

الجمهورية اللبنانية

مجلس الانماء والاعمار

بيروت - لبنان

**REPUBLIC OF LEBANON
COUNCIL FOR DEVELOPMENT AND RECONSTRUCTION
BEIRUT - LEBANON**

CHHIM GOVERNMENTAL OFFICES BUILDING

(PHASE 2)

BILLS OF QUANTITIES

VOLUME 5 OF 5

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خطيب و علميا
شركة الاتحاد الهندسيين
Khatib & Alami
consolidated engineering company

CHHIM GOVERNMENTAL OFFICES BUILDING
CHHIM, CHOUF - LEBANON
BILLS OF QUANTITIES
PHASE 2
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PREAMBLES**A. Measurement**

The methods of measurement adopted in preparing these Bills of Quantities are as stated or implied in these Documents. These methods apply throughout the Works, notwithstanding any trade, local or general custom to the contrary, and shall be used for all measurements, including that relating to variations.

Unless otherwise stated, all works have been measured as fixed in position with no allowance made for laps or waste. Unless otherwise described or measured separately straight or curved cutting shall be deemed to be included in rates.

B. Units of Measurement and Abbreviations

All units of measurement shall be based on the Metric System of weights and measurements except where other units are specifically mentioned for standard products.

The metric terms and symbols occurring in the Contract Documents are based on the "System International d'Unites (S.I. System)".

<u>Abbreviation</u>	<u>Definition</u>
m	linear metre
m ²	Square metre
m ³	cubic metre
kg	kilogramme
mm	millimetre
cm	centimetre
No.	number
LS	Lump Sum
US\$	US Dollar

C. Description of Items

Description of work and materials given in the Specifications and Drawings are not necessarily repeated in the Bills of Quantities. Reference shall be made to the Specifications and Drawings for this information. Trade preambles are not necessarily restricted to specific Bills but shall be held to apply throughout the Documents.

Any discrepancy between the specifications and Drawings and Bills of Quantities shall be brought to the notice of the Engineer in writing for his decision as to which is the correct interpretation before the work is commenced. Dimensions and sizes shown on Drawings shall generally take preference over those stated in the Specifications.

Unless otherwise described, description shall be deemed to include for all sundry labours including cutting and fitting, notching, forming or cutting holes, chasing, angles, ends, short lengths, circular work, and the like as shown on Drawings, or required by the Specifications or the execution of the Works.

A. **Pricing Generally**

The Contractor shall satisfy himself as to the meaning of every item in the Bills of Quantities and the rates and prices inserted by him shall be deemed to cover all his obligations under the Contract and all matters and things necessary for the proper construction, completion and maintenance of the Works.

Rates shall include but not be limited to:-

1. Payment of all state dues, tolls rates, duties, fees and charges, customs or other import duties, harbour wharfage and port dues, landing, quay and storage charges and any other local charges or dues applicable on all plant and materials imported for the purposes of incorporating the same into the Works.
2. Engagement of expatriate staff including their messing and accommodation, air travel, insurances, indemnities, notices, leaves, sicknesses, income tax and any other fee or duty applicable on their salaries, repatriation of expatriates to country of recruitment.
3. Payment of wages and salaries for skilled and unskilled labour, supervisory staff (including Agent, engineers, surveyors, technicians, general and other foremen, gangers, timekeepers, clerks, mechanics, etc.) whether local or expatriate staff, and for all official holidays and vacations, sick leave, indemnities, bonus, social security insurances, including all remunerations and other incidental payments pertinent to the works.

Rates shall include for, but shall not be limited to, all temporary work required (including any that may be required by sub-contractors whether nominated or otherwise and other specialist Contractors under separate contract with the Employer), the provision and use of all plant required for the expeditious carrying out of the work in its proper sequence, shifting, altering and adapting such temporary works and plant as may be required during the progress of the Works and removing at completion and making good any surface disturbed. The Contract Price shall be deemed to include for the cost of preparing the tender, for the work in connection with measurement and the final account, for all other establishment charges and on costs of whatever nature. No claim for additional payment will be allowed for any error or misunderstanding by the Contractor in this respect.

All items of measured work shall be priced in detail and tenders containing lump sums to cover trades or groups of work must be broken down to show prices of each item before they will be accepted.

No adjustments of unit rates will be made for the same items or work performed in different buildings or in different locations.

No claim for additional payment will be allowed for any error or misunderstanding by the Contractor in this respect.

A price or rate is to be inserted against each item in the bills of Quantities. Items left unpriced will be held to be included for elsewhere in the Bills of Quantities.

This is a remeasured Contract, the Contractor shall make all arrangement to price the Bills of Quantities to find the reasonable price of Contract.

Prices inserted in the Bill of Quantities shall be used to determine value of possible variation orders.

The quantities shown in the Bills of Quantities shall not be taken as precise and the Contractor shall ascertain the actual quantities of materials required.

The Contractor shall include in his unit rates for all contingencies, overhead charges and profit pertinent to the works.

DIVISION 2: SITE WORK

Rates for hard landscaping work shall include for:

1. Application to and preparation of any surfaces
2. Sand bed, mortar bed and backing in variable thickness to reach the required FFLs shown on the drawings
3. Supports and anchors as shown on drawings
4. Finishing surfaces to falls, cross-falls and slopes
5. Fair, rebated, rounded, chamfered, splayed, bevelled and moulded edges, grooves, flutes and the like
6. Square, raking and circular rough and fair cutting
7. Templates and patterns
8. All joints including joggle joints, sunk joints, rebates and the like
9. Grouting and pointing
10. Admixtures and additives

2.1 Rates for demolitions shall generally include for:

1. Removing off site of all materials arising from the works.
2. Making good all work to remain if damaged by the Contractor.
3. Protecting and storing all salvaged materials.
4. Double and multiple handling of debris.
5. Stockpiling.
6. Storing away reasonably all salvaged materials.
7. Keeping record of all salvaged materials.

DIVISION 4: MASONRY4.1 Rates for blockwork shall include for:

1. Work of all classifications in any location including transport
2. Rough and fair cutting
3. Use of solid blocks where cutting is required in hollow blocks
4. Cutting or leaving holes, chases, grooves, mortises and sinking including all making good
5. Bedding and pointing plates and frames, and building in door and window frames and the like
6. Cutting and pinning or building in ends of lintels, steps, timbers, rails, brackets, steel sections and the like including all making good
7. Raking out joints or hacking surfaces
8. Metal lathing and bonding including mesh strips at corners
9. Closing up edges of cavities
10. Fire rated sealants and stoppers at all horizontal and vertical ends of blockwork

4.2 Rates for stone work shall include for:

1. Templates and patterns
2. All joints including joggle joints, sunk joints, rebates and the like
3. Work in any location or at any height including transport
4. Square ends, square reveals, square external angles of walls and the like
5. Splayed ends, battered ends, battered external and internal angles of walls and the like
6. Sand bed, mortar bed and backing in variable thickness to reach the required FFLs shown on the drawings
7. Stainless steel fixing accessories, angles anchors, cramps, dowels, plugs, and the like as specified
8. Rough and fair cutting
9. Grooves, throats, rebates, margins, flutes, sinking, chamfered angles, founded angles and the like
10. Stops and mitres
11. Horizontal, raking and vertical chases
12. Holes for pipes, tubes, bars, conduits, ducts and the like
13. Admixtures and additive
14. Elastic joints
15. Water repellent coating and treatment of stone
16. Straight and curved separation between stone cladding and plaster above

DIVISION 5: METALS

The weight of steelwork has been measured as the net weight, without addition for welding material, bolts and nuts, and without deduction for holes, splay cuts, notches or the like.

5.1 Rates for metalwork shall include for:-

1. Design and submittal of calculations to the Engineer for approval.
2. Transporting, hoisting, wedging and the like.
3. Supports, brackets and the like.
4. Assembling, welding and grinding.
5. Drilling, countersinking, bolting and riveting including all nuts and washers.
6. All cuttings, notches and making holes.
7. Bearers, anchors, plates and lugs, including fixing and building in.
8. Anchors and lugs, including fixing and building in.
9. Grounds, blockings and backings including all making good.
10. Scribing, rebates, grooves, chamfers, splayed and rounded edges, fair and returned ends, mitres, holes for pipes, etc., and for all short or isolated lengths.
11. Temporarily fixing and re-fixing.
12. Bonding to lightning protection and earthing systems.
13. All ancillary items and fixing accessories.
14. Primer, painting and protective coating as specified.
15. Reservations in concrete works

DIVISION 6: WOOD AND PLASTIC

6.1 Rates for woodwork shall include for:

1. Wrot faces on all timbers, unless otherwise stated
2. Any area or width in any location
3. Any length or cross-section
4. All kinds of joints and cutting
5. Raking, curved or circular work and labour
6. Notching, morticing, boring, sinking, forming angles and rounded edges, scribing and the like
7. Plugging to concrete or blockwork including all making good
8. Wood preservative to all non-exposed faces of timber
9. Painting and coating as specified
10. Sawn grounds, sub-frames, blockings and backings
11. All preparation and fixing accessories
12. Easing, adjusting and making good
13. All cuttings, perforations, jointing and sealing
14. Studs, anchors, shims, battens, supports and lugs including fixing and building in
15. Assembled composite work complete
16. Straight, curved and shaped works as per drawings

DIVISION 7: WATER PROOFING

7.1 Rates for waterproofing shall include for:

1. Cleaning down and preparing surfaces
2. Any width or area, vertical and horizontal
3. Fair and rounded edges, drips and arises
4. Cutting to line, overlapping, turning into grooves and pointing
5. Laying to slopes, falls or cross-falls
6. Working into outlets, channels, gullies and the like
7. Cutting, trimming, making holes and forming openings, etc., including working around pipes and openings and making good
8. Mastic pointing and protection of the whole work under this section
9. Expansion of underground waterproofing for 150mm above GF level
10. All necessary fixing accessories and backing such as steel plates, angles, wood blockings, and the like
11. Guarantees

DIVISION 8: DOORS AND WINDOWS

- 8.1 All sizes given are as stated on schedules of doors and windows
- 8.2 All steel, wood and aluminium windows, doors, frames, screens, curtain walls, etc..., shall be factory assembled and reinforced according to drawings, complete with hinges, glazing gaskets and anchors. All aluminium elements shall be protected from adjoining structures as specified
- 8.3 Where windows, doors, screens, curtain walls have no structural member to which they may be secured the provision for rigidity of such windows shall be provided
- 8.4 All windows, doors, screens, curtain walls shall be weatherproof
- 8.5 All dimensions of doors, windows, screens, curtain walls must be adapted to fit the existing conditions of the Site
- 8.6 Rates for doors and windows shall include for:
1. Design calculation
 2. Easing and adjusting and protection generally
 3. Anchors, support, angles, plaster stops and fixing accessories
 4. Caulking and sealant
 5. All required flashings
 6. Fixing in place
 7. Glass and glazing in any pattern, size, shape and area including circular and square cutting with rounded edges.
 8. Circular cutting and square cutting to glass with rounded edge
 9. Bedding edges and labours to edges including rounding edges of all glass panes to prevent damage to gaskets
 10. Grinding and drilling holes in glass
 11. Protection from damage and replacing any damaged unit
 12. All gaskets, beads, weather strips and the like
- 8.7 Rates for ironmongery shall include for:
1. Labour, attendance and making good
 2. Screws and fixing accessories
 3. Product handling, storage and protection
 4. Temporarily fixing and re-fixing
 5. Anchors and lugs, including fixing and building in
- 8.8 Rates for glazing works shall include for:
1. Any pattern, size and area
 2. Circular cutting and square cutting with rounded edge
 3. Grinding and drilling holes
 4. Backing and frames
 5. Protection from damage and replacing any damaged unit
 6. All gaskets, beads, weather strips and the like.

DIVISION 9: FINISHES

- 9.1 Suspended ceilings have been measured gross. No deduction has been made for area of access panels, HVAC outlets, lighting fixtures, etc...
- 9.2 Rates for in-situ finishing shall include for:
1. Application to and preparation of any surfaces
 2. Wire mesh at junctions between differing materials, around openings for pipes, ducts, etc., and angle, plaster stops and stop beads
 3. Any area or width, any location and any height
 4. Finishing surfaces to falls, cross falls and slopes including making good after all trades
 5. Working into channels, around edges, chamfered edges, sharp arises, rounded angles, coved angles and the like
 6. Work to corners and edges as specified and as shown on drawings
 7. Grooves and moulds
 8. Metal lath, plaster beads, plaster stops, corner beads and the like
 9. Admixtures
 10. Straight and curved separation between stone cladding and plaster above
- 9.3 Rates for tile and slab finishing shall include for:
1. Application to and preparation of any surfaces
 2. Sand bed, fine gravel bed and screed bed (if required above floor heating screed) to any thickness to floor tiling as shown on the drawings
 3. Grouting, pointing and polishing
 4. Finishing surfaces to falls, cross falls and slopes, including making good after all trades
 5. Fair, rebated, rounded, chamfered, splayed, bevelled and moulded edges, grooves, flutes and the like
 6. Square, raking and circular cutting
 7. Cutting and fitting into any opening or recessed area, and fitting around any section
 8. Work to corners and edges as specified and as shown on drawings
 9. Admixtures and additives
 10. Adhesive for fixing tiles and slab finishing to screed in floor heated areas.
 11. Joints and joint covers in floor heated areas including sealant (N.B. joints in floor heating screed and in floor finish shall be designed in harmony).

DIVISION 9: FINISHES (CONT'D)

9.4 Rates for suspended ceiling systems shall include for:

1. Work of all classifications in any location
2. Any area or width, location, height and drop
3. All kinds of joints, cutting and waste
4. Fixing to concrete or wood including all making good
5. Suspension metal system including fixing accessories
6. Bulkheads, mouldings, etc... and the like
7. All access panels required for mechanical and electrical installations
8. Supports for mechanical and electrical installations in suspended ceilings
9. Labour, attendance, protection and making good after all trades

9.5 Rates for carpet flooring shall include for:

1. Preparation of surfaces to receive carpet covering
2. Any area or width in any location
3. All labour and cutting
4. Fitting accessories, adhesives and underlay

9.6 Rates for painting and coating shall include for:

1. Preparation of paint and preparation of surfaces to be painted
2. Any area or width, location and height
3. Work in multicolour
4. Additional putty coats as needed and requested by the Engineer
5. Cutting in edges and rubbing down between coats
6. Attendance, protection and making good after all trades
7. Curved and sloped work
8. Correcting surfaces to be painted including levelling and any necessary works

DIVISION 14 : CONVEYING SYSTEMS

14.1 Rates for conveying systems shall include but not limited to:-

1. Supports, brackets and clips as required.
2. All builders work in connection.
3. Manuals and technical notes.
4. Wires, cables, conduits, wireways and earthing
5. Auxiliaries, controls, indicators and accessories
6. Maintenance
7. Diagrams
8. Operating manuals
9. Coordination with other trades
10. Electrical connection
11. Testing, guaranties and warranties
12. Spare parts

PLUMBING AND MECHANICAL ENGINEERING INSTALLATIONS

All works shall be complete as specified, as shown on the drawings and to the approval of the Engineer.

- A. Pipe work lengths measured are mean lengths as fixed in position.
- B. Rates for pipework shall include joints in the running length, fittings (eg. tees, junctions, etc.) made bends, cutting, short lengths and waste. Rates for pipework shall include for painting.
- C. Rates for pipework shall include for pipe clips, holderbats, fixing to any background, hangers, supports, guides, unions, flanges, dielectric isolators. Rates for pipework shall include for all work and fittings in connection with expansion joints.
- D. Rates for piping shall include for cleaning, flushing, and disinfection of all systems as per specifications.
- E. Builders work in connection with plumbing installation shall include, but not be limited to, cutting or forming holes, chases, channels, etc. in blockwork, concrete, and other materials, providing and building or casting in pipe sleeves, clamps, brackets, hangers, holdfasts and the like. Builders work in connection shall include for making good on completion all works disturbed by the plumbing installation.
- F. Rates for duct insulation shall include for all additional insulation required around bends, branching, access traps, connection, and etc. for laps and waste.
- G. Rates for Air Conditioning System shall include for forming or cutting holes, chases, channels, etc., in reinforced concrete structures and blockwork, providing steel pipe sleeves, clamps, brackets, hangers, tools, ladders, scaffolding, etc. painting metal works, making good around any other incidental requirements for the proper execution of the air conditioning system in accordance with the Drawings.
- H. Rates shall include for testing the equipment under the supervision of the Engineer's representative including any modifications, adjustments, or repairs which may be required during or on completion of the test, all as required and to the satisfaction of the Engineer.
- I. Rates shall include for , gauge test points in pipes and ducts and for system balancing all in compliance with ASHRAE & SMACNA requirements.
- J. Rates shall include for duct and pipe flexible connections.

Plumbing & Mechanical Engineering Installations (cont'd.)

- A. Rates shall include for access openings in ducts as per specification and to the approval of the Engineer.
- B. Rates shall include for all necessary electrical conduiting and wiring up to the nearest power outlet.
- C. Rates shall include for equipment vibration isolators.
- D. Rates shall include for temporary disposable filters on air handlers as per specifications.
- E. Rates for all plumbing, air conditioning systems and other mechanical installations shall include for the preparation and furnishing of detailed workshop drawings as indicated in the specifications and/or in the drawings for the approval of the Engineer prior to commencement of the works and or the ordering of materials and for as-built drawings upon completion of the works.
- F. Rates for ductwork shall include for the additional weight of all hangers, laps, slips, bolts, washers, vanes, split dampers access doors and waste. The weight has been calculated by multiplying the mean length by the cross section irrespective of any bends, branching, ends and openings.
- G. Rates for ductwork shall include for all work in connection with expansion joints.

