

THE HASHEMITE KINGDOM OF JORDAN

PETRA DEVELOPMENT AND  
TOURISM REGION AUTHORITY

**TENDER DOCUMENT**

FOR

THE CONSTRUCTION OF THE PETRA MUSEUM  
(EXHIBITION WORK)

VOLUME 4

**Bill of Quantities**

February 2017

## **PRICING AND MEASUREMENTS PREAMBLES**

**DIVISION GP  
GENERAL PRINCIPLES**

## **DIVISION GP - GENERAL PRINCIPLES**

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- The Bills of Quantities shall be read in conjunction with the Instructions to Bidders, General and Special Conditions of Contract, Technical Specifications, Appendices and Drawings. The documents are to be taken as mutually explanatory and inter-related to one another.
- Unless otherwise mentioned, all quantities of works shall be measured "Net" in accordance to the drawings or/as ordered by the engineer, and each measurement shall be taken to nearest 10 millimeters; this principle shall not apply to dimension stated in descriptions, and generally, according to method of payment mentioned in the tender documents.
- Works shall be measured net as fixed in position
- Unless otherwise stated, no deduction shall be made from items required to be measured by area of less than 0.25 m<sup>2</sup> unless otherwise specified.
- 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.
- In the case of discrepancy in quantities of works performed by the contractor and those shown on the drawings, and should such discrepancy be acceptable to the employer, then the quantities agreed by the Engineer shall be taken into account in the measurement of quantities.
- All quantities shown in the Bill of Quantities are approximate, and the purpose of such quantities is to obtain a close estimate of the value of the works. However, the contractor shall be paid for the actual amount of work the contractor carries out in accordance with the contract (Re-measured Contract), as determined by direct measurement during the progress of the works whether the actual quantities are more or less than those shown in the Bills of Quantities. Those quantities are not intended to be used by the contractor for the ordering of materials.
- The Unit Price and the rates inserted in the Bills of Quantities respectively shall be comprehensive and shall include for complying in all respects with the requirements of the Technical Specifications, drawings and all other related tender documents. This shall cover all the obligations under the contract and all matters deemed necessary for the proper construction, completion of and remedy of defects in the works. No claims for additional payment will be allowed for any error, or misunderstanding of the work involved by the contractor.
- In the Bills of Quantities, a unit price or rate shall be inserted against its respective item with quantities only. The value of any item left unpriced shall be deemed to be covered by other rates and prices entered in the Bills of Quantities.

## **DIVISION GP - GENERAL PRINCIPLES (CONT'D)**

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- 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..
- 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, but not called for in the Contract or not requested in writing by the Engineer, shall not be included in the measurement.
- The unit rate of the materials and equipment shall be based on the Specification, all components as required and specified under each item concerned in the Specifications, Technical Data and Notes on Contract Drawings, and all other Contract documents.
- The Bills of quantities are classified under headings and sections with the same reference numbers and titles as the specifications.
- Each section referred to in the Bills of quantities shall be read in conjunction with the respective section and with all other related sections of specifications.
- The Bills of Quantities, Specifications, Schedule of Equipment and Drawings and all other Contract documents are complementary to each other.
- It is the responsibility of Contractor to check the locations and quantities of the materials and equipment to be executed in accordance with the contract drawings.

- **Items to be Fully Inclusive**

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) Labour and all associated costs
- b) Materials, goods and all associated costs
- c) Provision of plant
- d) Temporary works
- e) Establishment charges, overheads and profit
- f) Shop drawing and As-built drawings

**DIVISION 1**  
**GENERAL REQUIREMENTS**

## **DIVISION 1 - GENERAL REQUIREMENTS**

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### **1. Conditions of Contract**

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

### **2. Specification**

- 2.1 The Tenderer is deemed to have covered in his unit rates all the requirements of the Technical Specifications.

### **3. Contractor's Administrative Arrangements**

- 3.1 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

### **4. Constructional Plant**

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

## **DIVISION 1 - GENERAL REQUIREMENTS (CONT'D)**

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### **5. Contractor's Facilities**

5.1 The Contractor shall allow in his unit rates for facilities required by the contractor, which shall include the following items in addition to or as detailed in the Conditions of Contract Part II and in the Contract Amendments.

