**VOLUME 3** 

METHOD OF MEASUREMENT AND BILLS OF QUANTITIES



MAY, 2022

#### **METHOD OF MEASUREMENTS**

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# DIVISION GR GENERAL REQUIREMENTS

#### **DIVISION I - General Requirements**

#### **1. Principles of Measurement**

- 1.1 The Works have been measured generally in accordance with the "Principles of Measurement (International) for Works of Construction" dated June 1979 published by The Royal Institution of Chartered Surveyors, U.K.
- 1.2 This method of measurement provides a uniform basis for measuring bills of quantities for works of construction. More detailed information than is required by this document may be given to define the precise nature of works or the circumstances under which it is to be carried out.
- 1.3 Amendments to this method of measurement for use in a particular locality or adopted for work not envisaged by this document shall be stated; an appendix is to be provided for such amendments.
- 1.4 This method of measurement may be applied equally to the measurement of proposed works and of complete works.
- 1.5 All measurements of the executed works called for in the Contract shall be based on the unit price stated in the Bills of Quantities and made according to the specifications. Any work done by the Contractor not requested in writing by the Engineer, shall not be included in the measurement.
- 1.6 In the case of discrepancy in quantities of works performed by the contractor and those shown on the drawings, and should such discrepancy by acceptable to the employer, then the quantities agreed by the Engineer shall be taken into account in the measurement of quantities.

#### 2. Bills of Quantities

- 2.1 the objects of bills of quantities are:
  - a. To assist in the accurate preparation of tenders, by providing for measurement of quantities on a uniform basis.
  - b. To provide a basis for the financial control of a project, in accordance with the conditions of contract.
- 2.2 Bills of quantities shall describe and represent the works to be carried out; work which cannot be measured accurately shall be described as approximate or given in bills of approximate quantities.
- 2.3 Conditions of contract, drawings and specifications shall be provided with the bills of quantities.
- 2.4 The section headings and classifications do not impose restrictions upon the format and presentation of bills of quantities.

#### 3. Measurement

- 3.1 Works shall be measured net as fixed in position and each measurement shall be taken to nearest 10 millimeters; this principle shall not apply to dimension stated in descriptions.
- 3.2 Unless otherwise stated, no deduction shall be made from items required to be measured by area voids of less than  $0.25 \text{ m}^2$ .
- 3.3 Minimum deductions of void shall refer only to voids within the edges of measured areas; voids which are at the edges of measured area shall always be deducted, irrespective of size.
- 3.4 These principles of measurement may be used with other units of measurement but the particular amendments shall be stated.
- 3.5 Notwithstanding these principles of measurement, a separate minor building or structure may be enumerated.

#### 4. Items to be Fully Inclusive

- 4.1 Unless otherwise stated, all items shall be fully inclusive of all that is necessary to fulfill the liabilities and obligations arising out of contract and shall include:
  - a) Labor and all associated costs.
  - b) materials, goods and all associated costs
  - c) provision of plant
  - d) temporary works
  - e) establishment charges, overheads and profit

#### **Description of Items**

- 4.2 Items which are required to be enumerated, or for which an item is required, shall be fully described.
- 4.3 Items which are to be measured by length or depth shall state the cross-sectional size and shape, girth or ranges of girths or such other information as may be appropriate.
- 4.4 Items which are to be measured by weight shall state the thickness or such other information as may be appropriate.
- 4.5 Items which are to be measured by weight shall state the materials thickness or such other information as may be appropriate
- 4.6 Notwithstanding this method of measurement, proprietary items may be measured in a manner appropriate to the manufacturer's tariff or customary practice.
- 4.7 The description of items in bills of quantities may refer to other documents or drawings and any reference to such information shall be understood to fulfill any requirement of this method of measurement, alternatively, reference may be made to published information.

#### 5. Day works

- 5.1 The cost of labor in day works shall be given as a sum; alternatively, a schedule of the different categories of labor may be given containing a provision for hourly rates.
- 5.2 The cost of labor included in a sum or schedule shall include wages, bonuses and all allowances paid to operative directly engaged on day works (including those operating mechanical plant and transport) in accordance with the appropriate employment agreement or, where no such agreement exists, the actual payments made to the work people concerned.
- 5.3 The cost of materials in day works shall be given as a sum; alternatively, a schedule may be given containing a provision for pricing different materials.
- 5.4 The cost of materials included in a sum or schedule shall be the net invoiced price, including delivery to site.
- 5.5 The cost of constructional plant employed exclusively in day works shall be given containing a provision for hourly rates for each category.
- 5.6 The cost of constructional plant included in a sum or schedule shall include fuel, drivers, consumable stores, repairs, maintenance and insurance of plant.
- 5.7 An item shall be given for the addition of establishment charges, overheads and profit to each of the sums or schedules of labor, materials, or plant.
- 5.8 Establishment charges, overhead's and profit shall include:
  - a) Costs related to the employment of labor.
  - b) Costs related to the storage of materials, including handling and waste in storage.
  - c) Contractor's administrative arrangements.
  - d) Constructional plant, except plant employed exclusively on day works.
  - e) Contractor's facilities.
  - f) Temporary works.
  - g) Sundry items.

#### 6. Conditions of Contract

6.1 The Tenderer is deemed to have covered in his unit rates all the requirements of the Conditions of Contract.

#### 7. Specification

7.1 The Tenderer is deemed to have covered in his unit rates all the requirements of the technical specifications.

#### 8. Restrictions

- 8.1 The Contractor shall allow in his unit rates for Restrictions, which shall include:
  - a) Access to a possession or use of the site.
  - b) Limitations of working space.
  - c) Limitations of working hours.
  - d) The maintenance of existing services on, under or over the site.
  - e) The execution of completion of the working in any specific order, sections or phases,
  - f) Items of a like nature.

#### 9. Contractor's Administrative Arrangements

- 9.1 The Contractor shall allow in his unit rates for contractor's administrative arrangements, which shall include:
  - a. Site administration
  - b. Supervision.
  - c. Security.
  - d. Safety, health and welfare of work-people
  - e. Transport of work-people

#### **10. Constructional Plant**

- 10.1 The Contractor shall allow in his unit rates for constructional plant, which shall include:
  - a) Small plant and tools.
  - b) Scaffolding.
  - c) Cranes and lifting plant.
  - d) Site transport.
  - e) Plant required for specific Trades.

#### **11.** Contractor's Facilities

- 11.1 The Contractor shall allow in his unit rates for facilities required by the contractor, which shall include:
  - a) Accommodation and buildings, including offices laboratories, compounds, stores, Messrooms and living accommodation.
  - b) Temporary guard rails.
  - c) Temporary roads, including hard standings and crossings.
  - d) Water for the works; particulars shall be given if water will be supplied to the contractor.
  - e) Lighting and power for the works, particulars shall be given if current will be applied to the contractor.
  - f) Temporary telephones.
  - g) Any other facilities (e.g. signboards, progress, photographs . . . etc.).

#### **Temporary Works**

- 11.2 The Contractor shall allow in his unit rates for temporary works which shall include:
  - a) Traffic diversion
  - b) Access roads
  - c) Bridges
  - d) Cofferdams
  - e) Pumping.
  - f) Compressed air for tunneling

#### 12. Sundry Items

- 12.1 The contractor shall allow in his unit rates for sundry items, which shall include:
  - a) Testing of materials
  - b) Testing of the works.
  - c) Protecting the works from inclement weather.
  - d) Removing rubbish, protective casings and coverings and cleaning the works at completion.
  - e) Traffic regulations.
  - f) Maintenance of public and private roads.
  - g) Drying out the works.
  - h) Control of noise and pollution.
  - i) All statutory obligations.

# DIVISION 2 SITE CONSTRUCTION

#### **DIVISION 2 - Site Construction**

#### **Selective Structure Demolition:**

Each kind of item is given separately as the BOQ

# DIVISION 3 CONCRETE

#### **DIVISION 3 - Concrete**

#### 1. Concrete Reinforcement

#### **1.1 Bar reinforcement**

High yield and mild steel bar reinforcement is given separately.

Bar reinforcement is given in Tons.

The unit rate is deemed to include:

- Preparing schedules for bar bending.
- Fixing bars in any position and in any member.
- Fixing bars horizontally, vertically and sloping.
- Any diameter, section and length of bars.
- Forming straight bent and curved bars and links.
- Cutting, lapping and jointing (including special joints)
- Hooks, tying wire, spacers, chairs and the like.
- The weight of surface treatments and rolling margin.

#### 2. In Situ Concrete

Each class of concrete is given separately, stating the kind of cement and whether plain or reinforced.

Wall and column kickers are included with the measurement of walls and columns respectively.

Columns are measured from top of slab to underside of beams or slab above.

