



REPUBLIC OF LEBANON
COUNCIL FOR DEVELOPMENT AND RECONSTRUCTION

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

Batch 3: Lot 3

in Cazas of West Bekaa & Rachaya

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 3 (Zone 3 - West Bekaa & Rachaya)

School Code	School Name	Amount (US \$)
General Requirements (applicable to all schools in this Lot)		
	Provisional Sum	\$50,000.00
983	متوسطة الروضة الرسمية المختلطة	
989	بعلول المتوسط الرسمية	
997	متوسطة المنارة الثانية الرسمية	
999	ثانوية المنارة الرسمي	
1000	متوسطة الصویری الرسمية	
1035	متوسطة تنورة الرسمية	
1037	عين عطا المتوسط الرسمية	
1040	كوكبا المتوسط الرسمية	
1042	ثانوية دير الاحمر الرسمية	
1630 / 982	ثانوية حوش الحریمه الرسمية - متوسطة حوش الحریمه الرسمية	
1358	ثانوية المرج الرسمية	
Total Amount of Bid — Lot 3		



Lebanese Emergency Assistant Project (LEAP)

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Lot 3 - West Bekaa & Rachaya — Preamble & General Requirements (Applicable to All Schools in this Lot)

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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;



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Rehabilitation of Shelters

Preamble

Lot 3 - West Bekaa & Rachaya — Preamble & General Requirements (Applicable to All Schools in this Lot)

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.



Item	Description
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.
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.



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Item	Description
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.

End of Preamble

Bill № 1: General Requirements



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Bill № 1: General Requirements

Lot 3 - West Bekaa & Rachaya — Preamble & General Requirements (Applicable to All Schools in this Lot)

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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Lot 3 - West Bekaa & Rachaya — Preamble & General Requirements (Applicable to All Schools in this Lot)

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 <i>Lump Sum in Words:</i> 				
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 <i>Lump Sum in Words:</i> 				
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 <i>Lump Sum in Words:</i> 				
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 <i>Lump Sum in Words:</i> 				



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Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1.08	<u>Safety Procedures and Protection</u> 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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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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Amount (US \$)

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1.4	

Total Carried to General Summary	
	

SCHOOL NO.

983

متوسطة الروضة الرسمية المختلطة



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Bill № 2: Civil and Architectural Works
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.	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	№	1		
	Glass	№	1		
	<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 \$)
7	<u>THERMAL AND MOISTURE PROTECTION</u>				
7.3	<u>Insulate the New and Old Basements Walls</u>				
7.3.1	Provide the necessary damp proof coarse protection for the underground walls (Basements, etc.) work to include the following: - Applying one Bituminous layer of tack coat directly over concrete surface without any intermediate layer like plaster or similar. - Applying one layer of SBS sheet 4mm thick with cantonal protection - Construct 10cm hollow concrete block work wall - The cost of labor - In addition to above works to include also required excavation and backfilling with proper materials - All needed works for a proper insulation as per instructions	m ²	95		
	<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 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 & paint wooden doors	№	17		
	Doors Handles (2)	№	2		
	<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	<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	1,970		
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> <i>Rate or Lump Sum in Words:</i>	m ²	120		

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2.4	
Total Carried to General Summary	
	
	

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.

Toilet seat Lid	Item	1
Repair & maintenance of sanitary	Item	1
Complete washbasin set	Item	1

Rate or Lump Sum in Words:

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	No	6
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Rate or Lump Sum in Words:



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Bill № 4: Electrical Engineering Services



Lebanese Emergency Assistant Project (LEAP)

Rehabilitation of Shelters

متوسطة الروضة الرسمية المختلطة - 983

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	8		
	<i>Rate or Lump Sum in Words:</i>				
1.1.3	Sockets and switches				
	New electrical socket	Pcs	1		
	Electrical outlet	Pcs	3		
	<i>Rate or Lump Sum in Words:</i>				



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General Summary



General Summary

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Bill № 3: Mechanical Engineering Services

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SCHOOL NO.