- a) Accommodation and buildings, including offices laboratories, and stores.
- 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
- f) Temporary telephones mobiles and faximile
- g) Construction Photographs

### **6. Temporary Works**

6.1 The Contractor shall allow in his unit rates for temporary works which shall include:

- a) Traffic diversion
- b) Access roads
- c) Pumping
- d) De-watering
- e) All temporary partitions painted and sealed to facilitate the different phases of construction

### **7 Sundry Items**

7.1 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 by a specialized cleaning firm.
- 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





**PETRA DEVELOPMENT AND TOURISM REGION AUTHORITY**

**DIVISION 1 - GENERAL REQUIREMENTS**

Item	Description	Quantity	Unit	Rate	Amount
				USD	USD
	<p><b><u>GENERAL REQUIREMENTS FOR THE WHOLE OF THE WORKS</u></b></p> <p><b><u>Generally</u></b></p> <p>All necessary items, such as fixture within walls, shall be included in the unite price.</p> <p>Where any item, clause or sub-clause of the General Requirements 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</p> <p>The rates and prices in these Bills of Quantities are fixed for the duration of the Contract and shall not be subject to any adjustment in respect of rise or fall in the cost of labor, materials, plant, contractor's equipment, transport or any other matters affecting the cost of execution of the Contract</p> <p>References hereunder to the Schedule of Project Requirements are intended solely to direct the Contractor to specific requirements of the Schedule of Project Requirements and do not in any way limit the foregoing items to the Schedule of Project Requirements. The Contractor is deemed to have included for complying in all respects with the applicable terms, conditions and provisions of the Specification and other documents forming the Contract in his prices for General Requirements</p> <p><b><u>Conditions of Contract</u></b></p> <p><b>The Contractor shall price hereunder any obligations contained in the Conditions of Contract which are not allowed for elsewhere and which the Contract or wishes to price separately</b></p>				
A			Item		
B			Item		
C			Item		
<b>Carried to Collection</b>				<b>USD</b>	

**PETRA DEVELOPMENT AND TOURISM REGION AUTHORITY**

**DIVISION 1 - GENERAL REQUIREMENTS**

Item	Description	Quantity	Unit	Rate	Amount
				USD	USD
	<b><u>Conditions of Contract (Cont'd)</u></b>				
	<b><u>Restrictions</u></b>				
A	Access to and Possession or use of the Site		Item		
B	Limitations of working space		Item		
C	Limitations of working hours		Item		
D	Maintenance of existing services on, under or over the Site		Item		
E	Execution or completion of the Works in any specific order, sections or phases		Item		
	<b><u>Contractors administrative arrangements</u></b>				
F	Site administration		Item		
G	Supervision		Item		
H	Security		Item		
J	Safety health and welfare of workpeople		Item		
K	Transport of workpeople		Item		
	<b>Carried to Collection</b>			<b>USD</b>	

**PETRA DEVELOPMENT AND TOURISM REGION AUTHORITY**

**DIVISION 1 - GENERAL REQUIREMENTS**

Item	Description	Quantity	Unit	Rate	Amount
				USD	USD
	<b><u>Constructional Plant</u></b>				
A	Small plant and tools		Item		
B	Scaffolding		Item		
C	Transport		Item		
D	Other plant not listed above but necessary for the Completion of the Works		Item		
	<b><u>Contractors facilities</u></b>				
E	Offices, stores, messing facilities and living accommodation		Item		
F	Water for the Works		Item		
G	Lighting and power for the Works		Item		
H	Temporary telephones, internet facilities		Item		
	<b><u>Sundry items</u></b>				
J	Testing of materials (Refer to the Specification for extent of testing)		Item		
K	Testing of the Works (Refer to the Specification for extent of testing)		Item		
L	Removing rubbish, protective casings and coverings and cleaning the works at completion		Item		
M	Drying the works		Item		
N	Control of noise and pollution		Item		
P	Statutory obligations		Item		
	<b>Carried to Collection</b>			<b>USD</b>	

