and Demobilization</u> Mobilization to site and demobilization on completion of <i>Lump Sum in Words:</i>	LS	1		



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Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1.04	<u>Water for the Works</u> Provide until handing over, clean and uncontaminated Water for the Works and suitable for all purposes, complete including coordination with all relevant authorities, transportation to site, pipework, pumps, connections and storage facilities where necessary. LS 1 <u>Lump Sum in Words:</u> 				
1.05	<u>Electrical Power for the Works</u> Provide all necessary adequate Electrical Power Supply required for the Works until handing over using silent generated power, complete including all necessary connections, fuel, maintenance, and if main power is available, allow for all necessary coordination and connections with relevant local authorities, and for all charges and fees incurred during the total duration of the Contract. LS 1 <u>Lump Sum in Words:</u> 				
1.06	<u>Protection Fence with Access</u> Provide, maintain and remove upon completion of works, a protection fence around the Works and where needed, with necessary access, to the satisfaction of the Engineer, and in accordance with the Conditions of Contract and relevant authorities' regulations. LS 1 <u>Lump Sum in Words:</u> 				
1.07	<u>Directional and Safety Site Signage</u> Provide, maintain and remove upon completion of works, directional and safety signage around the Works and where needed, complete all as specified, shown on approved shop drawings, to the satisfaction of the Engineer, and in accordance with the Conditions of Contract and relevant authorities' regulations. LS 1 <u>Lump Sum in Words:</u> 				
1.08	<u>Safety Procedures and Protection</u>				



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Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
	Provide all necessary safety procedures and protection on site to all facets of work, to staff workmen, and to third party, in accordance with the Conditions of Contract, CDR Safety, Health and Environmental Regulations, and all other local Authorities Standards and Regulations.	LS	1		
	<i>Lump Sum in Words:</i>				
1.09	<u>Daily Cleaning during Construction</u> Execute daily cleaning to keep the work, site and adjacent properties free from accumulations of waste material, rubbish and windblown debris, resulting from construction operations, complete including removing from the site periodically and disposing off at legal approved disposal areas away from the site, in full coordination with the	LS	1		
	<i>Lump Sum in Words:</i>				
1.10	<u>Coordination with School Administration, MEHE and Other Authorities</u> Coordinate work with School Administration, MEHE, & other applicable Authorities, and abide by their regulations.	LS	1		
	<i>Lump Sum in Words:</i>				



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Bill № 1: General Requirements

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
3	<u>Additional Items</u> The Contractor shall list and describe below any Additional Items that he considers to be of value and for which he wishes to include in his Tender, and shall include details of quantities and rates accordingly.				
3.01	<i>Lump Sum in Words:</i>	LS	1		
3.02	<i>Lump Sum in Words:</i>	LS	1		
3.03	<i>Lump Sum in Words:</i>	LS	1		
3.04	<i>Lump Sum in Words:</i>	LS	1		
3.05	<i>Lump Sum in Words:</i>	LS	1		

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Lot 2 - Preamble & General Requirements (Applicable to All Schools in this Lot)

Bill of Quantities

Bill № 1: General Requirements

Collection

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Amount (US \$)

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1.2	
1.3	
1.4	

Total Carried to General Summary	
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SCHOOL NO.

791

ثانوية زحلة الرسمية



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Bill № 3: Mechanical Engineering Services
Bill № 4: Electrical Engineering Services
General Summary

Bill № 2: Civil and Architectural Works



Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>SITE PREPARATION AND DEMOLITION</u>				
1.1	<u>Demolishing and Removal of Debris</u>				
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. <i>Rate or Lump Sum in Words:</i>	LS	1		
5	<u>METAL WORKS</u>				
5.2	<u>Rehabilitate and Maintain the Existing Steel Work (Burglar Proof Protection + Opening)</u> 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				
5.2.6	Rehabilitate and paint existing steel window				
	Glass for window	Nº	5		
	Window Handle	Nº	4		
	<i>Rate or Lump Sum in Words:</i>				

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
7	<u>THERMAL AND MOISTURE PROTECTION</u>				
7.2	<u>Polyurethane Waterproofing for Wet Areas</u>				
7.2.1	Polyurethane painting waterproofing (PU) including for all preparation works and related ancillaries. - DEEP cleaning of all surfaces and carting away of dust & debris - Apply Base coat - Apply two layers of PU paint include 20cm vertical high - The work should be executed by an expert - All needed works as per the Engineer instructions This toilet is causing water leakage to the floor below. <i>Rate or Lump Sum in Words:</i> 	LS	1		
8	<u>DOOR AND WINDOWS</u>				
8.1	<u>Wooden Doors and Windows</u>				
8.1.1	<u>Timber Doors</u> 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 <i>Rate or Lump Sum in Words:</i> 	Nº	7		

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
8.1.3	<u>Rehabilitate the Existing Timber Doors</u> 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 existing timber. 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				
	Paint entrance door+frame	Nº	12		
	Repair wooden door	Nº	4		
	Handle for entrance door	Nº	6		
	Lock for door	Nº	3		
	<u>Rate or Lump Sum in Words:</u> 				



Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
9	<u>FINISHES</u>				
9.5	<u>Painting</u>				
9.5.1	<u>Wall and Ceilings Paint Works</u>				
	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	m ²	1,215		
	<i>Rate or Lump Sum in Words:</i>				
10	<u>SPECIALTIES</u>				
10.2	<u>Classroom Specialties</u>				
10.2.1	<u>White Teaching Boards</u>				
10.2.1.1	Supply and install White teaching boards from approved manufacturer as per specifications of Ministry of Education and Higher Education and corresponding to the site				
	Cost to include:				
	- (3600mm x 1200mm) final dimensions as per site limitation				
	- Materials and labors				
	- Felt marker pens and eraser (12 marker pens + 2 erases for each white board)				
	- Stainless Steel screws				
	- Remove the existing board				
	- All needed works as per the Engineer instructions	No	2		
	<i>Rate or Lump Sum in Words:</i>				



Collection

Page №

Amount (US \$)

2.1	
2.2	
2.3	
2.4	

Total Carried to General Summary	
	

Bill № 3: Mechanical Engineering Services



Lebanese Emergency Assistant Project (LEAP)

Rehabilitation of Shelters

ثانوية زحلة الرسمية 791

Bill of Quantities

Bill № 3: Mechanical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>GENERAL TECHNICAL REQUIREMENTS</u>				
1.2	<u>Rehabilitation Works General Requirements</u>				
	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.				
	Flushing system for toilet seats (x6 in boys WC and x4 in girls WC)	Item	10		
	Toilet Seat Lid	Item	5		
	Repair plumbing	LS	1		
	<i>Rate or Lump Sum in Words:</i>				
5	<u>SANITARY FIXTURES</u>				
5.6	<u>Self Close Taps on Kids & Students Lavatories</u>				
	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	No	4		
	<i>Rate or Lump Sum in Words:</i>				
5.7	<u>Wall Type Self Close Taps on Drinking Basins</u>				
	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	No	8		
	<i>Rate or Lump Sum in Words:</i>				



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Bill № 4: Electrical Engineering Services



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Rehabilitation of Shelters
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Bill of Quantities
Bill № 4: Electrical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>BASIC ELECTRICAL REQUIREMENTS</u>				
1.1	<u>Fixing and Repairing</u>				
	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: New lamps	Pcs	6		
	<i>Rate or Lump Sum in Words:</i>				
1.1.3	Sockets and switches				
	Electrical box	Pcs	3		
	Distribution (disjoncteur) box	Pcs	1		
	Electrical socket outlet	Pcs	2		
	Repair electrical socket of the ventilation fan	Pcs	1		
	<i>Rate or Lump Sum in Words:</i>				



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SCHOOL NO.

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ثانوية حوش الامراء الرسمية



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Bill № 2: Civil and Architectural Works



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Rehabilitation of Shelters
ثانوية حوش الامراء الرسمية 800

Bill of Quantities
Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>SITE PREPARATION AND DEMOLITION</u>				
1.1	<u>Demolishing and Removal of Debris</u>				
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. Rate or Lump Sum in Words:	LS	1		
2	<u>SITE PREPARATION AND DEMOLITION</u>				
2.9	<u>Rehabilitation of Playground Slabs (External Playground)</u>				
2.9.1	Clean the rehabilitated places by removing all debris and make good all the edges and remove all broken slabs & failed slabs and remove to outside the site all the debris & refused items, cast proper concrete in places where the removal of all debris took place (No patching is allowed for the existing concrete surfaces) Work to include: - Removal and cleaning the location - Materials, fill - Labors - Make good the surfaces - Lining and marking all playgrounds as per site instructions - All needed refurbishing works as per the Engineer instructions Repair of playground field flooring Rate or Lump Sum in Words:	m ²	90		
8	<u>DOOR AND WINDOWS</u>				
8.1	<u>Wooden Doors and Windows</u>				



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Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
8.1.3	<u>Rehabilitate the Existing Timber Doors</u> 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 profile). 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. 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 elements/sections before. 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				
	Repair of entrance door handle.	Nº	3		
	Repair of entrance door.	Nº	4		
	<u>Rate or Lump Sum in Words:</u>				

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Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
8.2	<u>Aluminum Doors and Windows</u>				
8.2.3	<u>Rehabilitation Existing Glazed Aluminum Panels (s)</u> 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 Net for aluminum window	№	1		
	<i>Rate or Lump Sum in Words:</i>				
9	<u>FINISHES</u>				
9.4	<u>Gypsum Works</u>				
9.4.2	<u>Rehabilitate Existing Gypsum Suspended Ceiling (Tiles, Panels)</u>				
9.4.2.1	Rehabilitate existing gypsum board suspended ceiling and WALL. Works to include material, labor, equipment, etc. and to the engineer's approval	m ²	15		
	<i>Rate or Lump Sum in Words:</i>				
9.5	<u>Painting</u>				
9.5.1	<u>Wall and Ceilings Paint Works</u> 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	m ²	890		
	<i>Rate or Lump Sum in Words:</i>				



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Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
9.5.2	<u>Outside Walls Paint (Old and New Walls and Ceilings)</u>				
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.				
	Playground repainting	m ²	90		
	<u>Rate or Lump Sum in Words:</u>				
9.5.4	<u>Maplexine, Monocouche or Santex Works</u>				
9.5.4.1	Finishing works to include: - Remove all existing paint & clean deeply - Apply Base Coat as per manufactured required - Use materials as requested in specifications - Final insulation transparent coat (Water proofing) - All works and items should be as per manufacturer and the Engineer instructions and approval, - All needed scaffolding and materials for the best execution of the works <u>NB: Refurbishing of Maplexine, Monocouche or Santex Works not allowed</u>				
		m ²	50		
	<u>Rate or Lump Sum in Words:</u>				