Unless otherwise stated in B.O.Q. in situ concrete is given in cubic meters measured net except that deductions are not made for the following:

- Reinforcement.
- Steel sections of area not exceeding 0.50 m2
- Cast in accessories.
- Voids not exceeding 0.05 m3 volume

#### The unit rate is deemed to include:

- Formwork to all surfaces, edges, sloping, tops, grooves, end of walls, sides of voids, opening and the like.
- Designing mixes.
- Any method of pouring, placing, compacting and curing.
- Pouring on or against earth or unblended hard-core.
- Any thickness, cross-sectional area or number of members.
- Horizontal, sloping and vertical.
- Placing or finishing to falls and cross falls.
- Extra width of concrete or formwork to edges of blinding beds.
- Formwork, left in Formwork or other form of temporary support to top of sloping upper surfaces of blinding beds.
- Day joints (construction joints) and joints required in the forming of bays including Formwork and treatment of reinforcement crossing the joint.
- All labors on concrete including working around pipes or cables, cutting channels, chases, pockets and holes and including subsequent grouting or filling and making good.
- All sleeves for first-fix electromechanical permanent works are included.

# DIVISION 4 MASONARY

#### **Division 4- Masonry**

#### **BLOCK WORKS**

#### Generally

1.1 Block works shall be measured net as indicated in the BOQ built in position for the various thickness specified, including mortar, metal lath, corner beads, lentils, reinforcement steel, measured by meter square.

The unit rate is deemed to include:

- Mortar for bedding and jointing.
- Fine sand to be filled in cavities
- Raking out joints or leaving rough joints to form key
- Battering work (i.e. sloping with parallel sides)
- Temporary strutting to work used as Formwork
- Joint reinforcement in reinforced work
- Overhand building
- Forming cavities in hollow walls and between wall and other work, including providing wall ties, and closing cavities at ends, tops and around openings including extra materials
- Bonding ends of walls to other work including providing ties reinforcement and anchorage or other fixings and extra material in bonding
- Pinning up load bearing walls to structural soffits and filling voids with mortar
- Reveals, angles and intersections
- Rough and fair cutting
- Grooves, throats, mortices, chases, rebates, holes, stops, mitres and the like
- Labors in returns, ends and angles
- Building in or cutting and pinning ends of lintels, sills, bearing bars, steps, timbers, steel sections and the like
- Templates for forming openings and lift shafts, centering, and temporary supported protection to built-in frames
- Fixings in position
- Labors, tools, scaffolding, and overhead and profit

# **DIVISION 5**

### **METALS**

#### **Division 5- Metals**

#### 1. Metal fabrications, and the like

- 1.1 Each kind of work is given separately, stating the kind of material and finish as delivered.
- 1.2 Each item is given separately. Dimensions and details are stated in descriptions, where necessary, to identify the work.
- 1.3 Rates for measured work are deemed to include the costs of: surface treatments applied as part of the production process, finishes, where part of the item as delivered, grooves, splays, chamfers, mouldings, angles, fixings, fastenings and gaskets, cutting and fitting around obstructions, protection. Labors, tools, and overhead and profit

# **DIVISION 6**

### SPECIALIST WOOD WORKS

#### **Division 6 – Specialist Wood Works**

#### 1. <u>Generally</u>

- 1.1 Each kind of work is given separately, stating the kind of material and finish as delivered.
- 1.2 Dimensions and details are stated in descriptions, where necessary, to identify the work. Dimensions stated for wood are deemed to be finished sizes unless stated as nominal.
- 1.3 Rates for measured work are deemed to include the costs of:

surface treatments and preservative treatments applied as part of the production process,

finishes, where part of the item as delivered,

rebates, grooves, splays, chamfers, mouldings, angles, fixings, fastenings and gaskets, cutting and fitting around obstructions, protection.

Labors, tools, and overhead and profit

#### 2. <u>Wood Cabinets</u>

- 1.1 Each kind and type of cabinet is given separately.
- 1.2 Dimensions, types and details are stated in descriptions, where necessary, to identify the work.
- 1.4 Cabinets are enumerated.
- 1.5 Rates for measured work are deemed to include the costs of:

all component parts, finishing including applied finishes, ironmongery and accessories,

providing everything necessary for jointing, sealant and pointing,

adjusting, easing and lubricating, cleaning on completion,

placing and fixing in final position, extra material and labour in secure anchorage,

product data, shop drawings and samples, protection.

### **DIVISION 7**

### THERMAL AND MOISTURE PROTECTION

#### **Division 7- Thermal and moisture protection**

#### 1. Thermal and moisture protection:

Each kind of thermal and moisture protection items are given separately stating the type of material.

The thermal and moisture protection items are given in square meters unless otherwise indicated measured the area in contact with the base. No deduction is made for voids not exceeding 0.25 m2.

#### **1.1 Thermal Insulation**

Shall be measured in square meter

The unit rate is deemed to include:

- Surface preparation
- Fixings
- Accessories
- All necessary related works shown on the drawings and called for in the Specifications

#### **1.2 Modified Bitumen Membrane Waterproofing**

Shall be measured in square meter

The unit rate is deemed to include:

- All overlaps
- Preparation of surfaces
- Priming
- Rich coat of hot bitumen and necessary Torch Application.
- All necessary related works shown on the drawings and called for in the Specifications

#### **1.3 Geotextile sheets**

Shall be measured in square meter

- All necessary related works as specified and to the Engineer's approval.

### **DIVISION 8**

### **DOORS AND WINDOWS**

#### **DIVISION 8- Doors and Windows**

- 1.1 Each kind of work is given separately, stating the kind of material and finish as delivered. Windows, doors, screens, access hatches, skylights and the like which include associated frames or linings and ironmongery are each so described.
- 1.2 Each type of unit is given separately. Dimensions and details are stated in descriptions, where necessary, to identify the work. Dimension stated for wood are deemed to be finished sizes unless stated as nominal.
- 1.3 Multi-leafed doors are counted as one door type.
- 1.4 Windows, doors, screens, access hatches, skylights, louvers and the like are enumerated or given in enumerated.
- 1.5 Door frames, architraves and linings are included in unit price.
- 1.6 Rates for measured work are deemed to include the costs of:

frames, sills, louvres, doors, opening portions and insect screens, where supplied with the unit,

glazing beads, gaskets, weather strips, flashings, architraves, trims and the like accessories, where supplied with the unit,

glass and glazing, where supplied with the unit,

ironmongery and operating equipment, where supplied with the unit, hardware sets and all sundry ironmongery, where supplied with the unit, fitting and hanging doors,

surface treatments and preservative treatments applied as part of the production process,

finishes, where part of the unit as delivered, priming backs of frames and the like,

rebates, grooves, splays, chamfers, mouldings and the like labours on wood including ends, angles,

sub-frames, packing's, bearers, grounds and the like,

fixing and fastening, bedding, jointing and pointing including providing materials,

cutting and fitting around obstructions, firestopping to door frames and doors.

# DIVISION 9 FINISHES

#### **DIVISION 9- Finishes:**

#### 1. Gypsum board

- 1.1 Each kind of lining is given separately. Work which includes moisture resistant treatment and the like are each so described.
- 1.2 Panels and other special features are each given separately.
- 1.3 Lining to sides of openings, to projections, nibs, recesses and rebates, and to steps in surfaces is included with the measurement of work to the adjacent surface.
- 1.4 Thickness and height of partitions are stated in descriptions. Partitions boarded one side and boarded both sides are each so described.
- 1.5 Dimensions, types and details of features are stated in descriptions, where necessary, to identify the work.
- 1.6 Partitions are given in square meters measured the mean length and over obstructions. No deduction is made for voids which do not extend the full height.
- 1.7 Rates for measured work are deemed to include the costs of:

fixings including head and sole plates, studs, stiffening sections, firings and channels, fixings for heavy fittings, and other fixing materials, jointing including fair joints, jointing battens, fillets, beads and the like, joint and reinforcing tape, finishing including plaster for dabs, filling and finishing, work at any height above floor level, work of any width, height or girth, working overhand.

#### 2. <u>Plaster and cement the unit rate is deemed to include:</u>

- 2.1 Cement sand plaster materials as specifications section (plaster guides should be for walls and ceilings).
- 2.2 All mixes mentioned in specification section.
- 2.3 Metal accessories, expansion joints and anchorages as specified in the specifications.
- 2.4 Completion of the work as specified.
- 2.5 Angles beads, casing stops and wire mesh
- 2.6 All necessary related works and materials.

#### 3. Floor and Wall Tiling – Generally

- 3.1 Each kind of tiling and slab is given separately. Patterned work and work in multicolors are each so described stating the nature of the work.
- 3.2 Works to each of the following is given separately: floors,

treads, risers, channels, skirtings, saddles, walls, including attached columns, isolated columns, isolated beams, ceilings, including soffits, sides and soffits of attached beams, and soffits of staircases and landings.

