



**REPÚBLICA DEMOCRÁTICA DE TIMOR-LESTE
GABINETE DO PRIMEIRO MINISTRO
COMISSAO NACIONAL DE APROVISIONAMENTO**

**UPGRADING OF EXISTING SUAI AIRPORT,
SUAI, TIMOR-LESTE**

BID DOCUMENTS

PART II

REQUIREMENTS

21 January 2013

UPGRADING OF EXISTING SUAI AIRPORT, SUAI, TIMOR-LESTE

BID DOCUMENTS

PART II

Section 5 - EMPLOYER'S REQUIREMENTS

LETTER OF PRICE BID

PREAMBLE TO BILL OF QUANTITIES

BILL OF QUANTITIES

(NOT ATTACHED, ISSUED AS A SEPARATE VOLUME)

SCHEDULE OF UNIT RATES

METHODS OF MEASUREMENTS

(NOT ATTACHED, ISSUED AS A SEPARATE VOLUME)

TECHNICAL SPECIFICATIONS

(NOT ATTACHED, ISSUED AS A SEPARATE VOLUME)

DRAWINGS

(NOT ATTACHED, ISSUED AS A SEPARATE VOLUME)

INFORMATION ONLY

- **TAXES AND DUTIES ACT (DECREE LAW NO.8/2008)**
- **INFORMATION REGARDING SPECIFIC REGULATIONS FOR EXTRACTING MINERALS**

(NOT ATTACHED, ISSUED AS A SEPARATE VOLUME)

Letter of Price Bid

Date:

ICB No.:

To:

We, the undersigned, declare that:

(a) We have examined and have no reservations to the Bidding Documents, including Addenda issued in accordance with Instructions to Bidders (ITB) 8;

(b) We offer to execute in conformity with the Bidding Documents and the Technical Bid submitted for the following Works:

UPGRADING OF EXISTING SUAI AIRPORT, SUAI TIMOR-LESTE

The total price of our Bid is:

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

(USD:) (insert amount in figures and words) for a period of Ninety-Six (96) Weeks.

(c) Our tender price proposed in this Letter of Price Bid shall be deemed to include and incorporate all the relevant and applicable taxes, duties and charges imposed by the Government of the Democratic Republic of Timor Leste.

(d) Our Bid shall be valid for a period of **one hundred and twenty (120) days** from the date fixed for the bid submission deadline in accordance with the Bidding Documents, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;

(e) If our Bid is accepted, we commit to obtain a performance security in accordance with the Bidding Documents;

(f) We understand that this bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal contract is prepared and executed; and

(g) We understand that you are not bound to accept the lowest evaluated bid or any other bid that you may receive.

Name

In the capacity of

Signed

Duly authorized to sign the Bid for and on behalf of

Date:

PREAMBLE TO BILL OF QUANTITIES

A. Preamble

1. The Bill of Quantities shall be read in conjunction with the Instructions to Bidders, General and Special Conditions of Contract, Technical Specifications, Drawings and **Methods of Measurements**.
2. The quantities given in the Bill of Quantities are **estimated and provisional**, and are given to provide a common basis for bidding. The basis of payment will be the actual quantities of work ordered and carried out, as measured by the Contractor and verified by the Engineer and valued at the rates and prices bid in the priced Bill of Quantities, where applicable, and otherwise at such rates and prices as the Engineer may fix within the terms of the Contract.
3. The rates and prices bid in the priced Bill of Quantities shall, except insofar as it is otherwise provided under the Contract, include all Constructional Plant, labor, supervision, materials, erection, maintenance, insurance, profit, taxes, and duties, together with all general risks, liabilities, and obligations set out or implied in the Contract.
4. A rate or price shall be entered against each item in the priced Bill of Quantities, whether quantities are stated or not. The cost of Items against which the Contractor has failed to enter a rate or price shall be deemed to be covered by other rates and prices entered in the Bill of Quantities.
5. The whole cost of complying with the provisions of the Contract shall be included in the Items provided in the priced Bill of Quantities, and where no Items are provided, the cost shall be deemed to be distributed among the rates and prices entered for the related Items of Work.
6. General directions and descriptions of work and materials are not necessarily repeated nor summarized in the Bill of Quantities. References to the relevant sections of the Contract documentation shall be made before entering prices against each item in the priced Bill of Quantities.
7. Provisional Sums included and so designated in the Bill of Quantities shall be expended in whole or in part at the direction and discretion of the Engineer.
8. The method of measurement of completed work for payment shall be in accordance with *the* standard applicable for the item of work in the specifications.
9. Rock is defined as all materials that, in the opinion of the Engineer, require blasting, or the use of metal wedges and sledgehammers, or the use of compressed air drilling for their removal, and that cannot be extracted by ripping with a tractor of at least 150 brake hp with a single, rear-mounted, heavy-duty ripper.

