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GOVERNMENT OF PAKISTAN  
PORT QASIM AUTHORITY

**TENDER AND CONTRACT DOCUMENTS**

**FOR CONSTRUCTION OF  
IRON-ORE AND COAL BERTH  
AND  
RELATED FACILITIES**

**VOL. III: BILL OF QUANTITIES**

**DECEMBER 1975**

**JAPAN INTERNATIONAL COOPERATION AGENCY**

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国際協力事業団

受入 月日	'87. 6. 24	117
登録 No.	08700	72.8 SD

7. All units herein used are in the metric system, unless otherwise expressly stated.

8. The following abbreviations are used in the Schedule:

Lin. m.          Linear meter

Sq. m.          Square meter

Cu . m.          Cubic meter

Kg.              Kilogramme

PAK. Rs.        Pakistan Rupees

9. For the purpose of this Bill of Quantities, 1 Ton = 1,000 Kilogrammes.

10. Quantities of material wasted or disposed of in a manner not called for under the CONTRACT; or rejected material, including material rejected after it has been placed by reason of the failure of the Contractor to conform to the provisions of the CONTRACT or material not unloaded from the transporting vehicle; or material placed outside the lines indicated on the plans or established by the Engineer; or material remaining in hand after completion of the work; will not be paid for. No compensation will be allowed for hauling and disposing of rejected material.

S U M M A R Y

ITEM OF WORKS		COST
PART I	TEMPORARY AND PREPARATORY WORKS .....	RS.
PART II	MAIN BERTH STRUCTURE .....	RS.
PART III	APPROACH TRESTLE .....	RS.
PART IV	SMALL CRAFTS PIER .....	RS.
PART V	LAND RECLAMATION .....	RS.
PART VI	WATER AND OIL SUPPLY AND FIRE FIGHTING .	RS.
PART VII	ELECTRIC FACILITIES AND POWER SUPPLY ...	RS.
PART VIII	BUILDINGS .....	RS.
GRAND TOTAL		RS.

**BILL OF QUANTITIES**

**PART 1**

**TEMPORARY AND PREPARATORY WORKS**

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
	<p><b>PART-I TEMPORARY AND PREPARATORY WORKS</b></p> <p>Installation of the construction Site and all working and storage areas and the like, inside or outside the P.Q.A. premises, required for the entire construction work described in the Specifications.</p> <p>The prices below contain the costs for the following and any other performances in respect to the haulage, erection and installation of all items, considered necessary for the satisfactory execution of the Works, whether or not mentioned hereunder.</p> <p>The detail breakdown of the cost shall be attached.</p>						
1.	<p>Preparation of Working Yard</p> <p>All works as listed in part-2, Form of Tender, appendix "M", Works for Test Laboratory and Temporary Facilities and equipments for the Engineer, as specified in the Technical Specification.</p>	lump Sum	1	_____			
2.	<p>Mobilization of Constructional Machines and Plants as listed in Part. 2, Form of Tender appendix "B".</p>	lump Sum	1	_____			
3.	<p>Demobilization of Constructional Machines and Plants.</p> <p>This price includes the costs for the dismantling, removal and transporting away of any Constructional plant, Temporary Works and all other items used for the execution of the Works, whether or not specifically mentioned in Item 1 and 2 above.</p>	lump Sum	1	_____			



Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
4.	Soil Investigation: Boring and tests as specified in the Technical Specification, Division 2 Section 2B.	Min.m	250				
	Total:						

**BILL OF QUANTITIES**

**PART II**

**MAIN BERTH STRUCTURE**

	<u>Page</u>
Section 1. Piling Work . . . . .	II- 3
2. Corrosion Protection . . . . .	II- 8
3. Precast Concrete Work . . . . .	II-10
4. Cast In-situ Concrete Work . . . . .	II-14
5. Metal Work . . . . .	II-16
6. Installation Work of Equipment . . . . .	II-18
7. Ancillary Work . . . . .	II-19

S U M M A R Y

PART II MAIN BERTH STRUCTURE

Section 1.	Piling Work . . . . .	RS.
Section 2.	Corrosion Protection . . . . .	RS.
Section 3.	Precast Concrete Work . . . . .	RS.
Section 4.	Cast In-situ Concrete Work . . . . .	RS.
Section 5.	Metal Work . . . . .	RS.
Section 6.	Installation Work of Equipment . . . . .	RS.
Section 7.	Ancillary Work . . . . .	RS.
<hr/>		
	Total . . . . .	RS.

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
<b>SECTION 1: PILING WORK</b>							
<b>1.1 PILING FOR MOORING DOLPHINS</b>							
1.1.1	Supply, delivery, unloading, handling and stacking on site of steel pipe piles, including joint welding of pipes at the workyard of site as shown in the Drawings.  1,016m/m dia. x 25 - 22m/m thick x 28m long x 30 nos. A.S.T.M. - A252 Grade 2.	Ton	478				
1.1.2	Transportation, handling and pitching in position.  1,016m/m dia. x 28m long vertical pile.	Each	30				
1.1.3	Penetration of piles into the hard stratum from the dredged sea bed to a depth of -25 meters as indicated in the Drawings or to a greater depth to the satisfaction of the Engineer, including additional measures other than driving. In this case, the adapted measures shall be inserted in the blank on the right.  1,016m/m dia. x 28m long vertical pile.	Nos of pile	30				
1.1.4	Filling sand into piles up to the level as specified from the bottom of -25 meters. For 1,016m/m dia. vertical pile x 30 nos.	Cu.m	540				
1.1.5	Fixing of reinforcement steel bars for pile head and plate pieces by welding as shown in the Drawings.  For 1,016m/m dia. pile	Nos of pile	30				
Sub Total:							

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
	<u>1.2 PILING FOR PILE BENTS</u>						
1.2.1	Supply, delivery, unloading, handling and stacking on site of steel pipe piles reinforced at the ends with ring plates, including joint welding of pipes at the workyard of site as shown in the Drawings.  914.4m/m dia. x 16m/m thick, x 23.5m long 26 nos. x 24m long 26 nos. x 25m long 156 nos. x 21.5m long 6 nos. x 22m long 6 nos. x 23m long 36 nos. A.S.T.M - A252 Grade 2.	Ton	2,278				
1.2.2	Transportation from Karachi Port, handling, and stacking on site of steel pipe piles supplied by P.Q.A.  647.7m/m dia. x 12.7m/m thick x 12.65m, 10.0m and 6.0m long.	Lin.m	258				
1.2.3	Manufacturing of 647.7m/m diameter steel pipe pile as shown in the Drawings using the piles of item 1.2.2 at the workyard of site, including cutting and processing of piles, fitting up of joint materials, joint welding, reinforcement of pile ends with ring plates and painting.  647.7m/m dia. x 12.7m/m thick x 21.5m long.	Nos of Pile	10				
1.2.4	Transportation, handling and pitching in position  914.4m/m dia. x 23.5 and 21.5m long vertical pile.	Each	32				
1.2.5	Ditto, but  914.4m/m dia. x 25 to 22m long raking pile.	Each	224				
1.2.6	Ditto, but  647.7m/m dia. x 21.5 long vertical pile.	Each	10				

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
1.2.7	Direct driving of piles from the dredged sea bed to a depth of -20 meters as indicated in the Drawings. 914.4m/m dia. vertical pile.	Nos of Pile	26				
1.2.8	Ditto as item 1.2.7, but 914.4m/m dia. raking pile.  (PROVISIONAL)	Nos of Pile	182				
1.2.9	Additional pile driving to item 1.2.7 and 1.2.8, to a depth where the required pile bearing capacity can be obtained, including splicing as indicated in the Specification. In this case, the schedule rate per 2 meters of extension length shall be inserted in the right column.  For 914.4m/m dia. vertical pile (PROVISIONAL)	Nos of Splicing	1				
	For 914.4m/m dia. raking pile. (PROVISIONAL)	Nos of Splicing	1				
1.2.10	Direct driving of piles from the dredged sea bed to a depth of -18 meters as indicated in the Drawings.  647.7m/m dia. vertical pile.	Nos of Pile	8				
1.2.11	Penetration of 914.40 mm vertical piles into the hard stratum from the dredged sea bed to a depth of -18 meters as indicated in the Drawings.  914.4 m/m dia. vertical pile.	Nos of Pile	6				

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
1.2.12	Ditto as item 1.2.11, but 914.4m/m dia raking pile.	Nos of pile	42				
1.2.13	Ditto as item 1.2.11, but 647.7m/m dia vertical pile.	Nos of pile	2				
1.2.14	Additional measures other than driving to item 1.2.11, 1.2.12 and 1.2.13, to a depth of -18 meters. In this case, the adopted measures shall be inserted in the blank on the right.  For 914.4m/m dia vertical pile For 914.4m/m dia raking pile For 647.7m/m dia vertical pile (PROVISIONAL)	Nos of pile Nos of pile Nos of pile	1 1 1				
1.2.15	Filling sand into piles up to the level as specified. For 914.4m/m dia. pile	Cu.m	2,336				
1.2.16	Ditto as item 1.2.13, but for 647.7m/m dia. pile	Cu.m	39				
1.2.17	Cutting off the top of pile driven in at the required level, including fixing of reinforced steel bars for pile head and plate pieces as shown in the Drawings For 914.4m/m dia. pile	Nos of pile	256				
1.2.18	Ditto as item 1.2.15, but for 647.7m/m dia. pile	Nos of pile	10				
	Sub Total:						

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
	<b>1.3 PILING FOR MAINTENANCE PLATFORM</b>						
1.3.1	Supply, delivery, unloading, handling and stacking on site of steel pipe piles reinforced at the ends with ring plates, including joint welding of pipes at the work yard of site as shown in the Drawings.  812.8m/m dia x 12.7m/m thick x 24m long x 20 nos. A.S.T.M.-A252, grade 2.	Ton	125				
1.3.2	Transportation, handling and pitching in position. 812.8m/m dia x 24m long vertical pile.	Each	20				
1.3.3	Direct driving of piles from the dredged sea bed to a depth of -18 meters as indicated in the Drawings. 812.8m/m dia. vertical pile.	Nos of pile	20				
1.3.4	Additional pile driving to item 1.3.3, to a depth where the required pile bearing capacity can be obtained, including splicing as indicated in the Specification. In this case, the schedule rate per 2 meters of extension length shall be inserted in the right column. For 812.8m/m dia. vertical pile: (PROVISIONAL)	Nos of splicing	1				
1.3.5	Filling sand into piles up to the level as specified. For 812.8m/m dia. pile.	Cu.m	159				
1.3.6	Cutting off the top of piles driven in at the required level, including fixing of plate pieces as shown in the Drawings. For 812.8m/m dia. pile.	Nos of pile	20				
	Sub Total:						
	Total:						



Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
<b>SECTION 2: CORROSION PROTECTION</b>							
<b>2.1 PROTECTION FOR THE FOUNDATION PILE OF MOORING DOLPHIN</b>							
2.1.1	Supply, delivery and fixing of (to steel pipe pile) Aluminium alloy, complete with fittings as shown in the Drawings or other equivalent as approved by the Engineer. Type P-D104, anode weight 98 kg.	Each	60				
2.1.2	Fixing of potential measuring terminals to steel pipe pile for "Cathodic Protection" as shown in the Drawings and test Operation.	Each	2				
2.1.3	Installation of piles jacket to steel pipe pile including cement mortar grouting as shown in the Drawings. For 1,016m/m dia. pile, 1.0m long.	Nos of pile	6				
2.1.4	Ditto as item 2.1.3, but 1.7m long.	Nos of pile	24				
Sub Total:							
<b>2.2 PROTECTION FOR THE FOUNDATION PILE OF PILE BENT</b>							
2.2.1	Ditto as item 2.1.1. Type P-D104, anode weight 98 kg	Each	449				
2.2.2	Ditto as item 2.1.2.	Each	16				
2.2.3	Ditto as item 2.1.3, but for 914.4m/m dia. pile, 2.44m long.	Nos of pile	32				
2.2.4	Ditto as item 2.1.3, but for 914.4m/m dia. pile, 2.55m long.	Nos of pile	192				

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
2.2.5	Ditto as item 2.1.3, but for 914.4m/m dia. pile, 2.4m long.	Nos of pile	32				
2.2.6	Ditto as item 2.1.3, but for 647.7m/m dia. pile, 1.0m long.	Nos of pile	10				
	Sub Total:						
	<u>2.3 PROTECTION FOR THE FOUNDATION PILE OF MAINTENANCE PLATFORM</u>						
2.3.1	Ditto as item 2.1.1. Type P-D104, anode weight 98 kg	Each	24				
2.3.2	Ditto as item 2.1.2.	Each	2				
2.3.3	Ditto as item 2.1.3, but for 812.8m/m dia. pile, 4.5m long.	Nos of pile	20				
	Sub Total:						
	Total:						

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
	<b>SECTION 3: PRECAST CONCRETE WORK</b>						
	<b>3.1 P.S. CRANE GIRDER:</b>						
	<u>190cm deep x 2.3m wide x 11.9m long x 28 nos.</u>						
3.1.1	Concrete for girders, including formwork. class A.	Cu.m	698				
3.1.2	Setting up of prestressing wire strands, sheaths and fastening cones, and also post-tensioning including cement mortar grouting						
	Cable of 1/2" dia. 7 wire strand x 12 nos, A.S.T.M-A416. grade 250	Ton of strand cable	37				
3.1.3	Reinforcing bars for girder 16m/m dia. or more, plain bar.	Ton	51				
3.1.4	Ditto, but 13m/m dia. or less, plain bar.	Ton	35				
3.1.5	Transportation and Installation of girders on pile bents.	Each	28				
3.1.6	Supply and setting of the bearing lead plate for girders on pile bents. including mortar placing as shown in the Drawing.						
	50m/m sq. x 30m/m thick lead plate.	Sheet	112				
3.1.7	Supply and setting of the joint filler for girders on pile bents.						
	2,300-1,400m/m wide x 1,900m/m long x 30m/m thick rubber plate	Sheet	56				
	<b>Sub Total:</b>						