- 3.3 Works to side of openings, to projections, nibs, recesses, and rebates and the like is included with the measurement of works to the adjacent surface.
- 3.4 Thickness, dimensions, types and details are stated in descriptions where necessary to identify the work.
- 3.5 Work to floors, walls, ceilings, isolated columns, isolated beams and the like is given in square meters measured on the exposed face. No deduction is made for voids not exceeding 0.50m2.
- 3.6 Rates for measured work are deemed to include the costs of:

work at any height above floor level, setting out,

extra work involved in patterned work and work in multi-colors, work of any width, height and girth,

special and non-standard tiles and slabs,

slabs and tiling laid to falls and cross falls

raking and vertical work to string, aprons and the like,

sand leveling bed, cement-sand screeds,

adhesive and fixing materials and/or devices,

bedding and fixing including bedding and backing mortars,

all cutting including circular cutting,

internal and external angles, intersections, joints,

division strips and anti-slip nosings,

jointing, grouting, cleaning, sealing,

grinding and polishing including working overhand and working over and around obstructions,

temporary support, supports for roof paving,

shop drawings, samples and test results, protection

#### 4. <u>Painting – Generally</u>

- 1.1 Painting is measured in square meters for the net area covered. Work to narrow widths will be incorporated in the measurement.
- 1.2 Painting for all metal and wooden works shall not be measured separately, but shall be deemed included with the related measured works.
- 1.3 Rates for measured work are deemed to include the costs of:

internal and external work,

preparatory work,

method of application,

rubbing down between coats, easing,

work required to be carried out before fixing, whether on or off site,

stopping, filling and priming,

priming backs of frames, edges of rebates and beads and bottoms of doors,

work in multi-colors, defined as the application of more than one colour on an individual surface or in one room,

removing ironmongery from surfaces to be decorated and re-fixing,

masking adjacent surfaces,

samples and product data, protection.

# **BILLS OF QUANTITIES**

# **TENDER REQUIREMENTS:**

- 1. Contractor shall rebuild stones in the demolished areas to match the existing case or as per architectural drawings requirements.
- 2. Contractor shall start demolishing by utilizing machine that does not create dynamic vibration such as electrical digger.
- 3. Contractor to examine and confirm actual floor build up in all locations within one week of commencement on site this plan is based on the assumption that there are Terrazzo tiles below PVC and carpet, and below raised floor in toilet and kitchen areas.
- 4. Contractor to examine proposed demolished walls, and propose pracing if required, to Architects' approval.
- 5. Contractor to seek professional structural advice on proposed demolition, Contractor to provide Structural Engineer's assessment and approval prior to commencing works.
- 6. Relationship between Main Contractor and other Subcontractors shall be cooperative without any objection from Main Contractor upon Engineer supervision and directions.
- 7. The Client is not bound to pay claims (overheads and profit) for Main Contractor on activities supplied and installed by other Subcontractors appointed directly by Client.
- 9. Main Contractor shall remove all waste materials and debris from site to location approved by the concerned authorities (cost shared with Subcontractors).

#### **BILLS OF QUANTITIES**

#### INDEX

- BILL No. 1 Preliminaries
- BILL No. 2 Site Construction
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- BILL No. 8 Doors and Windows
- BILL No. 9 Finishes
- BILL No. 12 Furniture

Dayworks

Summary

BILL NO. 1

### Preliminaries

ITEM		QTY	UNIT	RATE	TOTAL (JD)
	PRELIMINARIES				
	<u>General Notes on Preliminaries</u>				
А	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 individually priced. The Tenderer shall not enter any lump sums covering more than one or all items, clauses or sub-clauses. Where any item, clause or sub-clause of the Preliminaries has not been priced, it will be deemed that the value of such item, clause or sub-clause is included in the rates for measured items elsewhere in the Bills of Quantities.				
	<u>Form of Tender</u>				
В	The Contractor shall describe and list below and price herein any obligations contained in Form of Tender and Appendix for which he has not allowed elsewhere and wishes to price separately.				
	Instructions to Tenderers				
С	The Contractor shall describe and list below and price herein any obligations contained in the Instructions to Tenderers for which he has not allowed elsewhere and wishes to price separately.				
D	<b>Form of Agreement</b> The Contractor shall describe and list below and price herein any obligations contained in the Form of Agreement for which he has not allowed elsewhere and wishes to price separately.				
E	<b>Conditions of Contract</b> The Contractor shall describe and list below and price herein any obligations contained in the Conditions of Contract for which he has not allowed elsewhere and wishes to price separately.				

ITEM		QTY	UNIT	RATE	TOTAL (JD)
	<u>PRELIMINARIES [cont'd]</u> Drawings				
Α	The Contractor shall describe and list below and price herein any obligations contained on the drawings for which he has not allowed elsewhere and wishes to price separately.				
	<u>Specifications</u>				
В	The Contractor shall describe and list below and price herein any obligation contained in the Specifications for which he has not allowed elsewhere and wishes to price separately.				
	<u>Preambles</u>				
С	The Contractor shall describe and list below and price herein any obligation contained in the Preambles for which he has not allowed elsewhere and wishes to price separately.				
	<u>Bills of Quantities</u>				
D	The Contractor shall describe and list below and price herein any obligations contained in the Bills of Quantities for which he has not allowed elsewhere and wishes to price separately.				

ITEM		QTY	UNIT	RATE	TOTAL (JD)
A	PRELIMINARIES [cont'd] 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 will be deemed to cover all his obligations under the Contract and all matters and things necessary for the proper construction, and completion of the Works including, but not by way of limitation, all temporary work required (including any that may be required by Sub-Contractors). The prices shall include for all materials and labour and for the provision and use of all plant - whether mechanical or non-mechanical - required for the expeditious carrying out of the Works in their proper sequence - for shifting, altering and adapting such temporary work and plant as may be required during the progress of the Works and removing at completion and making good any surfaces disturbed; and if not included in any prices inserted against the Conditions of Contract Clauses above; for the guarantees, insurances and bonds required; for the costs of preparing a tender; for the work in connection with measurements and the final account; for profit; and 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 these respects. The selected Contractor will be required to provide the Engineer with a full and detailed Tender breakdown upon being awarded the Contract. This Tender breakdown upon being awarded the Contract. This Tender breakdown is to show the actual calculations of the Preliminaries, the labour, plant and material costs of the Works, the build-up of measured rates with on-costs and overheads and any other allowances used to arrive at the Tender Sum.				INCLUDED
В	<b>Items in Bills Not Basis for Ordering Materials</b> The Contractor shall not use the items given in the Bill of Quantities as a basis for ordering materials until he has satisfied himself from the drawings and the specification that the items given are covered the whole work to be executed.				INCLUDED

ITEM		QTY	UNIT	RATE	TOTAL (JD)
	PRELIMINARIES [cont'd]				
	Construction Plant and Tools				
A	The Contractor shall provide all constructional plant, lifting equipment, transport facilities, tools and services, required for the proper execution of the Works.				INCLUDED
В	The facilities shall include the provision of protective clothing and safety equipment.				INCLUDED
С	The Contractor shall be responsible for delivery to the Site all constructional plant which he needs to carry out the Works. This responsibility shall include shipment, customs clearance, off-loading, loading, handling, transportation to site and the removal of all redundant plant on completion of the Works.				INCLUDED
D	The Contractor shall immediately replace at his own cost all items or equipment that become defective for the required duties.				INCLUDED

ITEM		QTY	UNIT	RATE	TOTAL (JD)
	PRELIMINARIES [cont'd]				
А	No Objection Certificate(s) The Contractor shall be responsible for obtaining No Objection Certificate(s) from all relevant services and other authorities for the enabling works, demolition etc.				INCLUDED
В	<b>Temporary Roads</b> The Contractor shall prepare and maintain such temporary roads as may be necessary from the Site to the nearest road and also within the Site and shall obtain the necessary Municipality approvals. The roads shall be positioned in accordance with the Engineer's instructions and shall be kept free for access at all times.				INCLUDED
	<b>Temporary Works</b> The Contractor is responsible for the design, construction, maintenance and removal of all temporary works. The Contractor shall submit to the Engineer his proposals for all				
С	temporary works for approval. The Engineer's approval will in no way relieve the Contractor of his responsibility for the safety of the Works, operatives, adjoining property, structure or services and compliance with appropriate regulations and Codes of Practice.				INCLUDED
	Site Survey and Setting Out				
D	<b>Topographical survey</b> As soon as the Contract has been signed, the Contractor shall check and confirm the accuracy of the existing ground levels that are shown on the drawings.				INCLUDED
	<u>Geotechnical Survey</u>				
E	The Contractor will be deemed to have examined the reports, familiarized himself with the Site, satisfied himself as to the nature of the existing ground levels and subsoil and carried out any additional investigations and any verifications as he considers necessary.				INCLUDED