The followings shall be read in conjunction and shall form part of Bills of Quantities:-

No ADDITIONAL CLAIMS shall be permitted by the Employer that are based on the Contractor's failure to incorporate the country and local site conditions. The COSTS ARISING OUT OF THE FOLLOWING FACTORS IDENTIFIED BELOW SHALL be borne by the Contractor and shall be deemed to be included, incorporated and accounted for in the Bidder's unit-rates and overall pricing tendered.

Factors deemed to be included in the unit-rates and pricing:-

The factors that may have an impact on the Contractor's pricing are identified as follows:-

1. Remoteness of the Site
2. Communication Problems
3. Transportation Problems
4. Use of Existing Route
5. Choice of Equipment
6. Approval from Local Authority or Equivalent
7. Increased Material Cost Due To Difficult Transport Conditions
8. Power and Water
9. Labor Availability
10. Vandalism and Site Security
11. Weather

1. Remoteness of the Site

The remote location of Suai Airport site poses the Contractor with a difficult set of problems to cope with. Remote sites create logistical problems therefore Project startup requires a careful utilization of resources in order to provide production outputs.

2. Communication Problems

Communications such as telephone and email are not available or not adequate. Radio or cellular-type installation may be a pre-requisite to this construction project. The Contractor is notified that the lack of communication during. In addition, because the project location is further away from the head office anticipated to be in Dili, additional long-distance telephone charges will be incurred.

The provision of the above including all charges related to it SHALL be borne by the Contractor.

3. Transportation Problems

All material and labor must be transported to the construction site. The transport route is poor, and some route available may not be used readily. Delays in material deliveries may occur. Large vehicles may damage the existing old bridges or other items of property. The provision of the above including replacements costs and all charges related to it SHALL be borne by the Contractor.

4. Use of Existing Route

It may be necessary for the Contractor to widen the existing route or construct a bridge to allow material trailers access into the construction site. The route that is proposed should be studied carefully by the Contractor and shall be subject to the approval of the Employer. Existing capacity of existing bridges on route should be established to verify if equipment loads can be accommodated if the bridge needs to be strengthened by the contractor. The cost of hauling items of equipment to the construction site will increase as the distance increases.

The provision of the above including haulage costs and all charges related to it SHALL be borne by the Contractor.

5. Choice of Equipment

It is a requirement that the Contractor's management provide the correct equipment selections to suit the above factors identified. No additional costs shall be entertained upon failure to consider this. The costs provided by the Tenderer in the unit-rates provided shall be deemed to include the above.

6. Approval from Local Authority or Equivalent

It will be the duty, responsibility and obligation of Contractor to obtain from the Local Authority or equivalent regarding all matter pertaining to approval and the use of any infrastructures and utilities (water, power, telecommunication etc). The provision of the above including the necessary preparation and documentation and all charges related to it SHALL be borne by the Contractor.

7. Increased Material Cost Due To Difficult Transport Conditions

Bulk materials including sand and gravel will be adversely affected by distance and difficult transport conditions. Barge-crossing or bridges crossing will increase the basic cost of materials. All necessary and related costs for the above provision including increase in the usage rates charged by the operator (if any) shall be deemed to be included in the unit-rates and overall pricing.

8. Power and Water

8.1 Water

Water is required for materials such as concreting and for other uses. Salt water IS NOT ACCEPTABLE based on the specifications for concrete or mortar mixing. A convenient domestic water supply which may require water to be trucked to the construction site and wells to be dug to pump water to the surface, may be required.

All necessary and related costs for the above provision including haulage shall be deemed to be included in the unit-rates and overall pricing.

8.2 Power

If no power source is available, then power must be provided by generators.

All necessary and related costs for the above provision shall be deemed to be included in the unit-rates and overall pricing.