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
	<b>3.2 P.S. BEAM FOR SLAB:</b>						
	<b>60cm deep x 32cm wide x 11m long x 507 nos.</b>						
3.2.1	Concrete for beam, including formwork. Class A.	Cu.m	578				
3.2.2	Setting up of prestressing wire strands and pre-tensioning cable 1/4" dia. 7 wire strand, A.S.T.M-A416. grade 250	Ton of strand cable	41				
3.2.3	Reinforcing bars for beam. 16m/m dia. or more, plain bar.	Ton	6				
3.2.4	Ditto, but 13m/m dia. or less, plain bar.	Ton	21				
3.2.5	Transportation and installation of beams on pile bents.	Each	507				
3.2.6	Supply and setting of the bearing for beams on pile bents. 200m/m wide x 11.0m long x 30m/m thick rubber plate.	Sheet	28				
3.2.7	Ditto, but 200m/m wide x 12.6m long x 30m/m thick rubber plate.	Sheet	2				
3.2.8	Ditto, but 200m/m wide x 2.3m long x 30m/m thick rubber plate.	Sheet	2				
3.2.9	Supply and fixing of the fixed end anchor rod for beams on pile bents. 26m/m dia. x 500m/m long anchor rod.	Each	171				
3.2.10	Supply and fixing of the movable end anchor rod for beams on pile bents. 26m/m dia. x 500m/m long capped anchor rod as shown in the Drawings.	Each	93				
3.2.11	Filling class C concrete in between P.S. beams, including formwork for sides and sealing of the soffit gaps of the beams.	Cu.m	543				

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
3.2.12	Setting up of prestressing steel bars, sheathes and fastening assembly, and also post-tensioning in the crossing direction of P.S. beams including cement mortar grouting. 23m/m dia. steel bar, 102 kg/mm <sup>2</sup> tensile strength and more.	Nos of bar	272				
	Sub Total:						
	<u>3.3 DUCT FOR ELECTRICAL CABLE AND WATER:</u> TYPE: A (including movable duct)  <u>185cm deep x 289cm wide x 11.98m long x 14 nos.</u>						
3.3.1	Concrete for duct, including formwork. Class B.	Cu.m	458				
3.3.2	Reinforcing bars for duct, including fixing of pieces of steel pipe for duct and others as shown in the Drawings. 16m/m dia. and more, deformed bar.	Ton	27				
3.3.3	Ditto, but 13m/m dia. or less, plain bar.	Ton	11				
3.3.4	Transportation and installation of duct on pile bents.	Each	14				
3.3.5	Supply and setting of the bearing for ducts on pile bents including fixing of anchor assembly as shown in the Drawings. 500m/m wide x 500m/m long x 10m/m thick rubber plate.	Sheet	56				
3.3.6	Precasting, transportation and installation of concrete duct covers, including all materials as shown in the Drawings and formwork. Type F: 149cm wide x 198.5cm long x 15cm thick.	Each	107				
3.3.7	Ditto, but, Type G: 69cm wide x 198.5cm long x 15cm thick	Each	113				

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
3.3.8	Ditto, but including rubber bearing APPROACH 100cm wide x 355cm SLAB long x 24-34cm, thick.	Each	32				
	Sub Total:						
	<b>3.4 DUCT FOR OIL AND WATER SUPPLY PIPINGS:</b>						
	<u>TYPE A:</u> 160cm deep x 268cm wide x 11.98m long x 15 nos.						
3.4.1	Concrete for duct, including formwork, class B.	Cu.m	443				
3.4.2	Reinforcing bars for duct, including fixing of pieces of steel pipe for duct and the angles for corner protection of duct as shown in the Drawings. 16m/m dia. or more, deformed bar.	Ton	35				
3.4.3	Transportation and installation of duct on pile bents.	Each	15				
3.4.4	Supply and setting of the bear- ing on pile bents for ducts including fixing of anchor assembly as shown in the Drawings. 500m/m wide x 500m/m long x 10m/m thick rubber plate.	Sheet	60				
3.4.5	Precasting, transportation and installation of the concrete duct covers, including all materials as shown in the Drawings and formwork. Type A: 179cm wide x 199.5cm long x 20cm, thick.	Each	142				
3.4.6	Ditto, but Type B: 179cm wide x 224.5cm long x 20cm thick.	Each	1				
3.4.7	Ditto, but Type C: 179-201.2cm wide x 220.9-50cm long x 20cm thick.	Each	1				
	Sub Total:						
	Total:						

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
	<b>SECTION 4: CAST IN-SITU CONCRETE WORK</b>						
	<b>4.1 TOP CONCRETE OF MOORING DOLPHINS</b>						
4.1.1	Filling concrete into steel pipe piles. 2.0m filling depth, class E. For 1,016m/m dia. piles.	Nos of pile	30				
4.1.2	Concrete for dolphin top, including formwork. Class D.	Cu.m	622				
4.1.3	Reinforcing bars, 16m/m dia. or more, deformed bar.	Ton	28				
	Sub Total:						
	<b>4.2 TOP CONCRETE OF PILE BENTS</b>						
	TYPE A: 1 No.						
	TYPE B: 1 no.						
	TYPE C: 8 nos.						
	TYPE C': 1 no.						
	TYPE D: 4 nos.						
	TYPE D': 1 no.						
4.2.1	Filling concrete in steel pipe piles. 1.0m filling depth, class E. For 914.4m/m dia. piles.	Nos of pile	256				
4.2.2	Ditto, but for 647.7m/m dia. piles.	Nos of pile	10				
4.2.3	Concrete for top of pile bents including formwork. Class D.	Cu.m	9,490				
4.2.4	Reinforcing bars, 16m/m dia. or more, deformed bar.	Ton	261				

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
4.2.5	Ditto, but 13m/m dia. or less, deformed bar.	Ton	11				
	Sub Total:						
<b>4.3 CONCRETE PAVEMENT FOR SLAB</b>							
	TYPE A: 11m wide x 11m long x 14 parts.						
	TYPE B: 12.65m wide x 11m long x 1 part.						
	TYPE C: 2.3m wide x 11m long x 1 part.						
4.3.1	Concrete pavement including joint filler as shown in the drawings. 15cm thick concrete pavement	Cu.m	279				
4.3.2	Reinforcing bars for pavement 6m/m dia. plain bar.	Ton	6				
	Sub Total:						
<b>4.4 FLOOR CONCRETE OF MAINTENANCE PLATFORM:</b>							
<b>5.9m wide x 24m long x 2 parts</b>							
4.4.1	Filling concrete in steel pipe piles, 1.0m filling depth, Class E. For 812.8m/m dia. piles.	Nos of pile	20				
4.4.2	Concrete for beams and slabs, including formwork. Class C.	Cu.m	224				
4.4.3	Reinforcing bars. 16m/m dia. or more, deformed bar.	Ton	7				
4.4.4	Ditto, but 13m.m dia. or more, deformed bar.	Ton	10				
	Sub Total:						
	Total:						



Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
<b>SECTION 5: METAL WORK</b>							
<b>5.1 LADDER</b>							
5.1.1	Supply and installation of Ladder with fixing material as shown in the Drawings or using equivalent materials as approved by the Engineer, including painting. TYPE B: 4.30m long.	Each	10				
5.1.2	Ditto, but TYPE A: 4m long.	Each	2				
5.1.3	Ditto, but TYPE C: 2.15m long.	Each	12				
Sub Total:							
<b>5.2 WHEEL GUARD AND GUARD RAIL</b>							
5.2.1	Supply and fixing in position of wheel guard using Class E concrete as shown in the Drawings or as approved by the Engineer including painting complete in all respects. Type A: 3.0m long.	Each	13				
5.2.2	Ditto, but Type B: 1.5m long.	Each	3				
5.2.3	Supply and fixing of Guard Rail in position as shown in the Drawings or as approved by the Engineer, including galvanizing complete in all respects.	Lin.m	88				
Sub Total:							
<b>5.3 METAL WORKS FOR THE DUCT FORMED IN-SITU ON THE TOP CONCRETE OF PILE BENT</b>							
5.3.1	Supply and fixing protection angle for duct corner in position as shown in the Drawings. 24m long.	Nos of pile bent	16				
5.3.2	Supply and installation of Box cover for Electric Cable as shown in the Drawings, including painting. 1.49m wide x 0.995m long.	Each	12				

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
5.3.3	Supply and fixing of out-let sleeve pipes for oil and water supply piping as shown in the Drawings. 300mm/m dia. x 3.1m long, steel pipe.	Nos of pipe	12				
	Sub Total:						
	Total:						

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
	<b>SECTION 6: INSTALLATION WORK OF EQUIPMENT</b>						
	<b>6.1 FENDERING SYSTEM</b>						
6.1.1	Supply and fixing in position "Cell Type" 1,700mm dia. rubber fender units complete with fittings as shown in the Drawings or other similar equivalent as approved by the Engineer.	Sets	12				
	Sub Total:						
	<b>6.2 MOORING FACILITIES</b>						
6.2.1	Supply and installation of bitts and anchor assembly, including use of concrete Class E as shown in the Drawings or as approved by the Engineer. Cast steel, line pull capacity of 100 ton.	Sets	12				
6.2.2	Ditto, but For line pull capacity of 70 ton.	Sets	6				
6.2.3	Supply and fixing in position motor driven type Capstans with control box stand and anchor assembly as shown in the Drawings or as approved by the Engineer. 2 ton x 12 HP in pulling force capacity.	Sets	6				
	Sub Total:						
	Total:						

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
	<b>SECTION 7: ANCILLARY WORK</b>						
	<b>7.1 CRANE RAIL TRACK</b>						
	Supply, Transportation, unloading, handling, installation and fixing in position, the crane rails, fittings and other accessories 264m long x 4 rails.						
7.1.1	Installation and fixing of crane rails on P.S. girders with fittings including use of Class C concrete placing as shown in the Drawings. weight: <u>77 kg/m</u>	Lin.m	984				
7.1.2	Installation of rail end stoppers as shown in the Drawings.	Sets	4				
7.1.3	Installation of Unloader stoppers as shown in the Drawings.	Sets	8				
7.1.4	Installation of jack up plates as shown in the Drawings.	Sets	16				
	Sub Total:						
	<b>7.2 ANCHOR HOLE FOR POST OF CONVEYER FRAME</b>						
7.2.1	Forming of Anchor holes required for the erection of the post of conveyer frame and others on the top of pile bents, on the pavement of P.S. beams, and on the wall of ducts. 200m/m sq. x (150-300)m/m deep.	Each	157				
	Sub Total:						
	Total						

BILL OF QUANTITIES

PART III

APPROACH TRESTLE

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PART III APPROACH TRESTLE

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Sum Total . . . . . RS.

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
	<u>SECTION 1: PILING WORK</u>						
	<u>1.1 PILING FOR PILE BENT</u>						
	<u>TYPE I</u>						
1.1.1	Supply, delivery, unloading, handling and stacking on site of steel pipe piles reinforced at the ends with ring plates, including joint welding of pipes at the workyard of site as shown in the Drawings. 812.8m/m dia. x 12.7m/m thick x 24m long x 18 nos. x 22.5m long x 5 nos. A.S.T.M-A252 Grade 2.	Ton	142				
1.1.2	Transportation, handling and pitching in position. 812.8m/m dia. x 24m long raking pile.	Each	18				
1.1.3	Ditto as item 1.1.2, but 812.8m/m dia x 22.5m long vertical pile.	Each	5				
1.1.4	Direct driving of piles from the dredged sea bed to a depth of -18 meters as indicated in the Drawings. 812.8m/m dia. raking pile.	Nos of pile	18				
1.1.5	Ditto as item 1.1.4, but 812.8m/m dia. vertical pile.	Nos of pile	5				
1.1.6	Additional pile driving to item 1.1.4 and 1.1.5, to a depth where the required pile bearing capacity can be obtained, including splicing as indicated in the Specification. In this case, the schedule rate per 2 meters of extension length shall be inserted in the right column. For 812.8m/m dia. raking pile (PROVISIONAL)	Nos of splicing	1				
	For 812.8m/m dia. vertical pile. (PROVISIONAL)	Nos of splicing	1				

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
1.1.7	Filling sand into piles up to the level as specified. For 812.8m/m dia. pile.	Cu.m	192				
1.1.8	Cutting off the top of pile driven in at the required level, including fixing of reinforcement steel bars for pile head as shown in the Drawings. For 812.8m/m dia. pile.	Nos of pile	23				
Sub Total:							
<u>1.2 PILING FOR PILE BENT</u>							
<u>TYPE II</u>							
1.2.1	Supply, delivery, unloading, handling and stacking on site of steel pipe piles reinforced at the ends with ring plates, including joint welding of pipes at the workyard of site as shown in the Drawings. 812.8m/m dia x 12.7m/m thick x 24m long x 60 nos. A.S.T.M-A252 Grade 2.	Ton	376				
1.2.2	Transportation, handling and pitching in position. 812.8m/m dia x 24m long raking pile.	Each	60				
1.2.3	Direct driving of piles from the dredged sea bed to a depth of -18 meters as indicated in the Drawings. 812.8m/m dia. raking pile.	Nos of pile	60				
1.2.4	Filling sand into piles up to the level as specified. For 812.8m/m dia. pile.	Cu.m	271				
1.2.5	Cutting off the top of pile driven in at the required level, including fixing reinforcement steel bars for pile head as shown in the Drawings. For 812.8m/m dia. pile.	Nos of pile	60				
Sub Total:							



Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
	<u>1.3 PILING FOR PILE BENT</u>						
	<u>TYPE III</u>						
1.3.1	Transportation from Karachi Port, unloading and stacking on site of steel pipe piles supplied by P.Q.A. 647.4m/m dia x 12.7m/m thick x 12.65m, 10.0m and 6.0 long.	Lin.m	276				
1.3.2	Manufacturing of 647.7m/m diameter steel pipe pile as shown in the Drawings using the piles of item 1.3.1 at the workyard of site, including cutting and processing of piles, fitting up of joint materials, joint welding, reinforcement of pile ends with ring plates and painting, 647.7m/m dia x 12.7m/m thick x 23m long.	Nos of pile	10				
1.3.3	Transportation, handling and pitching in position. 647.7m/m dia. 23m long raking pile	Each	10				
1.3.4	Driving piles directly from the dredged sea bed to a depth of -18 meters as indicated in the Drawings. 647.7m/m dia. raking pile.	Nos of pile	10				
1.3.5	Filling sand into piles up to the level as specified. For 647.7m/m dia. pile.	Cu.m	24				
1.3.6	Cutting off the top of pile driven in at the required level including fixing of reinforced steel bars for pile head as shown in the Drawings. For 647.7m/m dia. pile.	Nos of pile	10				
	Sub Total:						
	Total :						

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
<b>SECTION 2: CORROSION PROTECTION</b>							
<b>2.1 PROTECTION FOR THE FOUNDATION PILE OF PILE BENT TYPE I</b>							
2.1.1	Supply, delivery and fixing of (to steel pipe pile) Aluminium alloy, complete with fittings as shown in the Drawings or other equivalent as approved by the Engineer. Type P-D104 anode weight 98 kg.	Each	29				
2.1.2	Fixing of Potential measuring terminal to steel pipe pile for "Cathodic Protection" as shown in the Drawings and test operation.	Each	1				
2.1.3	Installation of pile jacket to steel pipe piles including cement mortar grouting as shown in the Drawings. For 812.8m/m dia. pile, 3.83m long.	Nos of pile	14				
2.1.4	Ditto as item 2.1.3, but 3.60m long.	Nos of pile	4				
2.1.5	Ditto as item 2.1.3, but 3.20m long.	Nos of pile	1				
2.1.6	Ditto as item 2.1.3, but 3.40m long.	Nos of pile	4				
Sub Total:							
<b>2.2 PROTECTION FOR THE FOUNDATION PILE OF PILE BENT TYPE II</b>							
2.2.1	Ditto as item 2.1.1 Type P-D104, anode weight 98 kg.	Each	62				
2.2.2	Ditto as item 2.1.2	Each	6				