ELECTRICAL INSTALLATIONS

All work shall be complete as specified as shown on the Drawings and to the approval of the Engineer.

- A. Rates for electrical works shall include for forming or cutting holes, chases, channels, etc. in reinforced concrete structures and blockwork, and also for providing sleeves, clamps, brackets, hangers, holdfasts, screws, bolts and nuts, plugs, drawing wires and cables, sinking ends of cables to exposed conductors and capping ends of cables, connections to equipment with cable glands, etc.
- B. Rates shall include excavating, dewatering of trenches and backfilling for underground cable duct banks and directly buried cables, factory rust inhibiting primer, including storage and protection of all Electrical Works, and making good around all trades disturbed from electrical installation.
- C. Rates for Electrical Works shall include for supplying and painting all exposed surfaces of electrical metal work with one coat of rust inhibiting "Galvafroid" primer or approved equivalent and two coats of approved chlorinated rubber paint, and painting concealed surfaces of panel board cabinets with emulsified asphalt.
- D. Rates for Electrical Works shall include for laying all conduits concealed in reinforced concrete slabs, columns, walls, floors, blockwork or exposed, all as indicated on Drawings.
- E. Rates for Electrical Works shall include for providing all testing devices, equipment and any electrical power necessary for testing, before putting into operation the completed electrical system under the supervision of the Engineer, also for carrying out any modification or repairs necessary on completion of tests to the satisfaction of the Engineer.
- F. Rates for feeders shall include cables (single core or multicore armoured or unarmoured as applicable) conduits if any, cable cleats at every meter run, cable glands, etc.
- G. Rates for conduits shall include all fittings and accessories, expansion joint fittings, pull junction and terminal boxes, conduit straps, etc.
- H. Rates for cables and wires shall include earthing wires and/or cables.
- I. Rates for devices and equipment shall include nameplates and engraving.
- J. Rates for ducts and conduit lead-ins shall include Fire proof filling material.
- K. Rates for electrical works shall include for testing all installations as specified under the clause: "Tests and Certificates".
- L. Rates for all electrical installations shall include for the preparation and furnishing of detailed workshop drawings as indicated in the specifications, and/or the drawings for the approval of the Engineer prior to commencement of the works and/or the ordering of materials.

BILL NO. 1
GENERAL REQUIREMENTS

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
A	<p><u>General</u></p> <p>These Preliminaries 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 individual priced. Lump sums covering more than one item shall not be inserted. Preliminary prices shall not be adjusted in the event of any changes to the Contract Price due to variations.</p> <p>Where any item, clause or sub-clause has not been priced, the value of such shall be deemed to be included in the rates for measured items elsewhere in the Bills of Quantities.</p> <p>Per item in letters:</p> <p>.....</p>	1	Item		
B	<p><u>Location of Site</u></p> <p>The site of the works is shown on the Site Plan drawings.</p> <p>Per item in letters:</p> <p>.....</p>	1	Item		
C	<p><u>Photographs</u></p> <p>Monthly progress (digital) photographs shall be provided in accordance with the requirements of the General Specification.</p> <p>Per item in letters:</p> <p>.....</p>	1	Item		
D	<p><u>As-Built Drawings</u></p> <p>The Contractor shall allow for providing 'As-Built' drawing in accordance with the General Specification.</p> <p>Per item in letters:</p> <p>.....</p>	1	Item		
	TO COLLECTION				

BILL NO. 1
GENERAL REQUIREMENTS

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
A	<p><u>Workshop Drawings</u></p> <p>The Contractor shall allow for providing workshop drawings as specified for the disciplines under the relevant Sections.</p> <p>Per item in letters:</p> <p>.....</p>	1	Item		
B	<p><u>Permits, Etc.</u></p> <p>The Contractor shall allow for obtaining all permits necessary for carrying out the works project utilities.</p> <p>The Contractor shall allow for obtaining all documentation necessary for the timely provision of labour, plant and materials used for the works.</p> <p>Per item in letters:</p> <p>.....</p>	1	Item		
C	<p><u>Protection of Services and Cables</u></p> <p>The Contractor shall ascertain the position of and protect or divert as necessary all service lines and cables on or adjacent to the site as required by the Engineer.</p> <p>Per item in letters:</p> <p>.....</p> <p align="right">TO COLLECTION</p>	1	Item		

BILL NO. 1
GENERAL REQUIREMENTS

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
A	<p><u>Performance Bond</u></p> <p>The Contractor shall allow for providing a Performance Bond in accordance with Clause 10 of the General Conditions of Contract. The Bond shall be in accordance with the proforma in the Instructions to Tenderers Section. The Bond shall be raised through the local branch of an approved surety and shall be lodged with the Employer prior to the Contractor submitting his first application for payment.</p> <p>Per item in letters:</p> <p>.....</p>	1	Item		
B	<p><u>Site Office</u></p> <p>The Contractor shall provide and maintain site office for Engineer complete with all furniture and related work (Refer to Specs).</p> <p>Per item in letters:</p> <p>.....</p> <p><u>Water and Electricity</u></p>	1	Item		
C	<p>Water for the Works shall be provided by the Contractor. The Contractor shall make all necessary provisions for transporting water to the site including connections, pumps, pipe work and storage facilities if necessary.</p> <p>Per item in letters:</p> <p>.....</p>	1	Item		
D	<p>Electricity shall be provided by the Contractor and the cost of providing generators, fuel, maintenance, etc. and all other necessary facilities shall be borne by the Contractor. If mains power is available the Contractor pay all charges incurred.</p> <p>Per item in letters:</p> <p>.....</p>	1	Item		
	TO COLLECTION				

BILL NO. 1
GENERAL REQUIREMENTS

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
A	<p><u>Telephone</u></p> <p>The Contractor shall provide a telephone in the Engineer's office and shall pay all charges in connection including the cost of calls (local calls only) (Refer to Per item in letters:</p> <p>.....</p>	1	Item		
B	<p><u>Notice Boards</u></p> <p>Allow for providing and installation of substantial site notice board size 5.0 x 2.8 m as specified and to the approval of the Engineer .</p> <p>Per item in letters:</p> <p>.....</p>	1	Item		
C	<p><u>Samples and Testing</u></p> <p>The Contractor shall allow for providing all samples of materials and workmanship required by the Engineer.</p> <p>The Contractor shall allow for testing all materials as required by the specifications or directed by the Engineer. The Contractor shall supply all test certificates and other documentation necessary to prove the suitability of materials for incorporation in the Works.</p> <p>Per item in letters:</p> <p>.....</p>	1	Item		
D	<p><u>Insurance</u></p> <p>The Contractor shall provide the insurance cover described elsewhere in the Contract documents and shall submit to the Engineer, certificates and receipts for premiums as required as proof of this cover.</p> <p>Per item in letters:</p> <p>.....</p>	1	Item		
	TO COLLECTION				

BILL NO. 1
GENERAL REQUIREMENTS

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
A	<p><u>Other Contractors</u></p> <p>The Contractor shall liaise and cooperate with other Contractors and afford them all reasonable opportunity for carrying out their work.</p> <p>Per item in letters:</p> <p>.....</p>	1	Item		
B	<p><u>Plant</u></p> <p>The Contractor shall provide and maintain all plant and equipment necessary for carrying out the Works and shall remove such plant and equipment on completion and make good disturbed areas to the Engineer's satisfaction.</p> <p>Per item in letters:</p> <p>.....</p>	1	Item		
C	<p><u>Safety and Security</u></p> <p>The Contractor shall comply with the requirements of all safety regulations in force and ensure that his work-force, sub-contractors and any other persons engaged on the Works also comply with their requirements contractor shall employ safety engineer and superintendent.</p> <p>The Contractor shall allow for all necessary watching for the security of the Works and the protection of the public. The Contractor shall provide all warning signs, barricades, screens, lamps, etc. as necessary.</p> <p>Per item in letters:</p> <p>.....</p>	1	Item		
TO COLLECTION					

BILL NO. 1
GENERAL REQUIREMENTS

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
A	<p><u>Setting up the Site</u></p> <p>The Contractor shall allow for setting up the site including site investigation, surveying and setting out and for providing the Engineer with instruments and men for checking these operations.</p> <p>The Contractor shall provide, maintain and eventually remove site offices, huts, toilets, storage facilities and the like for his own workforce and subcontractors.</p> <p>The Contractor shall allow for providing temporary fences, gates, entrances, etc. for the protection of the site and removing on completion. All such protective measures shall be to the approval of the Engineer.</p> <p>Per item in letters:</p>	1	Item		
B	<p><u>Care of the Site</u></p> <p>The Contractor shall keep the Site in a clean and safe condition including the orderly and tidy storage of materials, regular and prompt removal of rubbish and debris as it appears and the immediate removal from the construction area and tidy stacking of scaffolding and shuttering after used.</p> <p>The Contractor shall protect works from the effects of the weather and subsequent operations by the provision of dust sheets, barriers, etc. to the satisfaction of the Engineer.</p> <p>The Contractor shall clear away all temporary works at completion and shall make good all work disturbed, to the satisfaction of the Engineer.</p> <p>Per item in letters:</p> <p align="center">TO COLLECTION</p>	1	Item		

BILL NO. 1
GENERAL REQUIREMENTS

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
A	<p><u>Description Generally</u></p> <p>The description included in the Bills of Quantities to describe the workmanship and materials necessary for each item are not necessarily complete. The Tenderer is referred to the Specifications, Conditions of Contract and other documents and the Drawings for further information concerning the works and no claim or variation will be considered on account of his failure to acquaint himself with such information.</p> <p>Per item in letters:</p> <p>.....</p>	1	Item		
B	<p><u>Measurement Generally</u></p> <p>All Quantities contained within these Bills of Quantities are intended to give a reasonable indication of the works shown on the drawings. The Contractor must check all quantities and allow in his rates for any changes or mistakes.</p> <p>Unless otherwise stated, all work has been measured nett as fixed in its place with no allowance made for laps or waste.</p> <p>Generally, in setting down dimensions in the Bills, the sequence is length width-height. All measurements have been taken up or down to the nearest metre (or other units), and where exactly half metre (or other units) measurements result, these have been taken up.</p> <p>Per item in letters:</p> <p>.....</p> <p align="right">TO COLLECTION</p>	1	Item		

BILL NO. 1
GENERAL REQUIREMENTS

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
A	<p><u>Pricing Generally</u></p> <p>Any arithmetical errors made by the Contractor in extensions or totals in the Bills of Quantities shall be corrected.</p> <p>The Contractor will be required by the Engineer to produce a detailed breakdown of all his rates prior to the signing of the Contract. The Contractor shall liase on this matter with the Engineer's representative.</p> <p>The Contractor should price all items he considers have a value. If any items are not priced by the Contractor they will be deemed to be of the other items.</p> <p>Per item in letters:</p> <p>.....</p>	1	Item		
B	<p><u>Engineering Design</u></p> <p>The Contractor shall submit detailed design and calculation to all trades and design shall be approved by</p> <p>Per item in letters:</p> <p>.....</p>	1	Item		
C	<p><u>Conditions of Contract</u></p> <p>The Contractor shall allow for complying with the General and Special Conditions of Contract and any other obligations not included elsewhere in the Tender Documents.</p> <p>Per item in letters:</p> <p>.....</p>	1	Item		
D	<p><u>General</u></p> <p>The Contractor shall describe and price below any items for which he considers a separate charge is required.</p> <p>Per item in letters:</p> <p>.....</p> <p align="right">TO COLLECTION</p>	1	Item		

BILL NO. 1
GENERAL REQUIREMENTS

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
A	Washing and cleaning of external façades prior to commencement of cladding works by pressurized water to remove all dust and Pollution. Per item in letters:	1	Item		
B	Cleaning of buried sanitary installations/services in the floor of Basement Level 2. Per item in letters:	1	Item		
C	Removal and disposal of accumulated construction waste from the building. Per item in letters: TO COLLECTION	1	Item		
<u>COLLECTION</u> Page No. 1/1 Page No. 1/2 Page No. 1/3 Page No. 1/4 Page No. 1/5 Page No. 1/6 Page No. 1/7 Page No. 1/8 Page No. 1/9					
<u>TOTAL AMOUNT CARRIED TO GENERAL SUMMARY</u>					

BILL NO. 2
EXTERNAL WORKS

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
	<u>CONCRETE WORKS</u>				
	Plain Concrete "14 Mpa" with Ordinary Portland Cement and Formwork:				
A	50 mm thick. Per cubic meter in letters:	12	m3		
	Vibrated Reinforced Concrete Class "32 Mpa" with Ordinary Portland Cement Including Clean Sawn Formwork, Reinforcement, Hardener Where Required as Per Architectural Drawings, Mechanical and Electrical Sleeves as Per Structural Drawings:				
B	Retaining wall footing and wall Per cubic meter in letters:	70	m3		
C	Steps Per cubic meter in letters:	10	m3		
	<u>PRECAST CONCRETE</u>				
D	Precast concrete wheel stopper complete with all related fixing accessories. Per number in letters:	27	No.		
E	Precast concrete curbstone with all backing. Per linear meter in letters:	600	m		
F	Interlocking tiles 60 mm thick on compacted fill or over slab. Per square meter in letters:	1200	m2		
	TO COLLECTION				

BILL NO. 2
EXTERNAL WORKS

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
	<u>PARKING AREA</u>				
A	Asphalt to parking area within site limit including asphalt layers, primer coat, base coarse, sub-base and all related work as specified and as shown on drawings. Per square meter in letters:	1,600	m2		
	<u>SOFT LANDSCAPING</u>				
B	Agriculture soil. Per cubic meter in letters:	200	m3		
	<u>FENCE</u>				
C	Construct fence wall compose of 2 m high 200 mm thick block wall complete with footings, bond beams, bond columns, plaster and polyurethane paint. Per linear meter in letters:	325	m		
	<u>STEEL GATES</u>				
	Fabricate, Supply and Install the Following Electrical operated sliding steel gate Complete with Motor, guide, all Necessary Fixing Accessories, one spray coat of high solid primer and one spray coat of high solid gloss black polyurethane paint, Fixing of Ironmongery as Shown on Drawings:				
D	Type S15 , overall size 4100 x 2650 mm high . Per number in letters:	1	No.		
E	Type S16 , overall size 6800 x 2650 mm high . Per number in letters:	1	No.		
	TO COLLECTION				

BILL NO. 2
EXTERNAL WORKS

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
<u>STEEL GATES (Cont'd)</u>					
A	Gate barrier. Per number in letters:	2	No.		
B	Balustrade 1000 mm high steel with epoxy paint. Per linear meter in letters:	25	m		
<u>THERMAL AND MOISTURE PROTECTION</u>					
Supply and install the following complete with all related work.					
C	2 Layers of 4 mm thick torch -on SBS modified Bitumen waterproofing membrane. Per square meter in letters:	1350	m2		
D	Filter membrane of non-woven Fabric 300 g/m2. Per square meter in letters:	1350	m2		
<u>FLAG POLES</u>					
E	Flag poles 10 m high. Per number in letters:	3	No.		
<u>MARKING AND SIGNAGE</u>					
F	Type M2 ,Line marking . Per linear meter in letters:	98	m		
G	Type M3,Line marking . Per linear meter in letters:	104	m		
TO COLLECTION					

BILL NO. 2
EXTERNAL WORKS

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
<u>MARKING AND SIGNAGE (Cont'd)</u>					
A	Type M5, Hatched Area . Per square meter in letters:	12	m2		
B	Type M6, Arrow Marking . Per number in letters:	5	No.		
C	Type M7, Arrow Marking . Per number in letters:	1	No.		
D	Type M8, Arrow Marking . Per number in letters:	1	No.		
E	Type M9, Arrow Marking . Per number in letters:	5	No.		
F	Type M10, Arrow Marking . Per number in letters:	3	No.		
G	Type M11, Arrow Marking . Per number in letters:	1	No.		
H	Type M16, Handicap Marking . Per number in letters:	4	No.		
<u>SIGNS</u>					
I	Type RS01. Per number in letters:	1	No.		
J	Type RS2. Per number in letters:	1	No.		
TO COLLECTION					

BILL NO. 2
EXTERNAL WORKS

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
	<u>SIGNS (Cont'd)</u>				
A	Type RS3. Per number in letters:	4	No.		
B	Type RS4. Per number in letters:	1	No.		
C	Type RS5. Per number in letters:	2	No.		
D	Type RS10. Per number in letters:	2	No.		
E	Type RS11. Per number in letters:	3	No.		
F	Type RS13. Per number in letters:	1	No.		
G	Type RS14. Per number in letters:	1	No.		
H	Type RS18. Per number in letters:	1	No.		
I	Type RS20. Per number in letters:	2	No.		
J	Type RS21. Per number in letters:	6	No.		
	TO COLLECTION				

BILL NO. 2
EXTERNAL WORKS

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
	<p><u>TREATMENT OF EXISTING WATERPROOFING SYSTEM IN BASEMENT WALLS</u></p> <p>The Contractor shall take all necessary measures to inspect and repair the existing waterproofing system in basement walls to address leakage issues that have occurred in previous years. This work shall be carried out by a specialized subcontractor and shall be guaranteed for a period of 10 years.</p>				
A	Excavation & backfill around basement walls 1 m width Per cubic meter in letters:	2,100	m3		
B	Dismantle the protection block wall, inspect, repair any waterproofing defects on the walls - particularly at the junctions between the foundations and walls, and between the walls and the ground floor slab and any necessary treatment to walls as directed by the Engineer, then rebuild the block wall with cartonal protection board, the scope may include excavation and backfilling works as required.. Per Square meter in letters:	2,100	m2		
	TO COLLECTION				
	<p><u>COLLECTION</u> Page No. 2/1 Page No. 2/2 Page No. 2/3 Page No. 2/4 Page No. 2/5 Page No. 2/6</p>				
	<p><u>TOTAL AMOUNT OF BILL NO. 2</u> <u>CARRIED TO SUMMARY</u></p>				