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Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
10	<u>SPECIALTIES</u>				
10.2	Classroom Specialties				
10.2.1	<u>White Teaching Boards</u>				
10.2.1.1	Supply and install White teaching boards from approved manufacturer as per specifications of Ministry of Education and Higher Education and corresponding to the site Cost to include: - (3600mm x 1200mm) final dimensions as per site limitation - Materials and labors - Felt marker pens and eraser (12 marker pens + 2 erases for each white board) - Stainless Steel screws - Remove the existing board - All needed works as per the Engineer instructions	No	8		
	<i>Rate or Lump Sum in Words:</i>				
					



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Bill № 3: Mechanical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>GENERAL TECHNICAL REQUIREMENTS</u>				
1.2	<u>Rehabilitation Works General Requirements</u>				
	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				
	These drainage pipes were installed on the exterior walls of the school, as they explained, serve displaced families by channeling kitchen and dishwashing wastewater outside. However, the wastewater began accumulating on the public				
	road, creating several issues.	Item	1		
	New Complete Toilet Seat set	Item	1		
	<i>Rate or Lump Sum in Words:</i>				
1.2.2	Maintenance and rehabilitation of existing HVAC & fire fighting systems, including all necessary piping, duct works, pumps and controls, fans, mechanical works inside shafts, air conditioning units, etc.				
	Wall-mounted fan	Item	2		
	<i>Rate or Lump Sum in Words:</i>				



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Bill № 4: Electrical Engineering Services



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Bill № 4: Electrical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
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1 **BASIC ELECTRICAL REQUIREMENTS**

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

1.1.3 Sockets and switches

Repair of electrical outlet Pcs 1

Rate or Lump Sum in Words:
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مدرسة زحلة الثالثة المختلطة



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Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>SITE PREPARATION AND DEMOLITION</u>				
1.1	<u>Demolishing and Removal of Debris</u>				
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. <i>Rate or Lump Sum in Words:</i> 	LS	1		
5	<u>METAL WORKS</u>				
5.2	<u>Rehabilitate and Maintain the Existing Steel Work (Burglar Proof Protection + Opening)</u> 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				
5.2.6	Rehabilitate and paint existing steel window Handles for metal windows (x3 in class-1 x1 in class-3 x3 in class 4 x1 in class-6) <i>Rate or Lump Sum in Words:</i> 	Nº	8		



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Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
8	<u>DOOR AND WINDOWS</u>				
8.1	<u>Wooden Doors and Windows</u>				
8.1.3	<u>Rehabilitate the Existing Timber Doors</u>				
	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				
	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				
	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				
	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				
	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.				



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Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
8.1.3.1.1	Rehabilitate and paint existing single leaf timber doors with related accessories				
	Door Handle	№	6		
	Paint wooden door+ frame	m2	20		
	Lock for doors	№	2		
	Repair frame of wooden door	№	1		
	<i>Rate or Lump Sum in Words:</i>				
9	<u>FINISHES</u>				
9.5	<u>Painting</u>				
9.5.1	<u>Wall and Ceilings Paint Works</u>				
	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	m ²	1,260		
	<i>Rate or Lump Sum in Words:</i>				
10	<u>SPECIALTIES</u>				
10.1	<u>Bathrooms Accessories</u>				
10.1.1	<u>Paper Roller Holder</u>				
10.1.1.1	Supply and install paper holder no rust, no stain stainless steel 316 with all accessories and fixation (anti-rust materials) for good quality and at the places shown on				
	All works should be done as the Engineer instructions	№	5		
	<i>Rate or Lump Sum in Words:</i>				



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Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
10.5	<u>Internal Curtains</u> Supply and install internal rolling type tissue and polyester collapsible type curtain as per specifications and at the location as shown on drawings Works to include: - Materials - Labors - Heavy Duty Accessories - All needed works as per the Engineer instructions and approval				
10.5.1	On External Opening <i>Rate or Lump Sum in Words:</i> 	Nº	3		



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Bill № 3: Mechanical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>GENERAL TECHNICAL REQUIREMENTS</u>				
1.2	<u>Rehabilitation Works General Requirements</u>				
	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				
	Flushing system for toilet seats	Item	12		
	New toilet seat Lid	Item	2		
	Tank Lid for toilet seat	Item	2		
	<i>Rate or Lump Sum in Words:</i>				



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Bill № 4: Electrical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>BASIC ELECTRICAL REQUIREMENTS</u>				
1.1	<u>Fixing and Repairing</u>				
	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: Replace lamps <i>Rate or Lump Sum in Words:</i>	pcs	15		
3	<u>GENERAL LIGHTING INSTALLATIONS</u>				
3.1	<u>Lighting Fixtures</u>				
	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.				
3.1.20	Track projector Ceiling mounted for stage and theater <i>Rate or Lump Sum in Words:</i>	No	1		



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1	<u>SITE PREPARATION AND DEMOLITION</u>				
1.1	<u>Demolishing and Removal of Debris</u>				
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. Rate or Lump Sum in Words:	LS	1		
5	<u>METAL WORKS</u>				
5.2	<u>Rehabilitate and Maintain the Existing Steel Work (Burglar Proof Protection + Opening)</u> 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 Handles for doors (2) Rate or Lump Sum in Words:	Nº	2		

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
8	<u>DOOR AND WINDOWS</u>				
8.1	<u>Wooden Doors and Windows</u>				
8.1.1	<u>Timber Doors</u>				
	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				
8.1.1.1	Provide new double leaf wooden door	Nº	4		
	<i>Rate or Lump Sum in Words:</i>				
					
8.1.2	<u>New Timber External Shutters (Louvers)</u>				
8.1.2.1	Provide new timber external shutters (louvers)	Nº	1		
	<i>Rate or Lump Sum in Words:</i>				
					

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
8.1.3	<u>Rehabilitate the Existing Timber Doors</u> 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 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 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 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.				

Lebanese Emergency Assistant Project (LEAP)
Rehabilitation of Shelters
متوسطه المظلة الرسمية للنباتات و الصبيان 802

Bill of Quantities
Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
8.1.3.1.1	Rehabilitate and paint existing single leaf timber doors with related accessories				
	New door handles	Nº	14		
	Paint wooden door	m2	28		
	Repair wooden door	Nº	7		
	New fixed glass	Nº	1		
	<i>Rate or Lump Sum in Words:</i>				
9	<u>FINISHES</u>				
9.1	<u>Cement Plaster</u>				
9.1.2	<u>Repair of Existing Plaster (Internal - External) (Cracks, etc.)</u>				
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		
	<i>Rate or Lump Sum in Words:</i>				

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
9.5	<u>Painting</u>				
9.5.1	<u>Wall and Ceilings Paint Works</u>				
	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 <i>Rate or Lump Sum in Words:</i>	m ²	1,600		
10	<u>SPECIALTIES</u>				
10.2	Classroom Specialties				

Lebanese Emergency Assistant Project (LEAP)
Rehabilitation of Shelters
متوسطة المنطقة الرسمية للبنات و الصبيان 802

Bill of Quantities
Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
10.2.1	<u>White Teaching Boards</u>				
10.2.1.1	Supply and install White teaching boards from approved manufacturer as per specifications of Ministry of Education and Higher Education and corresponding to the site Cost to include: - (3600mm x 1200mm) final dimensions as per site limitation - Materials and labors - Felt marker pens and eraser (12 marker pens + 2 erases for each white board) - Stainless Steel screws - Remove the existing board - All needed works as per the Engineer instructions	№	5		
	<i>Rate or Lump Sum in Words:</i>				
10.5	<u>Internal Curtains</u>				
	Supply and install internal rolling type tissue and polyester collapsible type curtain as per specifications and at the location as shown on drawings Works to include: - Materials - Labors - Heavy Duty Accessories - All needed works as per the Engineer instructions and approval				
10.5.1	On External Opening	Pcs	19		
	<i>Rate or Lump Sum in Words:</i>				



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Bill № 3: Mechanical Engineering Services



Lebanese Emergency Assistant Project (LEAP)

Rehabilitation of Shelters

متوسطة المعلقة الرسمية للبنات و الصبيان 802

Bill of Quantities

Bill № 3: Mechanical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>GENERAL TECHNICAL REQUIREMENTS</u>				
1.2	<u>Rehabilitation Works General Requirements</u>				
	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.				
	New toilet seat Lid	Pcs	4		
	New Flushing system for toilet	Pcs	1		
	Tank Lid for toilet seat	Pcs	1		
	<i>Rate or Lump Sum in Words:</i>				
1.2.2	Maintenance and rehabilitation of existing HVAC & fire fighting systems, including all necessary piping, duct works, pumps and controls, fans, mechanical works inside shafts, air conditioning units, etc.				
	Repair radiators heating units	Pcs	6		
	<i>Rate or Lump Sum in Words:</i>				



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Bill № 4: Electrical Engineering Services



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Bill of Quantities

Bill № 4: Electrical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>BASIC ELECTRICAL REQUIREMENTS</u>				
1.1	<u>Fixing and Repairing</u>				
	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: New lamp <u>Rate or Lump Sum in Words:</u>	Pcs	1		



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General Summary



General Summary

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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)

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SCHOOL NO.

805

متوسطة قاع الريم الرسمية المختلطة



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Lebanese Emergency Assistant Project (LEAP)
Rehabilitation of Shelters
متوسطة قاع الريم الرسمية المختلطة - 805

Bill of Quantities
Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>SITE PREPARATION AND DEMOLITION</u>				
1.1	<u>Demolishing and Removal of Debris</u>				
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. <i>Rate or Lump Sum in Words:</i>	LS	1		
2	<u>SITE PREPARATION AND DEMOLITION</u>				
2.4	<u>School Fences with Related Gates</u>				
2.4.2	<u>Rehabilitate Existing Fence (Strengthening & Rehabilitation)</u> Work to include - Rehabilitate and support all the existing fence as per - 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 - 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 Paint outdoor fence including metral parts m2 130 Repair Concrete wall m2 20 <i>Rate or Lump Sum in Words:</i>				



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متوسطة قاع الريم الرسمية المختلطة - 805

Bill of Quantities
Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
5	<u>METAL WORKS</u>				
5.2	<u>Rehabilitate and Maintain the Existing Steel Work (Burglar Proof Protection + Opening)</u> 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				
	Repair & Paint metal door	№	2		
	New Glass	№	7		
	<i>Rate or Lump Sum in Words:</i>				
					
5.5	<u>Rehabilitate and Maintain Steel Handrail</u> - 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				
5.5.2	Wall Mounted Painting of staircase metal handrails throughout the entire building	m	20		
	<i>Rate or Lump Sum in Words:</i>				
					



Lebanese Emergency Assistant Project (LEAP)
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Bill of Quantities
Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
8	<u>DOOR AND WINDOWS</u>				
8.1	<u>Wooden Doors and Windows</u>				
8.1.1	<u>Timber Doors</u>				
	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				
	- 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 (similar to existing)	No	35		
	<i>Rate or Lump Sum in Words:</i>				
8.1.3	<u>Rehabilitate the Existing Timber Doors</u>				
	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.				