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بعلول المتوسط الرسمية



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Bill № 2: Civil and Architectural Works



Lebanese Emergency Assistant Project (LEAP)
Rehabilitation of Shelters
989 بعول المتوسط الرسمية

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		
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 Water leakage in the boiler/heating rooms due to leakage from the bathrooms located above Rate or Lump Sum in Words:	m2	10		
8	<u>DOOR AND WINDOWS</u>				
8.1	<u>Wooden Doors and Windows</u>				

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 \$)
8.1.1	<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 <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.				

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Bill of Quantities
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				
	Paint wooden doors + frame	Nº	22		
	Doors Handles	Nº	36		
	Doors Lock	Nº	10		
	<i>Rate or Lump Sum in Words:</i>				
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	Nº	15		
	<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 \$)
8.2.4	<u>Colored Powder Coated Aluminum Louver</u>				
9	<u>FINISHES</u>				
9.2	<u>Tiling Works</u>				
9.2.1	<u>New Full Mass Colored Ceramic for Floors</u> Ceramic tiles and tilework as specified and detailed, installed complete; Including for substrate preparation, cement: sand screeds or plaster backing coats; setting, jointing and grouting; tile trim and accessories; sealants; and all other related ancillaries as indicated or required				
9.2.1.1	Supply and install anti skid colored full mass ceramic tiles for classroom (first choice) for all floor toilets, kitchen and laboratory (existing and new) <i>Rate or Lump Sum in Words:</i>	m ²	35		
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. <i>Rate or Lump Sum in Words:</i>	m ²	20		
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				



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Bill of Quantities
Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
	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	1,265		
	<i>Rate or Lump Sum in Words:</i>				
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	m ²	140		
	<i>Rate or Lump Sum in Words:</i>				



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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.

Replacement of sanitary hose	Item	1
Repair & maintenance of sanitary/plumbing	Item	4
New complete toilet seat set	Item	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	No	8
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Rate or Lump Sum in Words:
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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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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

1.1.1	Lighting fixtures: New lamps	Pcs	35
	Neon Lamps	Pcs	30

Rate or Lump Sum in Words:

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General Summary

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متوسطة المنارة الثانية الرسمية



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Lebanese Emergency Assistant Project (LEAP)

Rehabilitation of Shelters

متوسطة المنارة الثانية الرسمية - 997

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 <i>Rate or Lump Sum in Words:</i>	Nº	10		
5.2.2	Rehabilitate existing steel gates : Paint <i>Rate or Lump Sum in Words:</i>	Nº	14		



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 \$)
5.5	<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	m	35		
	<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/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	m ²	200		
	<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>				



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 \$)
	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 <i>Rate or Lump Sum in Words:</i>	Nº	5		
8.1.1.5	Provide new toilet doors with related accessories as per specifications <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.				

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 \$)
	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				
	Repair or replace frame of wooden door	Nº	3		
	Paint wooden doors	Nº	28		
	Handles for wooden doors	Nº	14		
	<i>Rate or Lump Sum in Words:</i>				
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	Nº	25		
	<i>Rate or Lump Sum in Words:</i>				

Lebanese Emergency Assistant Project (LEAP)
Rehabilitation of Shelters
متوسطة المنارة الثانية الرسمية - 997

Bill of Quantities
Bill № 2: Civil and Architectural Works

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



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Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
	- Apply the finish rough plaster layer - Install galvanized steel mesh 20 cm width at least - Apply the second smooth plaster layer				
	Detoriation in walls in classes	LS	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 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	m ²	4,950		
	<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.	Item	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	32		
	<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: New lamps <i>Rate or Lump Sum in Words:</i>	Pcs	40		



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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. <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 - 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>	№	5		
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.				

Lebanese Emergency Assistant Project (LEAP)

Rehabilitation of Shelters

ثانوية المنارة الرسمية - 999

Bill of Quantities

Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
	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 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 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 or replace frame of wooden door	Nº	1		
	Paint wooden doors	Nº	23		
	Door Lock	Nº	1		
	<i>Rate or Lump Sum in Words:</i>				

Lebanese Emergency Assistant Project (LEAP)
Rehabilitation of Shelters
ثانوية المنارة الرسمية - 999

Bill of Quantities
Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
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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	Nº	6		
	Lock for aluminum door	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)</u> <u>(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.				