ITEM		QTY	UNIT	RATE	TOTAL (JD)
A	PRELIMINARIES [cont'd]         Surveying Equipment         The Contractor shall provide and keep on Site an         adequate supply of surveying instruments for the proper         execution of the Works. The instruments shall all be in         proper adjustment and always kept in perfect working         order and they shall be immediately available for use by         the Engineer whenever required, together with all         necessary assistance.         Existing Services				<del>INCLUDED</del>
В	The Contractor shall take such measures and exercise such care to protect the Site as shown on the Site plans during the course of the Works as directed by and to the entire satisfaction of the Engineer including determining and recording all existing on site services routes.				INCLUDED
С	The Contractor shall be responsible for the protection of all existing services within the Site and shall make good any damage to existing services resulting form his carrying out of the Works to the satisfaction of the Engineer and relevant authority. The Contractor shall be responsible for giving notice to the relevant authority where temporary or permanent re-routing of existing services is found to be necessary and shall provide attendance upon any contractor employed to carry out such re-routing.				INCLUDED
D	<b>Site Area</b> The Contractor's activities shall be confined to the Site area within the limits of the Site hoarding. Throughout the period of construction of the Works, the Contractor shall maintain the whole area of his operations in a clean, tidy and safe condition by arranging his materials in an orderly manner. All rubbish, waste material, debris, etc., shall be systematically cleared off the working areas as it accumulates and, if not removed directly from the Site, shall be deposited at collecting points allocated by the Engineer pending removal from the Site.				INCLUDED

ITEM		QTY	UNIT	RATE	TOTAL (JD)
	PRELIMINARIES [cont'd]				
	<u>Temporary Hoardings</u>				
A	The Contractor shall provide all temporary fencing, hoardings, fans, planked footways, guard rails, gantries and the like as may be necessary for protecting the public or occupants for the proper execution of the Works and for meeting the requirements of any service or other authority and to the approval of the Engineer.				INCLUDED
В	Site hoarding shall be as directed by the Engineer.				INCLUDED
e	The Contractor shall allow for obtaining approvals for hoardings and fencing from the Municipality and Authorities having jurisdiction.				INCLUDED
Ð	The Contractor shall allow for co-ordination with the adjoining site owner(s).				INCLUDED
E	<b>Site Sign Boards (OPTIONAL)</b> The Contractor shall provide and maintain one sign board for the Site, consisting of painted steel board plate, steel tubular section, steel angles, size about 2.00 x 4.00m high all painted with two coats white oil paint back and front and supported above the ground with steel framing and struts painted matt black and set into the ground and fixed in concrete foundations with all necessary flood				INCLUDED
	The boards shall be lettered by a skilled sign writer in Arabic and English to the Engineer approval and shall include:				
	<del>(a) The Project's Name. مبنى سكني خاص (b) The Project details. <del>(c) The Employer's Name.</del> <del>(d) The Consultant's Name &amp; Sub-consultants Names. (e) The Contractor's Name &amp; Sub- contractor's Names.</del></del>				
	Large scale layouts are to be submitted to the Consultant for approval before manufacture. No advertising material other than the above will be permitted.				
F	No other notice boards or advertisements on or around the Site will be permitted.				INCLUDED

ITEM		QTY	UNIT	RATE	TOTAL (JD)
	PRELIMINARIES [cont'd] Electrical Power and Lighting				
А	The Contractor shall arrange and provide for an adequate temporary supply of all necessary electrical power and lighting for the Works including the works of all Sub- Contractors nominated and otherwise and for paying all charges for the consumption of electricity or supplying, operating and maintaining generators at his own expense including for all testing and commissioning and until final handing over of the Works.				INCLUDED
В	Any additional lighting for the inspection of the Works shall be provided as instructed by the Engineer.				INCLUDED
С	The Contractor shall give all requisite notices, arrange for the necessary connections and installation of meters, pay all fees and charges in connection therewith and all charges for current used. The method of distribution of electric supplies around the site, the type of equipment used, safety measures, reduced voltage requirements, planning and programming shall conform with the requirements of the local authority. Any interruption of electricity supply is at the Contractor's risk and it is his responsibility to effect all temporary supplies as necessary during the power outages.				INCLUDED
D	<b>Water</b> The Contractor shall arrange for a temporary supply of water suitable for the Works, including the works of all Sub- Contractors nominated and otherwise, throughout the duration of the project and including for all testing and commissioning and until final handing over. Furthermore, the contractor shall pay all charges for the consumption of water used. The Contractor shall be responsible for supplying and maintaining equipment including any necessary pumps, storage tanks, distribution pipe work, etc., required for the execution of the Works. The Contractor shall also clear away all temporary work on completion and make good all work disturbed.				INCLUDED
Е	The Contractor shall give all requisite notices, arrange for the necessary connections and installation of meters, pay all fees and charges in connection therewith and all charges for water used.				INCLUDED
F	Any interruption of the water supply is at the Contractor's risk and it is his responsibility to effect all temporary supplies necessary.				INCLUDED

ITEM		QTY	UNIT	RATE	TOTAL (JD)
	PRELIMINARIES [cont'd]				
	<u>Assistance and Instruments for Engineer's</u> <u>Representative</u>				
A	The Contractor shall provide at all times for the duration of the Contract all such chainmen, staff men, workmen and survey instruments as may be required for the proper construction and completion of the Works.				INCLUDED
E	The Contractor shall provide the services for a full time attendant for general office duties and cleaning and the supply of refreshments.				INCLUDED
F	The Contractor shall provide 2 full size sets of drawings.				INCLUDED
A	<b>Security</b> The Contractor shall be fully responsible for the security of the Site and the Works, the Contractor's site offices, stores, workshops, and shall allow for protecting the Site and Works from unauthorized entry.				INCLUDED
В	The Contractor shall control the labour force to ensure that it does not cause a nuisance or trespass on to adjacent property.				INCLUDED
С	The Contractor shall provide all necessary watching and lighting by day and by night to protect the Works from damage and to protect all public and private traffic on and in the vicinity of the Works. Necessary warning signs and barriers are to be provided.				INCLUDED
D	The Contractor shall take all precautions to prevent the outbreak of fire and shall provide adequate fire fighting appliances on site at strategic and clearly defined points to the approval of the Engineer. The Contractor shall also take all necessary precautions against fire as required by the Insurance Company insuring the Works.				INCLUDED

ITEM		QTY	UNIT	RATE	TOTAL (JD)
	PRELIMINARIES [cont'd] Labour and Materials				
E	The Contractor shall provide such labour, materials and transport as the Engineer's Representative may require to assist him in carrying out tests and checks on materials and workmanship and setting out and measurement of the Works.				INCLUDED
Α	<b>Tests</b> The Contractor shall submit a weekly report in writing to the Engineer, in an agreed form, giving daily and weekly records of the following items: - Number of men employed on the Site divided into staff, tradesmen and others. - Accidents to employees reportable by statute. - Weather conditions on each day and night. - Progress of the Works in general terms. - Plant on Site. - Materials on Site. - Materials orders schedule showing date order was placed, expected delivery date and present status for all the materials required for the project. This report is to be submitted before the third day of the following week.				INCLUDED
В	The Contractor shall submit to the Engineer each month a report comprising the following:- * Progress chart. * Progress photographs (as described above) * Statement regarding the progress of the Works. * Extent and nature of the Work completed. * Any problems relating to the Works (with adequate documentation if applicable). * Records of materials, equipment and plant tested with copies of the test results. * Detailed schedule of work to be performed during the coming month and a general listing of work to be performed during the coming three months * The Contractor shall submit to the Engineer, in addition to the monthly report a report at quarterly intervals which will provide more general information about the Works. The content and format of all Reports shall be subject to the approval of the Engineer.				INCLUDED

ITEM		QTY	UNIT	RATE	TOTAL (JD)
A	PRELIMINARIES [cont'd]SamplesWhen so required by the Engineer, samples of goods or materials are to be provided at the Contractor's expense in accordance with specifications.PermitsThe Contractor shall obtain and pay for all necessary permits, inspections and tests for the proper				INCLUDED
В	installation of his work, as may be required by the various administrative authorities having jurisdiction. Progress Photographs				INCLUDED
С	The Contractor shall provide the Engineer with progress photographs showing work in progress on the site from viewpoints selected by the Engineer in accordance with the specifications.				INCLUDED
D	<b>Shop Drawings and Method Statements</b> The Contractor, prior to commencement of the trade package, shall submit for approval of the Engineer, the Method Statements, shop drawings and all other details as required. Approval by the Engineer of such Method Statements and shop drawings shall not relieve the Contractor of his obligations and shall not give rise to any additional costs and time implications unless such implications are specifically brought to the notice of the Engineer at the time of submission of such drawings, Method Statements and other details.				INCLUDED
E	<b>Scaffolding</b> The Contractor shall provide, erect, maintain, dismantle and clear away at completion proper and adequate scaffolding for his own use and for the use of all the Sub-Contractors nominated and otherwise. Any holes shall be made good to match the adjacent surfaces as the scaffolding is dismantled. The Contractor shall be entirely responsible for all safety precautions in connection with scaffolding and for its entire sufficiency for the work.				INCLUDED