BILL NO. 3
FINISHES - BASEMENTS

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
	<u>METAL WORK</u>				
	<u>GRATING</u>				
A	Galvanized steel grating with Galvanized steel Angle 400 mm wide . Per linear meter in letters:	6	m		
B	Steel cover to sump pit suitable to opening size 1000 x 1000 mm. Per number in letters:	2	No.		
	<u>CAT LADDER</u>				
C	Galvanized steel cat ladder in pump room 1950 mm high. Per number in letters:	2	No.		
D	Stainless steel rungs to Water tank . Per number in letters:	8	No.		
	<u>Access Panel</u>				
E	Aluminum access panel to water tank suitable to opening size 800 x 800 mm . Per number in letters:	2	No.		
	<u>HANDRAIL</u>				
F	Powder Coated tube Aluminum Handrail fixed to parapet wall of staircase Complete with post. Per linear meter in letters:	31	m		
	TO COLLECTION				

BILL NO. 3
FINISHES - BASEMENTS

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
	<u>ROLLING SHUTTER</u>				
	Fabricate, Supply and Install the Following Electrically Operated Aluminum Rolling Shutter Door Including Frame, Complete with all Necessary Fixing Accessories, Ironmongery Remote Control as shown on Drawings .				
A	Electrically Operated Rolling Shutter size 5250 x 3150 mm complete include information sign RS01. Per number in letters:	1	No.		
	<u>DOORS AND WIDOWS</u>				
	<u>STEEL DOORS</u>				
	Fabricate, Supply and Install the Following Steel Doors Including Steel Frame, Architrave's Complete with all Necessary Fixing Accessories, Powder Coated Paint, Fixing of Ironmongery as Shown on Drawings:				
B	Type S1 , overall size 1100 x 2200 mm high , 30 min fire rated. Per number in letters:	8	No.		
C	Type S2 , overall size 1100 x 2200 mm high , 30 min fire rated . Per number in letters:	12	No.		
D	Type S3 , overall size 1000 x 2200 mm high , 30 min fire rated . Per number in letters:	1	No.		
	TO COLLECTION				

BILL NO. 3
FINISHES - BASEMENTS

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
	<u>STEEL DOORS (Cont'd)</u>				
A	Type S4 , overall size 2000 x 2200 mm high , 30 min fire rated . Per number in letters:	7	No.		
B	Type S5 , overall size 1800 x 2200 mm high , 30 min fire rated . Per number in letters:	4	No.		
C	Type S6 , overall size 1000 x 2200 mm high , 30 min fire rated . Per number in letters:	1	No.		
D	Type S7 , overall size 1000 x 2200 mm high , 30 min fire rated . Per number in letters:	2	No.		
E	Type S8 , overall size 1100 x 2200 mm high , 30 min fire rated . Per number in letters:	1	No.		
	<u>STEEL ELECTRICAL CLOSETS</u>				
	Fabricate, Supply and Install the Following Steel Electrical closet Including Steel Frame, Architrave's Complete with all Necessary Fixing Accessories, Powder Coated Paint, Fixing of Ironmongery as Shown on Drawings:				
F	Type S13 , overall size 2300 x 2000 mm high . Per number in letters:	2	No.		
G	Type S14 , overall size 1200 x 2000 mm high . Per number in letters:	1	No.		
	TO COLLECTION				

BILL NO. 3
FINISHES - BASEMENTS

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
	<u>FINISHES</u>				
	<u>PLASTER</u>				
	<u>Internal Plaster</u>				
	Cement and Sand Plaster as Specified in Two Coats:				
A	Walls. Per square meter in letters:	3345	m2		
B	To Soffit of landing and stairs. Per square meter in letters:	185	m2		
	<u>CEMENT TILES</u>				
	Cement Tiles of Approved Quality and Colour Bedded in Cement and Sand Mortar (1:3) Including Sand Bed and Pointed in Coloured Cement:				
C	Cement tiles to sidewalks. Per square meter in letters:	545	m2		
	<u>CURBSTONE</u>				
D	Precast concrete curbstone to side walk. Per square meter in letters:	620	m		
	TO COLLECTION				

BILL NO. 3
FINISHES - BASEMENTS

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
<u>FLOOR AND WALL CLADDING</u>					
<u>SCREED & EPOXY</u>					
A	Trowelled concrete surface to receive Polyurethane base coating to Parking area in basement 600 micron (F7). Per square meter in letters:	4280	m2		
B	Ditto to ramp (F7) with fine aggregate 750 micron. Per square meter in letters:	285	m2		
C	100 mm thick screed + Epoxy non-slip coating to floors.(F6) Per square meter in letters:	265	m2		
D	200 mm high epoxy Resin Based coating skirting (S4) Per linear meter in letters:	240	m		
<u>GRANITE TILES</u>					
Approved Quality Granite Flooring Including Cement and Sand Mortar Bedding and Floated Backing, Sand Bed Under Flooring, Pointed in Coloured Cement and Polished with all Necessary Fixing Accessories:					
E	400 x 400 x 20 mm thick polished Granite tiles to floor (F1). Per square meter in letters:	155	m2		
F	100 mm high Granite skirting (S1). Per linear meter in letters:	135	m		
TO COLLECTION					

BILL NO. 3
FINISHES - BASEMENTS

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
	<u>TERRAZZO TILES</u>				
	Approved Quality Terrazzo Flooring Including Cement and Sand Mortar Bedding and Floated Backing, Sand Bed Under Flooring, Pointed in Coloured Cement and Polished with all Necessary Fixing Accessories:				
A	400 x 400 x 30 mm thick polished Terrazzo tile to floor (F3). Per square meter in letters:	135	m2		
B	100 mm high precast Terrazzo skirting (S2). Per linear meter in letters:	315	m		
C	Terrazzo tread 30 mm thick and riser 20 mm thick. Per linear meter in letters:	245	m		
D	Precast Terrazzo tile to floor and landing of staircase (F4). Per square meter in letters:	140	m2		
E	Terrazzo skirting to Stairs. Per linear meter in letters:	165	m		
	TO COLLECTION				

BILL NO. 3
FINISHES - BASEMENTS

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
	<u>PAINTING</u>				
	<u>INTERNALLY</u>				
	Prepare Surfaces and Apply Prime Coat and Necessary Finishing Coats of Synthetic Enamel Paint matt finish:				
A	To Walls (W2). Per square meter in letters:	725	m2		
B	To Soffit of Landing and stairs. Per square meter in letters:	185	m2		
	Prepare Surfaces and Apply Prime Coat and Necessary Finishing Coats of Acrylic Based washable Emulsion Paint:				
C	To Walls (W1). Per square meter in letters:	1600	m2		
D	To Ceilings (C1). Per square meter in letters:	550	m2		
	Prepare Surfaces and Apply Prime Coat and Necessary Finishing Coats of paint:				
E	Epoxy paint to parking walls 250 micron. Per square meter in letters:	1155	m2		
F	200 mm high reflective strip. Per linear meter in letters:	1300	m		
	TO COLLECTION				

BILL NO. 3
FINISHES - BASEMENTS

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
A	Anti Carbonation paint to walls of Parking. Per square meter in letters:	3450	m2		
B	Anti Carbonation paint to ceiling of parking. Per square meter in letters:	5000	m2		
	Prepare surfaces and apply finishing to water				
C	4mm thick GRP lining to water tank Surfaces. Per square meter in letters:	225	m2		
	<u>SPECIALTIES</u>				
	<u>WHEEL STOPPER</u>				
D	Wheel stopper . Per number in letters:	105	No.		
	<u>MARKING</u>				
E	Type M2 Line Marking. Per linear meter in letters:	134	m		
F	Type M3 Line Marking. Per linear meter in letters:	340	m		
G	Type M5 Hatched Area. Per square meter in letters:	283	m2		
H	Type M6 Arrow Marking. Per number in letters:	3	No.		
	TO COLLECTION				

BILL NO. 3
FINISHES - BASEMENTS

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
A	Type M7 Arrow Marking. Per number in letters:	3	No.		
B	Type M8 Arrow Marking. Per number in letters:	5	No.		
C	Type M9 Arrow Marking. Per number in letters:	5	No.		
D	Type M10 Arrow Marking. Per number in letters:	14	No.		
E	Type M11 Arrow Marking. Per number in letters:	2	No.		
F	Type M16 Handicap marking. Per number in letters:	2	No.		
	<u>SIGNS</u>				
G	Type S2. Per number in letters:	1	No.		
H	Type S3. Per number in letters:	2	No.		
I	Type S4. Per number in letters:	2	No.		
J	Type S5. Per number in letters:	1	No.		
	TO COLLECTION				

BILL NO. 3
FINISHES - BASEMENTS

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
A	Type S6. Per number in letters:	3	No.		
B	Type S11. Per number in letters:	10	No.		
C	Type S12. Per number in letters:	22	No.		
D	Type S13. Per number in letters:	21	No.		
E	Type S14. Per number in letters:	2	No.		
F	Type S15. Per number in letters:	2	No.		
G	Type S16. Per number in letters:	26	No.		
<u>CORNER GUARD</u>					
H	Corner Guard . Per number in letters:	84	No.		
TO COLLECTION					

BILL NO. 3
FINISHES - BASEMENTS

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
	<p><u>COLLECTION</u></p> <p>Page No. 3/1 Page No. 3/2 Page No. 3/3 Page No. 3/4 Page No. 3/5 Page No. 3/6 Page No. 3/7 Page No. 3/8 Page No. 3/9 Page No. 3/10</p>				
	<p><u>TOTAL AMOUNT OF BILL NO. 3</u> <u>CARRIED TO SUMMARY</u></p>				

BILL NO. 4
FINISHES - BLOCK A

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
	<u>METAL WORK</u>				
	<u>HANDRAIL</u>				
A	Powder Coated tube Aluminum Handrail fixed to parapet wall of staircase complete with post. Per linear meter in letters:	35	m		
B	Powder Coated tube Aluminum Handrail fixed to wall of staircase complete with Bracket. Per linear meter in letters:	7	m		
	<u>LEAD LINING</u>				
C	2 mm thick lead lining to walls of X-Ray room complete with all required work. Per square meter in letters:	75	m2		
	<u>WOOD AND PLASTIC</u>				
	<u>PANTRY CABINET</u>				
	Supply and Install the Following Cabinets Complete as Shown on Drawings:				
D	Low kitchen cabinet with granite counter top. Per linear meter in letters:	7	m		
E	High kitchen cabinet. Per linear meter in letters:	7	m		
	TO COLLECTION				

BILL NO. 4
FINISHES - BLOCK A

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
	<u>WATERPROOFING</u>				
A	Prepare surfaces and apply prime coat and waterproofing to wet areas. Per square meter in letters:	125	m2		
	<u>DOORS AND WINDOWS</u>				
	<u>WOOD DOORS</u>				
	Fabricate, Supply and Install the Following Wood Doors Including Frame, Lipping, Architrave's, Complete with all Necessary Fixing Accessories, Paint, Ironmongery as Shown on Drawings:				
B	Type T1 , Overall size 1100 x 2200 mm high , 30 min fire rated . Per number in letters:	5	No.		
C	Type T2 , Overall size 1400 x 2200 mm high , 30 min fire rated . Per number in letters:	1	No.		
D	Type T3, Overall size 1850 x 2200 mm high , 30 min fire rated double swing door. Per number in letters:	13	No.		
E	Type T5, Overall size 1000 x 2200 mm high , 30 min fire rated . Per number in letters:	4	No.		
F	Type T6 , Overall size 900 x 2200 mm high , 30 min fire rated . Per number in letters:	12	No.		
	TO COLLECTION				

BILL NO. 4
FINISHES - BLOCK A

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
	<u>WOOD DOORS(Cont'd)</u>				
A	Type T7 , Overall size 700 x 2200 mm high. Per number in letters:	16	No.		
B	Type T8 , Overall size 1100 x 2200 mm high , 30 min fire rated . Per number in letters:	1	No.		
C	Type T10 , Overall size 1800 x 2200 mm high , 30 min fire rated . Per number in letters:	10	No.		
D	Type T11 , Overall size 1100 x 2200 mm high , 30 min fire rated . Per number in letters:	33	No.		
E	Type T12 , Overall size 1100 x 2200 mm high . Per number in letters:	33	No.		
F	Type T13 , Overall size 1800 x 2200 mm high . Per number in letters:	1	No.		
G	Type T13 , Overall size 1800 x 2200 mm high to X-ray room. Per number in letters:	1	No.		
H	Type T14 , Overall size 800 x 2200 mm high. Per number in letters:	10	No.		
I	Type T15 , Overall size 1050 x 2200 mm high, 30 min fire rated. Per number in letters:	2	No.		
	TO COLLECTION				

BILL NO. 4
FINISHES - BLOCK A

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
	<u>WOOD CLOSET</u>				
	Fabricate, Supply and Install the Following Wood Closet Including Frame, Lipping, Architrave's, Complete with all Necessary Fixing Accessories, Paint, Ironmongery as Shown on Drawings:				
A	Type T40 , overall size 2300 x 2000 mm high . Per number in letters:	4	No.		
B	Type T41, overall size 1900 x 2000 mm high . Per number in letters:	4	No.		
C	Type T42 , overall size 1500 x 2000 mm high . Per number in letters:	8	No.		
D	Type T43 , overall size 1200 x 2000 mm high . Per number in letters:	4	No.		
E	Type T46 , overall size 1600 x 2000 mm high . Per number in letters:	1	No.		
	<u>STEEL DOORS AND PANELS</u>				
	Fabricate, Supply and Install the Following Steel Doors Including Steel Frame, Architrave's Complete with all Necessary Fixing Accessories, Powder Coated Paint, Fixing of Ironmongery as Shown on Drawings:				
F	Type S9, overall size 2460 x 2580 mm high, clad with wood finish to main entrance. Per number in letters:	1	No.		
	TO COLLECTION				

BILL NO. 4
FINISHES - BLOCK A

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
<u>STEEL DOORS AND PANELS (Cont'd)</u>					
A	Type S10, overall size 1960 x 2250 mm high, with glass panels. Per number in letters:	1	No.		
B	Type S11, overall size 1400 x 2200 mm high, with glass panels. Per number in letters:	2	No.		
C	Type S12, overall size 1060 x 2250 mm high, with glass panels. Per number in letters:	2	No.		
D	Type S30, overall size 600 x 1200 mm high , 60 min fire rated steel access panel . Per number in letters:	12	No.		
<u>ALUMINIUM PARTITIONS</u>					
Super Durable Powder Coated Aluminium partitions Single Glazed (12 mm thick clear toughened glass) Fixed in Accordance with the Manufacturers Instructions Including Frames Angles, Channels, Glazing, doors Beads, Sealant, Aluminium infill Panels, Fixing Accessories Including Glazing and Making Good Complete all as Shown on Drawing:					
E	Type P4, overall size 3200 x 2950 mm high. Per number in letters:	1	No.		
TO COLLECTION					

BILL NO. 4
FINISHES - BLOCK A

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
<u>FLOOR AND WALL CLADDING</u>					
<u>PLASTER</u>					
<u>Internal Plaster</u>					
Cement and Sand Plaster as Specified in Two Coats:					
A	To Walls. Per square meter in letters:	6600	m2		
B	To ceiling. Per square meter in letters:	2500	m2		
C	To walls behind glazed ceramic wall tiles. Per square meter in letters:	360	m2		
D	To walls above F/C Per square meter in letters:	60	m2		
E	To shaft walls Per square meter in letters:	170	m2		
F	To Soffit of Landing, stairs and ceiling of staircase. Per square meter in letters:	185	m2		
<u>SCREED & EPOXY</u>					
G	100 mm thick screed + Epoxy non -slip coating to floors (F6). Per square meter in letters:	37	m2		
H	200 mm high epoxy Resin Based counting to skirting (S4). Per linear meter in letters:	14	m		
TO COLLECTION					

BILL NO. 4
FINISHES - BLOCK A

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
	<u>CERAMIC TILES</u> Heavy Duty Non Slip Ceramic Floor Tiles of Approved Quality and Colour Bedded in Cement and Sand Mortar (1:3) Including Sand Bed and Pointed in Coloured Cement:				
A	300 x 300 x 10 mmm, Non-slip Ceramic tiles matt finish to floors(F2). Per square meter in letters:	125	m2		
	<u>GLAZED WALL TILES</u> Glazed ceramic wall tiles of approved quality and colour including adhesive and pointed in special grout:				
B	Glazed Ceramic Tiles to walls(W3) Per square meter in letters:	360	m2		
	<u>GRANITE TILES</u> Approved Quality Granite Flooring Including Cement and Sand Mortar Bedding and Floated Backing, Sand Bed Under Flooring, Pointed in Coloured Cement and Polished with all Necessary				
C	400 x 400 x 20mm thick polished Granite tiles to floors (F1) Per square meter in letters:	295	m2		
D	100 mm high Granite skirting (S1) Per linear meter in letters:	180	m		
E	400 x 400 x 20mm thick polished Granite tiles to entrances and ramps. Per square meter in letters:	75	m2		
F	Granite tread 30 mm thick and riser 20 mm thick Per linear meter in letters:	61	m		
	TO COLLECTION				