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Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
	- 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 Plaster around the door's frame <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	m ²	3,510		
	<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 \$)
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	Pcs	9		
	<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 of washbasin drain assembly/ plumbing	LS	1		
	<i>Rate or Lump Sum in Words:</i>				
					
					



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Amount (US \$)

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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				
1.1.3	Sockets and switches: Repair <i>Rate or Lump Sum in Words:</i>	Pcs	1		

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General Summary



General Summary

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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)

* Total Amount of Tender in Words:

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SCHOOL NO.

1000

متوسطة الصويري الرسمية



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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>				
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	№	17		
	Lock for metal door	№	5		
	Glass for the window section of a metal door	№	8		
	Handles for metal door	№	4		
	<i>Rate or Lump Sum in Words:</i>				
5.2.6	Rehabilitate and paint existing steel window				
	Window Handles	№	5		
	<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>				
7.1	<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/m³ where required - Provide Geotextile layers - Provide all aluminum flashing with mastic - Provide finishing material as required - All as specified and approved shop drawings	m²	400		
	<i>Rate or Lump Sum in Words:</i>				
8	<u>DOOR AND WINDOWS</u>				
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	Nº	18		
	<i>Rate or Lump Sum in Words:</i>				

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 <i>Rate or Lump Sum in Words:</i>	m ²	2,510		
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 <i>Rate or Lump Sum in Words:</i>	Nº	17		
12	<u>FURNISHINGS</u>				
12.1	<u>INSTITUTIONAL FURNITURE</u>				
	Supply and install the following institutional furniture complete including all necessary fixing and accessories, all as specified, shown on the drawings and to the satisfaction of the Engineer.				
12.1.1	<u>Classrooms Furniture</u>				
	<u>Floor Carpet 7*14m</u> <i>Rate or Lump Sum in Words:</i>	Pcs	1		

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Bill № 3: Mechanical Engineering Services



Lebanese Emergency Assistant Project (LEAP)
Rehabilitation of Shelters
متوسطة الصوري الرسمية - 1000

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.				
	Install new flush system for toilet seat	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.				
	Repair and maintenance of dysfunctional radiators	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	1		
	<i>Rate or Lump Sum in Words:</i>				

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Amount (US \$)

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Bill № 4: Electrical Engineering Services



Lebanese Emergency Assistant Project (LEAP)

Rehabilitation of Shelters

متوسطة الصوري الرسمية - 1000

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	25		



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General Summary



Lebanese Emergency Assistant Project (LEAP)
Rehabilitation of Shelters
متوسطة الصوري الرسمية - 1000

Bill of Quantities
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Bill № 2: Civil and Architectural Works

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متوسطة تنورة الرسمية



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Bill № 2: Civil and Architectural Works



Lebanese Emergency Assistant Project (LEAP)
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متوسطة تنورة الرسمية - 1035

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		
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>..... 	m²	1,195		



Lebanese Emergency Assistant Project (LEAP)

Rehabilitation of Shelters

متوسطة تنورة الرسمية - 1035

Bill of Quantities

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	7		
	<i>Rate or Lump Sum in Words:</i>				



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General Summary



General Summary

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Bill № 2: Civil and Architectural Works

* Total Amount of Bill of Quantities

* Discount by Tenderer (_____ %)

* Total Amount of Tender (VAT Not Applicable)

* Total Amount of Tender in Words:

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SCHOOL NO.

1037

عين عطا المتوسطة الرسمية



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Bill № 2: Civil and Architectural Works

Bill № 3: Mechanical 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. 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 entrance metal door	Nº	1		
	Glasses for the window section of the door	Nº	14		
	Rate or Lump Sum in Words:				

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				
	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	No	1		
	<u>Rate or Lump Sum in Words:</u>				
					
					

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 Repair all aluminum windows as they are causing water <i>Rate or Lump Sum in Words:</i>	No	145		
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. <i>Rate or Lump Sum in Words:</i>	m2	50		

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 \$)
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	4,910		



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Total Carried to General Summary	
	

Bill № 3: Mechanical Engineering Services



Lebanese Emergency Assistant Project (LEAP)
Rehabilitation of Shelters
1037 عين عطا المتوسطة الرسمية -

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				
	Install new flush sytem for toilet seat	Item	10		
	Complete Toilet Seat Set	Item	1		
	Repair and maintenance Sanitary drainage issue	LS			
	<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 and maintenance of radiators units	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	3		
	<i>Rate or Lump Sum in Words:</i>				



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Amount (US \$)

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General Summary



General Summary

Description

Amount (US \$)

Bill № 2: Civil and Architectural Works

Bill № 3: Mechanical Engineering Services

* Total Amount of Bill of Quantities

* Discount by Tenderer (_____ %)

* Total Amount of Tender (VAT Not Applicable)

* Total Amount of Tender in Words:

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SCHOOL NO.