Lebanese Emergency Assistant Project (LEAP)

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Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
	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 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				
	Door Handle	Nº	44		
	Door Lock	Nº	21		
	<i>Rate or Lump Sum in Words:</i>				
8.2	<u>Aluminum Doors and Windows</u>				
8.2.2	<u>New Aluminum Internal Door</u>				
	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 door as indicated.	Nº	1		
	<i>Rate or Lump Sum in Words:</i>				



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Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
8.2.3	<u>Rehabilitation Existing Glazed Aluminum Panels (s)</u> 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	Nº	12		
	Aluminum door handles	Nº	22		
	Locks for aluminum doors	Nº	15		
	Glass	Nº	5		
	<i>Rate or Lump Sum in Words:</i>				
9	<u>FINISHES</u>				
9.5	<u>Painting</u>				
9.5.1	<u>Wall and Ceilings Paint Works</u> 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 2 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	m ²	3,785		
	<i>Rate or Lump Sum in Words:</i>				



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Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
10	<u>SPECIALTIES</u>				
10.5	<u>Internal Curtains</u> Supply and install internal rolling type tissue and polyester collapsible type curtain as per specifications and at the location as shown on drawings Works to include: - Materials - Labors - Heavy Duty Accessories - All needed works as per the Engineer instructions and approval				
10.5.1	On External Opening <i>Rate or Lump Sum in Words:</i>	pcs	63		



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Bill of Quantities

Bill № 3: Mechanical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>GENERAL TECHNICAL REQUIREMENTS</u>				
1.2	<u>Rehabilitation Works General Requirements</u>				
	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.				
	Repair and maintenance of washbasins and faucets	Item	10		
	Toilet seat Lids	Item	20		
	Flushing system for toilet seat	Item	17		
	Repair basins's tiling	Item	3		
	<i>Rate or Lump Sum in Words:</i>				
5	<u>SANITARY FIXTURES</u>				
5.2	<u>W.C. For Non Kids</u>				
	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)				
5.2.2	EWC-02 (Wall Hang, handicapped - 70 x 36 cm)				
	Install new complete Toilet Seat set	№	2		
	<i>Rate or Lump Sum in Words:</i>				
5.4	<u>Lavatories for Non Kids</u>				
	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)	№	21		
	<i>Rate or Lump Sum in Words:</i>				



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Bill № 4: Electrical Engineering Services



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Bill of Quantities

Bill № 4: Electrical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>BASIC ELECTRICAL REQUIREMENTS</u>				
1.1	<u>Fixing and Repairing</u>				
	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: New lamps <i>Rate or Lump Sum in Words:</i>	pcs	50		
1.1.3	Sockets and switches <i>Rate or Lump Sum in Words:</i>	pcs	3		



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* Total Amount of Tender (VAT Not Applicable)

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SCHOOL NO.

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متوسطة الفرزل الرسمية المختلطة



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Bill № 2: Civil and Architectural Works

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1	<u>SITE PREPARATION AND DEMOLITION</u>				
1.1	<u>Demolishing and Removal of Debris</u>				
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		
	<i>Rate or Lump Sum in Words:</i>				
5	<u>METAL WORKS</u>				
5.2	<u>Rehabilitate and Maintain the Existing Steel Work (Burglar Proof Protection + Opening)</u>				
	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				
	Paint metal door	m2	16		
	Metal door lock	Nº	1		
	Metal door handle	Nº	2		
	<i>Rate or Lump Sum in Words:</i>				
5.2.6	Rehabilitate and paint existing steel window				
	windows glass	Nº	3		
	window handle	Nº	1		
	<i>Rate or Lump Sum in Words:</i>				

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
8	<u>DOOR AND WINDOWS</u>				
8.1	<u>Wooden Doors and Windows</u>				
8.1.3	<u>Rehabilitate the Existing Timber Doors</u> 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 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 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 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.				

Lebanese Emergency Assistant Project (LEAP)
Rehabilitation of Shelters
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Bill of Quantities
Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
8.1.3.1.1	Rehabilitate and paint existing single leaf timber doors with related accessories				
	Paint wooden door + frame	m ²	12		
	Wooden Door Handles (2)	Nº	4		
	Door Lock	Nº	2		
	<i>Rate or Lump Sum in Words:</i>				
9	<u>FINISHES</u>				
9.5	<u>Painting</u>				
9.5.1	<u>Wall and Ceilings Paint Works</u>				
	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	m ²	1,040		
	<i>Rate or Lump Sum in Words:</i>				
10	<u>SPECIALTIES</u>				
10.2	<u>Classroom Specialties</u>				
10.2.1	<u>White Teaching Boards</u>				
10.2.1.1	Supply and install White teaching boards from approved manufacturer as per specifications of Ministry of Education and Higher Education and corresponding to the site				
	Cost to include:				
	- (3600mm x 1200mm) final dimensions as per site limitation				
	- Materials and labors				
	- Felt marker pens and eraser (12 marker pens + 2 erases for each white board)				
	- Stainless Steel screws				
	- Remove the existing board				
	- All needed works as per the Engineer instructions	Nº	2		
	<i>Rate or Lump Sum in Words:</i>				



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Bill № 3: Mechanical Engineering Services



Lebanese Emergency Assistant Project (LEAP)
Rehabilitation of Shelters
متوسطه فرزل الرسمية 808

Bill of Quantities
Bill № 3: Mechanical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>GENERAL TECHNICAL REQUIREMENTS</u>				
1.2	<u>Rehabilitation Works General Requirements</u>				
	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.				
	Handheld bidet sprayer	Pcs	8		
	Flushing system for toilet seats	Pcs	4		
	<i>Rate or Lump Sum in Words:</i>				



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Bill № 4: Electrical Engineering Services



Lebanese Emergency Assistant Project (LEAP)
Rehabilitation of Shelters
متوسطه فرزل الرسمية 808

Bill of Quantities
Bill № 4: Electrical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>BASIC ELECTRICAL REQUIREMENTS</u>				
1.1	<u>Fixing and Repairing</u>				
	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: New lamp <i>Rate or Lump Sum in Words:</i>	Pcs	1		
1.1.3	Sockets and switches: Electrical outlet cover <i>Rate or Lump Sum in Words:</i>	Pcs	3		
1.1.9	All needed electrical works ... etc. Replace Fan speed regulator. <i>Rate or Lump Sum in Words:</i>	Pcs	1		
3	<u>GENERAL LIGHTING INSTALLATIONS</u>				
3.1	<u>Lighting Fixtures</u>				
	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.				
	Complete light fixture with its cover	Nº	11		
5	<u>DATA SYSTEM</u>				



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Bill of Quantities

Bill № 4: Electrical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
	Supply, install, connect and test data system with conduits from patch panel to the data socket outlets in perfect operating conditions as shown on drawings and inclusive of enclosure, bus bars, wall mounted Data Rack for Cat 6 UTP cables of 4U size, power strips and ventilation fans, all necessary connections, accessories and components, all to the satisfaction of the Engineer.				
5.1	Main Patch Panel				
	Maintenance of wall mounted IT equipment cabinet.	№	1		
	<i>Rate or Lump Sum in Words:</i>				
					



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General Summary



General Summary

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SCHOOL NO.

810

ثانوية تعلبايا الرسمية



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Bill № 2: Civil and Architectural Works



Lebanese Emergency Assistant Project (LEAP)
Rehabilitation of Shelters
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Bill of Quantities
Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>SITE PREPARATION AND DEMOLITION</u>				
1.1	<u>Demolishing and Removal of Debris</u>				
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. <i>Rate or Lump Sum in Words:</i>	LS	1		
5	<u>METAL WORKS</u>				
5.2	<u>Rehabilitate and Maintain the Existing Steel Work (Burglar Proof Protection + Opening)</u> 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 Replacement of glass in one metal door <i>Rate or Lump Sum in Words:</i>	No	1		



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Bill of Quantities
Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
8	<u>DOOR AND WINDOWS</u>				
8.1	<u>Wooden Doors and Windows</u>				
8.1.1	<u>Timber Doors</u> 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 - 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 <i>Rate or Lump Sum in Words:</i>	Nº	1		



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Bill of Quantities
Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
8.1.3	<u>Rehabilitate the Existing Timber Doors</u> 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 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 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 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 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				
	Paint doors	Nº	19		
	New handles for doors	Nº	8		
	New locks for doors	Nº	3		
	Repair of wooden door.	Nº	1		
	Repair of frame of wooden door	Nº	4		



Lebanese Emergency Assistant Project (LEAP)

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Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
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Rate or Lump Sum in Words:
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Lebanese Emergency Assistant Project (LEAP)
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Bill of Quantities
Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
8.2	<u>Aluminum Doors and Windows</u>				
8.2.3	<u>Rehabilitation Existing Glazed Aluminum Panels (s)</u> 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 (Glass x1 in room 5 and x3 in room 6) <i>Rate or Lump Sum in Words:</i>	Nº	20		
9	<u>FINISHES</u>				
9.1	<u>Cement Plaster</u>				
9.1.2	<u>Repair of Existing Plaster (Internal - External) (Cracks, etc.)</u>				



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Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
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	Repair 2 walls LS 1 Wall plaster work & paint m2 15			

Rate or Lump Sum in Words:
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Bill of Quantities
Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
9.5	<u>Painting</u>				
9.5.1	<u>Wall and Ceilings Paint Works</u> 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 <i>Rate or Lump Sum in Words:</i>	m ²	1,550		
10	<u>SPECIALTIES</u>				
10.1	<u>Bathrooms Accessories</u> - 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	<u>Mirror for Lavatories</u> 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) <i>Rate or Lump Sum in Words:</i>	No	1		