BILL NO. 4
FINISHES - BLOCK A

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
	<u>SUNDRIES</u>				
A	40 mm thick, 100 mm wide Marble threshold. Per linear meter in letters:	9	m		
B	40 mm thick, 150 mm wide Marble threshold. Per linear meter in letters:	14	m		
C	40 mm thick, 200 mm wide Marble threshold. Per linear meter in letters:	12	m		
D	40 mm thick, 300 mm wide Marble threshold. Per linear meter in letters:	1	m		
	<u>TERRAZZO TILES</u>				
	Approved Quality Terrazzo Flooring Including Cement and Sand Mortar Bedding and Floated Backing, Sand Bed Under Flooring, Pointed in Coloured Cement and Polished with all Necessary Fixing Accessories:				
E	400 x 400 x 30 mm thick polished Terrazzo tiles to floors (F3). Per square meter in letters:	2190	m2		
F	100 mm high precast Terrazzo skirting (S2) . Per linear meter in letters:	1890	m		
G	Terrazzo tread 30 mm thick and riser 20 mm thick. Per linear meter in letters:	205	m		
H	Precast Terrazzo tile to landing of staircase (F4). Per square meter in letters:	75	m2		
I	Terrazzo skirting to stairs. Per linear meter in letters:	140	m		
	TO COLLECTION				

BILL NO. 4
FINISHES - BLOCK A

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
	<u>SUSPENDED CEILING</u>				
	Supply and Install the Following Suspended Ceilings Including all Suspension Hangers System, Fixing Accessories, Trims, and Opening for Light Fittings Etc..:				
A	600 x 600 mm demountable Gypsum tiles suspended Ceiling in concealed suspension system with emulsion paint finish (C2). Per square meter in letters:	15	m2		
B	Gypsum Board vertically (C2). Per linear meter in letters:	1.50	m		
C	600 x 600 mm Accessible Calcium Silicate tiles suspended Ceiling with exposed Galvanized suspension system painted with enamel paint (C3). Per square meter in letters:	125	m2		
	TO COLLECTION				

BILL NO. 4
FINISHES - BLOCK A

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
	<u>PAINTING</u>				
	<u>INTERNALLY</u>				
	Prepare Surfaces and Apply Prime Coat and Necessary Finishing Coats of synthetic Enamel Paint matt finish:				
A	To Walls (W2). Per square meter in letters:	890	m2		
B	To Soffit of Landing , stairs and ceiling staircase. Per square meter in letters:	185	m2		
	Prepare Surfaces and Apply Prime Coat and Necessary Finishing Coats of Acrylic Based washable Emulsion Paint:				
C	To Walls (W1). Per square meter in letters:	5710	m2		
D	To Ceilings (C1). Per square meter in letters:	2500	m2		
	TO COLLECTION				

BILL NO. 4
FINISHES - BLOCK A

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
	<p><u>COLLECTION</u></p> <p>Page No. 4/1 Page No. 4/2 Page No. 4/3 Page No. 4/4 Page No. 4/5 Page No. 4/6 Page No. 4/7 Page No. 4/8 Page No. 4/9 Page No. 4/10</p>				
	<p><u>TOTAL AMOUNT OF BILL NO. 4</u> <u>CARRIED TO SUMMARY</u></p>				

BILL NO. 5
FINISHES - BLOCK B

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
	<u>WOOD AND PLASTIC</u>				
	<u>KITCHEN CABINET</u>				
	Supply and Install the Following Cabinets Complete as Shown on Drawings:				
A	Low Kitchen cabinet with granite counter top. Per linear meter in letters:	6.5	m		
B	High Kitchen cabinet. Per linear meter in letters:	6	m		
	<u>METAL WORK</u>				
	<u>HANDRAIL</u>				
C	Powder Coated tube Aluminum Handrail fixed to parapet wall of staircase complete with post. Per linear meter in letters:	35	m		
D	Powder Coated tube Aluminum Handrail fixed to wall of staircase complete with Bracket. Per linear meter in letters:	7	m		
	<u>WATERPROOFING</u>				
E	Prepare surfaces and apply prime coat and waterproofing to wet areas. Per square meter in letters:	117	m2		
	TO COLLECTION				

BILL NO. 5
FINISHES - BLOCK B

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
	<u>DOORS AND WINDOWS</u>				
	<u>WOOD DOORS</u>				
	Fabricate, Supply and Install the Following Wood Doors Including Frame, Lipping, Architrave's, Complete with all Necessary Fixing Accessories, Paint, Ironmongery as Shown on Drawings:				
A	Type T1, Overall size 1100 x 2200 mm high , 30 min fire rated . Per number in letters:	4	No.		
B	Type T2, Overall size 1400 x 2200 mm high , 30 min fire rated . Per number in letters:	1	No.		
C	Type T4, Overall size 1950 x 2200 mm high , 30 min fire rated double swing door. Per number in letters:	2	No.		
D	Type T5, Overall size 1000 x 2200 mm high , 30 min fire rated. Per number in letters:	4	No.		
E	Type T6, Overall size 900 x 2200 mm high. Per number in letters:	8	No.		
F	Type T6 , Overall size 900 x 2200 mm high , 30 min fire rated. Per number in letters:	4	No.		
G	Type T7 , Overall size 700 x 2200 mm high. Per number in letters:	16	No.		
	TO COLLECTION				

BILL NO. 5
FINISHES - BLOCK B

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
	<u>WOOD DOORS (Cont'd)</u>				
A	Type T7 , Overall size 700 x 2200 mm high, to Guard room. Per number in letters:	1	No.		
B	Type T8 , Overall size 1100 x 2200 mm high , 30 min fire rated. Per number in letters:	11	No.		
C	Type T9 , Overall size 1000 x 2200 mm high , 30 min fire rated. Per number in letters:	4	No.		
D	Type T10 , Overall size 1800 x 2200 mm high , 30 min fire rated. Per number in letters:	6	No.		
E	Type T11 , Overall size 1100 x 2200 mm high , 30 min fire rated. Per number in letters:	32	No.		
F	Type T12 , Overall size 1100 x 2200 mm high . Per number in letters:	22	No.		
G	Type T14 , Overall size 800 x 2200 mm high. Per number in letters:	13	No.		
	TO COLLECTION				

BILL NO. 5
FINISHES - BLOCK B

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
	<u>WOOD CLOSET</u>				
	Fabricate, Supply and Install the Following Wood Closet Including Frame, Lipping, Architrave's, Complete with all Necessary Fixing Accessories, Paint, Ironmongery as Shown on Drawings:				
A	Type T40 , overall size 2300 x 2000 mm high. Per number in letters:	4	No.		
B	Type T42 , overall size 1500 x 2000 mm high. Per number in letters:	8	No.		
C	Type T44 , overall size 1150 x 2000 mm high. Per number in letters:	4	No.		
D	Type T45 , overall size 2000 x 2000 mm high. Per number in letters:	1	No.	7.00	
	<u>STEEL DOORS AND PANELS</u>				
	Fabricate, Supply and Install the Following Steel Doors Including Steel Frame, Architrave's Complete with all Necessary Fixing Accessories, Powder Coated Paint, Fixing of Ironmongery as Shown on Drawings:				
E	Type S9 , overall size 2460 x 2580 mm high, clad with wood finish to main entrance. Per number in letters:	1	No.		
	TO COLLECTION				

BILL NO. 5
FINISHES - BLOCK B

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
<u>STEEL DOORS AND PANELS (Cont'd)</u>					
A	Type S11 , overall size 1400 x 2200 mm high, with glass panels. Per number in letters:	2	No.		
B	Type S12 , overall size 1060 x 2250 mm high, with glass panels. Per number in letters:	2	No.		
C	Type S30 , overall size 600 x 1200 mm high , 60 min fire rated steel access panel . Per number in letters:	4	No.		
<u>ALUMINIUM PARTITIONS</u>					
Super Durable Powder Coated Aluminium Doors and Windows partitions Single Glazed (12 mm thick clear toughened glass) Fixed in Accordance with the Manufacturers Instructions Including Frames, Sub-Frames, Angles, Channels, Glazing, doors Beads, Sealant, Aluminium infill Panels, Fixing Accessories Including Glazing and Making Good Complete all as Shown on Drawing:					
D	Type P1, overall size 1500 x 2950 mm high including doors. Per number in letters:	1	No.		
E	Type P2, overall size 6900 x 2950 mm high including doors. Per number in letters:	1	No.		
F	Type P3, overall size 3200 x 2950 mm high including doors. Per number in letters:	1	No.		
TO COLLECTION					

BILL NO. 5
FINISHES - BLOCK B

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
	<u>FLOOR AND WALL CLADDING</u>				
	<u>PLASTER</u>				
	<u>Internal Plaster</u>				
	Cement and Sand Plaster as Specified in Two Coats:				
A	To Walls. Per square meter in letters:	6000	m2		
B	To ceiling. Per square meter in letters:	2180	m2		
C	To walls behind glazed ceramic wall tiles. Per square meter in letters:	600	m2		
D	To walls above False ceiling . Per square meter in letters:	130	m2		
E	To shaft walls . Per square meter in letters:	95	m2		
F	To soffit of landing, stairs and ceiling of staircase. Per square meter in letters:	185	m2		
	<u>SCREED & EPOXY</u>				
G	100 mm thick screed + Epoxy non -slip coating to floors (F6). Per square meter in letters:	30	m2		
H	200 mm high epoxy Resin Based coating to skirting (S4). Per linear meter in letters:	14	m		
	TO COLLECTION				

BILL NO. 5
FINISHES - BLOCK B

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
	<u>CERAMIC TILES</u>				
	Heavy Duty Non Slip Ceramic Floor Tiles of Approved Quality and Colour Bedded in Cement and Sand Mortar (1:3) Including Sand Bed and Pointed in Coloured Cement:				
A	300 x 300 mm, Non-slip Ceramic tiles matt finish to floors(F2). Per square meter in letters:	115	m2		
	<u>GLAZED WALL TILES</u>				
	Glazed ceramic wall tiles of approved quality and colour including adhesive and pointed in special grout:				
B	Glazed Ceramic Tiles to walls (W3). Per square meter in letters:	600	m2		
	<u>GRANITE TILES</u>				
	Approved Quality Granite Flooring Including Cement and Sand Mortar Bedding and Floated Backing, Sand Bed Under Flooring, Pointed in Coloured Cement and Polished with all Necessary Fixing Accessories:				
C	400 x 400 x 20mm thick polished Granite tiles to floors (F1). Per square meter in letters:	65	m2		
D	100 mm high Granite skirting (S1). Per linear meter in letters:	65	m		
E	400 x 400 x 20mm thick polished Granite tiles to entrances and ramp. Per square meter in letters:	45	m2		
F	Granite tread 30 mm thick and riser 20 mm thick. Per linear meter in letters:	37	m		
	TO COLLECTION				

BILL NO. 5
FINISHES - BLOCK B

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
	<u>SUNDRIES</u>				
A	40 mm thick, 100 mm wide marble threshold. Per linear meter in letters:	8	m		
B	40 mm thick, 150 mm wide marble threshold. Per linear meter in letters:	12	m		
C	40 mm thick, 200 mm wide Marble threshold. Per linear meter in letters:	10	m		
D	40 mm thick, 300 mm wide Marble threshold. Per linear meter in letters:	1	m		
	<u>TERRAZZO TILES</u>				
	Approved Quality Terrazzo Flooring Including Cement and Sand Mortar Bedding and Floated Backing, Sand Bed Under Flooring, Pointed in Coloured Cement and Polished with all Necessary Fixing Accessories:				
E	400 x 400 x 30 mm thick polished Terrazzo tiles to floors (F3). Per square meter in letters:	2100	m2		
F	100 mm high precast Terrazzo skirting (S2). Per linear meter in letters:	1855	m		
G	Terrazzo tread 30 mm thick and riser 20 mm thick. Per linear meter in letters:	205	m		
H	Precast Terrazzo tile to landing of staircase (F4). Per square meter in letters:	75	m2		
I	Terrazzo skirting to stairs. Per linear meter in letters:	140	m		
	TO COLLECTION				

BILL NO. 5
FINISHES - BLOCK B

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
	<u>SUSPENDED CEILING</u> Supply and Install the Following Suspended Ceilings Including all Suspension Hangers System, Fixing Accessories, Trims, and Opening for Light Fittings Etc.:				
A	600 x 600 mm demountable Gypsum tiles suspended Ceiling in concealed suspension system with emulsion paint finish (C2). Per square meter in letters:	15	m2		
B	600 x 600 mm Accessible Calcium Silicate tiles suspended Ceiling with exposed Galvanized suspension system painted with enamel paint (C3). Per square meter in letters:	115	m2		
	<u>PAINTING</u> <u>INTERNALLY</u> Prepare Surfaces and Apply Prime Coat and Necessary Finishing Coats of synthetic Enamel Paint matt finish:				
C	To Walls (W2). Per square meter in letters:	855	m2		
D	To Soffit of Landing , stairs and ceiling staircase. Per square meter in letters:	185	m2		
	Prepare Surfaces and Apply Prime Coat and Necessary Finishing Coats of Acrylic Based washable Emulsion Paint:				
E	To Walls (W1). Per square meter in letters:	5145	m2		
F	To Ceilings (C1). Per square meter in letters:	2180	m2		
	TO COLLECTION				

BILL NO. 5
FINISHES - BLOCK B

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
	<p><u>COLLECTION</u></p> <p>Page No. 5/1 Page No. 5/2 Page No. 5/3 Page No. 5/4 Page No. 5/5 Page No. 5/6 Page No. 5/7 Page No. 5/8 Page No. 5/9</p> <p><u>TOTAL AMOUNT OF BILL NO. 5</u> <u>CARRIED TO SUMMARY</u></p>				

BILL NO. 6
ELEVATIONS - BLOCK A

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
	<u>STONE WORK</u>				
	Natural Local Stone of approved type and quality fixed to walls dry mounted with all required accessories complete with water repellent and all related work including water repellent coating .				
A	30 cm thick natural stone to walls. Per square meter in letters:	800	m2		
B	Stone jambs 320 mm wide. Per linear meter in letters:	165	m		
C	Stone sills 250 mm wide. Per linear meter in letters:	68	m		
D	Coping to balustrade 250 mm wide. Per linear meter in letters:	56	m		
E	Coping to balustrade 300 mm wide. Per linear meter in letters:	21	m		
F	Stone to arches. Per linear meter in letters:	10	m		
G	Stone columns 6500 mm high and 40 cm diameter. Per number in letters:	2	No.		
	TO COLLECTION				

BILL NO. 6
ELEVATIONS - BLOCK A

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
	<u>GRC</u>				
	Glass fiber reinforced concrete (GRC) elements complete with all fixing fittings and accessories and all related works.				
A	Corniche at roof. Per linear meter in letters:	165	m		
B	Corniche at top of windows. Per linear meter in letters:	108	m		
C	Corniche at bottom of windows. Per linear meter in letters:	50	m		
D	Corbels. Per number in letters:	62	No.		
E	Decorative GRC circular element 850 mm diameter. Per number in letters:	2	No.		
	<u>Precast Concrete</u>				
	Fabricate , supply and install Precast Concrete element with all required backing, fittings, accessories complete with all related work.				
F	Precast concrete element at parapet size 100 x 100mm. Per linear meter in letters:	41	m		
G	Precast concrete element at parapet size 100 x 200mm. Per linear meter in letters:	11	m		
	TO COLLECTION				

BILL NO. 6
ELEVATIONS - BLOCK A

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
	<u>Precast Concrete (Cont'd)</u>				
A	Precast concrete pattern at window jambs size 100 x 80 mm. Per linear meter in letters:	250	m		
B	Precast concrete pattern at window sill size 100 x 200 mm. Per linear meter in letters:	7	m		
C	Precast concrete pattern at window jambs size 200 x 300 mm. Per linear meter in letters:	310	m		
	<u>METAL WORK</u>				
	Fabricate, supply and install the following complete with all required fittings, accessories, epoxy paint and all related work.				
D	Balustrade to balcony 800 mm high. Per linear meter in letters:	50	m		
E	Balustrade to entrance ramp. Per linear meter in letters:	6	m		
F	Balustrade to upstand of staircase externally. Per linear meter in letters:	21	m		
G	Galvanized Steel Cat ladder at roof 4500 mm high. Per number in letters:	1	No.		
H	Steel protection to aluminium windows at GF level. Per square meter in letters:	76	m2		
	TO COLLECTION				

BILL NO. 6
ELEVATIONS - BLOCK A

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
<u>THERMAL AND MOISTURE PROTECTION</u>					
Supply and install the following complete with all related work.					
A	Prepare surfaces and apply prime coat and two coats of Liquid waterproofing membrane PU to gutter. Per square meter in letters:	95	m2		
B	Prepare surfaces and apply prime coat and waterproofing to terraces/Balconies. Per square meter in letters:	65	m2		
C	Ditto vertically. Per linear meter in letters:	180	m		
D	Prepare surfaces and apply prime coat and two coats of waterproofing behind cladding. Per square meter in letters:	900	m2		
E	Minimum 50 mm thick foam concrete laid to slope . Per square meter in letters:	675	m2		
F	2 Layers of 4 mm thick torch -on SBS modified Bitumen waterproofing membrane. Per square meter in letters:	675	m2		
G	Ditto laid vertically with mineral chips . Per linear meter in letters:	225	m		
TO COLLECTION					

BILL NO. 6
ELEVATIONS - BLOCK A

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
	<u>THERMAL AND MOISTURE PROTECTION</u> <u>(Cont'd)</u>				
A	50 mm thick Extruded polystyrene Rigid foam insulation. Per square meter in letters:	675	m2		
B	Filter membrane of non-woven Fabric. Per square meter in letters:	675	m2		
C	400 x 400 x 40 mm thick precast concrete roof pavers on PVC spacers loose laid. Per square meter in letters:	580	m2		
D	50 mm thick layer of rounded washed gravel. Per square meter in letters:	95	m2		
E	Aluminum flashing and mastic sealant. Per linear meter in letters:	225	m		
	<u>ROOF BRICK TILES</u>				
F	Supply and install Red Brick roof tiles on steel support complete with all related works. Per square meter in letters:	380	m2		
	TO COLLECTION				