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
2.2.3	Ditto as item 2.1.3, but For 812.8 m/m dia. pile, 3.40m long	Nos of pile	60				
	Sub Total:						
	<u>2.3 PROTECTION FOR THE FOUNDATION PILE OF PILE BENT TYPE III</u>						
2.3.1	Ditto as item 2.1.1 Type SA-2, anode weight 4 kg.	Each	42				
2.3.2	Ditto as item 2.1.2	Each	1				
	Sub Total:						
	Total :						

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
<b>SECTION 3: PRECAST CONCRETE WORK</b>							
<b>3.1 P.S. BEAM FOR SLAB:</b> 60 cm deep x 23 - 32 cm wide x 15m long x 252 nos.							
3.1.1	Concrete for beam, including formwork. Class A.	Cu.m	390				
3.1.2	Setting up of prestressing wire strands and pre-tensioning. 1/4" dia. 7 wire strand, ASTM-A416. grade 250	Ton of strand	28				
3.1.3	Reinforcing bars for beam 16m/m dia. or more, plain bar.	Ton	3				
3.1.4	Ditto, but 13m/m dia or less, plain bar.	Ton	14				
3.1.5	Transportation and installation of beams on pile bents .	Each	252				
3.1.6	Supply and setting of the bearing for beams on pile bents. 200m/m wide x 12m long x 30m/m thick rubber plate.	Sheet	14				
3.1.7	Supply and fixing of the fixed end anchor rod for beams on pile bents. 26m/m dia x 500m/m long anchor rod.	Each	119				
3.1.8	Supply and fixing of the movable end anchor rod for beams on pile bents. 26m/m dia. x 500m/m long capped anchor rod as shown in the Drawings.	Each	63				
3.1.9	Filling concrete in between P.S. beams, including formwork for sides and sealing of the soffit gaps of the beams. Class C.	Cu.m	367				
3.1.10	Setting up of prestressing steel bars, sheaths and fastening assembly, and also post-tensioning in the crossing direction of P.S. beams including cement mortar grouting. 23m/m dia steel bar, 102 kg/mm <sup>2</sup> tensile strength and more.	Nos of bar	161				
Sub Total:							

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
	<b>3.2 DUCT FOR ELECTRIC CABLE AND WATER</b>						
	<b>TYPE A:</b>						
	<u>120cm deep x 259cm wide x 17.99m long x 5 nos.</u>						
	<b>TYPE B:</b>						
	<u>120cm deep x 259cm wide x 16.49m long x 2 nos.</u>						
	<b>TYPE C:</b>						
	<u>120cm deep x 289-259 cm wide x 5.605m long x 1 nos.</u>						
3.2.1	Concrete for Duct, including formwork. Class B.	Cu.m	195				
3.2.2	Reinforcing bars for Duct, including fixing of pieces of steel pipe for duct as shown in the Drawings. 16m/m dia and more, deformed bar.	Ton	17				
3.2.3	Ditto, but 13m/m dia or less, plain bar.	Ton	8				
3.2.4	Transportation and installation of Duct on pile bents.	Each	8				
3.2.5	Supply and setting of the bearing for Duct on pile bents including fixing of anchor assembly as shown in the Drawings. 500m/m wide x 500m/m long x 10m/m thick rubber plate.	Sheet	32				
3.2.6	Precasting, transportation and installation of concrete duct covers, including all materials as shown in the Drawings and formwork. 114.25cm wide x 198.5cm long x 10cm thick.	Each	74				
3.2.7	Ditto, but 97.5cm wide x 198.5cm long x 10cm thick	Each	74				
3.2.8	Ditto, but 144.25-104.25cm wide x 39.1-235.7cm long x 15cm thick.	Each	4				
	<b>Sub Total:</b>						

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
	<u>3.3 DUCT FOR OIL AND WATER</u> <u>SUPPLY PIPINGS</u>  <u>TYPE A:</u>  <u>145cm deep x 189cm wide x</u> <u>17.99m long x 5 nos.</u>  <u>TYPE B:</u>  <u>145cm deep x 189cm wide x</u> <u>16.49m long x 2 nos.</u>  <u>TYPE C:</u>  <u>145cm deep x 189cm wide x</u> <u>3.69m long x 1 no.</u>						
3.3.1	Concrete for Duct, including formwork, Class B.	Cu.m	117				
3.3.2	Reinforcing bars for Duct, including fixing of pieces of steel pipe for duct as shown in the Drawings. 16m/m dia. and more, deformed bar.	Ton	11				
3.3.3	Ditto, but 13m/m dia. or less, plain bar.	Ton	4				
3.3.4	Transportation and installation of ducts on pile bents.	Each	8				
3.3.5	Supply and setting of the bearing for ducts on pile bents, including fixing of anchor assembly as shown in the Drawings. 500m/m wide x 500m/m long x 10m/m thick rubber plate.	Sheet	32				
3.3.6	Precasting, transportation and installation of the concrete duct covers, including all materials as shown in the Drawings and formwork. 169cm wide x 199.5cm long x 15cm thick.	Each	69				
3.3.7	Ditto, but 169cm wide x 149.5cm long x 15cm thick.	Each	1				
	Sub Total:						
	Total :						

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
<b>SECTION 4: CAST IN-SITU CONCRETE WORK</b>							
<b>4.1 FLOOR CONCRETE OF PILE BENT TYPE I</b>							
4.1.1	Filling concrete into steel pipe piles. 1.0m filling depth, class E. For 812.8m/m dia. piles.	Nos of pile	23				
4.1.2	Concrete for the floor of pile bents, including formwork. Class C.	Cu.m	333				
4.1.3	Reinforcing bars. 16m/m dia or more, deformed bars	Ton	14				
4.1.4	Ditto, but 13m/m dia or less, deformed bars	Ton	10				
Sub Total:							
<b>4.2 TOP CONCRETE OF PILE BENT TYPE II</b>							
4.2.1	Filling concrete into steel pipe piles. 1.0m filling depth, class E. For 812.8m/m dia. piles.	Nos of pile	60				
4.2.2	Concrete for the top of pile bents, including formwork. class C.	Cu.m	777				
4.2.3	Reinforcing bars. 16m/m dia. or more, deformed bars	Ton	21				
4.2.4	Ditto, but 13m/m dia. or less, deformed bars	Ton	6				
Sub Total:							

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
<b>4.3 BODY CONCRETE OF PILE BENT TYPE III</b>							
4.3.1	Filling concrete into steel pipe piles. 1.0m filling depth, class E. For 647.7m/m dia. piles.	Nos of pile	10				
4.3.2	Levelling concrete on the riprap mound of the Terminal embankment as shown in the Drawings, including necessary levelling of the top of the mound.	Cu.m	74				
4.3.3	Concrete for the body of pile bent, including formwork. class C.	Cu.m	110				
4.3.4	Reinforcing bars. 16m/m dia. or more, deformed bar.	Ton	4				
4.3.5	Ditto, but 13m/m dia. or less deformed bar.	Ton	1				
	Sub Total:						
<b>4.4 CONCRETE PAVEMENT FOR SLAB: 12cm wide x 15m long x 7 parts.</b>							
4.4.1	Concrete pavement including joint filler as shown in the Drawing. 15cm thick.	Cu.m	189				
4.4.2	Reinforcing bars for pavement. 6m/m dia. plain bar.	Ton	4				
	Sub Total:						
	Total:						



Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
	<b>SECTION 5: METAL WORK</b>						
	<b>5.1 GUARD RAIL</b>						
5.1.1	Supply and fixing of Guard Rail in position as shown in the Drawings or as approved by the Engineer, including painting complete in all respects.	Lin.m	137				
	Sub Total:						
	<b>5.2 METAL WORKS FOR THE DUCT FORMED IN SITU ON THE BODY CONCRETE OF PILE BENT TYPE III</b>						
5.2.1	Supply and fixing of in-let sleeve pipes for oil and water supply piping as shown in the Drawings 300m/m dia x 0.2m long, steel pipe.	Nos of pipe	7				
	Sub Total:						
	Total:						

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
	<u>SECTION 6: ANCILLARY WORK</u>						
	<u>6.1 ANCHOR HOLL FOR POST OF CONVEYER FRAME</u>						
6.1.1	Forming of Anchor holes required for the erection of the Post of conveyer frame on the top of pile bents and the pavement of P.S. beams. 200m/m sq x (150-300)m/m deep.	Each	50				
	Total:						

BILL OF QUANTITIES

PART IV

SMALL CRAFTS PIER

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<hr/>		
	Total .....	RS.

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
	<u>PART IV SMALL CRAFTS PIER</u>						
	<u>SECTION 1: Steel Pipe Pile Work</u>						
1.1	Transportation of Steel Pipe Piles supplied by the P.Q.A. φ = 647.7 mm (2' 1.1/2"), t = 12.7 mm (1/2") from Karachi Port to the Site 11.60m long ... 72 pcs. 10.00m long ... 54 pcs. 6.00 - 6.65m long ... 18 pcs.	Lin.m	1,489.05				
1.2	Fabrication of piles including cutting of deformed parts and jointing by welding.	Each	72				
1.3	Driving up to the designated depth including cutting off the top of pile driven to the required level, as shown in the Drawings.	Each	72				
1.4	Additional pile driving to Item 1.1 to 1.3, extension length within 5 meters i/c splicing. (PROVISIONAL)	Each	72				
	Sub-Total:						
	<u>SECTION 2: In-Situ Concrete</u>						
2.1	Fixing of reinforced pile top for 647.70mm dia pipes	Each	72.				
2.2	Reinforcing bars, 16mm dia. and more in pile cap, beams, step, duct and bitt.	tons	73.95				
2.3	Ditto, but 13mm dia. or less	tons	15.13				
2.4	Anchor bolts, nuts and washers for fixing precast slab to beams	Each	315.				
2.5	Class C Concrete in pile jacket and cap	Cu.m	192.7				
2.6	Ditto, but in beams, step and duct	Cu.m	351.6				
2.7	Bitt including material and installation	Each	7.				
	Sub-Total:						
	<u>SECTION 3: Precast Concrete</u>						
3.1	Reinforcing bars, 16mm dia. and more in precast slabs	tons	60.86				

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
3.2	Holes for anchor bolts including materials	Each	315.				
3.3	Class B concrete in precast concrete slab	Cu.m	182.1				
3.4	Installation of precast concrete slab max. size 5.0m x 6.0m x 0.2m including levelling mortar (t=2 cm)	Each	42.				
3.5	Precast concrete duct cover including material and installation	Cu.m	7.9				
	Sub-Total:						
	<u>SECTION 4: Pavement</u>						
4.1	Concrete pavement	Sq.m	938.1				
	Sub-Total:						
	<u>SECTION 5: Accessories</u>						
5.1	Wooden fender creosoted with anchor bolts, nuts and washers and installation.	Each	18.				
5.2	Guard rail with base plate, anchor bolts, nuts and washers including coating and installation.	Lin.m	171.3				
	Sub-Total:						

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PART V

LAND RECLAMATION

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SUMMARY

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	Total .....	RS.



Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
<b><u>PART V: LAND RECLAMATION</u></b>							
<b><u>SECTION 1: Banking and Riprapping</u></b>							
1.1	Riprapping with filter course in Part I, 5kg - 10kg in weight	cu.m	40,250				
1.2	Ditto, but in Part II	cu.m	18,830				
1.3	Sand fill below +0.50m	cu.m	70,570				
1.4	Ditto, but in elevation +0.50 to +4.00	cu.m	32,300				
1.5	Ditto, but in elevation +4.00 m above.	cu.m	7,720				
1.6	Armour stone pitching below +1.00	cu.m	4,720				
1.7	Ditto, but above +1.00	cu.m	2,700				
Sub-Total:							
<b><u>SECTION 2: Sea Wall Work</u></b>							
2.1	Reinforcing bars in type-A sea wall i/c providing concrete in the base and levelling to the req. level	tons	1.7				
2.2	Ditto, but in type-B sea wall	tons	7.9				
2.3	Class C concrete in type-A sea wall	cu.m.	26.3				
2.4	Ditto, but in type-B sea wall	cu.m	40.5				
2.5	Crushed stone for backfilling behind sea wall	cu.m	162.6				
Sub-Total:							
<b><u>SECTION 3: Drainage</u></b>							
3.1	L-type ditch, type-I including all materials, excavations and installation	Lin.m	241.				
3.2	Ditto, but type-II	Lin.m	240.				
3.3	U-type ditch, including all materials, excavations & installation	Lin.m	379.				
3.4	Asbestos cement drain pipe with joint and protector under road, 300 mm dia.	Lin.m	21.48				

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
3.5	Ditto, but 300mm dia. without protection	Lin.m	21.56				
3.6	Asbestos cement drain pipe with joint and protector under road, 400mm dia.	Lin.m	19.0				
3.7	Ditto, but 400mm dia. without protection.	Lin.m	17.6				
3.8	Manhole including all materials, excavation and installation. Type-A & B	Each	10.				
3.9	Ditto, but type-C	Each	2.				
	Sub-Total:						
	<u>SECTION 4: Pavement</u>						
4.1	Penetration Macadam Pavement (t = 35 cm)	sq.m	6,643.1				
4.2	Concrete pavement	sq.m	137.1				
4.3	Precast curb stone	Lin.m	557.				
	Sub-Total:						
	<u>SECTION 5: Sodding</u>						
5.1	Sodding	sq.m	196.9				
	Sub-Total:						
	<u>SECTION 6: Gate and Fencing</u>						
6.1	Steel sliding gate, including track rail and painting, type-A, 15.200m x 1.200m	Each	1				
6.2	Ditto, type-B, 13,600m x 1.200m	Each	1				
6.3	Chain link neting gate: Double swing, including concrete foundation with excavation and disposal 6m wide x 2m high	Each	2				
6.4	Concrete block fence, hollow core concrete block fence, including reinforced concrete foundation and excavation with disposal 2.000m high	Lin.m	86				

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
6.5	Chain link fencing galv. steel post and galv. neting including conc, foundation with excavation and disposal	Lin.m	240				
	Sub-Total:						

PART VI

WATER AND OIL SUPPLY AND FIRE FIGHTING

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1-3 Hoses and Nozzles	
1-4 Expansion and Flexible Joints	
1-5 Miscellaneous	
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2-2 Valve and Outlets	
2-3 Hoses	
2-4 Expansion and Flexible Joint	
2-5 Pits and Covers	
2-6 Heating and Duct for "C" Heavy Oil Pipe	
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3-1 Pump and Its Accessories	
3-2 Gasoline Station	
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SUMMARY

PART VI WATER AND OIL SUPPLY AND FIRE FIGHTING

Division 1	Service Reservoir and Inlet Piping .....	RS.
Division 2	Equipment and Pipeline for Distribution.	RS.
Division 3	Pump House .....	RS.
<hr/>		
	Total .....	RS.