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Bill № 3: Mechanical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>GENERAL TECHNICAL REQUIREMENTS</u> <i>Rate or Lump Sum in Words:</i>				
1.2	<u>Rehabilitation Works General Requirements</u> 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.				
	Repair plumbing / sinks	Item	2		
	New Toilet lid	Item	1		
	New Toilet seat lid	Item	2		
	New flush system for the toilet seat	Item	2		
	New toilet seat lid	Item	1		
	New Flush system for toilet seat	Item	1		
	<i>Rate or Lump Sum in Words:</i>				
1.2.2	Maintenance and rehabilitation of existing HVAC & fire fighting systems, including all necessary piping, duct works, pumps and controls, fans, mechanical works inside shafts, air conditioning units, etc.				
	New Fan (Aspirateur)	Item	1		
	<i>Rate or Lump Sum in Words:</i>				
5	<u>SANITARY FIXTURES</u>				
5.6	<u>Self Close Taps on Kids & Students Lavatories</u> 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	Nº	6		
	<i>Rate or Lump Sum in Words:</i>				



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Bill № 4: Electrical Engineering Services



Lebanese Emergency Assistant Project (LEAP)
Rehabilitation of Shelters
ثانوية تعطايا الرسمية 810

Bill of Quantities
Bill № 4: Electrical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>BASIC ELECTRICAL REQUIREMENTS</u>				
1.1	<u>Fixing and Repairing</u>				
	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: New lamps	Pcs	1		
	<i>Rate or Lump Sum in Words:</i>				
1.1.3	Sockets and switches				
	Electrical socket box	Pcs	1		
	Electrical boxes	Pcs	2		
	<i>Rate or Lump Sum in Words:</i>				



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General Summary

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Bill of Quantities
General Summary

General Summary

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SCHOOL NO.

817

متوسطة ابلح الرسمية المختلطة



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Rehabilitation of Shelters

متوسطة البطح الرسمية المختلطة 817

Bill of Quantities

Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>SITE PREPARATION AND DEMOLITION</u>				
1.1	<u>Demolishing and Removal of Debris</u>				
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. <i>Rate or Lump Sum in Words:</i>	LS	1		
2	<u>SITE PREPARATION AND DEMOLITION</u>				
2.1	<u>Rehabilitate Precast Concrete Tiles similar to existing</u>				
2.1.1	Supply and install precast concrete tiles similar to existing. Samples should be Provided for approval. The works - Labor, material and equipment: Broken or damaged pieces to be replaced, then cleaning & leveling; without affecting the adjacent undamaged areas - The tiles will be made using wear resistant materials in the face mix. The colors and shapes of the blocks (wearing layer) shall be as per engineer instructions. - The bedding and joint sand shall be clean non plastic, and free from deleterious or foreign matter. - The sub-base and base layers should be well compacted to the engineer approval - The necessary fill below tiles to be approved and well cleaned before spreading to the right level while according proper attention to any needed electro-mechanical inserts and accessories. - Installation of tiles - All works needed as per specifications and the Engineer instructions Repair and maintenance of concrete flooring <i>Rate or Lump Sum in Words:</i>	Item	1		

Lebanese Emergency Assistant Project (LEAP)

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Bill of Quantities

Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
2.4	<u>School Fences with Related Gates</u>				
2.4.2	<u>Rehabilitate Existing Fence (Strengthening & Rehabilitation)</u>				
	Work to include				
	- Rehabilitate and support all the existing fence as per				
	- 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				
	Repair & maintenance of walls	m2	10		
	<u>Rate or Lump Sum in Words:</u>				
					

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Bill of Quantities

Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
4	<u>MASONRY</u>				
4.2	<u>Rehabilitate and Clean masonry walls showing deep crack</u> The repair method requires the replacement of some stone masonry that has been damaged by the crack. It will include the use of horizontal reinforcement. Remove cracked stones in a “toothed” pattern to the extent that a sound repair is possible. Clean the crack if it continues to extend into the mass masonry and grout with non shrink mortar. Key new stone in stone masonry perpendicular to the wall surface in addition to the “toothed” and stepped pattern parallel to the wall surface. With larger more extensive cracks remove additional stones in a stepped pattern on both sides and the top of crack and restore by installing new stones. With smaller repairs lesser amounts of stones will have to be removed. Place horizontal reinforcement every 5th course. Mechanical ties to secure geogrid may be required. The horizontal reinforcement shall bridge over the crack and extend the length of new stone masonry. Replicate the coursing pattern of the existing exposed surface. Place new stones that are not exposed in an alternating stretcher-header bonding pattern to wall surface or top of wall. Construct the new stone masonry in complete horizontal courses where possible. Do not construct more than 5 courses before allowing masonry to dry. Lay subsequent stone courses on fresh wet mortar. Apply mortar at head joints as well as bed joints and finish one-half the width of the mortar joint below the surface of the stones.				
	Repair & maintenance of walls	m2	10		
	<u>Rate or Lump Sum in Words:</u>				

Lebanese Emergency Assistant Project (LEAP)

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Bill of Quantities

Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
5	<u>METAL WORKS</u>				
5.2	<u>Rehabilitate and Maintain the Existing Steel Work (Burglar Proof Protection + Opening)</u>				
	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 : Paint	Nº	2		
	<i>Rate or Lump Sum in Words:</i>				
					
5.2.6	Rehabilitate and paint existing steel window				
	Repair and maintenance of metal window	Nº	70		
	Metal Windows Handles	Nº	36		
	Replace Window's Glass	Nº	3		
	Repair & maintenance of water leakage coming from the	Nº	2		
	<i>Rate or Lump Sum in Words:</i>				
					
5.5	<u>Rehabilitate and Maintain Steel Handrail</u>				
	- 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: Paint	m	20		
	<i>Rate or Lump Sum in Words:</i>				
					
6	<u>WOOD AND PLASTICS</u>				
6.1	<u>Joinery Works</u>				

Lebanese Emergency Assistant Project (LEAP)

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Bill of Quantities

Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
6.1.1	<u>Rehabilitate Existing Kitchen Cupboards</u> 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 Cabinet's door	Pcs	1		
	<i>Rate or Lump Sum in Words:</i> 				
7	<u>THERMAL AND MOISTURE PROTECTION</u>				
7.1	<u>Roof Waterproofing</u>				
7.1.1	Works should be applied and done by experts with previous experience in similar works. Works to include: - DEEP cleaning of all surfaces and carting away of dust & debris - Concrete pad for water tanks as indicated - Sand cement screed layer to Provide proper slopes minimum 0.75% - Expansion joint sealant to be done respecting back rod, unbonding tape, adequate thickness of sealant, type & finish of sealant (fire rated) & design drawings especially on roof & planters. - Provide tackle coat (Proper) - Provide 4mm thick, SBS layer from an approved manufacturer - Provide protection for all pipe works and drains - Provide heat insulation layers of 35 KG/m³ where required - Provide Geotextile layers - Provide all aluminum flashing with mastic - Provide finishing material as required - All as specified and approved shop drawings				
	Repair & maintenance of water leakage coming from the	Item	2		
	<i>Rate or Lump Sum in Words:</i> 				

Lebanese Emergency Assistant Project (LEAP)

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Bill of Quantities

Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
8	<u>DOOR AND WINDOWS</u>				
8.1	<u>Wooden Doors and Windows</u>				
8.1.3	<u>Rehabilitate the Existing Timber Doors</u>				
	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				
	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 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				
	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				
	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.				



Lebanese Emergency Assistant Project (LEAP)

Rehabilitation of Shelters

متوسطة البج الرسمية المختلطة 817

Bill of Quantities

Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
8.1.3.1.1	Rehabilitate and paint existing single leaf timber doors with related accessories				
	Repair wooden door + frame	Nº	6		
	Paint wooden door + frame	Nº	17		
	Handles for doors	Nº	20		
	Door Lock	Nº	1		
	<i>Rate or Lump Sum in Words:</i>				
					

Lebanese Emergency Assistant Project (LEAP)

Rehabilitation of Shelters

متوسطة البج الرسمية المختلطة 817

Bill of Quantities

Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
8.2.4	<u>Colored Powder Coated Aluminum Louver</u>				
9	<u>FINISHES</u>				
9.1	<u>Cement Plaster</u>				
9.1.2	<u>Repair of Existing Plaster (Internal - External) (Cracks, etc.)</u>				
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 Repair & Repaint walls sections	m2	80		
	<u>Rate or Lump Sum in Words:</u>				

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Bill of Quantities

Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
9.2	<u>Tiling Works</u>				
9.2.4	<u>Repair existing broken floor tiles and skirting (all types) and reinstall by new, similar to existing for all rooms and corridors</u>				
8.2.4.1	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.				
	Repair of floor marble skirting	Pcs	9		
	Repair Flooring Joints	Pcs	3		
	Repair ceramic tiles walls	m2	10		
	<i>Rate or Lump Sum in Words:</i>				
9.3	<u>Suspended Ceilings</u>				
9.3.1	<u>Metal Sheet Strips Suspended Ceilings:</u>				
9.3.1.3	Rehabilitate Metal OR Plastic Strips	Item	1		
	<i>Rate or Lump Sum in Words:</i>				
9.5	<u>Painting</u>				
9.5.1	<u>Wall and Ceilings Paint Works</u>				
	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	m ²	845		
	<i>Rate or Lump Sum in Words:</i>				

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Bill of Quantities
Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
10	<u>SPECIALTIES</u>				
10.3	<u>Resin Work</u>				
10.3.5	<u>Canteen Counter</u>				
	Supply and install Marble Carrara counter top for canteen, the work to include:				
	- All fixing elements				
	- All stainless steel hangers				
	- All necessary accessories				
	- All needed items and as instructed by the Engineer				
10.3.5.1	Canteen Counter - Length (As existing)	№	1		
	<i>Rate or Lump Sum in Words:</i>				
10.5	<u>Internal Curtains</u>				
	Supply and install internal rolling type tissue and polyester collapsible type curtain as per specifications and at the location as shown on drawings				
	Works to include:				
	- Materials				
	- Labors				
	- Heavy Duty Accessories				
	- All needed works as per the Engineer instructions and approval				
10.5.1	On External Opening				
	Fabric curtains	Pcs	2		
	Provide & Install new transparent outdoor curtains to insert at the existing rails	m²	120		
	<i>Rate or Lump Sum in Words:</i>				
11	<u>EQUIPMENT</u>				
11.1	<u>EQUIPMENT ATHLETIC COURTS (BASKET BALL NET, BACKBOARD AND SUPPORTS)</u>				
11.1.1	Proprietary game court equipment, fixtures and accessories to engineers' approval.				
	Provided and installed complete, including for support anchorages and inserts hardware, accessories, trim and all other related ancillaries as indicated or required.				
	Supply & Install Set of basketball backboards and rims.	№	2		
	<i>Rate or Lump Sum in Words:</i>				