BILL NO. 6
ELEVATIONS - BLOCK A

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
	<u>DOORS AND WINDOWS</u>				
	<u>ALUMINIUM DOORS AND WINDOWS</u>				
	Super Durable Powder Coated Aluminium Doors and Windows Units Double Glazed Sidem 2000 , Fixed in Accordance with the Manufacturers Instructions Including Frames, Sub-Frames, Angles, Channels, Glazing, Double Glazing, Beads, Sealant, Aluminium infill Panels, Fixing Accessories Including Glazing and Making Good Complete all as Shown on Drawing.				
A	Type 1, overall size 1760 x 5650 mm high. Per number in letters:	18	No.		
B	Type 2, overall size 1060 x 2250 mm high. Per number in letters:	3	No.		
C	Type 3, overall size 1960 x 2150 mm high. Per number in letters:	2	No.		
D	Type 4, overall size 960 x 1650 mm high. Per number in letters:	33	No.		
E	Type 5, overall size 1360 x2150 mm high. Per number in letters:	8	No.		
F	Type 6, overall size 660 x 1650 mm high. Per number in letters:	2	No.		
	TO COLLECTION				

BILL NO. 6
ELEVATIONS - BLOCK A

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
<u>ALUMINIUM DOORS AND WINDOWS (Cont'd)</u>					
A	Type 7, overall size 960 x 2155 mm high. Per number in letters:	18	No.		
B	Type 8, overall size 1100 x 2200 mm high. Per number in letters:	1	No.		
C	Type 9, overall size 1600 x2200 mm high. Per number in letters:	1	No.		
<u>ALUMINIUM LOUVERS</u>					
Super Durable Powder Coated Aluminium Louvers Including Fixing Accessories and Making Good Complete all as Shown on Drawing.					
D	Type 15, overall size 1000 x 600 mm high. Per number in letters:	2	No.		
<u>PLASTER</u>					
<u>External Plaster</u>					
Cement and Sand Plaster as Specified in Two Coats:					
E	To walls behind stone. Per square meter in letters:	800	m2		
F	To painted walls. Per square meter in letters:	1,390	m2		
G	To ceiling. Per square meter in letters:	40	m2		
TO COLLECTION					

BILL NO. 6
ELEVATIONS - BLOCK A

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
	<u>PAINTING</u>				
	<u>INTERNALLY</u>				
	Prepare Surfaces and Apply Prime Monocouch to external Walls.				
A	10 mm thick monocouch to external walls. Per square meter in letters:	1,200	m2		
B	Polyurethane paint to parapets and roof walls. Per square meter in letters:	190	m2		
C	Polyurethane paint to ceiling. Per square meter in letters:	40	m2		
	<u>TERRAZZO TILES</u>				
	Approved Quality Terrazzo Flooring Including Cement and Sand Mortar Bedding and Floated Backing, Sand Bed Under Flooring, Pointed in Coloured Cement and Polished with all Necessary Fixing Accessories:				
D	400 x 400 x 30 mm thick polished Terrazzo tiles to floors of balcony (F3). Per square meter in letters:	65	m2		
E	100 mm high precast Terrazzo skirting (S2) . Per linear meter in letters:	180	m		
	TO COLLECTION				

BILL NO. 6
ELEVATIONS - BLOCK A

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
	<p><u>COLLECTION</u></p> <p>Page No. 6/1 Page No. 6/2 Page No. 6/3 Page No. 6/4 Page No. 6/5 Page No. 6/6 Page No. 6/7 Page No. 6/8</p>				
	<p><u>TOTAL AMOUNT OF BILL NO. 6</u> <u>CARRIED TO SUMMARY</u></p>				

BILL NO. 7
ELEVATIONS - BLOCK B

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
	<u>STONE WORK</u>				
	Natural Local Stone of approved type and quality fixed to walls dry mounted with all required accessories complete with water repellent and all related work including water repellent coating .				
A	30 cm thick natural stone to walls. Per square meter in letters:	630	m2		
B	Stone jambs 320 mm wide. Per linear meter in letters:	165	m		
C	Stone sills 250 mm wide. Per linear meter in letters:	68	m		
D	Coping to balustrade 250 mm wide. Per linear meter in letters:	46	m		
E	Coping to balustrade 320 mm wide. Per linear meter in letters:	21	m		
F	Stone to arches. Per linear meter in letters:	10	m		
G	Stone columns 6500 mm high and 40 cm diameter. Per number in letters:	2	No.		
	TO COLLECTION				

BILL NO. 7
ELEVATIONS - BLOCK B

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
	<u>GRC</u>				
	Glass fiber reinforced concrete (GRC) elements complete with all fixing fittings and accessories and all related works				
A	Corniche at roof. Per linear meter in letters:	155	m		
B	Corniche at top of windows. Per linear meter in letters:	105	m		
C	Corniche at bottom of windows. Per linear meter in letters:	52	m		
D	Corbels. Per number in letters:	64	No.		
E	Decorative GRC circular element 850 mm diameter. Per number in letters:	2	No.		
	<u>Precast Concrete</u>				
	Fabricate , supply and install Precast Concrete element with all required backing, fittings, accessories complete with all related work.				
F	Precast concrete element at parapet size 100 x 100mm. Per linear meter in letters:	45	m		
G	Precast concrete element at parapet size 100 x 200mm. Per linear meter in letters:	8	m		
	TO COLLECTION				

BILL NO. 7
ELEVATIONS - BLOCK B

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
	<u>Precast Concrete (Cont'd)</u>				
A	Precast concrete pattern at window jambs size 100 x 80 mm. Per linear meter in letters:	245	m		
B	Precast concrete pattern at window sill size 100 x 200 mm. Per linear meter in letters:	7	m		
C	Precast concrete pattern at window jambs size 200 x 300 mm. Per linear meter in letters:	290	m		
	<u>METAL WORK</u>				
	Fabricate, supply and install the following complete with all required fittings, accessories, epoxy paint and all related work.				
D	Balustrade to balcony 800 mm high. Per linear meter in letters:	40	m		
E	Balustrade to entrance ramp. Per linear meter in letters:	6	m		
F	Balustrade to upstand of staircase externally. Per linear meter in letters:	21	m		
G	Galvanized Steel Cat ladder at roof 4500 mm high. Per number in letters:	1	No.		
H	Steel protection to aluminium windows at GF level. Per square meter in letters:	85	m2		
	TO COLLECTION				

BILL NO. 7
ELEVATIONS - BLOCK B

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
	<u>THERMAL AND MOISTURE PROTECTION</u>				
	Supply and install the following complete with all related work.				
A	Prepare surfaces and apply prime coat and two coats of Liquid waterproofing membrane PU to gutter. Per square meter in letters:	85	m2		
B	Prepare surfaces and apply prime coat and waterproofing to terraces/Balconies. Per square meter in letters:	50	m2		
C	Ditto vertically. Per linear meter in letters:	165	m		
D	Prepare surfaces and apply prime coat and two coats of waterproofing behind cladding. Per square meter in letters:	730	m2		
E	Minimum 50 mm thick foam concrete laid to slope. Per square meter in letters:	600	m2		
F	2 Layers of 4 mm thick torch -on SBS modified Bitumen waterproofing membrane. Per square meter in letters:	600	m2		
G	Ditto laid vertically with mineral chips . Per linear meter in letters:	240	m		
	TO COLLECTION				

BILL NO. 7
ELEVATIONS - BLOCK B

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
	<u>THERMAL AND MOISTURE PROTECTION</u> <u>(Cont'd)</u>				
A	50 mm thick Extruded polystyrene Rigid foam insulation. Per square meter in letters:	600	m2		
B	Filter membrane of non-woven Fabric. Per square meter in letters:	600	m2		
C	400 x 400 x 40 mm thick precast concrete roof pavers on PVC spacers loose laid. Per square meter in letters:	485	m2		
D	50 mm thick layer of rounded washed gravel. Per square meter in letters:	115	m2		
E	Aluminum flashing and mastic sealant. Per linear meter in letters:	240	m		
	<u>ROOF BRICK TILES</u>				
F	Supply and install Red Brick roof tiles on steel support complete with all related works. Per square meter in letters:	305	m2		
	TO COLLECTION				

BILL NO. 7
ELEVATIONS - BLOCK B

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
	<u>DOORS AND WINDOWS</u>				
	<u>ALUMINIUM DOORS AND WINDOWS</u>				
	Super Durable Powder Coated Aluminium Doors and Windows Units Double Glazed Sidem 2000 , Fixed in Accordance with the Manufacturers Instructions Including Frames, Sub-Frames, Angles, Channels, Glazing, Double Glazing, Beads, Sealant, Aluminium infill Panels, Fixing Accessories Including Glazing and Making Good Complete all as Shown on Drawing.				
A	Type 1, overall size 1760 x 5650 mm high. Per number in letters:	20	No.		
B	Type 2, overall size 1060 x 2250 mm high . Per number in letters:	3	No.		
C	Type 2, overall size 1060 x 2250 mm high to Guard Room. Per number in letters:	2	No.		
D	Type 4, overall size 960 x 1650 mm high. Per number in letters:	36	No.		
E	Type 6, overall size 660 x 1650 mm high to Guard Room. Per number in letters:	2	No.		
F	Type 7, overall size 960 x 2155 mm high. Per number in letters:	29	No.		
G	Type 8, overall size 1100 x 2200 mm high. Per number in letters:	1	No.		
H	Type 9, overall size 1600 x2200 mm high. Per number in letters:	1	No.		
	TO COLLECTION				

BILL NO. 7
ELEVATIONS - BLOCK B

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
	<u>ALUMINIUM LOUVERS</u>				
	Super Durable Powder Coated Aluminium Louvers Including Fixing Accessories and Making Good Complete all as Shown on Drawing.				
A	Type 10, overall size 5000 x 600 mm high. (Site). Per number in letters:	1	No.		
B	Type 11, overall size 4800 x 600 mm high (Site). Per number in letters:	1	No.		
C	Type 12, overall size 3630 x750 mm high(Site). Per number in letters:	1	No.		
D	Type 13, overall size 3400 x 850 mm high(Site). Per number in letters:	2	No.		
E	Type 14, overall size 4950 x 600 mm high (Site). Per number in letters:	1	No.		
F	Type 15, overall size 1000 x 600 mm high. Per number in letters:	2	No.		
	<u>PLASTER</u>				
	<u>External Plaster</u>				
	Cement and Sand Plaster as Specified in Two Coats:				
G	To walls behind stone. Per square meter in letters:	630	m2		
	TO COLLECTION				

BILL NO. 7
ELEVATIONS - BLOCK B

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
	<u>PLASTER (Cont'd)</u>				
A	To painted walls. Per square meter in letters:	1385	m2		
B	To ceiling. Per square meter in letters:	27	m2		
	<u>PAINTING</u>				
	<u>INTERNALLY</u>				
	Prepare Surfaces and Apply Prime Monocouch to external Walls.				
C	10 mm thick monocouch to external walls. Per square meter in letters:	1200	m2		
D	Polyurethane paint to parapets and roof walls. Per square meter in letters:	185	m2		
E	Polyurethane paint to ceiling. Per square meter in letters:	27	m2		
	<u>TERRAZZO TILES</u>				
	Approved Quality Terrazzo Flooring Including Cement and Sand Mortar Bedding and Floated Backing, Sand Bed Under Flooring, Pointed in Coloured Cement and Polished with all Necessary				
F	400 x 400 x 30 mm thick polished Terrazzo tiles to floors of balcony (F3). Per square meter in letters:	50	m2		
G	100 mm high precast Terrazzo skirting (S2). Per linear meter in letters:	165	m		
	TO COLLECTION				

BILL NO. 7
ELEVATIONS - BLOCK B

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
	<p><u>COLLECTION</u></p> <p>Page No. 7/1 Page No. 7/2 Page No. 7/3 Page No. 7/4 Page No. 7/5 Page No. 7/6 Page No. 7/7 Page No. 7/8</p>				
	<p><u>TOTAL AMOUNT OF BILL NO. 7</u> <u>CARRIED TO SUMMARY</u></p>				

BILL NO. 14
CONVEYING SYSTEM

Item	Description	Qty.	Unit	Unit Rate	Amount US \$
A	<p>Supply, Install and Test the Following Elevator Complete Including Car, Entrances, Doors, Controls, Safety Equipment, Hoistway Equipment, Elevator Machinery, Electrical Equipment, Fan, Lights, Operating Panel, Indicator, remote monitoring system, High Quality Stainless Steel Wall Panels, Stainless Steel Skirting and Handrail with Battery Operated Emergency Landing Devices, etc... as per specifications and including cables between intercoms and cables to the remote monitoring system.</p> <p>Passenger Elevator 750 Kg. capacity, 6 stops and 6 openings, speed 2 mps. Per number in letters: </p> <p><u>TOTAL AMOUNT OF BILL NO. 14</u> <u>CARRIED TO SUMMARY</u></p>	2	No.		

BILL NO. 15A
PLUMBING & FIRE FIGHTING SYSTEM

Item	Description	Qty.	Unit	Unit Rate	Amount US.\$
	<u>SANITARY FIXTURES</u>				
	Supply, Install, Connect and Test the Following Sanitary Fixtures Complete with Angle Valves, Flexible Connections, mixers, Fittings and Accessories as Specified and as Shown on the Drawings:				
A	Vitreous china European water closet. Per number in letters:	50	No.		
B	Vitreous china European water closet for disabled. Per number in letters:	8	No.		
C	Vitreous china wash basin with pedestal. Per number in letters:	50	No.		
D	Vitreous china wash basin with pedestal for disabled. Per number in letters:	8	No.		
E	Single bowel stainless steel sink with mixer and all related accessories. Per number in letters:	9	No.		
F	Flushing hose. Per number in letters:	58	No.		
	TO COLLECTION			US.\$	

BILL NO. 15A
PLUMBING & FIRE FIGHTING SYSTEM

Item	Description	Qty.	Unit	Unit Rate	Amount US.\$
	<p><u>DRAINAGE WORK</u></p> <p><u>Supply, Install, Connect and Test the Following sewage pumps Complete with gate valves, ball check valves, lifting guide rail and chain, level switches, control Panel and all Necessary Fittings and Accessories with control panel connection to BMS as Specified and as Shown on the Drawings.</u></p>				
A	<p>Dewatering Submersible pump type SP-1 capacity 75 GPM at 53 ft head, 3 HP motor complete with all valves, other fittings and accessories. Per set in letters: </p>	2	Set		
	<p><u>Drainage and Vent Pipes (UPVC Pipes)</u></p>				
B	<p>6" diameter. Per linear meter in letters: </p>	95	m		
C	<p>4" diameter. Per linear meter in letters: </p>	460	m		
D	<p>3" diameter. Per linear meter in letters: </p>	60	m		
E	<p>2" diameter. Per linear meter in letters: </p>	280	m		
	TO COLLECTION			US.\$	

BILL NO. 15A
PLUMBING & FIRE FIGHTING SYSTEM

Item	Description	Qty.	Unit	Unit Rate	Amount US.\$
	<u>Rain Water Pipes</u>				
A	3" diameter. Per linear meter in letters:	150	m		
	<u>Sump Pump Pipes at high level</u>				
B	2 1/2" diameter. Per linear meter in letters:	50	m		
	Supply, Install and Test the Following Fittings Complete as Specified and as Shown on Drawings:				
C	4" diameter ceiling cleanout. Per number in letters:	47	No.		
D	3" diameter ditto. Per number in letters:	3	No.		
E	3" diameter floor drain. Per number in letters:	44	No.		
F	3" diameter roof drain. Per number in letters:	8	No.		
G	3" diameter balcony drain. Per number in letters:	34	No.		
H	4" diameter garage gully trap. Per number in letters:	2	No.		
	TO COLLECTION			US.\$	

BILL NO. 15A
PLUMBING & FIRE FIGHTING SYSTEM

Item	Description	Qty.	Unit	Unit Rate	Amount US.\$
	Supply, Install and Test the Following Fittings Complete as Specified and as Shown on Drawings: (Cont'd)				
A	4" diameter floor cleanout. Per number in letters:	43	No.		
B	3" diameter ditto. Per number in letters:	3	No.		
C	4" diameter area drain. Per number in letters:	17	No.		
D	4" diameter roof vent cap. Per number in letters:	9	No.		
E	3" diameter ditto. Per number in letters:	1	No.		
F	Manhole. Per number in letters:	6	No.		
	TO COLLECTION			US.\$	

BILL NO. 15A
PLUMBING & FIRE FIGHTING SYSTEM

Item	Description	Qty.	Unit	Unit Rate	Amount US.\$
	<u>WATER SUPPLY</u>				
	<u>PUMPS</u>				
	<u>Supply, install, connect and test the following pumps complete with all necessary valves, strainers, headers, flexible connections and all necessary fittings and accessories including connections to BMS as specified and as shown on drawings</u>				
A	Transfer Domestic Water pump (Type TP-1) centrifugal vertical multistage capacity 7 GPM at 130 ft head, 3 x 0.75 HP motor complete with all valves, other fittings and accessories. Per set in letters:	3	Set		
B	Electric water heater 80 liters capacity, 1.2 KW with all valves & accessories as detailed on drawings. Per number in letters:	12	No.		
C	Electric water heater 50 liters capacity, 1.2 KW with all valves & accessories as detailed on drawings. Per number in letters:	21	No.		
D	Polyethylene water tank 3000 liters capacity. Per number in letters:	4	No.		
	TO COLLECTION			US.\$	