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
	<b>PART VI: WATER AND OIL SUPPLY AND FIRE FIGHTING</b>						
	<b>DIVISION-1 SERVICE RESERVOIR AND INLET PIPING</b>						
	<b>SECTION 1: Precast Reinforced Concrete Piles</b>						
1.1	Reinforcing plain bars, dia. 16mm and more	ton	25.4				
1.2	Ditto, but 13mm and 9mm dia.	ton	7.1				
1.3	Class C concrete $\sigma_{ck} = 240 \text{ kg/cm}^2$	cu.m	181.4				
1.4	Shoes and caps by steel plate thickness: 12mm weight of unit shoe and cap: 46.10 kg	Each	50				
1.5	Joint rings by steel plate thickness: 12mm weight of unit joint ring: 67.84 kg	Each	50				
1.6	Driving piles pile length: 23.0 m	Each	50				
1.7	Site connection of piles by welding	Each	50				
1.8	Cutting off or stripping heads of piles	Each	50				
	Sub-Total:						
	<b>SECTION 2: Main Body of Service Reservoir</b>						
2.1	Excavation including fill and disposal	cu.m	797.4				
2.2	Blinding crushed stone and compaction minimum thickness: 20cm	Sq.m	364.4				
2.3	Class E leveling concrete $\sigma_{ck} = 150 \text{ kg/cm}^2$ minimum thickness: 10 cm	Sq.m	364.4				
2.4	Reinforcing plain bars dia. 13mm and 9mm	ton	22.5				

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS.		Item Price in PAK. RS.	
				RS.	Paisa	RS.	Paisa
2.5	Reinforcing plain bars dia 16mm	ton	19.6				
2.6	Class C concrete	cu.m	364.2				
2.7	Class E plain concrete for protecting pipes and drainage fch = 150 kg/cm <sup>2</sup>	cu.m	50.6				
2.8	Water proof mortar in walls thickness in 30mm	sq.m	473.2				
2.9	Ditto, but 30 to 80mm on roof	sq.m	294.3				
	Sub-Total:						
<b>SECTION 3: Accessories of Service Reservoir</b>							
3.1	Maintenance step on inner surface round bar dia. 22mm with painting	kg	116.7				
3.2	Handrail for stairs steel pipes dia. 1-1/4" and 3/4" with painting (32 mm) (19 mm)	kg	63.5				
3.3	Floor drain in the pump house dia. 50mm	lump sum	1	_____			
3.4	Ventilation on roof natural ventilation type dia. 300mm	lump sum	1	_____			
3.5	Cast iron cover for manhole waterproof type dia. 600mm	Each	3				
3.6	Cover on power supply pit, cast iron grating size: 450mm x 700mm x 20mm	Each	10				
3.7	Ditto, but in size 450mm x 500mm x 20 mm	Each	7				
3.8	Water level indicator float type	Each	1				
3.9	Polyvinyl chloride pipe in well for item 3.8, dia. 300mm	Lin.m	2.7				
3.10	Ditto, but in sleeve pipe, dia. 150mm	Lin.m	2.8				
3.11	Ditto, but in sleeve pipe, dia. 75mm	Lin.m	0.7				
3.12	Supporting metal for Item 3.9 with painting	kg	31.3				

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
	Sub-Total:						
	<u>SECTION 4: Valve and Fittings to Service Reservoir</u>						
4.1	Sluice gate and accessories in suction well size, 500mm x 500mm	Each	2				
4.2	Gate valve, allowable operating pressure 7.5 kg/cm <sup>2</sup> in dia. 300mm	Each	1				
4.3	Ditto, but in dia. 100mm	Each	2				
4.4	Ditto, but in dia. 75mm	Each	3				
4.5	Float valve, allowable operating pressure 3.0 kg/cm <sup>2</sup> in dia. 100mm	Each	2				
4.6	Manual operating stand for item 4.1	Each	2				
4.7	Ditto, but for Item 4.2	Each	1				
4.8	Ditto, but for Items 4.3 and 4.4	Each	5				
4.9	Water supply steel pipe including joint and fittings in dia. 300mm	Lin.m	0.9				
4.10	Ditto, but in 100mm	Lin.m	4.0				
4.11	Ditto, but in 80mm	Lin.m	9.7				
	Sub-Total:						
	<u>SECTION 5: Inlet Piping</u>						
5.1	Excavation for water supply pipes including fill and disposal	cu.m	139.5				
5.2	Water supply steel pipes including joint and fittings, in dia. 150mm	Lin.m	71.0				
5.3	Ditto, but in dia. 100mm	Lin.m	18.0				
5.4	Ditto, but in dia. 75mm	Lin.m	98.7				
5.5	Gate valve, allowable operating pressure 7.5 kg/cm <sup>2</sup> in dia. 100mm	Each	1				



Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
5.6	Valve cover for Item 5.5 including plain concrete, crushed stone and form	lump sum	1	—			
	Sub-Total:						
	Total:						

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
<b>DIVISION-2 EQUIPMENT AND PIPELINE FOR DISTRIBUTION</b>							
<b>SECTION 1: Potable Water Distribution System</b>							
1-1	Distributing Pipes						
1.1	200mm protective coating and covering steel pipe under the ground in concrete duct	Lin.m	130				
		Lin.m	410				
1.2	150mm, ditto	Lin.m	25				
1.3	100mm, ditto	Lin.m	115				
1.4	80mm, ditto	Lin.m	85				
1.5	65mm galvanized steel pipe	Lin.m	25				
1.6	32mm, ditto	Lin.m	290				
1.7	25mm, ditto	Lin.m	60				
1.8	90° bend	lot	1				
1.9	Tee	lot	1				
1.10	Reducer	lot	1				
1.11	Blind flange	lot	1				
1.12	Flange with bolt and nut	lot	1				
1.13	200mm gate valve 10 kg/cm <sup>2</sup> pressure manually operated, outside screw type	Each	4				
1.14	150mm, ditto	Each	4				
1.15	100mm, ditto	Each	1				
1.16	80mm, ditto	Each	6				
1.17	65mm, ditto	Each	1				
1.18	32mm, ditto	Each	1				
1.19	25mm, ditto	Each	3				
1.20	65mm solenoid valve 10kg/cm <sup>2</sup> pressure 380V, 50Hz, 3 phase	pcs.	1				
1.21	32mm, ditto	pcs	1				

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
1-2	Outlets						
1.2.1	200mm water meter wet dial, round reading register vertical vane propeller type accuracy: within 10.5% flow range: 52 - 160 m <sup>3</sup> /hr working pressure: 10 kg/cm <sup>2</sup>	pcs.	1				
1.2.2	150mm water meter flow range: 30 - 100 m <sup>3</sup> /hr others: same as Item 1.2.1	pcs.	4				
1.2.3	80mm water meter flow range: 10 - 30 m <sup>3</sup> /hr others: ditto	pcs.	3				
1.2.4	100mm fire hydrant underground, double nozzle type working pressure: 10 kg/cm <sup>2</sup>	pcs.	4				
1.2.5	80mm fire hydrant underground, single nozzle type	pcs.	3				
1.2.6	150mm outlet with cap and chain working pressure: 10 kg/cm <sup>2</sup>	pcs.	4				
1.2.7	80mm outlet same as Item 1.2.5	pcs.	2				
1-3	Hoses and Nozzles						
1.3.1	Hose and nozzle for Item 1.2.4. hose: dia. 65mm x length 20m x 2 roll nozzle dia.: 20mm working pressure: 10 kg/cm <sup>2</sup>	set	2				
1.3.2	Hose and nozzle for Item 1.2.5. hose: dia. 65mm x length 20m x 1 roll nozzle dia.: 20mm working pressure: 10 kg/cm <sup>2</sup>	set	2				
1.3.3	150mm water supply rubber hose length: 40m with flange and connector working pressure: 10 kg/cm <sup>2</sup>	set	4				
1.3.4	80mm water supply rubber hose length: 20m with flange and con- nector working pressure: 10 kg/cm <sup>2</sup>	set	2				
1-4	Expansion and Flexible Joints						

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
1.4.1	200mm expansion joint axial movement: 60mm bellows type with cover working pressure: 10 kg/cm <sup>2</sup>	pcs.	1				
1.4.2	200mm expansion joint axial movement: 40mm others: ditto	pcs.	3				
1.4.3	200mm expansion joint axial movement: 20mm others: ditto	pcs.	1				
1.4.4	100mm expansion joint axial movement: 40mm others: same as Item 1.4.1.	pcs.	1				
1.4.5	200 flexible joint lateral deflection: 300mm bellows type with cover working pressure: 10 kg/cm <sup>2</sup>	pcs.	1				
1.4.6	100mm flexible joint ditto	pcs.	1				
1.4.7	80mm flexible joint ditto	pcs.	1				
1.4.8	65mm flexible joint ditto	pcs.	1				
1-5	Miscellaneous						
1.5.1	Pipe support including those of fuel oil pipe	lot	1				
1.5.2	Cover plate of steel checker plate for outlet pit in Main Berth	pcs.	4				
1.5.3	Cover plate of steel checker plate for outlet pit in Small Craft Pier	pcs.	2				
1.5.4	Manhole of cast iron for utilities duct in Main Berth	pcs.	8				
1.5.5	Wire net fence for water meter complete with foundation and anchor bolt	set	1				
1.5.6	Water service tank for wash basin in pump house and sub station for electric power supply complete with ball tap and bracket	set	2				
1.5.7	Drainage valve pit of asbestos cement pipe with steel plate cover	set	4				

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
1.5.8	Concrete pit for outdoor hydrant with steel cover plate	set	1				
	Sub-Total:						
	<u>SECTION 2: Fuel Oil Distribution System</u>						
2-1	Distributing Pipes						
2.1.1	200mm seamless black carbon steel pipe						
	for "A" heavy oil (underground)	Lin.m	170				
	(concrete duct)	Lin.m	380				
	for "C" heavy oil	Lin.m	550				
2.1.2	150mm, ditto	Lin.m	50				
2.1.3	100mm, ditto	Lin.m	235				
2.1.4	80mm, ditto	Lin.m	25				
2.1.5	90° bend	lot	1				
2.1.6	Tee	lot	1				
2.1.7	Blind flange	lot	1				
2.1.8	Flange with bolt and nut	lot	1				
2-2	Valves and Outlets						
2.2.1	150mm cast steel gate valve, 10 kg/cm <sup>2</sup> pressure manually operated, outside screw type	pcs.	8				
2.2.2	100mm, ditto	pcs.	2				
2.2.3	80mm, ditto	pcs.	2				
2.2.4	200mm, ditto	pcs.	2				
2.2.5	150mm flow meter for "A" heavy oil non-circular gear, digital zero resetting, straight reading totalizer type accuracy: 10.2% flow range: 20 - 260 m <sup>3</sup> /hr working pressure: 10 kg/cm <sup>2</sup>	pcs.	4				

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
2.2.6	150mm flow meter for "C" heavy oil flow range: 20 - 180 m <sup>3</sup> /hr others: same as Item 2.2.5	pcs.	4				
2.2.7	80mm flow meter for "A" heavy oil flow range: 6 - 70 m <sup>3</sup> /hr others: same as Item 2.2.5	pcs.	2				
2.2.8	150mm outlet with cap and chain working pressure: 10 kg/cm <sup>2</sup>	pcs.	8				
2.2.9	80mm outlet ditto	pcs.	2				
2-3	Hoses						
2.3.1	150mm fuel oil supply rubber hose length: 40m with flange and connector working pressure: 10 kg/cm <sup>2</sup>	set	2				
2.3.2	80mm fuel oil supply rubber hose length: 20m with flange and connector working pressure: 10 kg/cm <sup>2</sup>	set	2				
2-4	Expansion and Flexible Joints						
2.4.1	200mm expansion joint axial movement: 60mm bellows type with cover working pressure: 10 kg/cm <sup>2</sup>	pcs.	3				
2.4.2	200mm expansion joint axial movement: 40mm others: same as Item 2.4.1	pcs.	6				
2.4.3	200mm expansion joint axial movement: 20mm others: same as Item 2.4.1	pcs.	2				
2.4.4	100mm expansion joint axial movement: 40mm others: same as Item 2.4.1	pce	1				
2.4.5	200mm flexible joint lateral deflection: 300mm. bellows type with cover working pressure: 10 kg/cm <sup>2</sup>	pcs.	2				
2.4.6	100mm flexible joint lateral deflection: 300mm others: same as Item 2.4.5	pce	1				

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
2-5	Pits and Covers						
2.5.1	Cover plate of steel checker plate for outlet pit in Main Berth	pcs.	4				
2.5.2	Concrete pit for fuel oil drainage	pcs.	1				
2.5.3	Cover plate of steel checker plate for Item 2.5.2	pcs.	2				
2.5.4	Drainage valve pit of asbestos cement pipe with steel plate cover	set	2				
2-6	Heating and duct for "C" Heavy Oil Pipe						
2.6.1	Heating wire and thermostat for "C" heavy oil pipe	Lin.m	580				
2.6.2	Concrete duct for "C" heavy oil pipe	Lin.m	170				
	Sub-Total:						
	<u>SECTION 3: Mechanical Works</u>						
3-1	Pump and Its Accessories						
3.1.1	Potable water pump for water supply and fire fighting type: two-stage, horizontal shaft centrifugal pump total discharge head: 58m discharge quantity: 1 m <sup>3</sup> /min. revolution at rated operating condition: 1,450 r.p.m. motor capacity: 30 KW (In case of total discharge head 33m) electric source: 380V, 50Hz, 3 phase accessories: 1) common base plate with anchor bolt 2) flexible coupling with guard 3) three phase squirrel cage induction motor indoor use 30KW, 50Hz, 380V, 4P, 1,500 r.p.m.	Set	3				