9. Labor Availability

It will be the Contractor's responsibility to provide the followings during construction and the price shall be deemed to be included in the overall pricing:-

- a) To import labor from other location if labor of any kind is not available locally as may be the case in this remote areas;
- b) To provide financial incentive In order to move labor from one area to another;
- c) To set-up and provide accommodations and labor camps comprising full time kitchen staff, dormitories, leisure facilities, etc., to house the contractor's labor force.
- d) To provide leisure facilities keep the labor force relaxed and occupied during any rest periods.

e) To comply with the requirements of labor act and enactment of Timor Leste.

10. Vandalism and Security

Site integrity is an important issue within this areas. Protective measures including 24-hour guard service and perimeter enclosures, are required. The level of security required SHALL commensurate with the extent risk exposed to the project from the surrounding neighborhood.

BILL OF QUANTITIES

THE BILLS OF QUANTITIES ARE ISSUED IN A SEPARATE VOLUME

**UPGRADING OF EXISTING SUAI AIRPORT,
SUAI, TIMOR-LESTE**

BILL OF QUANTITY – SUMMARY

NO.	DESCRIPTION		AMOUNT (USD)
1	BILL NO.1	: Preliminaries	USD :
SUB-TOTAL :			USD :
2	<u>OVERALL EARTHWORKS, AIRSIDE FACILITIES AND OTHERS (LANDSIDE & AIRSIDE)</u>		
2.1	BILL NO.2/1	: Earthworks And Site Preparations	USD :
2.2	<u>AIRSIDE</u>		
	BILL NO.2/2	: Pavement - Airfield Flexible	USD :
	BILL NO.2/3	: Pavement - Airfield Rigid (PQC)	USD :
	BILL NO.2/4	: Pavement - Access And Service Road	USD :
	BILL NO.2/5	: Pavement Markings	USD :
2.3	<u>FACILITIES WITHIN LANDSIDE & AIRSIDE</u>		
	BILL NO.2/6	: Security Fencing And Gates	USD :
	BILL NO.2/7	: Drainage	USD :
	BILL NO.2/8	: Main Terminal Building & Air Traffic Control Tower External Works	USD :
2.4	<u>ASSOCIATED FACILITIES</u>		
	BILL NO.2/9	: Aeronautical Ground Lightings (AGL)	USD :
	BILL NO.2/10	: Nav aids - DVOR/DME	USD :
2.5	<u>PROVISIONAL SUM</u>		
	BILL NO.2/11	: Provisional Sum	USD : 558,000.00
SUB-TOTAL :			USD :
3	<u>MAIN TERMINAL BUILDING & AIR TRAFFIC CONTROL TOWER</u>		
3.1	BILL NO.3/1	: Terminal Building - C&S And Architectural	USD :
3.2	BILL NO.3/2	: Air Traffic Control Tower - C&S, Architectural	USD :
SUB-TOTAL :			USD :
4	<u>MECHANICAL AND ELECTRICAL WORKS</u>		
4.1	BILL NO.4/1	: Mechanical Works	USD :
4.2	BILL NO.4/2	: Electrical Works	USD :
SUB-TOTAL :			USD :
5	<u>ISOLATED AND ANCILLARY BUILDINGS</u>		
5.1	BILL NO.5/1	: AFRS	USD :
5.2	BILL NO.5/2	: Meteorological Station	USD :
5.3	BILL NO.5/3	: Maintenance Hangar	USD :
5.4	BILL NO.5/4	: Workshop And Engineering Block	USD :
5.5	BILL NO.5/5	: Guardhouse (2 Nos.)	USD :
5.6	BILL NO.5/6	: Main Substation	USD :
5.7	BILL NO.5/7	: Airside Substation	USD :
5.8	BILL NO.5/8	: Refuse Chamber	USD :
5.9	BILL NO.5/9	: Meteorological Station Equipment	USD :
5.10	BILL NO.5/10	: AFRS Equipment	USD :
5.11	BILL NO.5/11	: Tanker, Ambulance, 4wd & Vehicle And Fire Riv	USD :
SUB-TOTAL :			USD :
TOTAL TENDER PRICE CARRIED TO THE LETTER OF PRICE BID :			USD :

THE TOTAL TENDER PRICE OF US\$:

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

(US\$:) CARRIED TO THE LETTER OF PRICE BID.

.....
Signature of Contractor

.....
Official Stamp

.....
Capacity

.....
Passport No

NOTE: The detailed bills of quantities are attached separately in Excel format for easy compilation. The completed Excel sheets have to be duly filled in, printed out and duly signed by the Bidder to be included in this Part II of the bid documents.