BILL NO. 15A
PLUMBING & FIRE FIGHTING SYSTEM

Item	Description	Qty.	Unit	Unit Rate	Amount US.\$
	Supply, Lay, Connect and Test the Following Pipes Including all Necessary Fixing Accessories and Fittings Complete as Specified and as Shown on Drawings:				
	<u>Cold Water Pipes</u>				
A	80 mm diameter header. Per linear meter in letters:	6	m		
B	65 mm diameter header. Per linear meter in letters:	6	m		
C	3" diameter. Per linear meter in letters:	40	m		
D	2 1/2" diameter. Per linear meter in letters:	20	m		
E	2" diameter. Per linear meter in letters:	15	m		
F	1 1/2" diameter. Per linear meter in letters:	125	m		
G	1 1/4" diameter. Per linear meter in letters:	75	m		
H	1" diameter. Per linear meter in letters:	240	m		
I	3/4" diameter. Per linear meter in letters:	220	m		
	TO COLLECTION			US.\$	

BILL NO. 15A
PLUMBING & FIRE FIGHTING SYSTEM

Item	Description	Qty.	Unit	Unit Rate	Amount US.\$
	<u>Hot Water Pipes including insulation</u>				
A	1" diameter. Per linear meter in letters:	35	m		
B	3/4" diameter. Per linear meter in letters:	225	m		
	<u>Pump Line</u>				
C	1" diameter. Per linear meter in letters:	225	m		
	Supply, Install and Test the Following Fittings Complete as Specified and as Shown on Drawings:				
D	1" diameter gate valve. Per number in letters:	19	No.		
E	3/4" diameter ditto. Per number in letters:	5	No.		
F	3/4" diameter hose bibb. Per number in letters:	1	No.		
G	1" diameter float valve. Per number in letters:	4	No.		
H	1 1/2" diameter non return valve. Per number in letters:	7	No.		
	TO COLLECTION			US.\$	

BILL NO. 15A
PLUMBING & FIRE FIGHTING SYSTEM

Item	Description	Qty.	Unit	Unit Rate	Amount US.\$
	Supply, Install and Test the Following Fittings Complete as Specified and as Shown on Drawings:				
A	1" diameter water tanker connecting filling pipe. Per number in letters:	1	No.		
B	80 mm diameter overflow vent and drain. Per number in letters:	2	No.		
C	1 1/2" diameter vent, overflow and drain connection. Per item in letters:	4	Item		
D	Valve box with water meter and gate valve for municipality water line. Per number in letters:	1	No.		
E	Water supply connection to municipality network. Per item in letters:	1	Item		
	<u>FIRE FIGHTING SYSTEM</u>				
	Supply, Install and Test the Following Complete as Specified with all Necessary Fire Accessories and as Shown on Drawings:				
F	Portable dry powder fire extinguisher 6 KG capacity fixed to wall. Per number in letters:	40	No.		
G	Sand box w/ shovel. Per number in letters:	1	No.		
	TO COLLECTION			US.\$	

BILL NO. 15A
PLUMBING & FIRE FIGHTING SYSTEM

Item	Description	Qty.	Unit	Unit Rate	Amount US.\$
	<p><u>CONTROL PANELS</u></p> <p>Supply, Install and Test the Following Complete with all Necessary Fittings, Accessories, cables all as Specified and as Shown on Drawings:</p>				
A	<p>Control panels with complete controls and electrical works for all plumbing and fire fighting systems. Per item in letters:</p>	1	Item		
	<p><u>GENERAL ITEMS IN CONNECTION WITH PLUMBING & FIRE SYSTEM</u></p>				
B	<p>Builders works in connection with the plumbing and fire fighting system including all sleeves, opening, bases, supports, etc.. Per item in letters:</p>	1	Item		
C	<p>Testing and Commissioning of the entire mechanical installations. Per item in letters:</p>	1	Item		
D	<p>Provision of one year guarantee for all mechanical equipment. Per item in letters:</p>	1	Item		
	TO COLLECTION			US.\$	

BILL NO. 15A
PLUMBING & FIRE FIGHTING SYSTEM

Item	Description	Qty.	Unit	Unit Rate	Amount US.\$
<u>GENERAL ITEMS IN CONNECTION WITH PLUMBING & FIRE SYSTEM (Cont'd)</u>					
A	Provision of electrical works related to mechanical installations. Per item in letters:	1	Item		
B	Provision of maintenance manual and operating manual for all equipment. Per item in letters:	1	Item		
C	Provision of shop drawings for the entire mechanical installations. Per item in letters:	1	Item		
D	Provision of as-built drawings for the entire mechanical installations. Per item in letters:	1	Item		
E	Hook eyes for future installation of manual hoist for pumps in related rooms. Per item in letters:	1	Item		
	TO COLLECTION			US.\$	

BILL NO. 15A
PLUMBING & FIRE FIGHTING SYSTEM

Item	Description	Qty.	Unit	Unit Rate	Amount US.\$
	<p><u>COLLECTION</u></p> <p>Page No. 15A/1 Page No. 15A/2 Page No. 15A/3 Page No. 15A/4 Page No. 15A/5 Page No. 15A/6 Page No. 15A/7 Page No. 15A/8 Page No. 15A/9 Page No. 15A/10</p> <p><u>TOTAL AMOUNT OF BILL NO. 15A</u> <u>CARRIED TO SUMMARY</u></p>				
				US.\$	

BILL NO. 15B
AIR CONDITIONING AND VENTILATION SYSTEM

Item	Description	Qty.	Unit	Unit Rate	Amount US.\$
	<p>Mini-Split Units Including Evaporator Blower Unit and Condensing Unit with Bases, Vibration Isolators, Refrigerant Pipes, Condensate Pipes, Controls and Accessories:</p> <p><u>Mini-Split Units</u></p> <p>A Type MSIU-1 & MSOU-1, cooling capacity 3.5 KW, Wall mounted. Per number in letters:</p> <p><u>FANS</u></p> <p>Supply, Install and Test the Following Fans, Including Flanges, Support Framing, Mounting Bolts, Controls, Sound Attenuators if Required and all Necessary Fixing Accessories and Connection as Specified and as Shown on Drawings:</p> <p><u>Centrifugal Inline Fans</u></p> <p>B Type FAF-B02, 13250 CFM, 1.1 in.w.g. approx. st. pressure, 7.5 HP. Per number in letters:</p> <p>C Type EXF- B01, 13360 CFM, 1.1 in.w.g. approx. st. pressure, 7.5 HP. Per number in letters:</p> <p>D Type EXF-B02, 14750 CFM, 1.1 in.w.g. approx. st. pressure, 7.5 HP. Per number in letters:</p> <p align="right">TO COLLECTION</p>	2	No.		
				US.\$	

BILL NO. 15B
AIR CONDITIONING AND VENTILATION SYSTEM

Item	Description	Qty.	Unit	Unit Rate	Amount US.\$
	<u>FANS (Cont'd)</u>				
A	Type EXF-A-2, 1500 CFM, 0.35 in.w.g. approx. st. pressure, 0.5 HP. Per number in letters:	1	No.		
B	Type EXF-A-3, 400 CFM, 0.26 in.w.g. approx. st. pressure, 0.25 HP. Per number in letters:	1	No.		
C	Type EXF-A-4, 75 CFM, 0.25 in.w.g. approx. st. pressure, 0.25 HP. Per number in letters:	1	No.		
D	Type EXF-A-5, 225 CFM, 0.25 in.w.g. approx. st. pressure, 0.25 HP. Per number in letters:	1	No.		
E	Type EXF-A-6, 225 CFM, 0.25 in.w.g. approx. st. pressure, 0.25 HP. Per number in letters:	1	No.		
F	Type EXF-B-1, 300 CFM, 0.25 in.w.g. approx. st. pressure, 0.25 HP. Per number in letters:	1	No.		
G	Type EXF-B-2, 75 CFM, 0.25 in.w.g. approx. st. pressure, 0.25 HP. Per number in letters:	1	No.		
H	Type EXF-B-3, 1900 CFM, 0.35 in.w.g. approx. st. pressure, 0.5 HP. Per number in letters:	1	No.		
	TO COLLECTION			US.\$	

BILL NO. 15B
AIR CONDITIONING AND VENTILATION SYSTEM

Item	Description	Qty.	Unit	Unit Rate	Amount US.\$
	<u>FANS (Cont'd)</u>				
A	Type EXF-B-4, 300 CFM, 0.26 in.w.g. approx. st. pressure, 0.25 HP. Per number in letters:	1	No.		
B	Type EXF-GF-1, 150 CFM, 0.2 in.w.g. approx. st. pressure, 0.25 HP. Per number in letters:	1	No.		
	<u>Ductwork</u>				
C	Galvanized steel ducting for air conditioning and ventilation system including all beads, junctions, splitter damper, volume & fire dampers not shown on drawings, reducers and flexible joints as specified and as shown on drawings. Per kilogram in letters:	11150	Kg.		
	<u>Air Outlets</u>				
	Supply and Fix the Following Complete with all Duct Connections and Framing as Specified and as Shown on Drawings:				
	<u>Exhaust Air Register (EAR)</u>				
D	Size 1200 x 250 mm. Per number in letters:	11	No.		
E	Size 1000 x 250 mm. Per number in letters:	32	No.		
	TO COLLECTION			US.\$	

BILL NO. 15B
AIR CONDITIONING AND VENTILATION SYSTEM

Item	Description	Qty.	Unit	Unit Rate	Amount US.\$
	<u>Air Outlets (Cont'd)</u>				
	<u>Exhaust Ceiling Diffuser (ECD)</u>				
A	Size 150 x 150 mm . Per number in letters:	83	No.		
	<u>Exhaust Air Grilles (EG)</u>				
B	Size 600 x 150 mm. Per number in letters:	2	No.		
C	Size 500 x 150 mm. Per number in letters:	2	No.		
D	Size 200 x 150 mm. Per number in letters:	2	No.		
	<u>Fresh Air Grilles (FAG)</u>				
E	Size 2500 x 1200 mm. Per number in letters:	1	No.		
F	Size 700 x 600 mm. Per number in letters:	1	No.		
	<u>Fresh Air Louvers (FAL)</u>				
G	Size 2500x 1200 mm. Per number in letters:	1	No.		
	TO COLLECTION			US.\$	

BILL NO. 15B
AIR CONDITIONING AND VENTILATION SYSTEM

Item	Description	Qty.	Unit	Unit Rate	Amount US.\$
	<u>Air Outlets (Cont'd)</u>				
	<u>Fire Damper (FDR)</u>				
A	Size 350 x 200 mm. Per number in letters:	4	No.		
B	Size 300 x 200 mm. Per number in letters:	6	No.		
C	Size 200 x 150 mm. Per number in letters:	5	No.		
D	Size 150 x 150 mm. Per number in letters:	19	No.		
	<u>Volume Damper (VDR)</u>				
E	Size 350 x 200 mm. Per number in letters:	4	No.		
F	Size 300 x 200 mm. Per number in letters:	4	No.		
G	Size 200 x 150 mm. Per number in letters:	4	No.		
	<u>Door Louvers</u>				
H	Size 600 x 300 mm. Per number in letters:	4	No.		
	TO COLLECTION			US.\$	

BILL NO. 15B
AIR CONDITIONING AND VENTILATION SYSTEM

Item	Description	Qty.	Unit	Unit Rate	Amount US.\$
	<u>Door Louvers (Cont'd)</u>				
A	Size 300 x 150 mm. Per number in letters:	16	No.		
	<u>Condensate Drain pipes and fittings, complete as specified.</u>				
B	3/4" diameter. Per linear meter in letters:	30	m		
	<u>Exhaust Pipes</u>				
C	300 mm internal diameter double skin stainless steel exhaust pipe to Boiler including cleanouts, insulation, caps all as specified. Per number in letters:	60	m		
D	250 mm internal diameter double skin stainless steel exhaust pipe to Boiler including cleanouts, insulation, caps all as specified. Per number in letters:	6	m		
E	300 mm diameter cleanout. Per number in letters:	3	No.		
F	300 mm diameter rain cap. Per number in letters:	1	No.		
	TO COLLECTION			US.\$	

BILL NO. 15B
AIR CONDITIONING AND VENTILATION SYSTEM

Item	Description	Qty.	Unit	Unit Rate	Amount US.\$
	<u>CONTROL PANELS</u>				
	Supply, Install and Test the Following Complete with all Necessary Fittings, Accessories, cables all as Specified and as Shown on Drawings:				
A	Control panels with complete controls and electrical works for all airconditioning and ventilation systems. Per number in letters:	1	Item		
	Reinforced insitu concrete with ordinary portland cement including formwork, reinforcement and all associated works:				
B	Fans and other equipment with vibration isolation. Per number in letters:	1	Item		
	<u>GENERAL ITEMS IN CONNECTION WITH MECHANICAL WORKS</u>				
C	Builders works in connection with the air-conditioning and ventilation system including all sleeves, opening, bases, supports, etc.. Per number in letters:	1	Item		
D	Testing and Commissioning of the entire mechanical installations. Per number in letters:	1	Item		
E	Provision of one year guarantee for all mechanical equipment. Per number in letters:	1	Item		
	TO COLLECTION			US.\$	

BILL NO. 15B
AIR CONDITIONING AND VENTILATION SYSTEM

Item	Description	Qty.	Unit	Unit Rate	Amount US.\$
<u>CONTROL PANELS (Cont'd)</u>					
A	Provision of electrical works related to mechanical installations. Per number in letters:	1	Item		
B	Provision of maintenance manual and operating manual for all equipment. Per number in letters:	1	Item		
C	Provision of shop drawings for the entire AC system installation. Per number in letters:	1	Item		
D	Provision of as-built drawings for the entire AC system installations. Per number in letters:	1	Item		
TO COLLECTION				US.\$	

BILL NO. 15B
AIR CONDITIONING AND VENTILATION SYSTEM

Item	Description	Qty.	Unit	Unit Rate	Amount US.\$
	<p><u>COLLECTION</u></p> <p>Page No. 15B/1 Page No. 15B/2 Page No. 15B/3 Page No. 15B/4 Page No. 15B/5 Page No. 15B/6 Page No. 15B/7 Page No. 15B/8</p> <p><u>TOTAL AMOUNT OF BILL NO. 15B</u> <u>CARRIED TO SUMMARY</u></p>				
				US.\$	

BILL NO. 15C
HEATING

Item	Description	Qty.	Unit	Unit Rate	Amount US.\$
	<u>EQUIPMENT</u>				
	<u>Steel Boiler complete with all accessories as specified and as shown on drawings and details:</u>				
A	Type B-1, heating capacity 275 KW, 6 bar complete. Per number in letters:	2	No.		
B	Heating Hot water pump type HWP-1, capacity 2 x 80 GPM, 65 ft head, power supply 3 x 3 HP complete with VFD, flexible connection and valves, strainer, and all other fittings and accessories. Per number in letters:	3	No.		
	Supply, Install and Test the Following Complete as Specified with All Necessary Fixing Accessories as Shown on Drawings:				
C	Closed type expansion tank ET-1 400 liters complete with all related works. Per number in letters:	1	No.		
	TO COLLECTION				

BILL NO. 15C
HEATING

Item	Description	Qty.	Unit	Unit Rate	Amount US.\$
	<u>RADIATORS</u>				
	<u>Supply, Install and test the following radiators complete with air vent, thermostatic valve unions and all necessary connections as specified and as shown on drawings :</u>				
A	Radiator (4250 W), R25. Per number in letters:	2	No.		
B	Radiator (3740 W), R22. Per number in letters:	3	No.		
C	Radiator (3400 W), R20. Per number in letters:	5	No.		
D	Radiator (3230 W), R19. Per number in letters:	8	No.		
E	Radiator (3060 W), R18. Per number in letters:	11	No.		
F	Radiator (2890 W), R17. Per number in letters:	6	No.		
G	Radiator (2720 W), R16. Per number in letters:	23	No.		
H	Radiator (2550 W), R15. Per number in letters:	13	No.		
I	Radiator (2380 W), R14. Per number in letters:	11	No.		
	TO COLLECTION			US.\$	

BILL NO. 15C
HEATING

Item	Description	Qty.	Unit	Unit Rate	Amount US.\$
	<u>RADIATORS (Cont'd)</u>				
A	Radiator (2210 W), R13. Per number in letters:	2	No.		
B	Radiator (2040 W), R12. Per number in letters:	36	No.		
C	Radiator (1870 W), R11. Per number in letters:	8	No.		
D	Radiator (1700 W), R10. Per number in letters:	39	No.		
E	Radiator (1530 W), R9. Per number in letters:	21	No.		
F	Radiator (1360 W), R8. Per number in letters:	23	No.		
G	Radiator (1190 W), R7. Per number in letters:	18	No.		
H	Radiator (1020 W), R6. Per number in letters:	8	No.		
I	Radiator (850 W), R5. Per number in letters:	8	No.		
J	Radiator (680 W), R4. Per number in letters:	25	No.		
K	Radiator (510 W), R3. Per number in letters:	52	No.		
	TO COLLECTION			US.\$	