**PETRA DEVELOPMENT AND TOURISM REGION AUTHORITY**

**DIVISION 1 - GENERAL REQUIREMENTS**

Item	Description	Quantity	Unit	Rate	Amount
				USD	USD
	<b><u>Collection</u></b>				
	From Page 1/1				
	From Page 1/2				
	From Page 1/3				
<b>DIVISION 1 - GENERAL REQUIREMENTS TOTAL</b>				<b>USD</b>	
<b>CARRIED TO SUMMARY</b>					

**PETRA DEVELOPMENT AND TOURISM REGIONAL AUTHORITY**

**DIVISION 2 - WALL FINISHING**

Item	Description	Quantity	Unit	Rate	Amount
				USD	USD
	<b><u>2 Wall Finishing</u></b>				
	<b>The finishing materials shown in DWG: FINISHING MATERIAL are referential only.</b>				
	<b>Gallery 2</b>				
A	Stone finishing with steel frame / Finishing material: Type A Refer to DWG: E02, E03, D01 and FINISHING MATERIAL	253	M2		
B	Black granite stone finishing with steel frame Refer to DWG: E02 and D01	42	M2		
C	Picture rail Refer to DWG: E03 and D01	15	M		
	<b>Gallery 3</b>				
D	Stone finishing with steel frame / Finishing material: Type B Refer to DWG: E04, E05, D02 and FINISHING MATERIAL	262	M2		
E	Picture rail Refer to DWG: E04, E05 and D02	46	M		
F	Stone finishing with steel frame / Finishing material: Same as floor material Refer to DWG: D02	14	M2		
	<b>Gallery 4</b>				
G	Oil stain finished wooden wall Refer to DWG: E06 and D03	42	M2		
H	Stone finishing with steel frame / Finishing material: Type C Refer to DWG: E06, D03 and FINISHING MATERIAL	100	M2		
J	Wall system rail Refer to DWG: E06	26	M		
	<b>Gallery 5</b>				
K	Stone finishing with steel frame / Finishing material: Type C Refer to DWG: E07, E08, D04 and FINISHING MATERIAL	142	M2		
	<b>Carried to Collection</b>			<b>USD</b>	

**PETRA DEVELOPMENT AND TOURISM REGIONAL AUTHORITY**

**DIVISION 2 - WALL FINISHING**

Item	Description	Quantity	Unit	Rate	Amount
				USD	USD
	<b><u>2 Wall Finishing (Cont'd)</u></b>				
	<b>The finishing materials shown in DWG: FINISHING MATERIAL are referential only.</b>				
	<b>Gallery 6</b>				
A	Stone finishing with steel frame / Finishing material: Type C Refer to DWG: E09, D05 and FINISHING MATERIAL	141	M2		
	<b>Gallery 7</b>				
B	Stone-like spray paint finishing plywood with steel frame Finishing Material: Type D Refer to DWG: E10, E11, D06 and FINISHING MATERIAL	97	M2		
C	Spandrel Wall Stone-like spray paint finishing plywood with steel frame Finishing Material: Type D Refer to DWG: E10, E11, D06 and FINISHING MATERIAL	78	M2		
	<b>Gallery 8</b>				
D	Oil stain finished wooden wall with steel frame Refer to DWG: E12, E13 and D07	122	M2		
E	Spandrel Wall Plastic tile finishing with steel frame / Finishing material: Type E Refer to DWG: E12, E13, D07 and FINISHING MATERIAL	33	M2		
F	System rail for receiving shelf Refer to DWG: E12, E13 and D07	118	M		
	<b>Carried to Collection</b>			<b>USD</b>	

**PETRA DEVELOPMENT AND TOURISM REGIONAL AUTHORITY**

**DIVISION 2 - WALL FINISHING**

Item	Description	Quantity	Unit	Rate	Amount
				USD	USD
	<p style="text-align: center;"><b><u>COLLECTION</u></b></p> <p>From Page 2/1</p> <p>From Page 2/2</p>				
<b>DIVISION 2 - WALL FINISHING CARRIED TO SUMMARY</b>				<b>USD</b>	