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
3.1.2	Pipes and valves for Item 3.1.1 foot valve, motorized gate valve check valve (rapid-closing type) pipe with flange, 90° bend, taper pipe	set	3				
3.1.3	Pipe support and bracket for Item 3.1.1	lot	1				
3.1.4	Cover plate for suction pipe for Item 3.1.1	lot	1				
3.1.5	Potable water pump for miscellaneous use type: single stage, horizontal shaft centrifugal pump total discharge head: 25m discharge quantity: 400 l/min. revolution at rated operating condition: 1,450 r.p.m. motor capacity: 3.7 KW electric source: 380V, 50Hz, 3 phase  accessories: 1) common base plate with anchor bolt 2) flexible coupling with guard 3) three phase squirrel cage induction motor indoor use 3.7 KW, 50Hz, 380V, 4P, 1,500 r.p.m.	Set	2				
3.1.6	Pipes and valves for Item 3.1.5 same as Item 3.1.2	set	2				
3.1.7	Pipe support and bracket for Item 3.1.5	lot	1				
3.1.8	cover plate for suction pipe for Item 3.1.5	lot	1				
3-2	Gasoline Station						
3.2.1	Gasoline Meter type: selfstand, key type No. of key: Approx. 100 discharge quantity: 50 l/min. flow meter: roots or piston type electric meter: 400W, 220V, 50Hz 3 phase	Set	2				
3.2.2	Gasoline tank type: underground type capacity: approx. 10 kl	set	1				



Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
3.2.3	Pipes and accessories for Items 3.2.1 and 3.2.2	lot	1				
3.2.4	Civil work for Item 3.2.2	lot	1				
3.2.5	Fire extinguisher	set	4				
	Sub-Total:						

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
<b>DIVISION-3 PUMP HOUSE</b>							
<b>SECTION 1: Concrete Work</b>							
1-1	Reinforced concrete, Class-A as specified in T/S. part 2 including forming, in place roof beam and roof.	cu.m	14.8				
1.2	Lightweight concrete, Class E as specified in T/S. part 2 including forming, in place floor slab.	cu.m	5.4				
1-3	Reinforcing mild steel bars, deformed, 13mm dia. or less	kg	964				
1-4	Ditto, 19mm dia. and more	kg	450				
Sub-Total:							
<b>SECTION 2: Concrete Masonry</b>							
2-1	Hollow core concrete block including setting and grouting cement mortar, 200mm thick wall	sq.m	69				
2-2	Reinforcing mild steel bars, deformed, 13mm and 16mm	kg	270				
Sub-Total:							
<b>SECTION 3: Miscellaneous Metal</b>							
3.1	Cable trench cover, 4.5mm thick. checkered steel plate 560mm wide	Lin.m	12.5				
3.2	Cable trench corner angle, L-50x50x6 with edging and anchors	Lin.m	26				
Sub-Total:							

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
<b>SECTION 4: Moisture Protection</b>							
4.1	Elastomeric roofing on concrete roof slab	sq.m	94				
4.2	Caulking and sealing, to around door and window opening	Lin.m	29				
Sub-Total:							
<b>SECTION 5: Doors, Windows and Frame</b>							
5.1	Double hinged aluminum flush door, louvered bottom incl. frame and hardware Type-1/AD, 1,700 x 2,000	pair	1				
5.2	Sliding aluminum window, including insect screen section, frame and hardware Type-1/AW, 1,500 x 900	Each	4				
5.3	Glass and glazing, 3mm thick. clear sheet glass, double strength	sq.m	6.3				
Sub-Total:							
<b>SECTION 6: Finishes</b>							
<b>EXTERIOR</b>							
6.1	Sprayed colored cement mortar finish. to wall	sq.m	88				
6.2	Ditto, to soffit	sq.m	49				
<b>INTERIOR</b>							
6.3	Cement mortar steel trowel finish, on floor	sq.m	32				
6.4	Vinyl paint finish, to base (100ft)	sq.m	2.4				
6.5	Vinyl paint finish, to exposed concrete wall	sq.m	75				
6.6	Ditto, to exposed concrete ceiling	sq.m	38				
Sub-Total:							

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
	<b>SECTION 7: Plumbing</b>						
7.1	Lavatory Vitrous-chino, flat-top with anti-splash, cold water supply only, supply and waste trim assembly	set	1				
7.2	Glass shelf, 457mmx 127mm	Each	1				
7.3	Mirror, 455mm x 608mm	Each	1				
7.4	Soil, waste and vent piping	lump sum	1	_____			
7.5	Cold water piping	lump sum	1	_____			
	Sub-Total						

BILL OF QUANTITIES

PART VII

ELECTRIC FACILITIES AND

POWER SUPPLY

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SUMMARY

PART VII ELECTRIC FACILITIES AND POWER SUPPLY

Division 1	Power Supply System .....	RS.
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Division 3	Lighting and Plug Socket System .....	RS.
Division 4	Telephone System .....	RS.
Division 5	Fire Alarm System .....	RS.
Division 6	Sub Station (Architectural Works) .....	RS.
<hr/>		
	Total .....	RS.

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS.		Item Price in PAK. RS.	
				RS.	Paisa	RS.	Paisa
<p><b>PART VII: ELECTRICAL FACILITIES AND POWER SUPPLY</b></p> <p><b>DIVISION-1 POWER SUPPLY SYSTEM</b></p> <p><b>SECTION 1: Power Incoming Facility</b></p>							
1.1.1	<u>SUPPLY AND INSTALLATION OF THE TERMINAL POLE AND ACCESSORIES AS SHOWN ON THE DRAWING.</u>	Set.	1				
	<u>SUPPLY, INSTALLATION, TERMINATION JOINTING AND CONNECTION OF THE FOLLOWING CABLES.</u>						
1.1.2	50 mm <sup>2</sup> Single core 11,000 V power cable between Terminal pole and H.V. Switch board	Lin. m	225				
1.1.3	25mm <sup>2</sup> Single core for earthing power cable between Terminal pole and H.V. Switch board.	Lin. m	150				
1.1.4	Cable head for 50 mm <sup>2</sup> Single core 11,000 V power cable.	Sets	6				
	<u>SUPPLY AND INSTALLATION OF THE CABLE DUCTS AND HANDHOLES AS SHOWN ON THE DRAWINGS, INCLUDING NECESSARY ACCESSORIES, EXCAVATION AND FILLING.</u>						
1.1.5	Between handhole "A" and "E" asbest cement pipe 100 mm dia. not exceeded 1.5 m deep.	Lin. m	60				
1.1.6	Handhole A, B, D and E 1,500 x 1,500 x 1,500 mm	Sets	4				
	Sub Total:						



Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
	<b>SECTION 2: SUB STATION</b>						
	<b>SUPPLY, INSTALLATION, TERMINATION, JOINING AND CONNECTION OF THE FOLLOWING CABLES LAID IN TRENCHES.</b>						
1.2.1	11,000 volts insulated power cable, Three core 50 mm <sup>2</sup> connection between H.V. Switch-board and power transformer No.1	Lin. m	20				
1.2.2	Ditto, but between H.V. Switchboard and power transformer No.2	Lin. m	15				
1.2.3	600 volts PVC insulated SWA power cables, Single core 240 mm <sup>2</sup> between power transformer No.1 and L.V. feeder switchboard.	Lin. m	25				
1.2.4	Ditto, but power transformer No.2	Lin. m	35				
1.2.5	600 volts PVC insulated SWA power cables, Single core 240 mm <sup>2</sup> inter connection between A.C. generator control board and LV. feeder panel	Lin. m	60				
1.2.6	600 volts PVC insulated SWA power cables Single core 25 mm <sup>2</sup> for earthing including earthing electrodes, earthing rods, interconnecting cables and other necessary equipments.	Set	1				
1.2.7	Incoming power supply cable head for 50mm <sup>2</sup> single conductor (11,000 volts)	Sets	12				
1.2.8	Ditto but for 600V, 240mm <sup>2</sup> cable	"	18				
	<b>SUPPLY INSTALLATION AND CONNECTION OF THE FOLLOWING H.V. INCOMING PANEL (11,000 volts) SWITCHBOARD.</b>						
1.2.9	11,000 volts incoming panel switchboards provided with horizontal drawout type triple pole gang operated, oil circuit breakers, small oil content, having a continuous rating of 400 amps, and a rupturing capacity of 350 MVA incoming power supply panel switchboard equipped with induction type over current and earth fault protection relays, indicating instruments as shown on power supply drawing.	Set	1				

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
	<b>SECTION 2 (Cont'd)</b>						
	<b>SUPPLY, ERECTION AND CONNECTION OF POWER TRANSFORMERS COMPLETE WITH OIL TEMPERATURE INDICATORS, BURSTING DISC AND INCLUDING OTHER NECESSARY EQUIPMENTS.</b>						
12.10	Power transformer No.1 outdoor type, oil immersed and natural cooled having A-Class insulation, incoming primary voltage 11,000 volts. Secondary voltage 400/231 volts 50 cycles 3 phase and neutral with a capacity of 250 KVA	Set	1				
12.11	Ditto for power transformer No.2	Set	1				
	<b>SUPPLY ERECTION AND CONNECTION OF THE FOLLOWING 400 VOLTS FEEDER PANEL SWITCHBOARDS.</b>						
12.12	Low voltage switch boards 380/220 volts 3 phase and neutral of totally enclosed metal clad construction with air circuit breaker unit in each panel comprising of the following panels.  No. 1 L.V. incoming panel A.C.B. 600 amp trip free closing mechanism complete with C.T.'s ammeter voltmeter selector switches and 2 nos triple pole 200 amp. and 6 nos triple pole 100 amp. moulded case circuit breakers.  No.2 L.V. incoming panel ACB 600 amp trip free closing mechanism complete with C.T.'s ammeter voltmeter selector switches and one pole 100 amp disconnecter and one three pole 400 amp disconnecter with one pole 100 amp disconnecter. No.3 L.V. incoming panel ACB 600 amp trip free closing mechanism complete with C.T.'s ammeter voltmeter selector switches and 2 nos. three pole 200 amp and 5 nos. three pole 100 amp.	Set	1				
	Sub Total:						

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
	<b>SECTION 3 POWER STATION</b>						
	<b>SUPPLY, INSTALLATION AND CONNECTION OF THE A.C. GENERATOR UNIT AND ALL OTHER NECESSARY EQUIPMENTS INCLUDING CONNECTING WIRES, AIR, WATER, AND OIL PIPES AS SPECIFIED IN DRAWINGS.</b>						
L.3.1	A.C. diesel generator 6 pole 250 KVA 3 phase 50 cycle 400/231 volt output, fuel oil main tank 2,000 litres, fuel oil tank 490 litres hand pump, fuel oil feed motor pump 0.4 kw, cooling tower, cooling water tank 500 litres, motor air compressor 3.7 kw, air reservoir 150 litres x 2, air control board, generator control board, battery and charging panel, exhaust gas pipe, silencer. etc	Set	1				
	Sub Total:						
	<b>SECTION 4: DISTRIBUTION</b>						
	<b>SUPPLY INSTALLATION AND CONNECTION OF FOLLOWING 600 VOLTS PVC INSULATED SWA POWER CABLES, BETWEEN, L.V. FEEDER PANELS (380/220 VOLTS) SWITCHBOARDS AND EACH LOCAL DISTRIBUTION BOARDS OR CONTROL PANEL INCLUDING OTHER NECESSARY EQUIPMENT</b>						
L.4.1	3 Core 70 mm <sup>2</sup> inter connection between L.V feeder panels (380 volts) switchboard and capstanboard No.1	Lin. m	410				
L.4.2	Ditto, but single core 25 mm <sup>2</sup> for earthing	Lin. m	820				
L.4.3	3 core 95 mm <sup>2</sup> inter connection between L.V. feeder panels (380 volts) switchboard and capstanboard No.2	Lin. m	600				
L.4.4	Single core 25 mm <sup>2</sup> for earthing between capstanboard No.1 and No.2	Lin. m	400				

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS.		Item Price in PAK. RS.	
				RS.	Paisa	RS.	Paisa
	SECTION 4 (Cont'd)						
L4.5	4 core 50 mm <sup>2</sup> inter connection between L.V. feeder panels (380/220 volts) switch board and distribution "L-1" of terminal office.	Lin. m	70				
L4.6	Ditto, but 4 core 25 mm <sup>2</sup>	Lin. m	70				
L4.7	Single core 25 mm <sup>2</sup> for earthing between handhole "H" and distribution "L-1" of terminal office.	Lin. m	20				
L4.8	4 core 50 mm <sup>2</sup> inter connection between L.V. feeder panels (380/220 volts) switchboard and distribution "L-2" of terminal office	Lin. m	75				
L4.9	Ditto, but single core 25 mm <sup>2</sup> for earthing	Lin. m	8				
L4.10	3 core 70 mm <sup>2</sup> inter connection between L.V. feeder panels (380 volts) switchboard and control panel "P-P" of pump house	Lin. m	120				
L4.11	Ditto, but 4 core 25 mm <sup>2</sup>	Lin. m	120				
L4.12	Single core 25 mm <sup>2</sup> for earthing between handhole No. "J" and control panel "P-P" of pump house.	Lin. m	40				
L4.13	4 core 16 mm <sup>2</sup> inter connection between distribution board "L-1" and "L-G"	Lin. m	130				
L4.14	Single core 4 mm <sup>2</sup> for earthing between handhole "N" and distribution board "L-G" of gate house	Lin. m	4				
L4.15	3 core 4mm <sup>2</sup> inter connection between distribution board "L-1" of terminal office and VHF facility	Lin. m	150				
L4.16	Single core 4mm <sup>2</sup> for earthing between handhole "N" and VHF facility.	Lin. m	80				

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
	SECTION 4 (Cont'd)						
4.17	3 core 4mm <sup>2</sup> inter connection between distribution board "L-1" of terminal office and septic tank panel	Lin. m	5				
4.18	Ditto, but single core 4 mm <sup>2</sup> for earthing.	Lin. m	10				
4.19	4 core 25mm <sup>2</sup> inter connection between L.V. feeder panels (380/220 volts) switchboard and pipe heating board. No.1	Lin. m	132				
4.20	Single core 25 mm <sup>2</sup> for earthing between handhole "L" and pipe heating board No.1	Lin. m	70				
4.21	2 core 25mm <sup>2</sup> inter connection between L.V. feeder panels — (380/220 volts) switchboard and pipe heating board No.2	Lin. m	176				
4.22	Single core 25 mm <sup>2</sup> for earthing between handhole "N" and pipe heating board No.2	Lin. m	10				
4.23	4 core 50mm <sup>2</sup> inter connection between L.V. feeder panels (380 volts) switchboard and pipe heating board No.3	Lin. m	550				
4.24	Single core 25 mm <sup>2</sup> for earthing between trenches and pipe heating board No.3	Lin. m	4				
4.25	4 core 16mm <sup>2</sup> inter connection between L.V. feeder panels (380/220 volts) switchboard and distribution board "L-S" of substation.	Lin. m	10				
4.26	Ditto, but single core 25 mm <sup>2</sup> for earthing	Lin. m	20				
4.27	3 core 4mm <sup>2</sup> inter connection between distribution board "L-1" of terminal office and oil station	Lin. m	35				
4.28	Ditto	Lin. m	25				
4.29	Ditto, but single core 4 mm <sup>2</sup> for earthing.	Lin. m	70				