BILL NO. 15C
HEATING

Item	Description	Qty.	Unit	Unit Rate	Amount US.\$
	<u>RADIATORS (Cont'd)</u>				
A	Radiator (340 W), R2. Per number in letters:	3	No.		
B	Towel radiator (800 W). Per number in letters:	38	No.		
	<u>Heating Water Pipes, laid at ceiling, wall and undertiles with insulation as specified</u>				
C	1/2" diameter. Per linear meter in letters:	2150	m		
D	3/4" diameter. Per linear meter in letters:	250	m		
E	1" diameter. Per linear meter in letters:	395	m		
F	1 1/4" diameter. Per linear meter in letters:	340	m		
G	1 1/2" diameter. Per linear meter in letters:	50	m		
H	2" diameter. Per linear meter in letters:	15	m		
I	3" diameter. Per linear meter in letters:	135	m		
J	4" diameter. Per linear meter in letters:	120	m		
	TO COLLECTION			US.\$	

BILL NO. 15C
HEATING

Item	Description	Qty.	Unit	Unit Rate	Amount US.\$
	<u>Heating Water Pipes, laid at riser with insulation and jacketing as specified</u>				
A	1 1/2" diameter. Per linear meter in letters:	10	m		
B	2" diameter. Per linear meter in letters:	20	m		
C	2 1/2" diameter. Per linear meter in letters:	20	m		
D	3" diameter. Per linear meter in letters:	15	m		
E	4" diameter. Per linear meter in letters:	15	m		
	Supply, install and test the following complete as specified and as shown on drawings:				
F	3"diameter gate valve. Per number in letters:	2	No		
G	2"diameter ditto. Per number in letters:	2	No		
H	1 1/2" diameter ditto. Per number in letters:	6	No		
I	1/2" diameter ditto. Per number in letters:	1	No.		
	TO COLLECTION			US.\$	

BILL NO. 15C
HEATING

Item	Description	Qty.	Unit	Unit Rate	Amount US.\$
A	3" diameter double regulating valve. Per number in letters:	2	No		
B	2" diameter ditto. Per number in letters:	2	No		
C	1 1/2" diameter ditto. Per number in letters:	6	No		
D	1/2" diameter ditto. Per number in letters:	1	No		
E	1/2" diameter Automatic air vent. Per number in letters:	4	No		
<u>FUEL OIL SYSTEM</u>					
F	Supply, install and test cylindrical fuel oil storage tank above ground, capacity 0.3 cubic meters, complete with access fill connection, all as specified, as shown on drawings & as directed by the engineer. Per number in letters:	1	No.		
G	Ditto, 2.5 cubic meters capacity. Per number in letters:	2	No.		
				US.\$	
TO COLLECTION					

BILL NO. 15C
HEATING

Item	Description	Qty.	Unit	Unit Rate	Amount US.\$
	<u>Pipe Work</u>				
	<u>Supply, lay, connect & test the following pipes including all necessary fixings accessories insulation and fitting complete as specified & as shown on drawings:</u>				
A	3/4" diameter. Per linear meter in letters:	30	m		
B	1" diameter. Per linear meter in letters:	80	m		
C	2" diameter vent pipe with insect screen. Per linear meter in letters:	2	m		
	Supply, Install and test the following fittings complete as specified :				
D	1" diameter solenoid valve. Per number in letters:	2	No.		
E	3/4" diameter gate valve. Per number in letters:	13	No.		
F	1" diameter gate valve. Per number in letters:	3	No.		
G	3" diameter fill connection with cap and chain. Per number in letters:	2	No.		
H	1" diameter overflow pipe. Per number in letters:	2	No.		
	TO COLLECTION			US.\$	

BILL NO. 15C
HEATING

Item	Description	Qty.	Unit	Unit Rate	Amount US.\$
	<u>GENERAL ITEMS IN CONNECTION WITH PLUMBING HEATING SYSTEM</u>				
A	Builders works in connection with the heating system including all sleeves, opening, bases, supports, etc.. Per item in letters:	1	Item		
B	Testing and Commissioning of the entire heating system installations. Per item in letters:	1	Item		
C	Provision of one year guarantee for all heating system. Per item in letters:	1	Item		
D	Provision of one year maintenance for all heating system. Per item in letters:	1	Item		
E	Provision of electrical works related to heating system installations. Per item in letters:	1	Item		
F	Provision of maintenance manual and operating manual for heating system. Per item in letters:	1	Item		
G	Provision of shop drawings for the entire heating system installation. Per item in letters:	1	Item		
H	Provision of as-built drawings for the entire heating system installations. Per item in letters:	1	Item		
	TO COLLECTION			US.\$	

BILL NO. 15C
HEATING

Item	Description	Qty.	Unit	Unit Rate	Amount US.\$
	<p><u>COLLECTION</u></p> <p>Page No. 15C/1 Page No. 15C/2 Page No. 15C/3 Page No. 15C/4 Page No. 15C/5 Page No. 15C/6 Page No. 15C/7 Page No. 15C/8</p>				
	<p><u>TOTAL AMOUNT OF BILL NO. 15C</u> <u>CARRIED TO SUMMARY</u></p>			US.\$	

BILL NO. 16
ELECTRICAL WORKS

Item	Description	Qty.	Unit	Unit Rate	Amount US.\$
	<u>Distribution and Power Panelboards</u>				
	Supply, Install and Connect the Following Distribution and Power Panelboards Including all Main Branch Circuit Protective Devices, ATS, Contactors, and Instruments Etc.:				
A	Distribution panelboard DP-B1A/GEN. Per number in letters:	1	No.		
B	Power panelboard PP-B1A/SER. Per number in letters:	1	No.		
C	Power panelboard PP-GA/CL. Per number in letters:	1	No.		
	<u>Conduits and Fittings</u>				
	Supply, Install and Connect the Following:				
D	Supply and install conduits for control wiring of Mechanical Systems (Pumps, EXFs, Mini-Splits Etc.). Per lump sum in letters:	1	Lump Sum		
E	Supply and install conduits and outlet boxes for lifts signal equipment (Call buttons, Position Indicator, etc.) as required. Per lump sum in letters:	1	Lump Sum		
	TO COLLECTION				

BILL NO. 16
ELECTRICAL WORKS

Item	Description	Qty.	Unit	Unit Rate	Amount US.\$
	<u>Low Tension Cables</u>				
	Supply, Install and Connect the Following Multicore Cables, CU/XLPE/PVC with Necessary Ties, Cable Glands, Cable Cleats, Cable Trays, Including Grounding Wire:				
A	4 x 240 mm ² + E=120 mm ² . Per linear meter in letters:	200	m		
B	4 x 150 mm ² + E=70 mm ² . Per linear meter in letters:	500	m		
C	4 x 120 mm ² + E=70 mm ² . Per linear meter in letters:	140	m		
D	4 x 35 mm ² + E=16 mm ² . Per linear meter in letters:	80	m		
E	4 x 25 mm ² + E=16 mm ² . Per linear meter in letters:	700	m		
F	4 x 16 mm ² + E=16 mm ² . Per linear meter in letters:	35	m		
	TO COLLECTION				

BILL NO. 16
ELECTRICAL WORKS

Item	Description	Qty.	Unit	Unit Rate	Amount US.\$
	Supply, Install and Connect the Following Multi Core cables CU/PVC/PVC, Including Conduits, Pull Boxes, Terminal Box, Cable Ties cable trays and Grounding Wires:				
A	4 x 10 mm ² + E=10 mm ² . Per linear meter in letters:	200	m		
B	2 x 6 mm ² + E=6 mm ² . Per linear meter in letters:	200	m		
C	3 x 6 mm ² + E=6 mm ² . Per linear meter in letters:	405	m		
D	4 x 6 mm ² + E=6 mm ² . Per linear meter in letters:	200	m		
E	3 x 4 mm ² + E=4 mm ² . Per linear meter in letters:	160	m		
F	2 x 4 mm ² + E=4 mm ² . Per linear meter in letters:	160	m		
	Supply, Install and Connect the Following Outgoing Feeders Including Conduits and Wiring from the Following Pump Control Panels:				
G	Outgoing Feeders from CP-B1A-EXF-B01 . Per lump sum in letters:	1	Lump Sum		
H	Outgoing Feeders from CP- B1B-EXF-B01 . Per lump sum in letters:	1	Lump Sum		
	TO COLLECTION				

BILL NO. 16
ELECTRICAL WORKS

Item	Description	Qty.	Unit	Unit Rate	Amount US.\$
	Supply, Install and Connect the Following Outgoing Feeders Including Conduits and Wiring from the Following Pump Control Panels: (Cont'd)				
A	Outgoing Feeders from CP- B2A-EXF-B02 . Per lump sum in letters:	1	Lump Sum		
B	Outgoing Feeders from CP- B2B-EXF-B02 . Per lump sum in letters:	1	Lump Sum		
C	Outgoing Feeders from CP-B2A-FAF-B02 . Per lump sum in letters:	1	Lump Sum		
D	Outgoing Feeders from CP-B2B-FAF-B02 . Per lump sum in letters:	1	Lump Sum		
E	Outgoing Feeders from PCP-B2A-TP-1. Per lump sum in letters:	1	Lump Sum		
F	Outgoing Feeders from PCP-B2A-ETP-1. Per lump sum in letters:	1	Lump Sum		
G	Outgoing Feeders from PCP-B2A-SP-1. Per lump sum in letters:	1	Lump Sum		
H	Outgoing Feeders from PCP-B2B-SP-1. Per lump sum in letters:	1	Lump Sum		
I	Outgoing Feeders from PCP-B2A-HHWP-1. Per lump sum in letters:	1	Lump Sum		
	TO COLLECTION				

BILL NO. 16
ELECTRICAL WORKS

Item	Description	Qty.	Unit	Unit Rate	Amount US.\$
	<u>Earthing System</u>				
A	Supply, install and connect a complete system earthing network including equipotential earthing bars, connection to neutral of transformer connection to switchboard or low tension pillar (as applicable, and all earthing connection in electrical room(s). Per lump sum in letters:	1	Lump Sum		
B	Supply, install and connect a complete equipment earthing including conductor to equipotential earthing bar. Per lump sum in letters:	1	Lump Sum		
	<u>UPS</u>				
	Supply , install and connect UPS 230/400V, 50Hz with built-in protection and incoming main switch , Batteries (10 minutes) .				
C	UPS (15 KVA), 3 Phase In, 3 Phase Out. Per number in letters:	1	No.		By end User
D	UPS (7.5 KVA), 3 Phase In, 3 Phase Out. Per number in letters:	12	No.		By end User
E	UPS (5 KVA), 3 Phase In, 3 Phase Out. Per number in letters:	4	No.		By end User
	TO COLLECTION				

BILL NO. 16
ELECTRICAL WORKS

Item	Description	Qty.	Unit	Unit Rate	Amount US.\$
	<p><u>Emergency Generator System:</u></p> <p>Supply, install and connect the following low tension prime Diesel Generator with outdoor type canopy set rated as shown on drawings, including main circuit breaker, synchronizing and paralleling unit mounted on set, UTP control wiring. Set mounted engine generator annunciator panel with its wiring and conduits and remote control panel with ON-OFF fault visual status of each generator.</p>				
A	<p>Generator G1, 250 KVA. Per number in letters: </p>	1	No.		
B	<p>Generator G2, 250 KVA. Per number in letters: </p>	1	No.		
C	<p>Generator G3, 100 KVA. Per number in letters: </p> <p>Supply, install and connect main emergency distribution totalizing switchboards and synchronizing panel, complete with PLC for load shedding, lightning arrestors, breakers, etc.</p>	1	No.		
D	<p>Totalizing Board with Master paralleling command of 3 generators. Per number in letters: </p>	1	No.		
	TO COLLECTION				

BILL NO. 16
ELECTRICAL WORKS

Item	Description	Qty.	Unit	Unit Rate	Amount US.\$
	<u>Motor Starter Panel</u>				
	Supply, install and connect the following motor starter panel complete including breakers, starters and instruments, etc. as specified and shown on				
A	MSP-3A/EXF. Per number in letters:	1	No.		
B	MSP-3B/EXF. Per number in letters:	1	No.		
	<u>Miscellaneous Equipment</u>				
	Supply, Install and Connect the Following disconnect switches Including Enclosures Flexible Metallic Conduit and Wires Between Equipment and Corresponding Terminal Box:				
C	3 x 60A disconnect switch IP55. Per number in letters:	12	No.		
D	3 x 60A disconnect switch IP40, for X-Ray. Per number in letters:	1	No.		
E	3 x 60A disconnect switch IP40, for lifts. Per number in letters:	2	No.		
	TO COLLECTION				

BILL NO. 16
ELECTRICAL WORKS

Item	Description	Qty.	Unit	Unit Rate	Amount US.\$
	<u>Wiring Devices</u>				
	Supply, Install and Connect the Following Devices Including Device Boxes, Cover Plates, Conduits and Wiring Between Devices and to Panelboard, Contactor or to Switch panel as Applicable:				
A	Lighting Point. Per number in letters:	1850	No.		
B	16-Amp. 220 volt duplex socket, fed from UPS; Floor Mounted. Per number in letters:	17	No.		
C	16-Amp. 220 volt single socket. Per number in letters:	380	No.		
D	16-Amp. 220 volt single socket (120 cm A.F.F.L). Per number in letters:	34	No.		
E	16-Amp. 220 volt duplex socket; Floor Mounted. Per number in letters:	18	No.		
F	16-Amp. 220 volt single socket watertight. Per number in letters:	40	No.		
G	16-Amp. 220 volt duplex socket. Per number in letters:	190	No.		
H	16-Amp. 220 volt duplex socket, fed from UPS Per number in letters:	220	No.		
	TO COLLECTION				

BILL NO. 16
ELECTRICAL WORKS

Item	Description	Qty.	Unit	Unit Rate	Amount US.\$
	Supply, Install and Connect the Following Lighting Switches 16 Amp., Including Device Boxes, Cover Plates, Conduits and Wiring to Lighting Points or Receptacles or Extract Fan Receptacles as Applicable:				
A	One way, one gang. Per number in letters:	245	No.		
B	One way, two gang. Per number in letters:	6	No.		
C	Two way, one gang. Per number in letters:	4	No.		
D	Two way, two gang. Per number in letters:	35	No.		
E	One way, one gang, watertight. Per number in letters:	10	No.		
F	One way, three gang. Per number in letters:	1	No.		
G	Three way (intermediate), one gang. Per number in letters:	6	No.		
H	Lighting switch panel (LSP-GA), Five gang. Per number in letters:	1	No.		
I	Lighting switch panel (LSP-GB), Six gang. Per number in letters:	1	No.		
J	Lighting switch panel (LSP-SER), thirty gang. Per number in letters:	1	No.		
	TO COLLECTION				

BILL NO. 16
ELECTRICAL WORKS

Item	Description	Qty.	Unit	Unit Rate	Amount US.\$
	Supply, install and connect the following lighting contactor panel, including IP40 enclosure, contactors, etc. with conduits and wiring to panelboard as shown on drawings and as specified:				
A	LCP- B1A/SER. Per number in letters:	1	No.		
B	LCP- B1B/SER. Per number in letters:	1	No.		
C	LCP- B2A/SER. Per number in letters:	1	No.		
D	LCP- B2B/SER. Per number in letters:	1	No.		
	Supply, Install and Connect the Following Devices and Equipment Including Device Boxes, Cover Plates, Conduits and Wiring to Panelboard:				
E	20-Amp. 2-pole switch for water heater, including cable outlet. Per number in letters:	30	No.		
F	20-Amp. double-pole switch for power supply of CCTV system, including cable outlet. Per number in letters:	1	No.		
G	Cable outlet for FACP & FARP Per number in letters:	3	No.		
H	Cable outlet for Mini-Split. Per number in letters:	27	No.		
	TO COLLECTION				

BILL NO. 16
ELECTRICAL WORKS

Item	Description	Qty.	Unit	Unit Rate	Amount US.\$
	Supply, Install and Connect the Following Devices and Equipment Including Device Boxes, Cover Plates, Conduits and Wiring to Panelboard: (Cont'd)				
A	Cable outlet for sliding door. Per number in letters:	3	No.		
B	Cable outlet for gate barrier. Per number in letters:	1	No.		
	<u>Lighting Panelboards</u>				
	Supply, Install and Connect the Following Lighting Panelboards, Including Main and Branch Circuit Breakers, Contactors, Isolators and RCD's:				
C	Lighting Panelboard LP-B2A/SER. Per number in letters:	1	No.		
D	Lighting Panelboard LP-B2B/SER. Per number in letters:	1	No.		
E	Lighting Panelboard LP-B1A/SER. Per number in letters:	1	No.		
F	Lighting Panelboard LP-B1B/SER. Per number in letters:	1	No.		
G	Lighting Panelboard LP-B1A/CTL/UPS. Per number in letters:	1	No.		
	TO COLLECTION				

BILL NO. 16
ELECTRICAL WORKS

Item	Description	Qty.	Unit	Unit Rate	Amount US.\$
	<u>Lighting Panelboards (Cont'd)</u>				
A	Lighting Panelboard LP-GA/CL/UPS. Per number in letters:	1	No.		
B	Lighting Panelboard LP-GA/CL. Per number in letters:	1	No.		
C	Lighting Panelboard LP-GB/AO. Per number in letters:	1	No.		
D	Lighting Panelboard LP-GB/AO/UPS. Per number in letters:	1	No.		
E	Lighting Panelboard LP-GB/PO. Per number in letters:	1	No.		
F	Lighting Panelboard LP-GB/PO/UPS Per number in letters:	1	No.		
G	Lighting Panelboard LP-1A/SAO. Per number in letters:	1	No.		
H	Lighting Panelboard LP-1A/SAO/UPS. Per number in letters:	1	No.		
I	Lighting Panelboard LP-1A/SSO. Per number in letters:	1	No.		
	TO COLLECTION				