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Bill of Quantities

Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
12	<u>FURNISHINGS</u>				
12.1	INSTITUTIONAL FURNITURE				
					
12.1.6	Hooks with Rails for Hats and Coats				
12.1.6.1	Hooks with rails for hats and coats, rail size 120mm high x 20mm thick, softwood, treated and painted, countersunk screwed to wall & painted steel hooks every 200 mm (5No hooks per linear meter of rail).	Lm	33		
	<i>Rate or Lump Sum in Words:</i>				
					



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Bill № 3: Mechanical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>GENERAL TECHNICAL REQUIREMENTS</u>				
1.2	<u>Rehabilitation Works General Requirements</u> 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.				
	Repair & maintenance of Bathrooms & sanitary pipes	Item	4		
	Repair and maintenance of washbasin	Item	1		
	<i>Rate or Lump Sum in Words:</i>				
2	<u>SANITARY, WASTE & RAIN WATER PIPE WORK INSTALLATION</u>				
2.4	<u>Channel Drain</u> Supply and install channel from Ground floor drain (channel drain) made of ductile iron. The bearing capacity of the grating should be more than 10 ton and work to include back water valve and should be painted as per the Engineer instructions and should be anti rust paint, including excavation, concrete thickness not less than 20 cm & reinforcement steel and necessary floor concrete cleaning. All works should be as per specifications and as per the Engineer instructions.				
2.4.2	Wide 300 mm (Heavy Duty)	lm	3		
	<i>Rate or Lump Sum in Words:</i>				
5	<u>SANITARY FIXTURES</u>				
5.6	<u>Self Close Taps on Kids & Students Lavatories</u> 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	Nº	5		
	<i>Rate or Lump Sum in Words:</i>				

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Bill of Quantities
Bill № 3: Mechanical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
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 <i>Rate or Lump Sum in Words:</i>	Nº	5		



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Bill № 4: Electrical Engineering Services



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Rehabilitation of Shelters
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Bill of Quantities
Bill № 4: Electrical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>BASIC ELECTRICAL REQUIREMENTS</u>				
1.1	<u>Fixing and Repairing</u>				
	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				
1.1.2	Wires and cables: "Cache Cables" <i>Rate or Lump Sum in Words:</i>	Pcs	5		
8	<u>SOLAR SYSTEM</u>				
8.1	Supply, install, connect and test the solar lighting system for all Electrical Loads (excluding Lifts, Pumps and AC Units) in perfect operating conditions, including but not - Photovoltaic multi-crystalline solar panels as shown on the drawings. - Hybrid Inverter - All cables, wires, conduits and all necessary accessories - Aluminum PV mountings - The Contractor shall ensure complete solar system which should function as the main Power Supply - The Contractor should submit detailed shop drawings and materials for approval. - For all blocks of the schools - Lithium Batteries for (Off-Grid Solar Types) - All necessary elevated structures on roof and other areas which are needed to install the required solar panel as mentioned on drawings (Sheds, Parking, etc.) areas Repair of solar panels batteries	Item	8		
	<i>Rate or Lump Sum in Words:</i>				



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General Summary

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SCHOOL NO.

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Bill of Quantities
Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>SITE PREPARATION AND DEMOLITION</u>				
1.1	<u>Demolishing and Removal of Debris</u>				
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. <i>Rate or Lump Sum in Words:</i> 	LS	1		
5	<u>METAL WORKS</u>				
5.2	<u>Rehabilitate and Maintain the Existing Steel Work (Burglar Proof Protection + Opening)</u> 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 separating the 2 <i>Rate or Lump Sum in Words:</i> 	Nº	1		
5.2.2	Rehabilitate existing steel gates : Paint <i>Rate or Lump Sum in Words:</i> 	Nº	1		



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Bill of Quantities

Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
8	<u>DOOR AND WINDOWS</u>				
8.1	<u>Wooden Doors and Windows</u>				
8.1.3	<u>Rehabilitate the Existing Timber Doors</u>				
	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				
	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 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				
	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				
	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				
	Paint wooden doors	№	8		
	Replace Door's Handle	№	2		
	<i>Rate or Lump Sum in Words:</i>				
					
					



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Bill of Quantities
Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
8.2	<u>Aluminum Doors and Windows</u>				
8.2.4	<u>Colored Powder Coated Aluminum Louver</u>				
9	<u>FINISHES</u>				
9.2	<u>Tiling Works</u>				
9.2.4	<u>Repair existing broken floor tiles and skirting (all types) and reinstall by new, similar to existing for all rooms and corridors</u>				
8.2.4.1	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.	m2	10		
	<i>Rate or Lump Sum in Words:</i>				
9.5	<u>Painting</u>				
9.5.1	<u>Wall and Ceilings Paint Works</u> 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	m ²	1,600		
	<i>Rate or Lump Sum in Words:</i>				

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Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
10	<u>SPECIALTIES</u>				
10.2	Classroom Specialties				
10.2.1	<u>White Teaching Boards</u>				
10.2.1.1	Supply and install White teaching boards from approved manufacturer as per specifications of Ministry of Education and Higher Education and corresponding to the site Cost to include: - (3600mm x 1200mm) final dimensions as per site limitation - Materials and labors - Felt marker pens and eraser (12 marker pens + 2 erases for each white board) - Stainless Steel screws - Remove the existing board - All needed works as per the Engineer instructions	№	3		
	<i>Rate or Lump Sum in Words:</i>				
10.2.2	<u>Educational Panels Inside Classrooms</u>				
10.2.2.1	Supply and install educational panels inside the KG classrooms and KG corridors as instructed by the Engineer The educational panels should be translucent anti bacterial fire rated PVC with a visual printed at the back Work to include: - Materials and labors - Adhesive materials - All needed items and as instructed by the Engineer				
	Repair Projector's screen	№	1		
	<i>Rate or Lump Sum in Words:</i>				
11	<u>EQUIPMENT</u>				
11.1	EQUIPMENT ATHLETIC COURTS (BASKET BALL NET, BACKBOARD AND SUPPORTS)				
11.1.1	Proprietary game court equipment, fixtures and accessories to engineers' approval. Provided and installed complete, including for support anchorages and inserts hardware, accessories, trim and all other related ancillaries as indicated or required. Supply & Install Set of basketball backboards and rims.	№	1		
	<i>Rate or Lump Sum in Words:</i>				



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Lebanese Emergency Assistant Project (LEAP)
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Bill of Quantities
Bill № 3: Mechanical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>GENERAL TECHNICAL REQUIREMENTS</u>				
1.2	<u>Rehabilitation Works General Requirements</u>				
	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.				
	New Flushing system for toilet	Item	8		
	Repair & maintenance of Plumbing	LS	1		
	<i>Rate or Lump Sum in Words:</i>				
1.2.2	Maintenance and rehabilitation of existing HVAC & fire fighting systems, including all necessary piping, duct works, pumps and controls, fans, mechanical works inside shafts, air conditioning units, etc.	Item	1		
	<i>Rate or Lump Sum in Words:</i>				
2	<u>SANITARY, WASTE & RAIN WATER PIPE WORK INSTALLATION</u>				
2.1	<u>Drainage System</u>				
	Supply, install and test the storm water drainage from (UPVC) pipes inside the building to outside and the pipes to be measured in Linear Meter with all related accessories, cleanout, elbows, vent hangers, and all necessary accessories as per standard installation details				
	A drainage pipe has been installed on this side of the building façade to prevent water leakage. Water leakage is occurring on the opposite side due to the absence of a drainage pipe. It is recommended to install a drainage pipe on the opposite side to solve the leakage issue.	LS	1		



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Bill of Quantities
Bill № 3: Mechanical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
5	<u>SANITARY FIXTURES</u>				
5.6	<u>Self Close Taps on Kids & Students Lavatories</u> 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 <i>Rate or Lump Sum in Words:</i>	No	2		



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Bill № 4: Electrical Engineering Services



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Bill of Quantities
Bill № 4: Electrical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>BASIC ELECTRICAL REQUIREMENTS</u>				
1.1	<u>Fixing and Repairing</u>				
	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: Neon lights <i>Rate or Lump Sum in Words:</i>	Pcs	14		
1.1.9	All needed electrical works ... etc. Repair Projector mount box <i>Rate or Lump Sum in Words:</i>	Pcs	3		



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متوسطة دير الغزال الرسمية المختلطة



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Bill of Quantities

Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>SITE PREPARATION AND DEMOLITION</u>				
1.1	<u>Demolishing and Removal of Debris</u>				
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. <i>Rate or Lump Sum in Words:</i> 	LS	1		
8	<u>DOOR AND WINDOWS</u>				
8.1	<u>Wooden Doors and Windows</u>				



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Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
8.1.3	<u>Rehabilitate the Existing Timber Doors</u> 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 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 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 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 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				
	Paint wooden frame	Nº	8		
	Handles (2)	Nº	4		
	<i>Rate or Lump Sum in Words:</i>				



Lebanese Emergency Assistant Project (LEAP)

Rehabilitation of Shelters

متوسطة دير الغزال الرسمية المختلطة 827

Bill of Quantities

Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
9	<u>FINISHES</u>				
9.5	<u>Painting</u>				
9.5.1	<u>Wall and Ceilings Paint Works</u>				
	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	m ²	1,520		
	<i>Rate or Lump Sum in Words:</i>				
10	<u>SPECIALTIES</u>				
10.2	<u>Classroom Specialties</u>				
10.2.1	<u>White Teaching Boards</u>				
10.2.1.1	Supply and install White teaching boards from approved manufacturer as per specifications of Ministry of Education and Higher Education and corresponding to the site				
	Cost to include:				
	- (3600mm x 1200mm) final dimensions as per site limitation				
	- Materials and labors				
	- Felt marker pens and eraser (12 marker pens + 2 erases for each white board)				
	- Stainless Steel screws				
	- Remove the existing board				
	- All needed works as per the Engineer instructions	No	11		
	<i>Rate or Lump Sum in Words:</i>				



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Bill № 3: Mechanical Engineering Services



Lebanese Emergency Assistant Project (LEAP)

Rehabilitation of Shelters

متوسطة دير الغزال الرسمية المختلطة 827

Bill of Quantities

Bill № 3: Mechanical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>GENERAL TECHNICAL REQUIREMENTS</u>				
1.2	<u>Rehabilitation Works General Requirements</u>				
	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	1		
	<i>Rate or Lump Sum in Words:</i>				
					



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Bill № 4: Electrical Engineering Services



Lebanese Emergency Assistant Project (LEAP)

Rehabilitation of Shelters

متوسطة دير الغزال الرسمية المختلطة 827

Bill of Quantities

Bill № 4: Electrical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>BASIC ELECTRICAL REQUIREMENTS</u>				
1.1	<u>Fixing and Repairing</u>				
	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 <i>Rate or Lump Sum in Words:</i>	LS	1		
1.1.2	Wires and cables <i>Rate or Lump Sum in Words:</i>	LS	1		
1.1.3	Sockets and switches <i>Rate or Lump Sum in Words:</i>	LS	1		



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General Summary

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* Total Amount of Bill of Quantities

* Discount by Tenderer (_____ %)

* Total Amount of Tender (VAT Not Applicable)

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SCHOOL NO.