**PETRA DEVELOPMENT AND TOURISM REGIONAL AUTHORITY**

**DIVISION 3 - MISCELLANEOUS PRODUCTION**

Item	Description	Quantity	Unit	Rate	Amount
				USD	USD
	<b><u>3 Miscellaneous Production</u></b>				
	<b>The finishing materials shown in DWG: FINISHING MATERIAL are referential only.</b>				
	<b>Gallery 1</b>				
A	Monitor box Refer to DWG: E01 and D10	1	SET		
	<b>Gallery 3</b>				
B	Floor Screen Silver screen spray paint finishing Refer to DWG: D02	20	M2		
C	Showcase Stage Stone finishing with steel frame / Finishing material: Type B Refer to DWG: E04, E05, D02 and FINISHING MATERIAL	2	SET		
D	Steel handrail with steel supporter Refer to DWG: D02	16	M		
E	Mounting Refer to DWG: D12	20	UNIT		
	<b>Gallery 4</b>				
F	Wooden bar Refer to DWG: E06 and D03	7	M		
G	Glass barrier Refer to DWG: E06 and D13	6	M		
H	Projector Screen (3000W x 2000H) Refer to DWG: E06	1	SET		
	<b>Gallery 5</b>				
J	Mosaic Floor Tiles Glass floor with steel frame Refer to DWG: E07 and D08	1	SET		
K	Showcase Stage Stone finishing with steel frame / Finishing material: Type C Refer to DWG: E07, D04 and FINISHING MATERIAL	1	SET		
	<b>Carried to Collection</b>			<b>USD</b>	

**PETRA DEVELOPMENT AND TOURISM REGIONAL AUTHORITY**

**DIVISION 3 - MISCELLANEOUS PRODUCTION**

Item	Description	Quantity	Unit	Rate	Amount
				USD	USD
	<b><u>3 Miscellaneous Production (Cont'd)</u></b>				
	<b>The finishing materials shown in DWG: FINISHING MATERIAL are referential only.</b>				
	<b>Gallery 6</b>				
A	Showcase Stage Stone finishing with steel frame / Finishing material: Type C Refer to DWG:E09, D05 and FINISHING MATERIAL	2	SET		
B	Glass screen Refer to DWG: E09 and D05	6	M2		
C	Projector Screen (3500W x 2500H) Refer to DWG: E09	1	SET		
	<b>Gallery 7</b>				
D	Gate Stone-like spray paint finishing plywood with steel frame Finishing material: Type D Refer to DWG: E10, E11 and FINISHING MATERIAL	1	UNIT		
	<b>Gallery 8</b>				
E	Water tunnel Refer to DWG: E11, E12 and D09	1	SET		
F	Projector Screen (3000W x 2500H) Refer to DWG: E13	1	SET		
	<b>Gallery 2 - 8</b>				
G	Digital signage stand Refer to DWG: D11	22	UNIT		
	<b>Carried to Collection</b>			<b>USD</b>	

**PETRA DEVELOPMENT AND TOURISM REGIONAL AUTHORITY**

**DIVISION 3 - MISCELLANEOUS PRODUCTION**

Item	Description	Quantity	Unit	Rate	Amount
				USD	USD
	<p style="text-align: center;"><b><u>COLLECTION</u></b></p> <p>From Page 3/1</p> <p>From Page 3/2</p>				
<b>DIVISION 3 - MISCELLANEOUS PRODUCTION CARRIED TO SUMMARY</b>				<b>USD</b>	

**PETRA DEVELOPMENT AND TOURISM REGIONAL AUTHORITY**

**DIVISION 4 - RECONSTRUCTION MODEL**

Item	Description	Quantity	Unit	Rate	Amount
				USD	USD
	<b><u>4 Reconstruction Model</u></b>				
	The actual-size reconstruction models exhibited in the Jordan Museum can be referred to.				
	<b>Gallery 4</b>				
A	Actual-size reconstruction model of El-Khazneh tomb Refer to DWG: E06 and D13	1	SET		
	<b>Gallery 5</b>				
B	Actual-size reconstruction model of Ez-Zantur house Refer to DWG: E08 and D13	1	SET		
DIVISION 4 - RECONSTRUCTION MODEL CARRIED TO SUMMARY				USD	