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
	SECTION 4 (Cont'd)						
4.30	Cables duct between handhole "F and G", "G and H" as specified in drawing excavation for cables duct not exceeding 1.3M deep, 4 nos asbestos cement pipes 100mm diameter including necessary joint parts.	Lin. m	180				
4.31	Ditto, but not exceeding 0.8M deep between handhole "G" and "G"	Lin. m	20				
4.32	Ditto, but not exceeding 1.5M deep between handhole "H" and "J"	Lin. m	80				
4.33	Ditto, but 1 no asbestos cement pipe 100mm diameter between handhole "J" and "L"	Lin. m	10				
4.34	Ditto, but not exceeding 1.5M deep between handhole, "L" and "M"	Lin. m	35				
4.35	Ditto, but between handhole "M" and "N"	Lin. m	35				
4.36	Ditto, but 1 nos asbestos cement pipe 75mm diameter between handhole "L" and VHF facility (handhole "R")	Lin. m	20				
4.37	Ditto, but 2 nos asbestos cement pipes 100mm diameter between handhole "N" and "O"	Lin. m	50				
4.38	Ditto, but between handhole "O" and "P"	Lin. m	22				
4.39	Ditto, but 1 nos asbestos cement pipes 75mm diameter between handhole "I" and oil station.	Lin. m	20				
4.40	Cables duct between handhole "P" and trenches of berth, as specified in drawing 1 no flexible pipe 70mm diameter 2 nos flexible pipe 54mm diameter	Lin. m	2				
4.41	Cable duct between handhole "L" and "C" as specified in drawing excavation for cable duct not exceeding 1.9M deep 1 no asbestos cement pipe 100mm diameter including other necessary joint parts.	Lin. m	35				

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
	<b>SECTION 4 (Cont'd)</b>						
14.42	Cable duct between handhole "K" and pipe hearing panel No.1, 1 no conduit 54mm diameter.	Lin. m	3				
14.43	Cable duct between distribution board "L-1" of terminal office and septic tank panel 1 no conduit 36mm diameter	Lin. m	5				
14.44	Cables duct between handhole "H" and distribution "L-1" of terminal office 2 nos conduit 54mm diameter 3 nos conduit 36mm diameter.	Lin. m	16 24				
14.45	Cables duct between distribution "L-1" and "L-2" of terminal office 1 no conduit 45mm diameter, 1 no conduit 36mm diameter, 1 no conduit 22mm diameter	Lin. m	4 4 4				
14.46	Cable duct between distribution board "L-1" and handhole "I" 1 no conduit 42mm diameter	Lin. m	10				
14.47	Cable duct between handhole "K" and control panel "P-P" of pump house, 2 nos conduit 54mm diameter	Lin. m	30				
14.48	Cables duct between handhole "N" and distribution board "L-G" of gate house, 1 no conduit 54mm diameter.	Lin. m	2				
	<u>SUPPLY INSTALLATION AND CONNECTION OF HANDHOLE INCLUDING OTHER NECESSARY EQUIPMENT.</u>						
14.49	Concrete handhole "F", "J", "R", "G", "G", "H", "K", "M", "N" and "O" for cable duct as specified in drawing 1,500 x 1,500 x 1,500	Sets	10				
14.50	Ditto, but handhole "J", "L", "C" and "R" 1,500 x 1,500 x 2,000	"	4				
	Sub Total:						

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
	<b>DIVISION-2 POWER SUPPLY AND CONTROL SYSTEM FOR PUMPS</b>						
	<b>SUPPLY INSTALLATION AND CONNECTION OF 600 VOLTS PVC INSULATED SWA POWER CABLES... BETWEEN EACH LOCAL DISTRIBUTION BOARDS CONTROL PANEL AND EACH POWER LOAD. INCLUDING OTHER NECESSARY EQUIPMENT.</b>						
2.1	Interconnecting cable installed in trench between control panel "P-P" and water fire pump No.1						
	3 core 50 mm <sup>2</sup>	Lin.	12				
	3 core 4 mm <sup>2</sup>	m	12				
	1 core 25 mm <sup>2</sup> for earthing		24				
2.2	Ditto, but to water fire pump No.2						
	3 core 50 mm <sup>2</sup>	Lin.	11				
	3 core 4 mm <sup>2</sup>	m	11				
	1 core 25 mm <sup>2</sup> for earthing		22				
2.3	Ditto, but to water fire pump No.3						
	3 core 50 mm <sup>2</sup>	Lin.	9				
	3 core 4 mm <sup>2</sup>	m	9				
	1 core 25 mm <sup>2</sup> for earthing		18				
2.4	Interconnecting cable installed in trench between control panel "P-P" and water pump No.4.						
	3 core 4mm <sup>2</sup>	Lin.	14				
	1 core 4mm <sup>2</sup> for earthing	m	28				
2.5	Ditto but to water pump No.5.						
	3 core 4 mm <sup>2</sup>	Lin.	12				
	1 core 4 mm <sup>2</sup> for earthing	m	24				
2.6	Interconnecting cable between capstan No.1						
	3 core 25 mm <sup>2</sup>	Lin.	30				
	1 core 25 mm <sup>2</sup> for earthing	m	60				
2.7	Ditto but between capstan board No.1 and capstan No.2.						
	3 core 25 mm <sup>2</sup>	Lin.	50				
	1 core 25 mm <sup>2</sup> for earthing	m	100				
2.8	Ditto, but between capstan board No.1 and capstan No.3						
	3 core 25 mm <sup>2</sup>	Lin.	20				
	1 core 25 mm <sup>2</sup> for earthing	m	40				
2.9	Ditto, but between capstan board No.2 and capstan No.4.						
	3 core 25 mm <sup>2</sup>	Lin.	20				
	1 core 25 mm <sup>2</sup> for earthing	m	40				



Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
2.10	Ditto, but between capstan board No.2 and capstan No.5. 3 core 25 mm <sup>2</sup> 1 core 25 mm <sup>2</sup> for earthing	Lin. m	110 220				
2.11	Ditto, but between capstan board No.2 and capstan No.6 3 core 25 mm <sup>2</sup> 1 core 25 mm <sup>2</sup> for earthing	Lin. m	130 260				
2.12	Interconnection cable between pipe heating w/re. 2 core 16 mm <sup>2</sup> 1 core 4 mm <sup>2</sup> for earthing	Lin. m	12 24				
2.13	Ditto, but pipe heating panel No. 2 2 core 16 mm <sup>2</sup> 1 core 4 mm <sup>2</sup> for earthing	Lin. m	6 12				
2.14	Ditto, but pipe heating panel No. 3 2 core 16 mm <sup>2</sup> 1 core 4 mm <sup>2</sup> for earthing	Lin. m	12 24				
2.15	3 core 4mm <sup>2</sup> inter connection between magnet valve of unload and control panel of pump house.	Lin. m	350				
2.16	3 core 4mm <sup>2</sup> inter connection between magnet valve of terminal office and control panel of pump house.	Lin. m	80				
2.17	2 core 2.5mm <sup>2</sup> inter connection between pipe heating panel No.1 and thermometer.	Lin. m	9				
2.18	Ditto, but pipe heating panel No.2	Lin. m	9				
2.19	Ditto, but pipe heating panel No.3	Lin. m	9				
2.20	4 core 2.5mm <sup>2</sup> for electrode inter connection between unload and control panel of pump house.	Lin. m	350				
2.21	4 core 2.5mm <sup>2</sup> for electrode inter connection between high water tank of terminal office and control panels "P-p" of pump house.	Lin. m	80				
2.22	15 x single core 2.5mm <sup>2</sup> inter connection between remote control board of terminal office and control panel "P-P" of pump house.	Lin. m	150				

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
2.23	20 x single core 2.5mm <sup>2</sup> inter connection between alarm signal board of terminal office and control panel "P-P" of pump house	Lin. m	1400				
2.24	4 core 2.5mm <sup>2</sup> inter connection between alarm signal board of terminal office and generator control board.	Lin. m	70				
2.25	4 core 2.5mm <sup>2</sup> inter connection between alarm signal board of terminal office and H.V. incoming panels L.V. feeder panels of substation.	Lin. m	70				
2.26	Cable duct between handhole "F" and "G" as specified in drawing, 1 nos asbestos cement pipe 100mm diameter including other necessary joint parts.	Lin. m	25				
2.27	Ditto, but between handhole "G" and "H"	Lin. m	25				
2.28	Ditto, but between handhole "H" and "J"	Lin. m	20				
2.29	Ditto, but between handhole "J" and "K"	Lin. m	20				
2.30	Ditto, but between handhole "J" and "L"	Lin. m	10				
2.31	Ditto, but between handhole "L" and "M"	Lin. m	35				
2.32	Ditto, but between handhole "M" and "N"	Lin. m	35				
2.33	Ditto, but between handhole "N" and "O"	Lin. m	25				
2.34	Ditto, but between handhole "O" and "P"	Lin. m	22				
2.35	Cables duct between handhole "P" and trenches of berth 1 nos flexible pipe 54mm diameter.	Lin. m	1				
2.36	Cables duct between capston board No.1 and trench. 2 nos conduit 54mm diameter.	Lin. m	2				
2.37	Cables duct between capston board No.2 and trench. 2 nos conduit 54mm diameter.	Lin. m	2				

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
2.38	Cables duct between capston board No.1 and capston No.1, 1 no conduit pipe 54mm diameter including other necessary support	Lin. m	30				
2.39	Cables duct between trench and capston No.2. 1 no conduit pipe 54mm diameter including other necessary support.	Lin. m	25				
2.40	Ditto, but between trench and capston No.3	Lin. m	25				
2.41	Cables duct between capston board No.2 and Capston No.4. 1 no conduit pipe 54mm diameter, including other necessary support.	Lin. m	20				
2.42	Cables duct between trench and capston No.5. 1 nos conduit pipe 54mm diameter including other necessary support.	Lin. m	25				
2.43	Ditto, but between trench and capstan No.6	Lin. m	25				
2.44	Cable duct between pipe heating panel No.1 and oil pipe heating wire, 4 nos flexible pipe 28mm diameter.	Lin. m	8				
2.45	Ditto, but between pipe heating panel No.2 and oil pipe heating wire, 2 nos flexible pipe 28mm diameter.	Lin. m	4				
2.46	Ditto, but between pipe heating panel No.3 and oil pipe heating wire, 4 nos flexible pipe 28mm diameter.	Lin. m	8				
2.47	Cables duct between pipe heating panel No.1 and thermometer, 1 no flexible pipe 22mm diameter.	Lin. m	2				
2.48	Ditto, but between pipe heating panel No.2 and thermometer, 1 no flexible pipe 22mm diameter.	Lin. m	2				
2.49	Ditto, but between pipe heating panel No.3 and thermometer, 1 no flexible pipe 22mm diameter.	Lin. m	2				
2.50	Cables duct between handhole "H" and magnet valve of terminal office, 1 no conduit 22mm diameter.	Lin. m	15				
2.51	Ditto, but between handhole "H" and high water tank of terminal office, 1 no conduit 22mm diameter.	Lin. m	15				

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
2.52	Ditto, but between handhole "H" and remote control board of terminal office, 1 no conduit 42mm diameter.	Lin. m	20				
2.53	Ditto, but between handhole "H" and alarm signal board of terminal office, 1 no conduit 36mm diameter, 1 no conduit 42mm diameter.	Lin. m	20 20				
<u>SUPPLY, INSTALLATION AND CONNECTION OF THE FOLLOWING CONTROL POWER BOARDS.</u>							
2.54	Control board "P-P" 380 volts 3 phase and neutral service, totally enclosed metal cabinet comprising the following. 1 no 200 amp 3 pole M.C.C.B. main isolator. 1 no 100A 4 pole M.C.C.B main isolator 3 nos 100A 3 pole M.B. 30 kw 3 nos 30A 3 pole M.B. 0.4 kw 2 nos 50A 3 pole M.B. 3.7 kw 2 nos 30 amp 3 pole M.B. 0.2 kw 50A 3 pole M.C.C.B. main isolator 4 nos 20A 1 pole M.C.C.B. 3 nos condenser 10 KVA 2 nos condenser 1.5 KVA	Set	1				
2.55	Capstan board No.1, 380 volts 3 phase service, totally enclosed metal cabinet, water proof equipped with 100A 3 pole M.C.C.B. main isolator, 3 nos 50A 3 pole M.C.C.B. 11 KW 3 nos condenser 4 KVA	Set	1				
2.56	Ditto, but capstan board No.2	Set	1				
2.57	Pipe heating panel No.1 380 volts 3 phase 4 wire service, totally enclosed metal cabinet water proof equipped with 100A 3 pole M.C.C.B. main isolator, 4 nos 20/50A 1 pole M.C.C.B.	Set	1				
2.58	Ditto, but pipe heating panel No.3	Set	1				
2.59	Pipe heating panel No.2 220 volts single phase service totally enclosed metal cabinet water proof equipped with 50A 1 pole M.C.C.B. main isolator. 2 nos 20/50A 1 pole M.C.C.B.	Set	1				

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
2.60	Alarm signal board totally enclosed metal cabinet comprising the following panel equipped with 7 x orange colour lamps, one buzzer and one switch.	Set	1				
2.61	Remote control board totally enclosed metal cabinet comprising the following panel equipped with 3 x on switches and 3 x off switches.	Set	1				
<u>DIVISION-3 LIGHTING AND PLUG SOCKET SYSTEM</u>  <u>SECTION 1 TERMINAL OFFICE</u>							
3.1.1	Distribution board "L-1", 380/220 volts 3 phase and neutral service. Totally enclosed metal cabinet comprising the following panel equipped with normal power 100A 3 pole M.C.C.B. main isolator 60A site rating busbar, 2 nos 50A 3 pole M.C.C.B. 20 nos 50A 2 pole M.C.C.B. emergency power 100A 3 pole M.C.C.B. main isolator 60A site rating busbar 4 nos 50A 3 pole M.C.C.B. 14 nos 50A 2 pole M.C.C.B.	Set	1				
3.1.2	Distribution board "L-2" 380/220 volts 3 phase and neutral service. Totally enclosed metal cabinet comprising the following panel equipped with normal power. 100A 3 pole M.C.C.B. main isolator 60 site rating busbar 20 nos 50A 2 pole M.C.C.B. emergency power 50A 3 pole M.C.C.B. main isolator 50A site rating busbar 8 nos 50A 2 pole M.C.C.B.	Set	1				
<u>SUPPLY INSTALLATION AND CONNECTION OF THE FOLLOWING NORMAL AND EMERGENCY LIGHTING FIXTURES 220 VOLTS A.C. SUPPLY COMPLETE WITH LAMPS, TERMINALS, INTERNAL WIRING AND ELECTRICAL CONNECTIONS.</u>							
3.1.3	Vapour proof bracket ceiling mounting light with ball globe one 40w incandescent lamp 1BG 40 (A)	no	6				