Daywork Schedule

1.0 General

- 1.1 Work shall only be executed on a day-work basis when expressly ordered in writing by the Engineer.
- 1.2 The rates in the Daywork Schedule shall apply up to the date of expiry of the Period of Defect Liability Period.
- 1.3 The Conditions of Contract details the various documents required of the Contractor with regard to Daywork. The daily records required shall be submitted by midday of the day after the works takes place.
- 1.4 The basic rates for Plant and Labor are indicated in the Schedule. The contractor shall insert a suitable factor to arrive at the Daywork Rates. The factor shall include for all necessary costs, profit and overheads referred to the Daywork Schedule.

2.0 Labour

- 2.1 The Tenderer shall complete the Daywork Schedule for labour as follows: -

(a) Basis Rate

The Tenderer is given a basic rate for each category of labour.

(b) Factor

The Tenderer shall enter in this column the factor of increase or decrease to be applied to the basic rate to meet his outgoings, overheads and profit for daywork operations.

(c) Rate

The Tenderer shall enter in this column the resultant rate required for daywork operation for each category of labour.

- 2.2 For the purpose of payment of daywork, labor shall be grouped into classes contained in the daywork Schedule and the classes shall have the meanings assigned to them therein. Provided that if the Contractor employs a man on daywork of lower classification than that for which the man is qualified then in respect of such a man the Contractor will be paid only at the rate of the lower classification.
- 2.3 The rates for the various classes of labour in the Daywork Schedule shall cover all the Contractor's obligations whatsoever in providing and maintaining such labour at the place of work including wages, payment for conditions and for skill, bonus, travelling and subsistence allowance and expenses, watching and lighting, insurance of all kinds, site supervision, administration and welfare charges, the use and maintenance of protective clothing, the use and maintenance of stagings, scaffolding, portable electric tools, non-mechanical plant and hand tools of every kind, overhead, profit and all incidental expenses.
- 2.4 A week shall comprise six normal working days and one rest day. The rest day shall be every Sunday or other day which is a rest day by virtue of any decree or enactment of the Government or the State. For the purpose of payment of daywork, the rates for labour shall be deemed to be as for a normal working day which shall be defined as the period from 8.00 am to 5.00 pm including one (1) hour for

lunch. the hourly rates shall be the day rates over eight (8) hours. the hourly rates shall be used as the basis for calculating overtime payments.

Daywork Schedule

- 2.5 If overtime on work being carried out by a daywork is authorised by the Engineer, the Contractor shall be paid for such overtime in the same proportion as it is properly paid to the workmen. thus, if man works for ten hours for which he is is paid eleven hours, the Contractor shall be paid eleven hours based on the hourly rates.
- 2.6 Payment for labor shall be made for actual time worked. Idling and traveling time will not be paid for.
- 2.7 The time of gangers and charge-hands working with their gangs will be paid for at the rate of "ganger" but the cost of supervision-forement and walking-gangers shall be deemed to be included under site supervision.

3.0 Material

- 3.1 Payment for material used on daywork will be made at the net price paid by the Contractor for materials delivered to the individual sites where daywork is in progress plus ten (10%) for checking on Site, unloading, haulage on Site, double handling, storage on Site, wastage, overheads and profits, etc.
- 3.2 Only the net amount of materials incorporated into the daywork shall be measured and paid for and all wastes and rejects shall be deemed to have been allowed for in the percentage increase over and above the net price.
- 3.3 Vouchers specifying the materials employed shall be delivered to the Engineer for verification in the manner and time stated in the Conditions of Contract.

4.0 Plant

- 4.1 The Tenderer shall complete the Daywork Schedule for plant as follows:-
- (a) Factor
- The Tenderer shall enter in column (5) an adjustment factor to increase or decrease the basic rate inserted in column (4) to derive his rate for each category of plant.
- (b) Rate
- The Tenderer shall enter in column (6) the resultant of the sum in column (4) and the adjustment factor in column (5) as the rate required for Daywork operation for each category of plant.
- 4.2 The Tenderer shall include in his rates for plant in the Daywork Schedule for the cost of providing other plant listed on pages DS-5 and DS-6 for works carried out on a Daywork basis.
- 4.3 The rates for plant in the Daywork Schedule shall apply to all plant whether belonging to the Contractor or hired by him and cover all the Contractor's obligations whatsoever on providing and maintaining such plant at the place of work including all fuel and lubricants, all ancillary equipment necessary for efficient operation and use of the plant, overheads and profits but excluding operators.
- 4.4 Payment for plant on Daywork will be limited to items listed in the Daywork Schedule or added thereto by the Contractor when tendering, unless otherwise agreed by the Engineer.