**PETRA DEVELOPMENT AND TOURISM REGIONAL AUTHORITY**

**DIVISION 5 - SHOWCASE**

Item	Description	Quantity	Unit	Rate	Amount
				USD	USD
	<b><u>5 Showcase</u></b>				
A	Type A: W6000 x D1050 x H2500 Refer to DWG: SC01	1	UNIT		
B	Type B-1: W500 x D500 X H1000	2	UNIT		
C	Type B-1: W750 x D750 x H1000	2	UNIT		
D	Type B-1: W900 x D900 x H1000 Refer to DWG: SC02	1	UNIT		
E	Type B-2: W1300 x D1300 x H450 Refer to DWG: SC02	1	UNIT		
F	Type C: W750 x D500 x H900 (300)	1	UNIT		
G	Type C: W900 x D500 x H900 (300)	6	UNIT		
H	Type C: W1200 x D500 x H900 (300)	3	UNIT		
J	Type C: W1500 x D500 x H900 (300) Refer to DWG: SC03	1	UNIT		
K	Type D: W750 x D500 x H300	3	UNIT		
L	Type D: W900 x D500 x H300	6	UNIT		
M	Type D: W900 x D600 x H300	1	UNIT		
N	Type D: W1200 x D600 x H300 Refer to DWG: SC03	6	UNIT		
P	Type E: W1500 x D750 x H900 (520) Refer to DWG: SC04	3	UNIT		
Q	Type F-1: W3000 x D1020 x H2100 Refer to DWG: SC05	5	UNIT		
R	Type F-2: W1600 x D1020xH2100 Refer to DWG: SC06	2	UNIT		
S	Type G: W600 x D450 x H750	4	UNIT		
T	Type G: W900 x D450 x H750 Refer to DWG: SC07	2	UNIT		
U	Type H: W1200 x D380 x H1475 Refer to DWG: SC07	1	UNIT		
<b>DIVISION 5 - SHOWCASE CARRIED TO SUMMARY</b>				<b>USD</b>	

**PETRA DEVELOPMENT AND TOURISM REGIONAL AUTHORITY**

**DIVISION 6 - GRAPHIC PANEL**

Item	Description	Quantity	Unit	Rate	Amount
				USD	USD
	<b><u>6 Graphic Panel</u></b>				
	Refer to DWG: GP01, E01, E02, E03, E09, E10, E11 and E13				
A	G01: W2500 x H2500	2	UNIT		
B	G02: W2000 x H2000	1	UNIT		
C	G03: W1500 x H2000	4	UNIT		
D	G04: W1500 x H1500	5	UNIT		
E	G04: W1500 x H1500 (inside showcase) Refer to DWG: E11	2	UNIT		
F	G05: W1200 x H1500	2	UNIT		
DIVISION 6 - GRAPHIC PANEL CARRIED TO SUMMARY				USD	

**PETRA DEVELOPMENT AND TOURISM REGIONAL AUTHORITY**

**DIVISION 7 - SHOWCASE LIGHTING**

Item	Description	Quantity	Unit	Rate	Amount
				USD	USD
	<b><u>7 Showcase Lighting</u></b>				
	<b>Wiring, installation and switches (if necessary) shall be included in the exhibition works. The lighting equipment will be provided.</b>				
A	Line type lighting equipment	36	UNIT		
B	Spotlight type lighting equipment	48	UNIT		
<b>DIVISION 7 - SHOWCASE LIGHTING CARRIED TO SUMMARY</b>				<b>USD</b>	

**PETRA DEVELOPMENT AND TOURISM REGIONAL AUTHORITY**

**SUMMARY**

Item	Description	Quantity	Unit	Rate	Amount
				USD	USD
1	GENERAL REQUIREMENTS				
2	WALL FINISHING				
3	MISCELLANEOUS PRODUCTION				
4	RECONSTRUCTION MODEL				
5	SHOWCASE				
6	GRAPHIC PANEL				
7	SHOWCASE LIGHTING				
<b>TOTAL CARRIED TO FORM OF TENDER</b>				<b>USD</b>	