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متوسطة برالياس الرسمية المختلطة



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Rehabilitation of Shelters
متوسطة برالياس الرسمية المختلطة 830

Bill of Quantities
Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>SITE PREPARATION AND DEMOLITION</u>				
1.1	<u>Demolishing and Removal of Debris</u>				
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. <i>Rate or Lump Sum in Words:</i>..... 	LS	1		
5	<u>METAL WORKS</u>				
5.2	<u>Rehabilitate and Maintain the Existing Steel Work (Burglar Proof Protection + Opening)</u> 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				
	Paint metal doors	Nº	3		
	Handle for metal door	Nº	1		
	<i>Rate or Lump Sum in Words:</i>				
					



Lebanese Emergency Assistant Project (LEAP)

Rehabilitation of Shelters

متوسطة برالياس الرسمية المختلطة 830

Bill of Quantities

Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
8	<u>DOOR AND WINDOWS</u>				
8.1.3	<u>Rehabilitate the Existing Timber Doors</u> 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				
	Repair wooden door	Nº	1		
	Paint door	Nº	3		
	<u>Rate or Lump Sum in Words:</u>				



Lebanese Emergency Assistant Project (LEAP)
Rehabilitation of Shelters
متوسطة برالياس الرسمية المختلطة 830

Bill of Quantities
Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
8.1.3.1.4	Rehabilitate wooden windows				
	Handle for windows	№	1		
	<i>Rate or Lump Sum in Words:</i>				
#REF!	<u>Aluminum Doors and Windows</u>				
8.2.3	<u>Rehabilitation Existing Glazed Aluminum Panels (s)</u>				
	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	№	5		
	<i>Rate or Lump Sum in Words:</i>				
9	<u>FINISHES</u>				
9.2	<u>Tiling Works</u>				
9.2.6	<u>Threshold Tiles (Doors, Marble Topping)</u>				
9.2.6.3	Natural Stone Coping	m	1		
	<i>Rate or Lump Sum in Words:</i>				
9.2.7	<u>Clean and Rub the Existing Floor Tiles and Skirting</u>				
	Rehabilitate any type of flooring tiles and skirting (ceramic - mosaic - etc.)				
	Work to include:				
	- All materials and labors				
	- Grouting				
	- Polish and rubbing				
	- All needed items as per the Engineer instruction as specified				
9.2.7.3	Type 3: Mosaic	m ²	750		
	<i>Rate or Lump Sum in Words:</i>				
9.5	<u>Painting</u>				



Lebanese Emergency Assistant Project (LEAP)

Rehabilitation of Shelters

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Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
9.5.1	<u>Wall and Ceilings Paint Works</u> 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 <i>Rate or Lump Sum in Words:</i> 	m ²	2,725		
10	<u>SPECIALTIES</u>				
10.5	<u>Internal Curtains</u> Supply and install internal rolling type tissue and polyester collapsible type curtain as per specifications and at the location as shown on drawings Works to include: - Materials - Labors - Heavy Duty Accessories - All needed works as per the Engineer instructions and approval				
10.5.1	On External Opening Repair Curtains rollers <i>Rate or Lump Sum in Words:</i> 	Pcs	30		



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Bill № 3: Mechanical Engineering Services



Lebanese Emergency Assistant Project (LEAP)

Rehabilitation of Shelters

متوسطة برالياس الرسمية المختلطة 830

Bill of Quantities

Bill № 3: Mechanical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>GENERAL TECHNICAL REQUIREMENTS</u>				
1.2	<u>Rehabilitation Works General Requirements</u>				
	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.				
	Toilet tank lid	Item	1		
	New toilet seat Flushing system	Item	2		
	<i>Rate or Lump Sum in Words:</i>				
1.2.2	Maintenance and rehabilitation of existing HVAC & fire fighting systems, including all necessary piping, duct works, pumps and controls, fans, mechanical works inside shafts, air conditioning units, etc.				
	Paint Radiators	Item	5		
	<i>Rate or Lump Sum in Words:</i>				



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Lebanese Emergency Assistant Project (LEAP)

Rehabilitation of Shelters

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Bill of Quantities

Bill № 4: Electrical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>BASIC ELECTRICAL REQUIREMENTS</u>				
1.1	<u>Fixing and Repairing</u>				
	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: New lamps <i>Rate or Lump Sum in Words:</i>	Pcs	12		



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* Total Amount of Tender (VAT Not Applicable)

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SCHOOL NO.

832

بر الياس الرسمية الابتدائية



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Lebanese Emergency Assistant Project (LEAP)

Rehabilitation of Shelters

مدرسة بر الياس الرسمية الابتدائية 832

Bill of Quantities

Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>SITE PREPARATION AND DEMOLITION</u>				
1.1	<u>Demolishing and Removal of Debris</u>				
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. <i>Rate or Lump Sum in Words:</i>..... 	LS	1		
5	<u>METAL WORKS</u>				
5.2	<u>Rehabilitate and Maintain the Existing Steel Work (Burglar Proof Protection + Opening)</u> 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				
5.2.6	Rehabilitate and paint existing steel window : New Handle <i>Rate or Lump Sum in Words:</i>..... 	№	1		



Lebanese Emergency Assistant Project (LEAP)

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مدرسة بر الياس الرسمية الابتدائية 832

Bill of Quantities

Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
8	<u>DOOR AND WINDOWS</u>				
8.1	<u>Wooden Doors and Windows</u>				
8.1.3	<u>Rehabilitate the Existing Timber Doors</u>				
	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	New Handles	№	84	
	<i>Rate or Lump Sum in Words:</i>				



Lebanese Emergency Assistant Project (LEAP)

Rehabilitation of Shelters

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Bill of Quantities

Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
8.2	<u>Aluminum Doors and Windows</u>				
8.2.3	<u>Rehabilitation Existing Glazed Aluminum Panels (s)</u> 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 & door <i>Rate or Lump Sum in Words:</i>	No	1		
9	<u>FINISHES</u>				
9.5	<u>Painting</u>				
9.5.1	<u>Wall and Ceilings Paint Works</u> 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 <i>Rate or Lump Sum in Words:</i>	m ²	1,765		



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Bill № 3: Mechanical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>GENERAL TECHNICAL REQUIREMENTS</u>				
1.2	<u>Rehabilitation Works General Requirements</u> 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				
	New Toilet seat Lids	Item	6		
	<i>Rate or Lump Sum in Words:</i>				
5	<u>SANITARY FIXTURES</u>				
5.6	<u>Self Close Taps on Kids & Students Lavatories</u> 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	Nº	6		
	<i>Rate or Lump Sum in Words:</i>				
5.7	<u>Wall Type Self Close Taps on Drinking Basins</u> 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	Nº	7		
	<i>Rate or Lump Sum in Words:</i>				
5.8	<u>Kitchen Sink Accessories</u> Supply and install kitchen sink accessories such as chrome trap, angle valve, mixers as specified				
5.8.1	Kitchen Sink Accessories	Nº	2		
	<i>Rate or Lump Sum in Words:</i>				

Lebanese Emergency Assistant Project (LEAP)

Rehabilitation of Shelters

مدرسة بر إلياس الرسمية الابتدائية 832

Bill of Quantities

Bill № 3: Mechanical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
5.11	<u>Showers Tray</u> Supply and install shower tray as specified including shower mixers, shower head and all necessary accessories as required				
5.11.2	SH-02 (only mixers & shower hand) <i>Rate or Lump Sum in Words:</i>	Nº	1		



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Bill № 4: Electrical Engineering Services



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Bill of Quantities

Bill № 4: Electrical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
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7 **CCTV SYSTEM**

Supply, install, connect and test CCTV system complete with conduits installations from the location of the NVR through the different CCTV camera outlets, including the pull or draw boxes and derivation boxes, the junction and outlet boxes, 19" Rack, and all necessary connections to the management station as shown on drawings as per Tender Specifications and the like to the satisfaction of the

- 7.1 All necessary connections from different location to the proposed NVR location

Repair of malfunctioned camera Pcs 1

Rate or Lump Sum in Words:

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SCHOOL NO.