- 4.5 The rates for plant shall apply for both plant which is already available at Site and to plant brought to Site especially of Daywork but in the later case the Contractor shall be paid the additional costs for transporting such plant to from from the site

DAYWORK SCHEDULE

- 4.6 Payment for plant shall be made for the actual time worked. Idling and travelling time will not be paid for.
- 4.7 Mechanical Plant for use on the public highway shall be inclusive of road tax and insurance.

DAYWORK SCHEDULE**GENERAL**

Hoists
Lifting and jacking gear
Offices, stores and sheds
Pipe bending equipment
Scaffolding
Shoring planking and shuttering
Surveying instruments
Small plant and tools
Water
Welding and cutting sets
Winches
Consumables
Access platform

ASPHALT EQUIPMENT

Joint matches
Corneal-devices

CONCRETE MIXERS

Loading shovels
Aggregate feed aprons
Batch weighing gear
Batch loaders
Silos
Conveyors
Hoppers

CONCRETE EQUIPMENT

Piping
Booms
Hoses
Cleaning Equipment

CRANE EQUIPMENT

Chain slings or brothers
Grab tag lines
Demolition balls

EXCAVATORS

Buckets
Mats

DAYWORK SCHEDULE

GENERATING SETS

Transformers

PILING PLANT

Hoses
Pile helmets

PUMPS

Hoses valves
Coupling
Strainers

TOOL PNEUMATIC

Hoses
Steels
Blades
Drill rods
Bits
Mufflers
Pads
Discs

TRACTORS, SCRAPERS, ETC

Ripper attachment
Back hoes
4 in 1 attachments

SCHEDULE OF DAYWORKS RATES
DAYWORK SCHEDULE FOR LABOUR

Item	Description	Unit	Rate
1.	Surveyor	Man Day	
2.	Mechanic	Man Day	
3.	Electrician	Man Day	
4.	Welder	Man Day	
5.	Plant Operator	Man Day	
6.	Lorry Driver	Man Day	
7.	Lorry Attendant	Man Day	
8.	Mason	Man Day	
9.	Bar Bender	Man Day	
10.	Carpenter	Man Day	
11.	Bricklayer	Man Day	
12.	Painter	Man Day	
13.	Chainman	Man Day	
14.	Pipelayer	Man Day	
15.	Pneumatic Tool Operator	Man Day	
16.	Pre-stressing Jack Operator	Man Day	
17.	Plumber	Man Day	
18.	Plasterer	Man Day	
19.	Ganger	Man Day	
20.	General Labourer (Male)	Man Day	
21.	General Labourer (Female)	Man Day	

DAYWORK SCHEDULE FOR PLANT

Item	Description	Unit	Rate
1.	Drag Line 21/4 m ³	Hour	
2.	Concrete Batching Plant (60m ³ /HR)	Hour	
3.	Bituminous Mixing Plant 50 tonnes/HR	Hour	
4.	Bulldozer CAT D6 or equivalent (3.0m ³)	Hour	
5.	Bulldozer CAT D7 or equivalent (4.2m ³)	Hour	
6.	Concrete Truck Mixer (5.0m ³)	Hour	
7.	Concrete Mixer 10/7T (0.3m ³ /HR)	Hour	
8.	Concrete Mixer 21/14T (2.0m ³ /HR)	Hour	
9.	Mobile Crane (5 tonne)	Hour	
10.	Mobile Crane (10 tonne)	Hour	
11.	Mobile Crane (15 tonne)	Hour	
12.	Mobile Crane (20 tonne)	Hour	
13.	Mobile Crane (50 tonne)	Hour	
14.	Backhoe CASE 580 G or equivalent (0.15m ³)	Hour	
15.	Excavator (1.2m ³)	Hour	
16.	Excavator (1.7m ³)	Hour	
17.	Excavator (0.9m ³)	Hour	
18.	Wheel Loader CAT 950 or equivalent (2.4m ³)	Hour	
19.	Wheel Loader CAT 996 or equivalent (3.1m ³)	Hour	
20.	Motor Grader (12ft Blade)	Hour	
21.	Scraper Self Loading (7.5m ³)	Hour	
22.	Scraper Self Loading (11.5m ³)	Hour	
23.	Steel Wheeled Roller 5-7tonne	Hour	