1040

كوكبا المتوسطة الرسمية



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Lebanese Emergency Assistant Project (LEAP)
Rehabilitation of Shelters
1040 كوكبا المتوسطة الرسمية -

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		
10	<u>SPECIALTIES</u>				
10.7	<u>Sound Insulation Board with Protection on Walls</u>				
10.7.1	Supply and install Sound Insulation Board with Protection inside Special needs classrooms as per drawings & engineer instructions, works to include: - Materials - Labor - Fixation - Colors as per Engineer instructions <i>Rate or Lump Sum in Words:</i>	m ²	65		



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Amount (US \$)

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Bill № 3: Mechanical Engineering Services

Lebanese Emergency Assistant Project (LEAP)
Rehabilitation of Shelters
1040 كوكبا المتوسطة الرسمية -

Bill of Quantities
Bill № 3: Mechanical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
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	3		
	<i>Rate or Lump Sum in Words:</i>				
					

Collection

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Amount (US \$)

3.1
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Total Carried to General Summary
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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: New lamps <i>Rate or Lump Sum in Words:</i>	Pcs	25		



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Amount (US \$)

4.1
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General Summary



General Summary

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Amount (US \$)

Bill № 2: Civil and Architectural Works

Bill № 3: Mechanical Engineering Services

Bill № 4: Electrical Engineering Services

* Total Amount of Bill of Quantities

* Discount by Tenderer (_____ %)

* Total Amount of Tender (VAT Not Applicable)

* Total Amount of Tender in Words:

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SCHOOL NO.

1042

ضهر الاحمر المتوسطة الرسمية



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Bill № 2: Civil and Architectural Works



Lebanese Emergency Assistant Project (LEAP)
Rehabilitation of Shelters
ضهر الاحمر المتوسطية الرسمية - 1042

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	Glass №	1		
		Lock №	1		
	Rate or Lump Sum in Words:				
					



Lebanese Emergency Assistant Project (LEAP)

Rehabilitation of Shelters

ضهر الاحمر المتوسطية الرسمية - 1042

Bill of Quantities

Bill № 2: Civil and Architectural Works

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 - 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 <i>Rate or Lump Sum in Words:</i> 	Pcs	5		
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).				



Lebanese Emergency Assistant Project (LEAP)

Rehabilitation of Shelters

ضهر الاحمر المتوسطة الرسمية - 1042

Bill of Quantities

Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
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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 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	9
Doors Handles	Nº	8
Lock	Nº	4

Rate or Lump Sum in Words:

8.2 Aluminum Doors and Windows

8.2.2 New Aluminum Internal Door

Supply and install aluminum door with frame and related strengthening stud, Works to include:

Materials, and accessories

- Labors
- All needed items as per the engineer instructions.
- Repair all around the opening



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 \$)
8.2.2.1	Provide new aluminum partition door as indicated. <i>Rate or Lump Sum in Words:</i>	Nº	1		
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.				



Lebanese Emergency Assistant Project (LEAP)

Rehabilitation of Shelters

ضهر الاحمر المتوسطه الرسمية - 1042

Bill of Quantities

Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
	- 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>				
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 smoothing, 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	1,890		
	<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	9		
	<i>Rate or Lump Sum in Words:</i>				



Lebanese Emergency Assistant Project (LEAP)

Rehabilitation of Shelters

ضهر الاحمر المتوسطة الرسمية - 1042

Bill of Quantities

Bill № 2: Civil and Architectural Works

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> 	Pcs	18		

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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.				
	Install 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.				
	Replacement of exhaust fan	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	1		
	<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: New lamp <i>Rate or Lump Sum in Words:</i>	Pcs	1		
1.1.2	Wires and cables: "Cache Cable" <i>Rate or Lump Sum in Words:</i>	Pcs	1		
1.1.3	Sockets and switches Repair and maintenance of electrical outlet Repair and maintenance of electrical boxes <i>Rate or Lump Sum in Words:</i>	Pcs Pcs	22 16		
1.1.9	All needed electrical works ... etc. Repair Projector mount box <i>Rate or Lump Sum in Words:</i>	Pcs	1		