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
	SECTION- 1 (Cont'd)						
3.1.4	Water proof bracket wall mounting light with ball globe, one 40w incandescent lamp 1BG 40 (B)	Pcs	14				
3.1.5	Open bottom recessed mounting fluoresent light with one 40w lamp FRO401	Pcs	33				
3.1.6	Ditto, but with two 40w lamps FRO402	Pcs	80				
3.1.7	Ditto, but with four 40w lamps FRO404	Pcs	4				
3.1.8	Deflector type ceiling mounting fluoresent with one 40w lamp FCD 401	Pcs	21				
3.1.9	Deflector type ceiling mounting fluoresent with two 40w lamps FCD402	Pcs	12				
3.1.10	Ceiling mounted fluoresent fixture with two 40w lamps FCA402	Pcs	1				
3.1.11	Exit sign, surface mounting, no arrow indication one 10w fluoresent lamps FWE101	Pcs	4				
	<u>SUPPLY INSTALLATION AND CONNECTION OF FOLLOWING SOCKET OUTLETS 3PIN PATTERN SWITCH COMBINED 230 VOLTS 15 AMPERE SINGLE PASE WITH EARTH PIN .</u>						
3.1.12	Socket outlet single outlet wall mounting pattern	Pcs	90				
3.1.13	Ditto single outlet wall mounting pattern for fan coil unit power supply	Pcs	23				
3.1.14	Ditto single outlet ceiling mounting pattern.	Pcs	1				

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS.		Item Price in PAK. RS.	
				RS.	Paisa	RS.	Paisa
	<b>SECTION- 1 (Cont'd)</b>						
	<u>SUPPLY INSTALLATION AND CONNECTION OF FOLLOWING LOCAL SWITCHES FOR LIGHTING CONTROL 220 VOLTS 5A RATING</u>						
1.15	Lighting control switch single pole pattern flush mounting	Pcs	2				
1.16	Ditto double switches	Pcs	23				
1.17	Ditto triple switches	Pcs	12				
	<u>SUPPLY AND INSTALLATION OF INSULATED WIRES IN SIZES OF 2.5mm<sup>2</sup> and 4mm<sup>2</sup> IN RIGID PVC CONDUITS, CONDUIT FITTINGS JUNCTION BOXES AND ALL NECESSARY ITEMS FOR THE CABLING BETWEEN FOLLOWING POINTS.</u>						
1.18	From distribution board to lighting fixtures	Lin. m	640				
1.19	Ditto, but to socket outlets	Lin. m	715				
1.20	Ditto, but to local lighting control switches	Lin. m	360				
1.21	Ditto, but to fan coil units	Lin. m	330				
	Sub Total:						
	<b>SECTION -2 SUB-STATION</b>						
	<u>SUPPLY INSTALLATION AND CONNECTION OF THE FOLLOWING DISTRIBUTION BOARD</u>						
3.2.1	Distribution board "L-S" 380/220 volts 3 phase and neutral service totally enclosed metal cabinet comprising the following emergency power panel equipped with 50A 3 pole M.C.C.B. main isolator 30A rating busbar 9 nos 20/50A 1 pole M.C.C.B. and 1 no. 50A 3 pole M.C.C.B.	Set	1				

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
	<u>SUPPLY INSTALLATION AND CONNECTION OF THE FOLLOWING EMERGENCY LIGHTING FIXTURES 220 VOLTS A.C. SUPPLY COMPLETE WITH LAMPS TERMINALS, INTERNAL WIRING AND ELECTRICAL CONNECTIONS.</u>						
3.2.2	Deflector type ceiling mounting fluorescent with one 40w lamp FCD401	Pcs	20				
	<u>SUPPLY, INSTALLATION AND CONNECTION OF FOLLOWING SOCKET OUTLETS 3 PIN PATTERN SWITCH COMBINED 230 VOLTS 15 AMPERE SINGLE PHASE WITH EARTH PIN.</u>						
3.2.3	Socket outlet single outlet wall mounting pattern.	Pcs	11				
3.2.4	Ditto single outlet ceiling mounting pattern for roof fan unit power supply	Pcs	1				
	<u>SUPPLY INSTALLATION AND CONNECTION OF FOLLOWING LOCAL SWITCHES FOR LIGHTING CONTROL, 220 VOLTS, 5A RATING.</u>						
3.2.5	Lighting control double switches single pole pattern flush mounting	Pcs	5				
	<u>SUPPLY AND INSTALLATION OF INSULATED WIRES IN SIZES OF 2.5mm<sup>2</sup> AND 4mm<sup>2</sup> IN RIGID PVC CONDUCTS, CONDUIT FITTINGS, JUNCTION BOXES AND ALL NECESSARY ITEMS FOR THE CABLING BETWEEN FOLLOWING POINTS.</u>						
3.2.6	From distribution board to lighting fixtures	Lin. m	80				
3.2.7	Ditto, but to socket outlets	Lin. m	106				
3.2.8	Ditto, but to Local lighting control switches,	Lin. m	25				
3.2.9	Ditto, but to roof fan	Lin. m	7				
	Sub Total:						



Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
	<u>SECTION-3 GATE HOUSE</u>						
	<u>SUPPLY INSTALLATION AND CONNECTION OF THE FOLLOWING DISTRIBUTION BOARD</u>						
3.3.1	Distribution board "L-G" 380/220 volts, 3 phase and neutral service totally enclosed metal cabinet comprising the following emergency power panel equipped with 50A 3 pole M.C.C.B. main isolator 30A rating busbar 5 nos 20/50A 1 pole M.C.C.B. 1 no 50A 3 pole M.C.C.B.	Set	1				
	<u>SUPPLY INSTALLATION AND CONNECTION OF THE FOLLOWING EMERGENCY LIGHTING, FIXTURES 220 VOLTS AC SUPPLY COMPLETE WITH LAMPS TERMINALS INTERNAL WIRING AND ELECTRICAL CONNECTIONS.</u>						
3.3.2	Open bottom recessed mounting fluorescent light with one 40w lamp FRO401	Pcs	9				
3.3.3	Water proof bracket wall mounting light with ball globe, one 40w incandescent lamp 1BG 40(B)	Pcs	1				
	<u>SUPPLY INSTALLATION AND CONNECTION OF FOLLOWING SOCKET OUTLETS 3 PIN PATTERN SWITCH COMBINED 230 VOLTS 15 AMPERE SINGLE PHASE WITH EARTH PIN .</u>						
3.3.4	Socket outlet single outlet wall mounting pattern.	Pcs	5				
3.3.5	Ditto single outlet wall mounting pattern for fan coil unit power supply	Pcs	2				

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
	<u>SUPPLY INSTALLATION AND CONNECTION OF FOLLOWING LOCAL SWITCHES FOR LIGHTING CONTROL 220 VOLTS 5A RATING.</u>						
3.3.6	Lighting control switch single pole pattern flush mounting	Pcs	2				
3.3.7	Ditto, double switch	Pcs	1				
	<u>SUPPLY AND INSTALLATION OF INSULATED WIRES IN SIZES OF 2.5mm<sup>2</sup> AND 4mm<sup>2</sup> IN RIGID PVC CONDUITS CONDUIT FITTINGS, JUNCTION BOXES AND ALL NECESSARY ITEMS FOR THE CABLING BETWEEN FOLLOWING POINTS.</u>						
3.3.8	From distribution board to lighting fixture	Lin. m	30				
3.3.9	Ditto, but to socket outlets	Lin. m	20				
3.3.10	Ditto, but to local lighting control switches	Lin. m	10				
3.3.11	Ditto, but to fan coil units	Lin. m	24				
3.3.12	Ditto, but to control wire of water pump	Lin. m	9				
	Sub Total:						
	<u>SECTION-4 PUMP HOUSE</u>						
	<u>SUPPLY INSTALLATION AND CONNECTION OF THE FOLLOWING EMERGENCY LIGHTING FIXTURES 220 VOLTS A.C. SUPPLY COMPLETE WITH LAMPS, TERMINALS INTERNAL WIRING AND ELECTRICAL CONNECTIONS INCLUDING SUPPORTS.</u>						
4.1	Deflector type ceiling mounting fluorescent with one 40w lamp FCD401	Pcs	4				

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
	SECTION-4 (Cont'd)						
3.4.2	Socket outlet single outlet wall mounting pattern	Pcs	2				
3.4.3	Ditto; water proof type	Pcs	1				
	<u>SUPPLY INSTALLATION AND CONNECTION OF FOLLOWING LOCAL SWITCHES FOR LIGHTING CONTROL 220 VOLTS 5A RATING</u>						
3.4.4	Lighting control double switch single pole pattern flush mounting	Pcs	1				
	<u>SUPPLY AND INSTALLATION OF INSULATED WIRES IN SIZES OF 2.5 mm<sup>2</sup> RIGID PVC CONDUITS, CONDUIT FITTINGS, JUNCTION BOXES, AND ALL NECESSARY ITEMS FOR THE CABLING BETWEEN FOLLOWING POINTS.</u>						
3.4.5	From distribution board to lighting fixtures	Lin. m	16				
3.4.6	Ditto, but to Socket outlets	Lin. m	15				
3.4.7	Ditto, but to local lighting control switches.	Lin. m	5				
	Sub Total:						
	<u>SECTION-5 AREA LIGHTS</u>						
	<u>SUPPLY INSTALLATION AND CONNECTION OF THE FOLLOWING ITEMS IN CONNECTION WITH TERMINAL BUILDING AREA LIGHTS INSTALLED ON POLE WITH CONCRETE FOUNDATION.</u>						
3.5.1	2 x 250 watt colour-corrected mercury discharge lamps on 6 meter pole including mercury lamp ballasts closed type and automatic switch	sets	12				
3.5.2	Ditto, but one lamp 250 watt on 10 meter pole	sets	4				

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
	<b>SECTION-5 (Cont'd)</b>						
	<u>SUPPLY INSTALLATION CONNECTION JOINT AND TERMINATION OF THE FOLLOWING 600 VOLTS PVC INSULATED SWA POWER CABLES. FOR AREA LIGHTS, CABLE FIXINGS SUCH AS SADDLES SUPPORTS ETC., UNDER GROUND CABLE DUCTS MEASURED SEPARATELY.</u>						
3.5.3	2 x 2 core 16mm <sup>2</sup> inter connection	Lin. m	560				
3.5.4	2 core 16mm <sup>2</sup> inter connection	Lin. m	160				
3.5.5	Cable duct as specified in drawing excavation for cable duct not exceeding 1.2M deep 1 no conduit pipe 70mm diameter including other necessary joint parts.	Lin. m	440				
	<u>SUPPLY INSTALLATION AND CONNECTION OF HANDHOLE INCLUDING OTHER NECESSARY EQUIPMENT.</u>						
3.5.6	Concrete handhole for cable duct as specified in drawing. 600 mm x 600 mm x 600 mm	set	16				
	Sub Total:						

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
	<u>SECTION-6 BERTH</u>						
	<u>SUPPLY, INSTALLATION AND CONNECTION OF THE FOLLOWING ITEMS IN CONNECTION WITH EACH LIGHT</u>						
3.6.1	3 x 1,000 watt colour - corrected sodium vapour lamps on 12 meter pole including lamp ballasts closed type and automatic switch. FLOOD LIGHT	set	1				
3.6.2	2 x 250 watt colour - corrected mercury discharge lamps on 6 meter pole including mercury lamp ballasts closed type and automatic switch BERTH LIGHT	set	9				
3.6.3	100 watt red - coloured incandescent lamp on 2.5 meter concrete pole. BEACON	set	1				
3.6.4	Water proof wall of berth mounting fluorescent light with water proof glassy shield plate with two 20w lamps. FWA 202	set	6				
3.6.5	2 x 250 watt colour-corrected mercury discharge lamps on 6 meter pole including mercury lamp ballasts closed type and automatic switch for small berth. SMALL BERTH LIGHT	set	3				
3.6.6	2 x 250 watt colour - corrected mercury discharge lamps on 10 meter pole including mercury lamp ballasts closed type and automatic switch for ACCESS BRIDGE LIGHT	set	2				
	<u>SUPPLY INSTALLATION AND CONNECTION OF FOLLOWING 600 VOLTS PVC INSULATED SWA POWER CABLES. BETWEEN DISTRIBUTION BOARD "L-1" OF TERMINAL OFFICE AND EACH LIGHTS.</u>						
3.6.7	2 core 50mm <sup>2</sup> inter connection between distribution board "L-1" of terminal office and flood light of berth	Lin. m	350				
3.6.8	Single core 16mm <sup>2</sup> inter connection between trenches and floodlight of berth	Lin. m	60				

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
3.6.9	Interconnecting cable between distribution board "L-1" in terminal office and berth light 2 x 2 core 50 mm <sup>2</sup> 1 core 16mm <sup>2</sup> for earthing.	Lin. m	1,120 1,120				
3.6.10	Ditto 2 core 50 mm <sup>2</sup> 1 core 16 mm <sup>2</sup> for earthing	Lin. m	80 160				
3.6.11	Interconnecting cable between berth light and beacon 2 core 50 mm <sup>2</sup> 1 core 16 mm <sup>2</sup>	Lin. m	15 30				
3.6.12	Interconnecting cable between distribution board "L-1" in terminal office and approach light. 2 core 16 mm <sup>2</sup> 1 core 16 mm <sup>2</sup> for earthing	Lin. m	630 1,260				
3.6.13	Interconnecting cable between distribution board "L-1" and terminal office and small berth light 2 core 16 mm <sup>2</sup> 1 core 16 mm <sup>2</sup>	Lin. m	270 540				
3.6.14	Interconnecting cable between handhole "O" and access bridge light 2 core 16 mm <sup>2</sup> 1 core 16 mm <sup>2</sup>	Lin. m	190 380				
3.6.15	Cables duct between handhole "H" and "J" 1 no asbestos cement pipe 100mm diameter including other necessary joint parts.	Lin. m	20				
3.6.16	Ditto, but between handhole "J" and "L"	Lin. m	10				
3.6.17	Ditto, but between handhole "L" and "M"	Lin. m	35				
3.6.18	Ditto, but between handhole "M" and "N"	Lin. m	35				
3.6.19	Ditto, but between handhole "N" and "O"	Lin. m	25				
3.6.20	Ditto, but between handhole "O" and "P"	Lin. m	23				
3.6.21	Cable duct between handhole "O" and "Q" excavate for cables duct not exceeding 1.2 meter deep, 1 no 75mm diameter including other necessary joint parts.	Lin. m	8				