DAYWORK SCHEDULE FOR PLANT

Item	Description	Unit	Rate
24.	Steel Wheel Roller 10-12 tonne	Hour	
25.	Self Propelled Vibrator roller 15 tonne compaction force	Hour	
26.	Drawn vibrator roller 15 tonne compaction force	Hour	
27.	Pneumatic Tyred Roller 7-14 tonne	Hour	
28.	Drawn Grid Roller	Hour	
29.	Backpusher, FORD TRACTOR or equivalent	Hour	
30.	Tipping Truck 8-10 tonne payload	Hour	
31.	Dump truck 8-10 tonne payload	Hour	
32.	Dump truck 10-12 tonne payload	Hour	
33.	Truck Flat Bed 1.5 tonne payload	Hour	
34.	Truck Flat Bed 3-5 tonne	Hour	
35.	Truck Flat Bed 7 tonne payload	Hour	
36.	Water Bowser (1500 Gal)	Hour	
37.	Air Compressor (175 CFM)	Hour	
38.	Air Compressor (370 CFM)	Hour	
39.	Air Compressor (600 CFM)	Hour	
40.	Crawler Drill (750 CFM)	Hour	
41.	Crushing Plant (120 TPH)	Hour	
42.	Asphalt Plant (100 TPH)	Hour	
43.	Paver-BK 175 or equivalent (120 TON/HR)	Hour	
44.	Paver-BK 165 or equivalent (100 TON/HR)	Hour	
45.	Water Pump-Submersible (6 Dia)	Hour	
46.	Rock Drill 100 mm air power Crawler rig.	Hour	

DAYWORK SCHEDULE FOR PLANT

Item	Description	Unit	Rate
47.	Prestressing jack, 150 tonne capacity	Hour	
48.	Prestressing jack, 250 tonne capacity	Hour	
49.	Pneumatic jackhammer	Hour	
50.	Portable compactor	Hour	

SCHEDULE OF UNIT RATES - MECHANICAL

The following rates shall be used for any authorized variations, additions or deductions in the quantities installed.

The rates quoted shall be for the supply and installation and shall include such incidental works and accessories (such as brackets, hangers, unions, flanges, connections) painting and works in connection with services (such as cutting holes, etc.). The S.O. reserves the right to amend the rates where applicable to the current market prices before signing of Contract.

Pipe work installed per meter including brackets, fitting, bends, elbow, paintwork etc.

1.0 COLD WATER PLUMBING SERVICES

1.1 Pipeworks installed in per meter run including fittings, bends, elbows, etc.

<u>Size</u>	<u>ABS Class 15</u>	<u>HDPE PN 12.5</u>	<u>Polysteel</u>
20mm
25mm
32mm
40mm
50mm
75mm / 65mm
80mm / 90mm
100mm / 110mm

1.2 Valves and other miscellaneous items installed per pieces.

Size	Check Valve	Gate Valve	Stop Valve	Ball Float Valve	Ball Valve	Y. Strainer
20mm						
25mm						
32mm						
40mm						
50mm						
65mm						
80mm						
100mm						

1.3 Pressure gauge each

1.4 Excavation, trenching, back-filling per meter run
and making good (750mm deep)

2.0 SANITARY PLUMBING SERVICES

2.1 Pipeworks installed in per meter run including fittings, bends, elbows, etc.

	<u>Plastic Pipe</u>	<u>Polypropylene Pipe</u>	<u>uPVC Pipe</u>	
<u>Size</u>	<u>BS 5255</u>	<u>BS 4991</u>	<u>BS 4660</u>	<u>BS 4514</u>
32mm	
38/40mm	
50/51mm	
76/80mm	
100/102mm	
150mm	