ITEM		QTY	UNIT	RATE	TOTAL (JD)
А	PRELIMINARIES [cont'd] Records During the progress of the Works, the Contractor shall keep at his own cost, records of all details and dimensions of the Works as constructed and shall at any time submit such of the records to the Engineer as he may require.				INCLUDED
В	In addition to those records which are specifically required by the Specification to be kept (e.g. test cubes of concrete, air temperatures, etc.,) a Site record shall be kept of the completion dates of the various works in each trade, with particular reference to work which requires time for drying out, such as solid backgrounds which receive in-situ screeds and finishing's, including the completion times of the individual layers of such application. These records shall be provided at a minimum of one monthly intervals. <b>Periodical Reports</b>				INCLUDED
С	The Contractor shall provide weekly reports as well.				INCLUDED
D	<b>Protection</b> Adequate protection against any form of damage or deterioration shall be provided for all sections of the Works. This shall include protective tapes, casings, guard rails and the like, which shall be provided if necessary.				INCLUDED
E	The Contractor shall take all reasonable and proper steps for the protection of all places on or about the Works which may be dangerous to his workmen or any other persons or to traffic. The Contractor shall provide and maintain signs, red warning lamps, traffic signals and barricades as necessary in such places.				INCLUDED
F	<b><u>Cleaning the works</u></b> On completion of the Contract, the Works shall be completely cleared and swept clean, all debris arising is to be removed from Site to the complete satisfaction of the Engineer.				INCLUDED

ITEM		QTY	UNIT	RATE	TOTAL (JD)
	PRELIMINARIES [cont'd]				
	<u>First Aid</u>				
А	The Contractor shall provide a temporary first aid post properly equipped and manned by a competent person. The facility shall display a large red crescent and prominent lettering "FIRST AID" in English and Arabic, in red on a white background.				INCLUDED
В	Accidents The Contractor shall promptly report to the Engineer any accident whatsoever and he shall make the necessary arrangements to obtain medical help and transport to a hospital. A full statement, giving full details of the accident, including statements of witnesses shall be promptly submitted to the Engineer.				INCLUDED
С	If any claim is made by any one against the Contractor or any Sub-Contractor, the Contractor shall promptly report the facts in writing to the Engineer giving full details of the claim.				INCLUDED
	<u>Labour Procurement</u>				
D	The Contractor shall allow for procuring all labour required to execute the Works and shall pay all charges in connection with the employment and discharge of such labour.				INCLUDED
	Local Authority Workmen				
Е	The Contractor shall allow access to workmen employed by the local or other authorities and providing them with attendance as required.				INCLUDED
	As-Built Drawings				
F	The Contractor shall provide "As Built" drawings in accordance with the Specification.				INCLUDED

ITEM		QTY	UNIT	RATE	TOTAL (JD)
	PRELIMINARIES [cont'd]				
A	<u>Clearing away Rubbish</u> Allow for clearing away rubbish at regular intervals during the progress of the Works and at completion and for leaving the Site and perimeter tidy at completion.				INCLUDED
в	Working with Other Contractors The Contractor is understood to be aware that he will not have the sole use of the Site and is understood to have allowed for working with all the other separately employed Contractors.				INCLUDED
С	<b>Insurances</b> The Contractor shall allow for insurances in accordance with the requirements of the Contract.				INCLUDED
	<u>Supervision of Other Works</u>				
D	The Contractor shall provide staff suitably qualified to supervise each section of the Works or works of other parties to ensure full compliance with the Specification and the Tender/ Contract Documents.				INCLUDED
Е	The Contractor shall submit a Curriculum Vitae for the Engineer's approval for each member of staff to be employed on the Project for supervision of the Works and the works of other parties.				INCLUDED
	Performance Bond				
F	The Contractor shall allow for the provision of the performance bond in accordance with the requirements of the Contract.				INCLUDED

ITEM		QTY	UNIT	RATE	TOTAL (JD)
	PRELIMINARIES [cont'd]				
А	<b>Programme</b> The contractor shall prepare a comprehensive construction programme setting out the schedule for completion of the Works including that of all Sub- Contractors and identifying all critical activities all in accordance with the Contract.				INCLUDED
	Provide detailed short term programme set out in working days for a two week period. Submit two weeks in advance.				
	Record actual progress at weekly intervals against scheduled activities.				
	Submit a delivery programme for all imported material.				
	Submit a complete schedule of Contractor's drawings indicating necessary approval dates.				
	Submit at weekly intervals a schedule of information required.				
	Hold site meetings at weekly intervals. Submit at these meetings a detailed report of progress, information requirements, delivery schedules and drawings approvals or other such items requested by the Engineer.				
	Monitor the progress of design work, working drawings of all Sub-Contractors and suppliers.				
	Make visits as necessary to the work places of the Sub- Contractors and suppliers to inspect quality, progress and delivery in relation to the detailed design programme and report regularly to the Engineer.				

ITEM		QTY	UNIT	RATE	TOTAL (JD)
	PRELIMINARIES [cont'd]				
	Any other Conditions or Items				
A	The Contractor shall separately list and price below any other Conditions or Items considered to have a monetary value.				INCLUDED

BILL NO. 2

### **Site Construction**

ITEM	DESCRIPTION	QTY	UNIT	RATE	TOTAL (JD)
	024119- SELECTIVE STRUCTURE DEMOLITION				
	INTERNAL DEMOLISHING WORKS				
	FLOOR TILES				
	Carefully dismantle and remove floor tiles to reveal existing slab on grade complete, price to include removing raised floors, PVC floors, Carpet, mortar, filling materials, and all electro-mechanical installations under floors, removing debris from site to location approved by the concerned authorities, complete as shown on drawings & Engineer approval.				
А	Floor tiles	155	m²		
	CONCRETE BLOCK WALLS				
	Carefully demolish and remove concrete block walls, price to include repairing and making good sides of walls and ceiling to receive new condition, removing debris from site to location approved by the concerned authorities, complete as shown on drawings & Engineer approval.				
В	Concrete block walls	6	m²		
	Carefully cut and make opening in concrete walls (saw cut) as per drawings and engineer instructions, price to include repairing and making good sides of walls to receive new condition, removing debris from site to location approved by the concerned authorities, complete as shown on drawings & Engineer approval.				
С	Door opening size (145Wx65H)cm	1	no.		
	GYPSUM BOARD PATITION				
D	Carefully demolish and remove internal gypsum board partitions complete, price to include removing debris from site to location approved by the concerned authorities, complete as shown on drawings & Engineer approval. Internal gypsum board partitions	175	m²		
	Carried to Collection (JD)				

ITEM	DESCRIPTION	QTY	UNIT	RATE	TOTAL (JD)
	INTERNAL DEMOLISHING WORKS				
	ALUMINUIM WINDOWS				
	Carefully dismantle and remove aluminum windows complete, price to include removing frame and handling material to the Client for future reuse, complete as shown on drawings & Engineer approval.				
Α	Aluminum windows	LS	LS		
	<u>WOODEN DOORS</u> Carefully dismantle and remove wooden doors complete, price to include removing frame, sub-frame, architrave, lipping, ironmongery, hardware set and handling material to the Client for future reuse complete as shown on drawings & Engineer approval.				
В	Wooden doors	10	no.		
	FALSE CEILING				
	Carefully dismantle and remove false ceiling, price to include removing suspension system, insulation, cleaning and repairing ceiling to receive new materials, handling material to the Client for future reuse and all necessary complete as shown on drawings and as Engineer approval. (Contractor has to handle extruded polystyrene insulation to The Client to be reused within new ceiling build up where indicated and where required)				
С	False ceiling	195	m²		
	<u>ROOF COVERING</u> Carefully dismantle and remove part of the existing roof covering, cut to size and install again as per the drawings price to include removing flashings, gutter, sheets, silicone, handling material to the Client for future reuse and all related materials, complete as shown on drawings & Engineer approval.				
D	Existing roof covering	31	m²		
Е	Carefully remove existing flashings and gutters, price to include handling material to the Client for future reuse and all necessary complete as shown on drawings & Engineer approval. Existing flashings removal	LS	LS		
	Carried to Collection (JD)				