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متوسطة قب الياس الرسمية المختلطة



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Lebanese Emergency Assistant Project (LEAP)

Rehabilitation of Shelters

متوسطة قب الياس الرسمية المختلطة - 835

Bill of Quantities

Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>SITE PREPARATION AND DEMOLITION</u>				
1.1	<u>Demolishing and Removal of Debris</u>				
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. Rate or Lump Sum in Words:	LS	1		
5	<u>METAL WORKS</u>				
5.2	<u>Rehabilitate and Maintain the Existing Steel Work (Burglar Proof Protection + Opening)</u> 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				
	Paint metal doors	Nº	16		
	opening glass	Nº	2		
	Repair Door	Nº	1		
	Lock	Nº	1		
	Door Handles	Nº	2		
	Rate or Lump Sum in Words:				
					



Lebanese Emergency Assistant Project (LEAP)

Rehabilitation of Shelters

متوسطة قب الياس الرسمية المختلطة - 835

Bill of Quantities

Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
7	<u>THERMAL AND MOISTURE PROTECTION</u>				
7.1	<u>Roof Waterproofing</u>				
7.1.1	Works should be applied and done by experts with previous experience in similar works. Works to include: - DEEP cleaning of all surfaces and carting away of dust & debris - Concrete pad for water tanks as indicated - Sand cement screed layer to Provide proper slopes minimum 0.75% - Expansion joint sealant to be done respecting back rod, un-bonding tape, adequate thickness of sealant, type & finish of sealant (fire rated) & design drawings especially on roof & planters. - Provide tackle coat (Proper) - Provide 4mm thick, SBS layer from an approved manufacturer - Provide protection for all pipe works and drains - Provide heat insulation layers of 35 KG/m ³ where required - Provide Geotextile layers - Provide all aluminum flashing with mastic - Provide finishing material as required - All as specified and approved shop drawings				
	Repair Water leakage from the roof	LS	1		
	<i>Rate or Lump Sum in Words:</i>				
9	<u>FINISHES</u>				
9.2	<u>Tiling Works</u>				
9.2.3	<u>New Tiles for stairs</u>				
	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				
9.2.3.3	Mosaic Similar to existing 4cm Thick minimum (Tread and Riser)	Pcs	8		
	<i>Rate or Lump Sum in Words:</i>				



Lebanese Emergency Assistant Project (LEAP)

Rehabilitation of Shelters

متوسطة قب الياس الرسمية المختلطة - 835

Bill of Quantities

Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
9.5	<u>Painting</u>				
9.5.1	<u>Wall and Ceilings Paint Works</u>				
	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	m ²	1,615		
	<i>Rate or Lump Sum in Words:</i>				
10	<u>SPECIALTIES</u>				
10.2	<u>Classroom Specialties</u>				
10.2.1	<u>White Teaching Boards</u>				
10.2.1.1	Supply and install White teaching boards from approved manufacturer as per specifications of Ministry of Education and Higher Education and corresponding to the site				
	Cost to include:				
	- (3600mm x 1200mm) final dimensions as per site limitation				
	- Materials and labors				
	- Felt marker pens and eraser (12 marker pens + 2 erases for each white board)				
	- Stainless Steel screws				
	- Remove the existing board				
	- All needed works as per the Engineer instructions	No	5		
	<i>Rate or Lump Sum in Words:</i>				
12	<u>FURNISHINGS</u>				
12.1	<u>INSTITUTIONAL FURNITURE</u>				
12.1.2	<u>Conference Room Furniture</u>				
	<u>Repair broken led screen</u>	No	1		



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Bill № 3: Mechanical Engineering Services



Lebanese Emergency Assistant Project (LEAP)

Rehabilitation of Shelters

متوسطة قب الباس الرسمية المختلطة - 835

Bill of Quantities

Bill № 3: Mechanical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
5	<u>SANITARY FIXTURES</u>				
5.6	<u>Self Close Taps on Kids & Students Lavatories</u> 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 <i>Rate or Lump Sum in Words:</i>	No	1		
5.7	<u>Wall Type Self Close Taps on Drinking Basins</u> 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 <i>Rate or Lump Sum in Words:</i>	No	7		



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Bill № 4: Electrical Engineering Services



Lebanese Emergency Assistant Project (LEAP)

Rehabilitation of Shelters

متوسطة قبب الباس الرسمية المختلطة - 835

Bill of Quantities

Bill № 4: Electrical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>BASIC ELECTRICAL REQUIREMENTS</u>				
1.1	<u>Fixing and Repairing</u>				
	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: New lamps <i>Rate or Lump Sum in Words:</i>	Pcs	8		
1.1.3	Sockets and switches <i>Rate or Lump Sum in Words:</i>	Pcs	6		



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General Summary



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SCHOOL NO.

837

قب الياس الابتدائية الرسمية



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Rehabilitation of Shelters
قبة الياس الابتدائية الرسمية - 837

Bill of Quantities
Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>SITE PREPARATION AND DEMOLITION</u>				
1.1	<u>Demolishing and Removal of Debris</u>				
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		
	<i>Rate or Lump Sum in Words:</i>				
5	<u>METAL WORKS</u>				
	<i>Rate or Lump Sum in Words:</i>				
5.2	<u>Rehabilitate and Maintain the Existing Steel Work (Burglar Proof Protection + Opening)</u>				
	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	Door Glass №	1		
		Lock №	2		
	<i>Rate or Lump Sum in Words:</i>				



Lebanese Emergency Assistant Project (LEAP)

Rehabilitation of Shelters

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Bill of Quantities

Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
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5.2.6 Rehabilitate and paint existing steel window

Repair windows	№	22
Window Glass	№	1

Rate or Lump Sum in Words:

8 DOOR AND WINDOWS

8.1 Wooden Doors and Windows

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.



Lebanese Emergency Assistant Project (LEAP)
Rehabilitation of Shelters
قبة الياس الابتدائية الرسمية - 837

Bill of Quantities
Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
8.1.3.1.1	Rehabilitate and paint existing single leaf timber doors with related accessories				
	Door Handles	№	48		
	Door Lock	№	24		
	<i>Rate or Lump Sum in Words:</i>				
9	<u>FINISHES</u>				
9.5	<u>Painting</u>				
9.5.1	<u>Wall and Ceilings Paint Works</u>				
	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	m ²	2,340		
	<i>Rate or Lump Sum in Words:</i>				



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Bill № 3: Mechanical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>GENERAL TECHNICAL REQUIREMENTS</u>				
1.2	<u>Rehabilitation Works General Requirements</u> 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.				
	New Toilet seat Lid	Item	1		
	Flushing mechanism of the toilet seat	Item	6		
	<i>Rate or Lump Sum in Words:</i>				
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	1		
	<i>Rate or Lump Sum in Words:</i>				
5	<u>SANITARY FIXTURES</u>				
5.6	<u>Self Close Taps on Kids & Students Lavatories</u> 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				
	Handheld bidet sprayer	№	12		
	<i>Rate or Lump Sum in Words:</i>				
5.7	<u>Wall Type Self Close Taps on Drinking Basins</u> 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		
	<i>Rate or Lump Sum in Words:</i>				

Lebanese Emergency Assistant Project (LEAP)
Rehabilitation of Shelters
837 قب المباس الابتدائية الرسمية -

Bill of Quantities
Bill № 3: Mechanical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
5.11	Showers Tray Supply and install shower tray as specified including shower mixers, shower head and all necessary accessories as required				
5.11.2	SH-02 (only mixers & shower hand) <i>Rate or Lump Sum in Words:</i>	Nº	2		



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Bill № 4: Electrical Engineering Services



Lebanese Emergency Assistant Project (LEAP)

Rehabilitation of Shelters

قَب الياس الابتدائية الرسمية - 837

Bill of Quantities

Bill № 4: Electrical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>BASIC ELECTRICAL REQUIREMENTS</u>				
1.1	<u>Fixing and Repairing</u>				
	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: New lamps <i>Rate or Lump Sum in Words:</i>	Pcs	4		



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SCHOOL NO.

1415

متوسطة رعيت الرسمية المختلطة



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Rehabilitation of Shelters
متوسطة رعت الرسمية المختلطة - 1415

Bill of Quantities
Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>SITE PREPARATION AND DEMOLITION</u>				
1.1	<u>Demolishing and Removal of Debris</u>				
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. <i>Rate or Lump Sum in Words:</i>	LS	1		
5	<u>METAL WORKS</u>				
5.2	<u>Rehabilitate and Maintain the Existing Steel Work (Burglar Proof Protection + Opening)</u> 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 Lock for metal door <i>Rate or Lump Sum in Words:</i>	№	1		
5.2.2	Rehabilitate existing steel gates <i>Rate or Lump Sum in Words:</i>	№	1		



Lebanese Emergency Assistant Project (LEAP)
Rehabilitation of Shelters
متوسطة رعيت الرسمية المختلطة - 1415

Bill of Quantities
Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
8	<u>DOOR AND WINDOWS</u>				
8.1	<u>Wooden Doors and Windows</u>				
8.1.2	<u>New Timber External Shutters (Louvers)</u>				
8.1.2.1	Provide new timber external shutters (louvers) <i>Rate or Lump Sum in Words:</i>	No	1		
8.1.3	<u>Rehabilitate the Existing Timber Doors</u> 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.				



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Rehabilitation of Shelters

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Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
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Casements or sashes are often in sound condition but the joints
have become loose due to the break down of glue and loose



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Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
	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				
	Paint wooden doors	Nº	5		
	Doors Handles	Nº	12		
	Doors Lock	Nº	2		
	Change the frame of wooden door	Nº	1		
	<i>Rate or Lump Sum in Words:</i>				
9	<u>FINISHES</u>				
9.5	<u>Painting</u>				
9.5.1	<u>Wall and Ceilings Paint Works</u>				
	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	680		
	<i>Rate or Lump Sum in Words:</i>				



Lebanese Emergency Assistant Project (LEAP)

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متوسطة رعت الرسمية المختلطة - 1415

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Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
10	<u>SPECIALTIES</u>				
10.2	Classroom Specialties				
10.2.1	<u>White Teaching Boards</u>				
10.2.1.1	Supply and install White teaching boards from approved manufacturer as per specifications of Ministry of Education and Higher Education and corresponding to the site Cost to include: - (3600mm x 1200mm) final dimensions as per site limitation - Materials and labors - Felt marker pens and eraser (12 marker pens + 2 erases for each white board) - Stainless Steel screws - Remove the existing board - All needed works as per the Engineer instructions	No	4		
	<i>Rate or Lump Sum in Words:</i>				



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Bill № 3: Mechanical Engineering Services



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Rehabilitation of Shelters
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Bill of Quantities
Bill № 3: Mechanical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>GENERAL TECHNICAL REQUIREMENTS</u>				
1.2	<u>Rehabilitation Works General Requirements</u> 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.				
	Flushing system for Toilet seats	Item	2		
	Repair Sanitary	LS	1		
	<i>Rate or Lump Sum in Words:</i>				
5	<u>SANITARY FIXTURES</u>				
5.7	<u>Wall Type Self Close Taps on Drinking Basins</u> 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	Nº	11		
	<i>Rate or Lump Sum in Words:</i>				



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Bill № 4: Electrical Engineering Services



Lebanese Emergency Assistant Project (LEAP)

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Bill of Quantities

Bill № 4: Electrical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>BASIC ELECTRICAL REQUIREMENTS</u>				
1.1	<u>Fixing and Repairing</u>				
	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				
1.1.3	Sockets and switches: New Electrical socket <i>Rate or Lump Sum in Words:</i>	Pcs	1		



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SCHOOL NO.