- 2.2 Pipeworks installed in per meter run including fittings, bends, elbows, etc.
- a) 100mm Diameter VCP pipe per meter run
- b) 150mm Diameter VCP pipe per meter run
- 2.3 Excavation, trenching, back-filling and per meter run
making good (750mm and below deep)
- 2.4 Excavation, trenching, back-filling and per meter run
making good (1000mm and below deep)
- 2.5 Excavation, trenching, back-filling and per meter run
making good (1500mm and below deep)
- 2.6 Inspection chamber/concrete sump with cover including excavation work
- a) Not exceeding 610mm
- b) Exceeding 610mm up to 910mm
- c) Exceeding 910mm up to 1525mm
- d) Exceeding 1525mm up to 2440mm
- 2.7 Cast iron cover and frame for inspection chamber, grease interceptor and concrete sump
- a) Light Duty
- b) Medium Duty
- c) Heavy Duty
- 2.8 Floor drain c/w chrome plate/stainless steel grating
- a) 50mm diameter
- b) 75mm diameter
- c) 100mm diameter
- 2.9 Floor trap c/w chrome plate/stainless steel grating
- 2.10 Gully trap c/w C.I. grating

3.0 FIRE PROTECTION & PREVENTION SERVICES

3.1 Pipeworks installed in per meter run including fittings, bends, elbows etc for aboveground pipe and haunching, bedding, backfilling, wrapping for underground pipe etc.

<u>Size</u>	<u>Galvanised Steel aboveground</u>		<u>Galvanised Steel underground</u>	
	<u>Medium / Class B</u>	<u>Heavy / Class C</u>	<u>Medium / Class B</u>	<u>Heavy / Class C</u>
20mm
25mm
32mm
40mm
50mm
65mm
80mm
100mm
150mm

3.2 Valves and other miscellaneous items installed per pieces.

Size	Check Valve	Gate Valve	Stop Valve	Ball Float Valve	Ball Valve	Y. Strainer
20mm						
25mm						
32mm						
40mm						
50mm						
65mm						
80mm						
100mm						

3.3	Pressure gauge	.....	each
3.4	Pressure switch	.....	each
3.5	Flow switch	.....	each
3.6	25mm dia. X 30 meters hose reel c/w drum, hose and nozzle	.....	each
3.7	Double outlet pillar hydrant	.....	each
3.8	65mm dia. x 60 meters hydrant flapped hose c/w hose cabinet, nozzle, etc.	.....	each
3.9	65mm dia. x 60 meters flepped canvas hose for dry riser system	.....	each
3.10	Hose cradle for canvas hose	.....	each
3.11	Portable fire extinguishers inclusive Of brackets and local authority' s fees for certificate		
	a) 9kg ABC dry powder	.....	each
	b) 2kg CO ₂	.....	each
3.12	Thermal Detector		
	(a) Normal temperature duty, fixed temperature and rate of actuation	.....	each
	(b) High temperature duty, fixed temperature	.....	each
3.13	Ionisation type smoke detector	.....	each
3.14	Ionisation type smoke detector c/w sampler & probes	.....	each
3.15	Alarm Bell		
	- 150 mm	.....	each
	- 200 mm	.....	each
	- 250mm	.....	each

3.11 Wiring, price per meter run (USD) :

Wiring Run Per Meter	In concealed Galvanised Steel Conduit / Trunking / Tray	On surface or False Ceiling Galvanised Steel Conduit / Trunking / Tray
1 x 2C 1.5 sq.mm PVC cable		
1 x 2C 2.5 sq.mm PVC cable		
1 x 2C 2.5 sq.mm PVC/SWA/PVC cable		
1 x 2C 2.5 sq.mm PVC/SWA/PVC underground cable		
1 x 2C 4.0 sq.mm PVC/SWA/PVC cable		
1 x 2C 4.0 sq.mm PVC/SWA/PVC underground cable		
1 x 2C 6.0 sq.mm PVC/SWA/PVC cable		
1 x 2C 6.0 sq.mm PVC/SWA/PVC underground cable		

3.12 Galvanized Steel Trunking c/w all necessary suspended rod, brackets or framework, bends, adaptors, painting and all other accessories as necessary

- | | | |
|-------------------------------|-------|---------------|
| a) 50mm x 50mm, 1mm thick | ..... | per meter run |
| b) 50mm x 75mm, 1.2mm thick | ..... | per meter run |
| c) 50mm x 100mm, 1.2mm thick | ..... | per meter run |
| d) 75mm x 75mm, 1.2mm thick | ..... | per meter run |
| e) 75mm x 100mm, 1.2mm thick | ..... | per meter run |
| f) 75mm x 150mm, 1.6mm thick | ..... | per meter run |
| g) 75mm x 200mm, 1.6mm thick | ..... | per meter run |
| h) 100mm x 100mm, 1.6mm thick | ..... | per meter run |
| i) 100mm x 150mm, 1.6mm thick | ..... | per meter run |
| j) 100mm x 200mm, 1.6mm thick | ..... | per meter run |
| k) 100mm x 250mm, 1.6mm thick | ..... | per meter run |
| l) 100mm x 300mm, 2.0mm thick | ..... | per meter run |