ITEM	DESCRIPTION	QTY	UNIT	RATE	TOTAL (JD)
	EXTERNAL DEMOLISHING WORKS (PERIMETER WALL)				
	PERIMETER WALL DEMOLISHING				
	Carefully dismantle and remove existing metal railing, price to include storing railing to be reused at new structure and all necessary complete as shown on drawings & Engineer approval.				
Α	Metal railing, approx. Length 4.85 m	1	ltem		
	Carefully demolish and remove concrete fillet between outer stone face and concrete pavement tiles, price to include all necessary and removing debris from site to location approved by the concerned authorities. Complete as shown on drawings & Engineer approval.				
В	Concrete fillet between outer stone face and concrete pavement tiles	1	ltem		
	Carefully dismantle and remove existing stone coping price to include all necessary complete as shown on drawings & Engineer approval.				
С	Stone coping	21	lm		
	Carefully dismantle and set aside first row of concrete pavement tiles (adjacent to stone wall) to be installed following works, to allow for proper construction of new wall complete, price to include all necessary complete as shown on drawings & Engineer approval.				
D	First row of concrete pavement tiles (adjacent to stone wall)	5	m²		
	Carried to Collection (JD)				

ITEM	DESCRIPTION	QTY	UNIT	RATE	TOTAL (JD)
	<u>COLLECTION</u>				
	From Page No. 1				
	From Page No. 2				
	From Page No. 3				
	TOTAL BILL NO. 2 - SITE CONSTRUCTION Carried to General Summary (JD)				

BILL NO. 3

### **Concrete Works**

#### **BILL NO. 3 - CONCRETE WORK**

DESCRIPTION	QTY	UNIT	RATE	TOTAL (JD)
033000 - CAST IN PLACE CONCRETE				
REINFORCED CONCRETE				
Reinforced cast-in-place concrete "C25" 25 N/mm2 at 28 days compressive strength with Portland cement, price to include all necessary formwork complete as per specification, drawings and Engineer approval.				
For foundation and wall	10	m³		
REINFORCEMENT				
Deformed high yield reinforcement steel bars (FY 420 N/mm2) grade 60 price to include bending, hooks, tying wire, distance blocks and spacers, any overlapping not shown on drawings and as Engineer approval.				
Various diameters	1	Tons		
TOTAL BILL NO. 3 - CONCRETE WORK				
	033000 - CAST IN PLACE CONCRETE REINFORCED CONCRETE Reinforced cast-in-place concrete "C25" 25 N/mm2 at 28 days compressive strength with Portland cement, price to include all necessary formwork complete as per specification, drawings and Engineer approval. For foundation and wall REINFORCEMENT Deformed high yield reinforcement steel bars (FY 420 N/mm2) grade 60 price to include bending, hooks, tying wire, distance blocks and spacers, any overlapping not shown on drawings and as Engineer approval. Various diameters	033000 - CAST IN PLACE CONCRETE         REINFORCED CONCRETE         Reinforced cast-in-place concrete "C25" 25 N/mm2 at 28 days compressive strength with Portland cement, price to include all necessary formwork complete as per specification, drawings and Engineer approval.         For foundation and wall       10         REINFORCEMENT       Deformed high yield reinforcement steel bars (FY 420 N/mm2) grade 60 price to include bending, hooks, tying wire, distance blocks and spacers, any overlapping not shown on drawings and as Engineer approval.         Various diameters       1	033000 - CAST IN PLACE CONCRETE         REINFORCED CONCRETE         Reinforced cast-in-place concrete "C25" 25 N/mm2 at 28 days compressive strength with Portland cement, price to include all necessary formwork complete as per specification, drawings and Engineer approval.         For foundation and wall       10         REINFORCEMENT.         Deformed high yield reinforcement steel bars (FY 420 N/mm2) grade 60 price to include bending, hooks, tying wire, distance blocks and spacers, any overlapping not shown on drawings and as Engineer approval.         Various diameters       1         Tons         Tons	033000 - CAST IN PLACE CONCRETE         REINFORCED CONCRETE         Reinforced cast-in-place concrete "C25" 25 N/mm2 at 28 days compressive strength with Portland cement, price to include all necessary formwork complete as per specification, drawings and Engineer approval.         For foundation and wall       10       m <sup>3</sup> REINFORCEMENT.       Deformed high yield reinforcement steel bars (FY 420 N/mm2) grade 60 price to include bending, hooks, tying wire, distance blocks and spacers, any overlapping not shown on drawings and as Engineer approval.       1       Tons         Various diameters       1       Tons

BILL NO. 4

Masonry

#### BILL NO. 4 - MASONRY

ITEM	DESCRIPTION	QTY	UNIT	RATE	TOTAL (JD)
	042000 - UNIT MASONRY				
	<u>BLOCKWORK</u>				
	Hollow concrete block walls in cement and sand mortar, price to include all cutting, bonding, control and expansion joints, bond beams, concrete jambs, concrete lintels and steel reinforcement, complete as shown on drawings, as per specifications and as Engineer approval.				
Α	Block walls 100mm thick	18	m²		
	044200 - EXTERIOR STONE CLADDING				
	STONE WORKS (PERIMETER WALL)				
	Supply and install 4cm thick Ajlouni Stone wall courses, (rear surface to be scored to provide key), first grade, <u>to</u> <u>match existing Mufajjar stone courses</u> , Stone courses to be toothed in to existing wall, price to include removing stone courses to sides of columns at new wall (saw cut) for proper bonding with new RC structure element, reinforced concrete backing, mortar, cutting, pointing, all necessary fixings, fittings and accessories complete as shown on drawing and Engineer's approval.				
В	4cm thick Ajlouni Stone wall	11	m²		
С	First quality honed coping to match existing, 3cm thick, Price to include fixing, fittings and all necessary complete as shown on drawings as per specifications and Engineer approval. Honed coping, 3cm thick	25	Im		
	Supply and install concrete fillet below tile level, price to include fixing, fittings and all necessary complete as shown on drawings and Engineer approval.				
D	Concrete fillet below tile level for wall and columns	21	lm		
	Sand blast to clean existing rear stone face, price to include all necessary complete as shown on drawings and Engineer approval.				
Е	Sand blast to clean existing rear stone face	11	m²		
	TOTAL BILL NO. 4 - MASONRY Carried to General Summary (JD)				

BILL No. 5

# **Specialist Metal Works**

### **BILL NO. 5 - SPECIALIST METAL WORKS**

ITEM	DESCRIPTION	QTY	UNIT	RATE	TOTAL (JD)
	055000 - METAL FABRICATIONS				
	EXISTING STEEL STRUCTURE PAINT AND MAINTENANCE				
	Supply, apply first quality fire rated paint for existing steel roof, price to include steel structure maintenance, sand blast to remove existing paint, fire rated paint, preparation works, under coats, complete as shown on drawings and Engineer approval.				
А	Fire rated paint for existing steel structure	LS	LS		
	Supply and install first quality new flashings and gutters for existing steel roof as per manufacturers recommendations, price to include all necessary complete as shown on drawings & Engineer approval.				
В	New flashings and gutters	LS	LS		
	STEEL GATE				
	Supply and install first quality painted steel gate, price to include frames, ironmongery set, hanging, fixing in position, paint and decorations complete as shown on drawings and Engineer approval				
С	Painted steel gate (240Wx160H)	1	no.		
	TOTAL BILL NO. 5 - SPECIALIST METAL WORKS Carried to General Summary (JD)				

BILL No. 6

# Specialist Wood Works

#### **BILL NO. 6 - SPECIALIST WOOD WORKS**

ITEM	DESCRIPTION	QTY	UNIT	RATE	TOTAL (JD)
	06200 - Finish Carpentry				
	ACCOYA WOODEN BENCH				
	Supply and install first quality Accoya wooden bench at Sand pit area, price to include 3x4.5cm Accoya capping, 1x2cm groove to terminate wrapping, 4.5cm Accoya frame fixed to bench from the side (4.65m long), and all necessary fixing in position, paint (moisture, mold, weather resistance) and accessories complete as shown on drawings (042/TD/422) and Engineer approval.				
Α	Accoya wooden bench size (170Lx55/41Wx39H)cm	1	no.		
В	Accoya wooden bench size (170Lx45Wx39H)cm	1	no.		
	<u>CUPBOARDS</u>				
	Supply and install first quality wooden cupboards, 18mm thick WBP birch faced plywood, price to includes shelves, drawers, leaves, fixing, fittings, paint, accessories and all necessary complete as shown on drawings, as per specifications and Engineer approval. (Workshop drawings required for approval)				
С	Napping beds storage with front doors size (271x70x66)cm, at room 01	1	no.		
D	Kitchenette (open shelves) size (120x180x30)cm, at room 02	1	no.		
Е	Fridge and freezer cabinet with front doors size (271x60x60)cm, at room 02	1	no.		
F	Desk top size (72x197x70)cm, at room 02	1	no.		
G	Desk area, open shelves and 1door size (122x197x35)cm, at room 02	1	no.		
н	Teachers and kids cupboards, open shelves size (230.5x306.5x40)cm, at room 04	1	no.		
Ι	Teachers and kids cupboards, open shelves size (230.5x311.5x38.2)cm, at room 05	1	no.		
J	Teachers and kids cupboards, open shelves size (238x195x28.5)cm, at room 05	1	no.		
К	Teachers and kids cupboards, open shelves size (230.5x184.4x43.2)cm, at room 06	1	no.		
L	Teachers and kids cupboards, open shelves size (230.5x284.5x27.9)cm, at room 06	1	no.		
М	Teachers and kids cupboards, open shelves size (230.5x354.2x43.4)cm, at room 07	1	no.		
	TOTAL BILL NO. 6 - SPECIALIST WOOD WORKS Carried to General Summary (JD)				