BILL NO. 16
ELECTRICAL WORKS

Item	Description	Qty.	Unit	Unit Rate	Amount US.\$
	<u>Lighting Panelboards (Cont'd)</u>				
A	Lighting Panelboard LP-1A/SSO/UPS. Per number in letters:	1	No.		
B	Lighting Panelboard LP-1B/CRO. Per number in letters:	1	No.		
C	Lighting Panelboard LP-1B/CRO/UPS. Per number in letters:	1	No.		
D	Lighting Panelboard LP-1B/PSO. Per number in letters:	1	No.		
E	Lighting Panelboard LP-1B/PSO/UPS. Per number in letters:	1	No.		
F	Lighting Panelboard LP-2A/IC. Per number in letters:	1	No.		
G	Lighting Panelboard LP-2A/IC/UPS. Per number in letters:	1	No.		
H	Lighting Panelboard LP-2A/LC. Per number in letters:	1	No.		
I	Lighting Panelboard LP-2A/LC/UPS Per number in letters:	1	No.		
	TO COLLECTION				

BILL NO. 16
ELECTRICAL WORKS

Item	Description	Qty.	Unit	Unit Rate	Amount US.\$
	<u>Lighting Panelboards (Cont'd)</u>				
A	Lighting Panelboard LP-2B/GSO. Per number in letters:	1	No.		
B	Lighting Panelboard LP-2B/GSO/UPS. Per number in letters:	1	No.		
C	Lighting Panelboard LP-2B/WUO. Per number in letters:	1	No.		
D	Lighting Panelboard LP-2B/WUO/UPS. Per number in letters:	1	No.		
E	Lighting Panelboard LP-3A/CSO. Per number in letters:	1	No.		
F	Lighting Panelboard LP-3A/CSO/UPS. Per number in letters:	1	No.		
G	Lighting Panelboard LP-3A/BCO. Per number in letters:	1	No.		
H	Lighting Panelboard LP-3A/BCO/UPS. Per number in letters:	1	No.		
I	Lighting Panelboard LP-3A/SDO. Per number in letters:	1	No.		
	TO COLLECTION				

BILL NO. 16
ELECTRICAL WORKS

Item	Description	Qty.	Unit	Unit Rate	Amount US.\$
	<u>Lighting Panelboards (Cont'd)</u>				
A	Lighting Panelboard LP-3A/SDO/UPS. Per number in letters:	1	No.		
B	Lighting Panelboard LP-3B/UPO. Per number in letters:	1	No.		
C	Lighting Panelboard LP-3B/UPO/UPS. Per number in letters:	1	No.		
D	Lighting Panelboard LP-3B/REO. Per number in letters:	1	No.		
E	Lighting Panelboard LP-3B/REO/UPS. Per number in letters:	1	No.		
F	Lighting Panelboard LP-GH. Per number in letters:	1	No.		
	TO COLLECTION				

BILL NO. 16
ELECTRICAL WORKS

Item	Description	Qty.	Unit	Unit Rate	Amount US.\$
	<u>Lighting Fixtures</u>				
	Supply, Install and Connect the Following Lighting Fixtures Including LED Lamps, for Maintained or Non Maintained Operation (as Applicable) Through Wiring for Continuous Rows, Flexible Conduit and Heat Resistant Wiring to Lighting Point for Recess Mounting Fixtures, and all Necessary Accessories:				
A	43 EP 414. Per number in letters:	34	No.		
B	65 CM 170. Per number in letters:	16	No.		
C	20 EM 414 Per number in letters:	570	No.		
D	65 WF 226. Per number in letters:	80	No.		
E	44 WF 118. Per number in letters:	58	No.		
F	44 RF 118. Per number in letters:	32	No.		
G	44 CF 218 Per number in letters:	101	No.		
	TO COLLECTION				

BILL NO. 16
ELECTRICAL WORKS

Item	Description	Qty.	Unit	Unit Rate	Amount US.\$
	<u>Lighting Fixtures (Cont'd)</u>				
A	44 RF 218 Per number in letters:	48	No.		
B	65 EC 228. Per number in letters:	246	No.		
C	65 EC 128. Per number in letters:	3	No.		
D	20 CF 226. Per number in letters:	377	No.		
E	65 CF 226. Per number in letters:	32	No.		
F	65 RM 170. Per number in letters:	18	No.		
G	Exit light. Per number in letters:	105	No.		
H	Battery operated emergency fixtures, self contained non maintained type decorative. Per number in letters:	94	No.		
I	Battery operated emergency fixture, self contained, non maintained non-decorative type. Per number in letters:	35	No.		
	TO COLLECTION				

BILL NO. 16
ELECTRICAL WORKS

Item	Description	Qty.	Unit	Unit Rate	Amount US.\$
	<u>Lightning System</u>				
A	Supply, install and connect a complete lightning protection system including air terminals, copper taps, down conductor, earth pits etc., complete as specified in the specifications. Per lump sum in letters:	1	Lump Sum		
B	Overvoltage protection for main feeders (powers, telephones, and control). Per lump sum in letters:	1	Lump Sum		
	<u>Outdoor Civil Works</u>				
	Construct the Following Concrete encasement Power Ductbanks for Single Core L.V. Feeders Including PVC Ducts, Trenches Excavation, Backfilling and Compaction but Excluding Cabling:				
C	Ductbank with 4 x 100 mm diam + 1 x 50 mm diam. Per linear meter in letters:	2	m		
D	Ductbank with 2 x 150 mm diam. Per linear meter in letters:	15	m		
E	Ductbank with 1 x 100 mm diam + 1 x 50 mm diam. Per linear meter in letters:	14	m		
	Construct the Following Power Manholes (Depth of Manholes to be Determined for each Case):				
F	Power manhole 80 x 80cm. Per number in letters:	2	No.		
	TO COLLECTION				

BILL NO. 16
ELECTRICAL WORKS

Item	Description	Qty.	Unit	Unit Rate	Amount US.\$
	<p>Construct the Following Concrete encasement Low Current Ductbanks Including PVC Ducts, Trenches Excavation, Backfilling and Compaction but Excluding Cabling:</p>				
A	<p>Ductbank with 2 x 100 mm diam. Per linear meter in letters:</p>	12	m		
	<p>Construct the Following Low Current Handholes:</p>				
B	<p>Low Current Handhole 30 x 30 x 30 cm. Per number in letters:</p>	1	No.		
	<p><u>Wires and Cables</u></p>				
	<p>Supply, Install and Connect the Following Multicore CU/PUC/PUC Cables, Pulled in Underground Ductbank or Trench but Excluding Ductbanks and Trenches:</p>				
C	<p>2 x 6 mm² + E = 6 mm². Per linear meter in letters:</p>	350	m		
	<p><u>Underground Distribution System</u></p>				
D	<p>Supply, install and connect the following PVC ducts, 50mm diameter with concrete encasement ductbanks including trenching, excavation and backfilling but excluding cabling. Per linear meter in letters:</p>	350	m		
	TO COLLECTION				

BILL NO. 16
ELECTRICAL WORKS

Item	Description	Qty.	Unit	Unit Rate	Amount US.\$
	<u>Outdoor Lighting</u>				
	Supply, Install and Connect the Following Lighting Fixtures Including Device Boxes, Cover Plates, Conduits and Wiring Between Devices and Distribution Boards, Contactors, Etc..)				
A	65BM170 Per number in letters:	6	No.		
	Supply, Install and Connect the Following Outdoor Lighting Fixtures Including Wiring to the fuse Box Inside the Column, and all Including Necessary Accessories:				
B	Street lighting luminaire housing 150 W HPS lamp. Per number in letters:	26	No.		
	<u>Poles</u>				
	Supply, install and connect the following outdoor lighting poles with all support brackets including connection terminal box, final cable connection inside pole and cable from terminal connector up to lighting fixture.				
C	Pole 8 m height with 3 bracket. Per number in letters:	1	No.		
D	Pole 8 m height with 2 bracket. Per number in letters:	2	No.		
E	Pole 8 m height with 1 bracket. Per number in letters:	19	No.		
F	Supply, install foundation for outdoor lighting pole 8 m height. Per number in letters:	22	No.		
	TO COLLECTION				

BILL NO. 16
ELECTRICAL WORKS

Item	Description	Qty.	Unit	Unit Rate	Amount US.\$
	<u>Earth Pit</u>				
A	Supply, install and connect earth pit for lighting pole. Per number in letters:	4	No.		
	<u>Fire Alarm System</u>				
	Supply, install and connect The Following Fire Alarm Control Panel and Fire Alarm Repeater Panel including device boxes, batteries, fire alarm chime, rectifier, outlet box, complete as specified.				
B	FACP-SER. Per number in letters:	1	No.		
C	FARP-CL. Per number in letters:	1	No.		
D	FARP-PO. Per number in letters:	1	No.		
	Supply, Install and Connect the Following Fire Alarm Devices Including Device Boxes, Embedded Conduit and Fire Retardant Shielded and Twisted Wiring or Fire Resistant Wiring, Surface Mounted Between Fire Alarm Control Unit Panel and Fire Alarm Junction Box as Applicable:				
E	Manual fire alarm station. Per number in letters:	34	No.		
F	Ditto but weather proof. Per number in letters:	10	No.		
	TO COLLECTION				

BILL NO. 16
ELECTRICAL WORKS

Item	Description	Qty.	Unit	Unit Rate	Amount US.\$
	Supply, Install and Connect the Following Fire Alarm Devices Including Device Boxes, Embedded Conduit and Fire Retardant Shielded and Twisted Wiring or Fire Resistant Wiring, Surface Mounted Between Fire Alarm Control Unit Panel and Fire Alarm Junction Box as Applicable: (Cont'd)				
A	Fire alarm bell (only with fire resistant cable). Per number in letters:	30	No.		
B	Ditto but weather proof. Per number in letters:	10	No.		
C	Optical smoke detector. Per number in letters:	280	No.		
D	Heat Detector. Per number in letters:	100	No.		
E	Combined heat/smoke detector. Per number in letters:	1	No.		
F	Fire Alarm Flasher weather proof. Per number in letters:	6	No.		
	TO COLLECTION				

BILL NO. 16
ELECTRICAL WORKS

Item	Description	Qty.	Unit	Unit Rate	Amount US.\$
	<u>Telephone System</u>				
	Supply, Install and Connect the Following Telephone Cables Between MDF and Cabinets, and Between Cabinets Including Conduits and Cable Tray If Any:				
A	5 pairs. Per linear meter in letters:	1400	m		
B	<u>Main Telephone Feeder</u>				
C	Supply, install and connect main telephone feeder, 60 pairs cables, between tie-in point of local telephone company and MDF Per lump sum in letters:	1	Lump Sum		
	<u>Telephone PABX</u>				
D	Supply, install and connect a telephone exchange (PABX), operator console complete with batteries and all associated accessories, as shown on the drawings, and as specified in the specifications.				
E	PABX (8 external & 8 internal) Per number in letters:	1	No.		By end User
F	PABX (8 external & 16 internal) Per number in letters:	13	No.		By end User
G	PABX (8 external & 24 internal) Per number in letters:	2	No.		By end User
H	PABX (8 external & 32 internal) Per number in letters:	1	No.		By end User
	TO COLLECTION				

BILL NO. 16
ELECTRICAL WORKS

Item	Description	Qty.	Unit	Unit Rate	Amount US.\$
	Supply, Install and Connect the Following Intermediate Distribution frame Including Terminal Blocks:				
A	IDF-GA/CL. Per number in letters:	1	No.		
B	IDF-GB/PO. Per number in letters:	1	No.		
C	IDF-GB/AO. Per number in letters:	1	No.		
D	IDF-1A/SAO. Per number in letters:	1	No.		
E	IDF-1A/SSO. Per number in letters:	1	No.		
F	IDF-1B/CRO. Per number in letters:	1	No.		
G	IDF-1B/PSO. Per number in letters:	1	No.		
H	IDF-2A/IC. Per number in letters:	1	No.		
I	IDF-2A/LC. Per number in letters:	1	No.		
	TO COLLECTION				

BILL NO. 16
ELECTRICAL WORKS

Item	Description	Qty.	Unit	Unit Rate	Amount US.\$
	Supply, Install and Connect the Following Intermediate Distribution frame Including Terminal Blocks:				
A	IDF-2B/GSO. Per number in letters:	1	No.		
B	IDF-2B/WUO. Per number in letters:	1	No.		
C	IDF-3A/CSO. Per number in letters:	1	No.		
D	IDF-3A/SDO. Per number in letters:	1	No.		
E	IDF-3B/UPO. Per number in letters:	1	No.		
F	IDF-3B/REO. Per number in letters:	1	No.		
	Supply, Install and Connect the Following Telephone Cabinet:				
G	MDF Per number in letters:	1	No.		
H	TC-B1A/CTL. Per number in letters:	1	No.		
	TO COLLECTION				

BILL NO. 16
ELECTRICAL WORKS

Item	Description	Qty.	Unit	Unit Rate	Amount US.\$
	Supply, Install and Connect the Following Telephone and data Outlets Boxes, Including Conduits, Boxes and Wiring Up to Nearest Telephone Cabinet:				
A	Supply, install and connect telephone outlets, connector, simplex including device boxes, cover plates, conduits and wiring to corresponding telephone cabinet as applicable. Per number in letters:	190	No.		
B	Ditto but in floor service box. Per number in letters:	16	No.		
C	Supply, install and connect telephone outlets, connector, simplex, for wall mounted handset including conduits and wiring to corresponding telephone cabinet applicable. Per number in letters:	10	No.		
D	Ditto but for fireman use. Per number in letters:	30	No.		
E	Supply, install and connect data outlets, RJ45 including device boxes, conduits and 4 pairs UTP cat 6A wiring to intermediate distribution frame . Per number in letters:	160	No.		
F	Ditto but in floor service box. Per number in letters:	16	No.		
	TO COLLECTION				

BILL NO. 16
ELECTRICAL WORKS

Item	Description	Qty.	Unit	Unit Rate	Amount US.\$
	<u>Integrated Security System:</u>				
A	Supply, install and connect a complete integrated security system in control room with main console, monitors, PC computers, color photos printer and all necessary conduits, cables and boxes between devices as specified and as shown on the drawings. Per item in letters:	1	Item		
B	Supply, install and connect network video recorder complete as specified as per drawings. Per number in letters:	1	No.		
C	CCTV POE switch. Per lump sum in letters: Supply, install and connect the following CCTV Cameras, including connectors, conduits, cable outlets, Transformers, Coaxial and Cat 6 UTP cabling from camera to CCTV switch and laying of cables in ductbanks where applicable as Shown on Drawings:	1	Lump Sum		
D	Wall mounted camera, weatherproof. Per number in letters:	9	No.		
E	Pole mounted camera, weather proof but excluding pole. Per number in letters:	13	No.		
	TO COLLECTION				

BILL NO. 16
ELECTRICAL WORKS

Item	Description	Qty.	Unit	Unit Rate	Amount US.\$
	<u>Work to be done as per Specifications of EDL</u>				
A	Supply installation and connection of 630 KVA transformer pole mounted. Per number in letters:	1	No.		
B	Supply installation and connection of Air Circuit Breaker 4 x 800 A with all accessories. Per number in letters:	1	No.		
	<u>Supply installation and connection the following low tension meter board, (kilowatt hour meter).</u>				
C	3 x 30A. Per number in letters:	1	No.		
D	3 x 40A. Per number in letters:	1	No.		
E	3 x 60A. Per number in letters:	12	No.		
F	3 x 80A. Per number in letters:	1	No.		
G	3 x 200A. Per number in letters:	1	No.		
H	3 x 250A. Per number in letters:	1	No.		
	TO COLLECTION				

BILL NO. 16
ELECTRICAL WORKS

Item	Description	Qty.	Unit	Unit Rate	Amount US.\$
	<u>COLLECTION</u>				
	Page No. 16/1				
	Page No. 16/2				
	Page No. 16/3				
	Page No. 16/4				
	Page No. 16/5				
	Page No. 16/6				
	Page No. 16/7				
	Page No. 16/8				
	Page No. 16/9				
	Page No. 16/10				
	Page No. 16/11				
	Page No. 16/12				
	Page No. 16/13				
	Page No. 16/14				
	Page No. 16/15				
	Page No. 16/16				
	Page No. 16/17				
	Page No. 16/18				
	Page No. 16/19				
	Page No. 16/20				
	Page No. 16/21				
	Page No. 16/22				
	Page No. 16/23				
	Page No. 16/24				
	Page No. 16/25				
	Page No. 16/26				
	Page No. 16/27				
	Page No. 16/28				
	<u>TOTAL AMOUNT OF BILL NO. 16</u>				
	<u>CARRIED TO SUMMARY</u>				

CHHIM GOVERNMENTAL OFFICES BUILDING
CHHIM, CHOUF - LEBANON
BILLS OF QUANTITIES
PHASE 2
SUMMARY

BILL NO.	DESCRIPTION	FROM PAGE	TOTAL AMOUNT US \$
1	GENERAL REQUIREMENTS	1/9	
2	SITE WORKS	2/6	
3	BASEMENT	3/11	
4	INTERNAL FINISHES - BLOCK "A"	4/11	
5	INTERNAL FINISHES - BLOCK "B"	5/10	
6	ELEVATIONS - BLOCK "A"	6/9	
7	ELEVATIONS - BLOCK "B"	7/9	
14	CONVEING SYSTEM	14/1	
15A	MECHANICAL WORKS - PLUMBING	15A/11	
15B	MECHANICAL WORKS - AC	15B/9	
15C	MECHANICAL WORKS - HEATING	15C/9	
16	ELECTRICAL WORKS	16/29	
	<u>TOTAL FOR PHASE 2</u>	US \$	
	<u>TVA 11%</u>	US \$	
	<u>TOTAL AMOUNT OF BILL OF QUANTITIES FOR PHASE 2</u>	US \$	