Lebanese Emergency Assistant Project (LEAP)

Rehabilitation of Shelters

ضهر الاحمر المتوسطية الرسمية - 1042

Bill of Quantities

Bill № 4: Electrical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
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				
	Replace Solar panel batteries	LS	1		
	<i>Rate or Lump Sum in Words:</i>				



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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

SCHOOL NOS.

982 & 1630

متوسطة حوش الحريرة الرسمية
ثانوية حوش الحريرة الرسمية



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Lebanese Emergency Assistant Project (LEAP)
Rehabilitation of Shelters

ثانوية حوش الحريمة الرسمية / 982 - متوسطة حوش الحريمة الرسمية - 1630

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		

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 and frames	Nº	18		
	Replace Door's Lock	Nº	7		
	Replace Door's Handles	Nº	7		
	<u>Rate or Lump Sum in Words:</u>				

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 & replace 2 glass <i>Rate or Lump Sum in Words:</i>	№	9		
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.				
	Replace broken ceramics tile	Pcs	12		
	<i>Rate or Lump Sum in Words:</i>				

Lebanese Emergency Assistant Project (LEAP)
Rehabilitation of Shelters

ثانوية حوش الحريمة الرسمية / 982 - متوسطة حوش الحريمة الرسمية - 1630

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	1,545		
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 <i>Rate or Lump Sum in Words:</i>	Nº	15		

Lebanese Emergency Assistant Project (LEAP)
Rehabilitation of Shelters

Bill of Quantities
Bill № 2: Civil and Architectural Works

ثانوية حوش الحريمة الرسمية / 982 - متوسطة حوش الحريمة الرسمية - 1630

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> 	Pcs	22		



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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 sanitary of the sink	Item	1		
	New Complete toilet seat set	Item	2		
	New flush system for toilet seats	Item	9		
	<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.				
	Replace Diesel Sobyra	Item	8		
	<i>Rate or Lump Sum in Words:</i>				
5	<u>SANITARY FIXTURES</u>				
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)	No	1		
	<i>Rate or Lump Sum in Words:</i>				



Lebanese Emergency Assistant Project (LEAP)

Bill of Quantities

Rehabilitation of Shelters

Bill № 3: Mechanical Engineering Services

تأثوية حوش الجريمة الرسمية / 982 - متوسطة حوش الجريمة الرسمية - 1630

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



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 <i>Rate or Lump Sum in Words:</i>	Pcs	21		
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 & maintenance of Solar Panel batteries <i>Rate or Lump Sum in Words:</i>	LS	1		



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Lebanese Emergency Assistant Project (LEAP)

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تأثوية حوش الحريمة الرسمية / 982 - متوسطة حوش الحريمة الرسمية - 1630

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* Total Amount of Bill of Quantities

SCHOOL NO.

1358

ثانوية المرج الرسمية



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Lebanese Emergency Assistant Project (LEAP)
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ثانوية المرج الرسمية - 1358

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>				
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).				

Lebanese Emergency Assistant Project (LEAP)
Rehabilitation of Shelters
ثانوية المرح الرسمية - 1358

Bill of Quantities
Bill № 2: Civil and Architectural Works

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



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Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
	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	2,535		
	<i>Rate or Lump Sum in Words:</i>				
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	38		
	<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	No	38		
	<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.				
	Flushing system for toilet seat	Item	6		
	Install complete set of toilet seat	Item	1		
	<i>Rate or Lump Sum in Words:</i>				
4	<u>FIRE PROTECTION</u>				
4.1	<u>Portable Fire Extinguisher</u> Supply and install dry chemical portable fire extinguisher as detailed and specified.				
4.1.1	FE-01 (6Kg powder): Repair, refill & ultimately replace	No	25		
	<i>Rate or Lump Sum in Words:</i>				



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* Total Amount of Bill of Quantities

* Discount by Tenderer (_____ %)

* Total Amount of Tender (VAT Not Applicable)

* Total Amount of Tender in Words:

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