BILL NO. 7

**Thermal and Moisture Protection** 

### BILL NO. 7 - THERMAL AND MOISTURE PROTECTION

ITEM	DESCRIPTION	QTY	UNIT	RATE	TOTAL (JD)
	PLANTER WATERPROOFING Layer or composite layers for planter to provide insulation laid to cross falls, price to include groove, angle beads, mastic, overlaps, 100x100mm thick triangular mortar cant for up stand, galvanized metal flashing, aluminum corner drain, and all necessary fixing, fittings complete. thicknesses to comply with drawings, as per specifications and Engineer's approval.				
А	One layer of torch applied waterproofing membrane	13	m²		
В	Screed to falls 1%	4	m²		
С	(10-20)mm dia. Gravel , 10cm thick	4	m²		
D	Geotextile fabric wrapping	21	m²		
Е	Sand for sand pit	1	m³		
F	Soil mix	3	m³		
G	Supply and install extruded polystyrene thermal insulation for external wall, price to include all necessary fixings, fittings and accessories, complete as shown on drawings and Engineer approval. Thermal insulation for external wall	15	m²		
	<u>TOTALBILL NO. 7 - THERMAL AND MOISTURE PROTECTION</u> Carried to General Summary (JD)				

BILL NO. 8

### **Doors and Windows**

#### BILL NO. 8 - DOORS AND WINDOWS

ITEM	DESCRIPTION	QTY	UNIT	RATE	TOTAL (JD)
	08140 - WOOD DOORS				
	PINE WOODEN DOORS				
	Supply and install first quality Pine wood door, price to include sub frames, architraves, lipping, ironmongery set hanging, fixing in position, glass, water based, fire resistant finish, pine to be knot free and decorations complete as shown on drawings and Engineer approval				
A	Single Leaf door type (D-1) size (95x235.8)cm	1	no.		
В	Single Leaf door with fixed glass panel type (D-2) size (150x233)cm	1	no.		
С	Single Leaf door with fixed glass panel type (D-3) size (131x233)cm	2	no.		
D	Single Leaf door with fixed glass panel type (D-4) size (145x240)cm	1	no.		
Е	Single Leaf door with fixed glass panel type (D-5) size (145x240)cm	1	no.		
F	Double Leaf door type (D-7) size (240x235.8)cm	1	no.		
G	ACCOYA WOODEN DOORS Supply and install first quality Accoya wood door, price to include sub frames, architraves, lipping, ironmongery set hanging, fixing in position, glass, and decorations complete as shown on drawings and Single Leaf door with fixed glass panel type (D-6) size (145x240)cm	1	no.		
	085113 - ALUMINUM WINDOWS				
	ALUMINUM WINDOWS Supply and install first quality aluminum windows, Ata rabah elaf 16 or equivalent, finish to be raw aluminum or natural anodized aluminum, weather stripping, price to include ironmongery, frame, fly screen, rubber seal, rod foam, clear glazing panel, rubber pad, sealant silicon, fixed in position with sub frames, air tightness and thermic insulation all as shown on drawings, as specified and Engineer approval.				
Н	Sliding aluminum window type (W-1) size (150x175) cm	1	no.		
I	Sliding aluminum window type (W-2) size (220x230) cm	3	no.		
J	Sliding aluminum window type (W-3) size (280x230) cm	1	no.		
	Carried to Collection (JD)				

#### BILL NO. 8 - DOORS AND WINDOWS

ITEM	DESCRIPTION	QTY	UNIT	RATE	TOTAL (JD)
A	SHOWER SCREEN Supply and install first quality Corian privacy shower screen, fixed to wall with stainless steel channel fabrication, price to include fixing in position, fittings, accessories and all necessary complete as shown on drawings and Engineer approval. Shower screen size (90x110) cm Shower screen size (75x110) cm	2	no.		
Б	088300 - MIRRORS <u>MIRRORS</u>	•	10.		
	Mirrors, price to include fixing in position, fittings, accessories and all necessary complete as shown on drawings and Engineer approval.				
С	Mirror size (97x55.5)cm	1	no.		
D	Mirror size (120x110)cm	1	no.		
	PROVISIONAL SUM				
Ε	Corner protection (detail to be agreed with Engineer)	1	PS.		400.00

#### BILL NO. 8 - DOORS AND WINDOWS

ITEM	DESCRIPTION	QTY	UNIT	RATE	TOTAL (JD)
	COLLECTION				
	<u>COLLECTION</u>				
	From Page No. 1				
	From Page No. 2				
	TOTAL BILL NO. 8 - DOORS AND WINDOWS Carried to General Summary (JD)				

BILL NO. 9

### Finishes

ITEM	DESCRIPTION	QTY	UNIT	RATE	TOTAL (JD)
	INTERNAL FLOOR FINISHING				
	093000 - TILING				
	<u>09410 - TERAZZO TILES</u>				
Α	Supply and install first quality terrazzo floor tiles. Price to include mortar, cement and sand bed, sand fill, trims, accessories, movement joints, grouting, making good all exposed terrazzo tiles and grouting prior to polishing to receive PVC tiles, polishing and all necessary complete as shown on drawings and Engineer approval. Terrazzo floor tiles	158	m²		
	09650- PVC FLOOR TILES				
	Supply and install first quality PVC floor tiles, price to include adhesive, cutting, fillings, trims, accessories and cleaning complete as shown on drawings and Engineer approval. (PVC floors to be protected with Cartonal boards prior to wood works)				
В	PVC floor tiles	195	m²		
	09650- EXTERNAL RUBBER FLOORING				
	Supply and install first quality external rubber flooring, price to include adhesive, cutting, fillings, trims, accessories and cleaning complete as shown on drawings and Engineer approval.				
C	External rubber flooring	53	m²		
	<u>09640- WOOD SKIRTING</u> Supply and install first quality painted Accoya wood skirting, 10cm high, price to include adhesive, cutting, accessories, complete as shown on drawings and Engineer approval.				
D	Skirting	13	Im		
	Carried to Collection (JD)				

ITEM	DESCRIPTION	QTY	UNIT	RATE	TOTAL (JD)
	WALLS FINISHING				
	<u>09220 - PORTLAND CEMENT PLASTER</u>				
	25 mm thick, three coats of ordinary Portland cement and sand (1:4) plastering. Price to include angle beads, casing stop, grooves and metal lath, and all necessary complete as shown on drawings and Engineer approval.				
Α	To concrete or block walls	73	m²		
	<u>09310 - PORCELAIN WALL TILES</u>				
	Supply and install first quality porcelain wall tiles, color as per Engineer approval, price to include cutting, trims, accessories, movement joints, grouting, and cleaning complete as shown on drawings, and Engineer approval.				
В	For toilets' walls size (10x10)cm	30	m²		
	CEMENT BOARD PARTITION				
	Supply and install first quality cement board partition, 12mm thick, price to include fixings, fittings, accessories and all necessary complete as shown on drawings and Engineer approval.				
С	Cement board partition	51	m²		
	Carried to Collection (JD)				

ITEM	DESCRIPTION	QTY	UNIT	RATE	TOTAL (JD)
	WALLS FINISHING CONT'D				
	09640 - BIRCH FACED PLYWOOD PARTITIONS / PANELLING				
	Supply and install first quality birch faced plywood on split batons, price to include cutting, fittings, fixings, cnc cutting and accessories. plywood to receive water based and fire resistant finish and all necessary complete as shown on drawings.				
Α	Birch faced plywood on split batons	148	m²		
	Supply and install first quality timber partition, price to include softwood stud, rockwool thermal insulations and two layers of WBP plywood, price to include all fittings, fixing and all necessary complete as per drawings and Engineer approval.				
В	Timber partition	108	m²		
	<u>097213- CORK BOARD</u> Supply and install first quality Cork board. Price to include fittings, fixing and all necessary complete as shown on drawings.				
С	Cork board	17	m²		
	<u>FREE KNOT PINE FENCE</u> Supply and install first quality knot free pine fence, timber to receive water based and fire resistant finish , Price to include paint, fittings, fixing, accessories, stainless steel plates, stainless steel posts, bolts and all necessary complete as shown on drawing (042/TD/510) and Engineer approval.				
D	Free knot Pine Fence size (527x80)cm	1	Item		
	Carried to Collection (JD)				