3.13 Nickel Cadmium Batteries

- a) 10 AH per cell
- b) 16 AH per cell
- c) 30 AH per cell
- d) 40 AH per cell
- e) 60 AH per cell

- 3.16 Excavation, trenching, back-filling per meter run
and making good (750mm deep)

4.0 AIR-CONDITIONING AND MECHANICAL VENTILATION SERVICES

- 4.1 Pipework installed price per meter run (measured as total linear length inclusive of elbows, tees, hangers, supports, unions, flanges, reduces, sockets and etc.

Pipe Dia. (mm)	Copper Refrigerant pipe		Drain pipe, uPVC Class D	
	Uninsulated	With armflex insulation	Uninsulated	With armflex insulation
6.35			-	-
9.52			-	-
12.70			-	-
15.88 / 15				
19.05 / 20				
25				

4.2 Control Valve

Insulated valves and fittings shall include all mechanical protection as specified.

Dia (mm)	Filter		Solenoid Stop Valve		Thermal Expansion Valve	
	Complete with insulation	Without insulation	Complete with insulation	Without insulation	Complete with insulation	Without insulation
6.35						
9.52						
12.70						
15.88						
19.05						

4.3 Electrical wiring, price per meter run

WIRING RUN PER METER	IN CONCEALED GALVANISED STEEL CONDUIT / TRUNKING / TRAY	ON SURFACE OR FALSE CEILING GALVANISED STEEL CONDUIT / TRUNKING / TRAY
PVC wiring per 1.5mm ² core cable		
PVC wiring per 2.5mm ² core cable		
PVC/SWA/PVC armoured wiring per 2.5mm ² core cable		
PVC/SWA/PVC armoured wiring per 4mm ² core cable		
PVC/SWA/PVC armoured wiring per 10mm ² core cable		
MICC per 1.5mm ² core cable		
MLCC per 2.5mm ² core cable		
MLCC per 4mm ² core cable		
MLCC per 10mm ² core cable		

4.4 Rectangular Ductwork installed Per Meter Square of Surface Area

Sheet metal (thk in B.W.G)	Bare Duct	Duct with paint finish	Duct with External insulation		Duct with Internal insulation	
			25 mm	50 mm	25 mm	50 mm
24						
22						
20						
18						
16						

4.5 Flexible Duct Per Meter Run

Diameter (mm)	Duct with External Insulation (25mm)	Duct with External Insulation (50mm)
150		
200		
250		
300		
350		

4.6 Dampers

Price per sq.ft.

- i) Fire Dampers (2 hours)
- ii) Opposed blade dampers
- iii) Adjustable splitter dampers
- iv) Volume Control Dampers
- v) Automatic tight-closing dampers

4.7 Grilles installed complete with volume damper per sq.ft of face area

Price per sq.ft.

- i) Supply air diffuser
- ii) Supply air grilles
- iii) Return air grilles
- iv) Outdoor air grilles

METHODS OF MEASUREMENTS

THE METHODS OF MEASUREMENT ARE ISSUED IN A SEPARATE VOLUME

TECHNICAL SPECIFICATIONS

THE TECHNICAL SPECIFICATIONS ARE ISSUED IN A SEPARATE VOLUME

DRAWINGS

THE DRAWINGS ARE ISSUED IN A SEPARATE VOLUME

INFORMATION ONLY

TAXES AND DUTIES ACT (DECREE LAW NO.8/2008) & INFORMATION REGARDING SPECIFIC REGULATIONS FOR EXTRACTING MINERALS

THE TAX DUTIES (DECREE LAW NO.8/2008) AND INFORMATION REGARDING SPECIFIC REGULATIONS FOR EXTRACTING MINERALS ARE ISSUED IN A SEPARATE VOLUME

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The Bidder is advised to obtain his own information in this regard and satisfy himself as to the risk, contingencies and other circumstances which may influence or affect his Tender.