1496

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- General Summary

Bill № 2: Civil and Architectural Works



Lebanese Emergency Assistant Project (LEAP)
Rehabilitation of Shelters
ثأوية سعدنايل الرسمية - 1496

Bill of Quantities
Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>SITE PREPARATION AND DEMOLITION</u>				
1.1	<u>Demolishing and Removal of Debris</u>				
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. <i>Rate or Lump Sum in Words:</i>	LS	1		
2	<u>SITE PREPARATION AND DEMOLITION</u>				
2.4	<u>School Fences with Related Gates</u>				
2.4.2	<u>Rehabilitate Existing Fence (Strengthening & Rehabilitation)</u> Work to include - Rehabilitate and support all the existing fence as per - 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 Paint metal fences all around the playground <i>Rate or Lump Sum in Words:</i>	Pcs	6		



Lebanese Emergency Assistant Project (LEAP)
Rehabilitation of Shelters
١٤٩٦ ثاتوية سعناتيل الرسمية -

Bill of Quantities
Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
5	<u>METAL WORKS</u>				
5.2	<u>Rehabilitate and Maintain the Existing Steel Work (Burglar Proof Protection + Opening)</u>				
	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				
5.2.2	Rehabilitate existing steel gates				
	Repair broken entrance main gate	№	1		
	<i>Rate or Lump Sum in Words:</i>				
8	<u>DOOR AND WINDOWS</u>				
8.1	<u>Wooden Doors and Windows</u>				
8.1.1	<u>Timber Doors</u>				
	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				
	- 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	№	3		
	<i>Rate or Lump Sum in Words:</i>				



Lebanese Emergency Assistant Project (LEAP)
Rehabilitation of Shelters
١٤٩٦ - ناثوية سعنائل الرسمية

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Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
8.1.3	<u>Rehabilitate the Existing Timber Doors</u> 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 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 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 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 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 <i>Rate or Lump Sum in Words:</i> 	No	11		



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Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
8.2	<u>Aluminum Doors and Windows</u>				
8.2.3	<u>Rehabilitation Existing Glazed Aluminum Panels (s)</u> 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 <i>Rate or Lump Sum in Words:</i>	Nº	32		
9	<u>FINISHES</u>				
9.1	<u>Cement Plaster</u>				
9.1.2	<u>Repair of Existing Plaster (Internal - External)</u> <u>(Cracks, etc.)</u>				



Lebanese Emergency Assistant Project (LEAP)
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Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
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 <i>Rate or Lump Sum in Words:</i> 	m2	5		

9.2 Tiling Works



Lebanese Emergency Assistant Project (LEAP)
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Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
9.2.5	<u>Rehabilitate Existing Stair Treads and Riser</u> 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 The work to be as per the Engineer instructions				
9.2.5.1	Existing Mosaic Stair the price including Skirting tiles & Landing <i>Rate or Lump Sum in Words:</i>	m	10		
9.2.7	<u>Clean and Rub the Existing Floor Tiles and Skirting</u> Rehabilitate any type of flooring tiles and skirting (ceramic - mosaic - etc.) Work to include: - All materials and labors - Grouting - Polish and rubbing - All needed items as per the Engineer instruction as specified				
9.2.7.3	Type 3: Mosaic <i>Rate or Lump Sum in Words:</i>	m ²	890		
9.5	<u>Painting</u>				
9.5.1	<u>Wall and Ceilings Paint Works</u> 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 1 layers of putty then after smoothening, then 2 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 <i>Rate or Lump Sum in Words:</i>	m ²	3,020		



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Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
10	<u>SPECIALTIES</u>				
10.5	<u>Internal Curtains</u>				
	Supply and install internal rolling type tissue and polyester collapsible type curtain as per specifications and at the location as shown on drawings				
	Works to include:				
	- Materials				
	- Labors				
	- Heavy Duty Accessories				
	- All needed works as per the Engineer instructions and approval				
10.5.1	On External Opening				
	New curtains above fences all around the playground	Pcs	6		
	<i>Rate or Lump Sum in Words:</i>				



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Total Carried to General Summary	
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Bill № 3: Mechanical Engineering Services



Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>GENERAL TECHNICAL REQUIREMENTS</u>				
1.2	<u>Rehabilitation Works General Requirements</u> 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. Repair or Replace: Well water pump controller and Submersible well pump (dysfunctional) - غطاس البئر -	Item	1		
	<i>Rate or Lump Sum in Words:</i>				
3	<u>WATER PIPE WORK INSTALLATION</u>				
3.2	<u>Electrical Water Heater</u> Electrical water heater as specified and scheduled; include pipe work connections, temperature and pressure gauges, control and power wiring from the MCC, hot water and pipe work connections, control and high limit control valves, isolation and safety valves, thermal insulation, valve boxes, bonding and identification, and the heater should be of a good trade mark of European or west made or first class Lebanese product.				
3.2.2	EWB-02 (100 L) <i>Rate or Lump Sum in Words:</i>	No	1		



Lebanese Emergency Assistant Project (LEAP)
Rehabilitation of Shelters
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Bill of Quantities
Bill № 3: Mechanical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
5	<u>SANITARY FIXTURES</u>				
5.2	<u>W.C. For Non Kids</u> 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)				
5.2.2	EWC-02 (Wall Hang, handicapped - 70 x 36 cm) New Complete Toilet Seat Set	№	8		
	<i>Rate or Lump Sum in Words:</i>				
5.4	<u>Lavatories for Non Kids</u> 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.				
5.4.2	LAV-02 (wall hang, handicapped with mixers 56 x 41 cm)	№	6		
	<i>Rate or Lump Sum in Words:</i>				



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Bill № 4: Electrical Engineering Services



Lebanese Emergency Assistant Project (LEAP)
Rehabilitation of Shelters
١٤٩٦ ثاتوية سعناتيل الرسمية -

Bill of Quantities
Bill № 4: Electrical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>BASIC ELECTRICAL REQUIREMENTS</u>				
1.1	<u>Fixing and Repairing</u>				
	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: New lamps & Neon lights <u>Rate or Lump Sum in Words:</u>	Pcs	126		



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General Summary



General Summary

Description

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Bill № 2: Civil and Architectural Works

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Bill № 4: Electrical Engineering Services

* Total Amount of Bill of Quantities

* Discount by Tenderer (_____ %)

* Total Amount of Tender (VAT Not Applicable)

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SCHOOL NO.

1517

ابتدائية الحريرية الرسمية



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General Summary

Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>SITE PREPARATION AND DEMOLITION</u>				
1.1	<u>Demolishing and Removal of Debris</u>				
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. Rate or Lump Sum in Words:	LS	1		
5	<u>METAL WORKS</u>				
5.2	<u>Rehabilitate and Maintain the Existing Steel Work (Burglar Proof Protection + Opening)</u> 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 Replace Handles № 2 Paint Metal Door № 1 Rate or Lump Sum in Words:				
5.2.2	Rehabilitate existing steel gates Repair Gate № 1 Rate or Lump Sum in Words:				

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
6	<u>WOOD AND PLASTICS</u>				
6.1	<u>Joinery Works</u>				
6.1.1	<u>Rehabilitate Existing Kitchen Cupboards</u> 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				
	Replace Kitchen cupboards doors	Nº	5		
	<i>Rate or Lump Sum in Words:</i>				
6.1.2	<u>Rehabilitate Timber Cupboard</u> Rehabilitate timber cupboards with plastic laminate color, work to include sub framing, drawer units, shelves, fixing and fastening hardware, heavy duty ironmongery, accessories, including finish, soft close, painting and all other related auxiliaries works as required by engineer				
	- 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.				
	- (No patching is allowed for existing wooden works)				
	Repair of the wall partition between the two classrooms.	m²	15		
	<i>Rate or Lump Sum in Words:</i>				

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
8	<u>DOOR AND WINDOWS</u>				
8.1	<u>Wooden Doors and Windows</u>				
8.1.3	<u>Rehabilitate the Existing Timber Doors</u>				
	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				
	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 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				
	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				
	Paint wooden door	m2	36		
	Replace Door Locks	pcs	2		
	Replace Door Handles	pcs	6		
	General Repair - Door	pcs	1		

Rate or Lump Sum in Words:

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Lebanese Emergency Assistant Project (LEAP)
Rehabilitation of Shelters
ابتدائية الحريرية الرسمية - 1517

Bill of Quantities
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Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
8.2	<u>Aluminum Doors and Windows</u>				
8.2.3	<u>Rehabilitation Existing Glazed Aluminum Panels (s)</u> 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 <i>Rate or Lump Sum in Words:</i>	Nº	11		
8.2.4	<u>Colored Powder Coated Aluminum Louver</u>				
9	<u>FINISHES</u>				
9.1	<u>Cement Plaster</u>				
9.1.2	<u>Repair of Existing Plaster (Internal - External) (Cracks, etc.)</u>				

Lebanese Emergency Assistant Project (LEAP)
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Bill of Quantities
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Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
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. Fill 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 And Specially Around door's frame	m2	20		
	<i>Rate or Lump Sum in Words:</i>				
9.2	<u>Tiling Works</u>				
9.2.4	<u>Repair existing broken floor OR WALL tiles and skirting (all types) and reinstall by new, similar to existing for all rooms and corridors</u>				

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Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
8.2.4.1	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. <i>Rate or Lump Sum in Words:</i>	LS	1		
9.5	<u>Painting</u>				
9.5.1	<u>Wall and Ceilings Paint Works</u> 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 <i>Rate or Lump Sum in Words:</i>	m ²	1,445		



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Bill № 3: Mechanical Engineering Services



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Bill of Quantities
Bill № 3: Mechanical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
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1 GENERAL TECHNICAL REQUIREMENTS

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.

New Toilet Seat Lids pcs 6

Flushing system Item 1

Repair plumbing where indicated in the report LS 1

Rate or Lump Sum in Words:
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5 SANITARY FIXTURES

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 № 6

Rate or Lump Sum in Words:
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Bill № 4: Electrical Engineering Services



Lebanese Emergency Assistant Project (LEAP)
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Bill of Quantities
Bill № 4: Electrical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
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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 : Replace lamps <i>Rate or Lump Sum in Words:</i>	pcs	3		
1.1.3	Replace Sockets and switches <i>Rate or Lump Sum in Words:</i>	pcs	5		



Collection

Page №

Amount (US \$)

4.1
.....

Total Carried to General Summary
.....
.....

General Summary



General Summary

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:

.....
.....
.....