ITEM	DESCRIPTION	QTY	UNIT	RATE	TOTAL (JD)
	WALLS FINISHING CONT'D				
	<u>09900 - WALLS PAINTING</u>				
	Supply and apply first quality paint for walls, price to include preparation works, undercoats complete as shown on drawings as per specifications and Engineer approval.				
Α	Paint for plastered walls, color as per Engineer approval	33	m²		
	COLORED RENDER				
	Supply and apply first quality colored render for walls, Creative Concrete render spec (colour to be approved), color and finish as per Engineer approval. Price to include preparation works, undercoats complete as shown on drawings as per specifications and Engineer approval.				
В	Colored render for walls	57	M²		
	Supply and apply first quality special render system for cement board by creative concrete or equivalent, color and finish as per Engineer approval. Price to include preparation works, undercoats complete as shown on drawings as per specifications and Engineer approval.				
С	Special render system for cement board	51	m²		
	Carried to Collection (JD)				

ITEM	DESCRIPTION	QTY	UNIT	RATE	TOTAL (JD)
A	INTERNAL CEILING FINISHING <u>09260 - GYPSUM BOARD FALSE CEILING</u> Waterproofing gypsum board suspended ceiling, Knauf or equivalent, price to include suspension system, shadow gap, access panels, bulkheads, hidden indicated lighting curved, fixings, fittings, accessories, skin coat complete as shown on drawings and Engineer approval. Waterproofing gypsum board for ceilings, 12mm thick	156	m²		
А	PERFORATED CEILING PLASTER BOARD Perforated ceiling plaster board, 12.5mm thick, Knauf or equivalent, price to include suspension system,	130			
в	fixings, fittings, accessories, skin coat and all necessary complete as shown on drawings, as per specifications and Engineer approval. Perforated ceiling plaster board	20	m²		
	<u>09900 - EMULSION PAINT</u> First quality paint for gypsum boards price to include preparation works, under coats, complete as shown on drawings and Engineer approval.				
С	For waterproofing gypsum board	156	m²		
	Carried to Collection (JD)				

ITEM	DESCRIPTION	QTY	UNIT	RATE	TOTAL (JD)
	COLLECTION				
	<u>COLLECTION</u>				
	From Page No. 1				
	From Page No. 2				
	From Page No. 3				
	From Page No. 4				
	From Page No. 5				
	TOTAL BILL NO. 9 - FINISHES Carried to General Summary (JD)				

Furniture

### BILL NO. 12 - FURNITURE

12400- FURNITURE         Supply, install and place in position furniture and required fabrics complete, price to include all necessary fixings, fittings and accessories complete. Type, size, shape, dimensions and decoration as shown on drawing (042/TD/804,805), as per priced schedule and Engineer's approval.         A       Supply, install and place in position furniture and required fabrics as per attached priced schedule       1.5       LS         KITCHEN FURNITURE       Supply, install and place in position kitchen furniture, price to include all necessary fixing, fittings and accessories complete as shown on drawing (042/TD/806), as per priced schedule and Engineer's approval.       I.5       LS         B       Supply, install and place in position kitchen furniture as per attached priced schedule       I.5       LS	ITEM	DESCRIPTION	QTY	UNIT	RATE	TOTAL (JD)
required fabrics complete, price to include all necessary fixings, fittings and accessories complete. Type, size, shape, dimensions and decoration as shown on drawing (042/TD/804,805), as per priced schedule and Engineer's approval.LSASupply, install and place in position furniture and required fabrics as per attached priced scheduleLSLSKITCHEN FURNITURE Supply, install and place in position kitchen furniture, price to include all necessary fixing, fittings and accessories complete as shown on drawing (042/TD/806), as per priced schedule and Engineer's approval.LS		12400- FURNITURE				
A       as per attached priced schedule       LS       LS         KITCHEN FURNITURE       KITCHEN FURNITURE       Image: Complete as shown on drawing (042/TD/806), as per priced schedule and Engineer's approval.       Image: Complete as shown on drawing logo complete as per logo complete as per logo complete as per logo complete as shown on drawing (042/TD/806), as per priced schedule and Engineer's approval.         B       Supply, install and place in position kitchen furniture as per logo complete as per l		required fabrics complete, price to include all necessary fixings, fittings and accessories complete. Type, size, shape, dimensions and decoration as shown on drawing (042/TD/804,805), as per				
Supply, install and place in position kitchen furniture, price to include all necessary fixing, fittings and accessories complete as shown on drawing (042/TD/806), as per priced schedule and Engineer's approval.	Α		LS	LS		
furniture, price to include all necessary fixing,         fittings and accessories complete as shown on         drawing (042/TD/806), as per priced schedule and         Engineer's approval.         Supply, install and place in position kitchen furniture as per		KITCHEN FURNITURE				
		furniture, price to include all necessary fixing, fittings and accessories complete as shown on drawing (042/TD/806), as per priced schedule and				
	В		LS	LS		
Carried to Summary (JD)						

Dayworks

ITEM		QTY	UNIT	RATE	TOTAL (JD)
	RATE ONLY				
	<u>General Notes</u>				
А	Day works will be administered strictly in accordance with the Conditions of Contract.				
В	The Contractor will be paid for Day works carried out during the course of the Works, while other operations are in progress, at the rates set out in this Schedule. Allowance for Overheads and Profit are not to be included in the Day work rates but allowed for and included in the Percentage Addition inserted against the item provided at the end of the respective Labor, Materials and Plant sections of this Day works Schedule.				
С	The basic Day work rates to be inserted in the Schedule shall correspond to the base cost rates which the Contractor has used in determining the unit rates and prices inserted against the measured work sections of the Bills of Quantities.				
D	Only productive time engaged in performing actual day work will be allowed. In the event of Labor and/or Contractor's Plant or Equipment having to be brought to the Site specifically for an item of day work, then a reasonable allowance for travelling time shall be considered, providing that any such requirement must be discussed and agreed with the Engineer in advance of the commencement of such item of day work.				

ITEM		QTY	UNIT	RATE	TOTAL (JD)
	Rates for Labor				
Α	Labor (unskilled)	1	Hrs.		
В	Labor (skilled)	1	Hrs.		
С	Carpenter (skilled)	1	Hrs.		
D	Steelworker (skilled)	1	Hrs.		
Е	Steelworker	1	Hrs.		
F	Mason (Brick/block layer)	1	Hrs.		
G	Mason (Stone)	1	Hrs.		
н	Electrician	1	Hrs.		
Ι	Plummer	1	Hrs.		

ITEM		QTY	UNIT	RATE	TOTAL (JD)
	RATES FOR MATERIALS				
А	OP Cement ( or equivalent)	1	Т		
В	Coarse Aggregate (dry)	1	m <sup>3</sup>		
С	Fine Aggregate (dry)	1	m <sup>3</sup>		
D	Reinforcement bars (high yield, deformed)	1	Т		
Ε	Shuttering	1	m <sup>2</sup>		
F	70mm thick block concrete	1	$m^2$		
G	100mm thick block concrete	1	$m^2$		
Н	150mm thick block concrete	1	$m^2$		
Ι	200mm thick block concrete	1	$m^2$		
J	Stone	1	$m^2$		

ITEM		QTY	UNIT	RATE	TOTAL (JD)
	RATES FOR CONTRACTOR'S EQUIPMENT				
А	Concrete Mixer	1	Hrs.		
B	Dump Truck ( minimum 10 tons)	1	Hrs.		
C B	Compressor (one tool)	1	Hrs.		
			Hrs.		
D	Pneumatic tool, hoses and fittings	1			
E	Electric small hand tool	1	Hrs.		
F	Electric hand held circular saw	1	Hrs.		
G	Electric hand held breaker	1	Hrs.		
Н	Tower crane	1	Hrs.		
Ι	Small Loader	1	Hrs.		
J	Large Loader	1	Hrs.		
К	Lorry	1	Hrs.		
L	Core Drill Bits 4"	1	Hrs.		
Μ	Core Drill Bits 6"	1	Hrs.		
Ν	Core Drill Bits 8"	1	Hrs.		
	OVERHEAD %				
	PROFIT %				

Summary

#### SUMMARY

ITEM	DESCRIPTION	TOTAL (JD)
BILL NO. 2	SITE CONSTRUCTION	
BILL NO. 3	CONCRETE WORK	
BILL NO. 4	MASONRY	
BILL NO. 5	SPECIALIST METAL WORKS	
BILL NO. 6	SPECIALIST WOOD WORKS	
BILL NO. 7	THERMAL AND MOISTURE PROTECTION	
BILL NO. 8	DOORS AND WINDOWS	
BILL NO. 9	FINISHES	
BILL NO. 12	FURNITURE	
	TOTAL - CARRIED TO FORM OF TENDER (JD)	