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
SECTION-6 (Cont'd)							
3.6.22	Cable duct between distribution board "L-1" of terminal office and handhole "H" 2 nos conduit pipe 54mm diameter including other necessary joint parts.	Lin. m	20				
3.6.23	Cable duct between trenches and flood light 1 no conduit pipe 54mm diameter including other necessary support.	Lin. m	40				
3.6.24	Cable duct between trenches and berth light 9 nos conduit pipe 54mm diameter.	Lin. m	36				
3.6.25	Cable duct between trenches and beacon 1 no conduit pipe 54mm diameter.	Lin. m	15				
3.6.26	Cables duct between trenches and approach light 1 no conduit pipe 36mm diameter.	Lin. m	300				
3.6.27	Cables duct between trenche of small berth and small berth light 3 nos conduit pipe 36mm diameter.	Lin. m	3				
3.6.28	Cables duct between trenches and access bridge light 2 nos conduit pipe 36mm diameter.	Lin. m	42				
<u>SUPPLY INSTALLATION AND CONNECTION OF HANDHOLE INCLUDING OTHER NECESSARY EQUIPMENT.</u>							
3.6.29	Concrete handhole "D" for cables duct as specified in drawing 600 mm x 600 mm x 600 mm	set	1				
3.6.30	Ditto, 1,500 mm x 1,500 mm x 1,500 mm	set	1				
Sub Total:							

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
<u>DIVISION-4 TELEPHONE SYSTEM</u>							
<u>SECTION-1 OUT DOOR CABLING</u>							
4.1.1	Cable duct between handhole "C" and "J" as specified in drawing. 1 no asbestos cement pipe 75mm diameter including other necessary joint part.	Lin. m	35				
4.1.2	Ditto, but between handhole "F" and "G"	Lin. m	15				
4.1.3	Ditto, but between handhole "G" and "H"	Lin. m	23				
4.1.4	Ditto, but between handhole "H" and "J"	Lin. m	20				
4.1.5	Ditto, but between handhole "J" and "K"	Lin. m	25				
4.1.6	Ditto, but between handhole "J" and "L"	Lin. m	10				
4.1.7	Ditto, but between handhole "L" and "M"	Lin. m	35				
4.1.8	Ditto, but between handhole "M" and "N"	Lin. m	35				
4.1.9	Ditto, but between handhole "N" and "O"	Lin. m	25				
4.1.10	Ditto, but between handhole "O" and "P"	Lin. m	22				
4.1.11	Ditto, but between handhole "O" and "Q"	Lin. m	8				
4.1.12	Ditto, but between handhole "P" and trenches 1 nos flexible pipe 54mm diameter including other necessary joint part.	Lin. m	1				
4.1.13	Cables duct between handhole "C" and handhole "A" as specified in drawing excavation for cable duct not exceeding 1.2 meter deep 1 nos asbest cement pipe 75mm diameter	Lin. m	15				
4.1.14	Supply and installation of conduit pipe for protection of trunk line cable, including other necessary fittings.	Set	1				



Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
	<b>SECTION-1 (Cont'd)</b>						
	<u>SUPPLY, INSTALLATION AND CONNECTION OF HANDHOLE INCLUDING OTHER NECESSARY EQUIPMENT.</u>						
4.1.15	Concrete handhole "A" and "F" for cable duct as specified in drawing 600mm x 600mm x 600mm	set	2				
	Sub Total:						
	<b>SECTION-2. TERMINAL OFFICE</b>						
	<u>SUPPLY ERECTION AND CONNECTION OF THE FOLLOWING ITEMS FOR TELEPHONE SYSTEM</u>						
4.2.1	Telephone outlet boxes wall mounted pattern complete with plug top socket and cover plate	Pcs	22				
4.2.2	Terminal board with terminal of 20 pair pattern.	set	1				
4.2.3	Rigid P.V.C. conduits and conduit fitting complete including other necessary supports, between each outlet box and distribution box. conduit 28mm diameter.	Lin. m	185				
4.2.4	Ditto, but between handhole "H" and distribution box 2 nos conduit 54mm diameter.	Lin. m	36				
	Sub Total:						

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
<b>SECTION-3 SUB STATION</b>							
<b>SUPPLY ERECTION AND CONNECTION OF THE FOLLOWING ITEMS FOR TELEPHONE SYSTEM.</b>							
4.3.1	Telephone outlet box wall mounted pattern complete with plug top, socket and cover plate	Pcs	1				
4.3.2	Rigid P.V.C. conduits and conduit fitting complete including other necessary supports, between outlet box and handhole "F" 1 no conduit 28mm diameter.	Lin. m	5				
Sub Total:							
<b>SECTION-4 GATE HOUSE</b>							
<b>SUPPLY ERECTION AND CONNECTION OF THE FOLLOWING ITEMS FOR TELEPHONE SYSTEM.</b>							
3.4.1	Telephone outlet box wall mounted pattern complete with plug top socket and cover plate	Pcs	2				
3.4.2	Rigid P.V.C. conduits and conduit fitting complete including other necessary supports between outlet box and handhole "N" 1 no conduit 28mm diameter.	Lin. m	12				
Sub Total:							

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
<u>SECTION-5 PUMP HOUSE</u>							
<u>SUPPLY ERECTION AND CONNECTION OF THE FOLLOWING ITEMS FOR TELEPHONE SYSTEM.</u>							
4.5.1	Telephone outlet box wall mounted pattern complete with plug top socket and cover plate	Pcs	1				
4.5.2	Rigid P.V.C. conduit and conduit fitting complete including other necessary supports between outlet box and handhole "K" 1 no conduit 28mm diameter.	Lin. m	10				
Sub Total:							
<u>SECTION-6 BERTH</u>							
<u>SUPPLY ERECTION AND CONNECTION OF THE FOLLOWING ITEMS FOR TELEPHONE SYSTEM.</u>							
4.6.1	Out-door telephone stands water proof type.	set	4				
4.6.2	Cable duct between trenches of berth and outdoor telephone stands. 3 nos rigid PVC conduit 28mm diameter.	Lin. m	45				
4.6.3	Cable duct between trenches of small berth and outdoor telephone stand. 1 nos rigid PVC conduit 28mm diameter.	Lin. m	3				
Sub Total:							

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
	<u>DIVISION-5 FIRE ALARM SYSTEM</u>						
	<u>SECTION-1 OUT DOOR CABLING</u>						
	<u>SUPPLY, INSTALLATION AND CONNECTION OF FOLLOWING PVC INSULATED CONTROL CABLES AND ASBESTOS CEMENT PIPE 75MM DIAMETER BETWEEN MAIN DISPLAY PANEL OF TERMINAL OFFICE AND EACH ALARME PANEL.</u>						
5.1.1	38 x Single core 1.5 mm <sup>2</sup> cable inter connection between handhole "H" and "J"	Lin. m	760				
	25mm dia ACP between handhole "H" and "J"	Lin. m	20				
5.1.2	16 x Single Core 1.5mm <sup>2</sup> Cable inter-connection between handhole "J" and "K"	Lin. m	320				
	75mm dia. ACP between handhole "J" and "K"	Lin. m	20				
5.1.3	28 x single core 1.5mm <sup>2</sup> cable inter connection between handhole "J" and "L"	Lin. m	280				
	75mm dia. ACP	Lin. m	10				
5.1.4	Ditto, but between handhole "L" and "M"	Lin. m	980				
	75mm dia. ACP	Lin. m	35				
5.1.5	Ditto, but between handhole "M" and "L"	Lin. m	980				
	75mm dia. ACP	Lin. m	35				
5.1.6	24 x Single Core 1.5mm <sup>2</sup> Cable inter connection between handhole "N" and "O"	Lin. m	600				
	75mm dia. ACP	Lin. m	25				
5.1.7	20 x Single Core 1.5mm <sup>2</sup> Inter Connection Cable between handhole "O" and "P"	Lin. m	440				
	75mm dia. ACP	Lin. m	22				
5.1.8	8 x Single Core 1.5mm <sup>2</sup> Cable Inter Connection between handhole "O" and "O"	Lin. m	64				
	75mm dia. ACP	m	8				

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
5.1.9	Ditto, but to between handhole "H" and "G"	Lin. m	200				
	75mm dia, ACP	Lin. m	25				
5.1.10	Ditto, but between handhole "G" and "F"	Lin. m	144				
	75mm dia. ACP		18				
5.1.11	20 x Single Core 1.5 mm <sup>2</sup> Cable Inter Connection between handhole "P" and trenches of berth flexible pipe 54mm dia.	Lin. m	20				
		Lin. m	1				
5.1.12	8 x Single Core 1.5mm <sup>2</sup> Cable inter connection between handhole "H" and alarm panel of open space for parking area	Lin. m	40				
	PVC conduit 28 mm dia.	Lin. m	5				
	<u>SUPPLY INSTALLATION AND CONNECTION OF HANDHOLE INCLUDING OTHER NECESSARY EQUIPMENT</u>						
5.1.13	Concrete handhole for cable duct as specified in drawing 500mm x 600mm x 600mm	Set	1				
	<u>SUPPLY ERECTION AND CONNECTION OF MANUAL FIRE STATION</u>						
5.1.14	Manual fire station, water proof type	Set	1				
	Sub Total:						
	<u>SECTION-2 TERMINAL OFFICE</u>						
	<u>SUPPLY, ERECTION AND CONNECTION OF SYSTEM CONTROL AND MAIN DISPLAY PANEL AS SPECIFIED.</u>						
5.2.1	MAIN DISPLAY panel complete with indication lamps for trouble, detector trip, manual fire station operated, main alarm, switches accept, reset complete with emergency fire master telephone set and D.C. power supply unit.	Set	1				

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
	<b>SECTION-2 (Cont'd)</b>						
	<u>SUPPLY, ERECTION AND CONNECTION OF FIRE AND SMOKE DETECTORS, ALARM BELLS, MANUAL FIRE STATIONS, EMERGENCY TELEPHONES ETC., AS INDICATED.</u>						
5.2.2	Fire detector, fixed temperature type ceiling mounted with individual trip indicator.	Pcs.	31				
5.2.3	Smoke detector, ceiling mounted with individual trip indicator	Pcs	7				
5.2.4	Manual fire station, wall mounted	Pcs	2				
	<u>CIRCUIT WIRING FOR FIRE ALARM SYSTEM WITHIN THE TERMINAL OFFICE INCLUDING SUPPLY, INSTALLATION AND CONNECTION OF RIGID PVC CONDUIT, CONDUIT FITTINGS, TRUNKINGS, CABLE TRAYS, JUNCTION BOXES, MULTICORE AND SINGLE CORE CABLES AND WIRES ALL AS DESCRIBED, BETWEEN FOLLOWING POINTS.</u>						
5.2.5	System control and main display panel and following points: fire detector, smoke detector, manual fire station	Lin. m	350				
5.2.6	From System control and main display panel to manual fire station, 9 x single core 1.5mm <sup>2</sup> cable PVC conduit 28mm diameter.	Lin. m	72 8				
5.2.7	Ditto, but 8 x single core 1.5mm <sup>2</sup> Cable. PVC conduit 28mm diameter.	Lin. m	240 30				
5.2.8	System control and main display panel and handhole "H" <sup>2</sup> 38 x single core 1.5mm <sup>2</sup> 8 x single core 1.5mm <sup>2</sup> PVC conduit 54mm diameter	Lin. m	722 152 19				
	Sub Total:						

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
<u>SECTION-3 SUB STATION</u>							
<u>SUPPLY ERECTION CONNECTION OF FIRE AND SMOKE DETECTORS, ALARM BELLS, MANUAL FIRE STATION EMERGENCY TELEPHONES ETC AS INDICATED.</u>							
5.3.1	Fire detector, fixed temperature type ceiling mounted with individual trip indicator.	Pcs	1				
5.3.2	Smoke detector, ceiling mounted with individual trip indicator.	Pcs	4				
5.3.3	Manual fire station, wall mounted	Pcs	1				
<u>CIRCUIT WIRING FOR FIRE ALARM SYSTEMS WITHIN THE SUB STATION INCLUDING SUPPLY, INSTALLATION AND CONNECTION OF RIGID PVC CONDUIT, CONDUIT FITTINGS TRUNKINGS CABLE TRAYS. MULTICORE AND SINGLE CORE CABLES AND WIRES ALL AS DESCRIBED BETWEEN FOLLOWING POINTS.</u>							
5.3.4	From manual fire station to fire detector	Lin. m	35				
5.3.5	From manual fire station to hand-hole "F" 8 x single core 1.5mm <sup>2</sup> Cable. PVC conduit 28mm diameter	Lin. m	16 2				
Sub Total:							
<u>SECTION-4 GATE HOUSE</u>							
<u>SUPPLY ERECTION CONNECTION OF FIRE DETECTORS ALARM BELL MANUAL FIRE STATION EMERGENCY TELEPHONE ETC., AS INDICATED</u>							
5.4.1	Fire detector, fixed temperature type ceiling mounted with individual trip indicator.	Pcs.	2				
5.4.2	Manual fire station, wall mounted	Pcs.	1				

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
	<b>SECTION-4 (Cont'd)</b>						
	<u>CIRCUIT WIRING FOR FIRE ALARM SYSTEMS WITHIN THE SUB STATION, INCLUDING SUPPLY INSTALLATION AND CONNECTION OF RIGID PVC CONDUIT CONDUIT FITTINGS TRUNKINGS CABLE TRAYS, MULTICORE AND SINGLE CORE CABLES AND WIRES ALL AS DISCRIBED BETWEEN FOLLOWING POINTS.</u>						
5.4.3	From manual fire station to fire detector smoke detector	Lin. m	14				
5.4.4	From manual fire station to handhole "N" 8 x single core 1.5mm <sup>2</sup> PVC CONDUIT 28mm diameter.	Lin. m	16 2				
	Sub Total:						
	<b>SECTION-5 PUMP HOUSE</b>						
	<u>SUPPLY ERECTION CONNECTION OF FIRE DETECTORS ALARM BELL MANUAL FIRE STATION EMERGENCY TELEPHONE ETC., AS INDICATED.</u>						
5.5.1	Fire detector, fixed temperature type ceiling mounted with individual trip indicator.	Pcs.	1				
5.5.2	Manual fire station, wall mounted	Pcs.	1				
	<u>CIRCUIT WIRING FOR FIRE ALARM SYSTEMS WITHIN THE SUB STATION INCLUDING SUPPLY INSTALLATION AND CONNECTION OF RIGID PVC CONDUIT CONDUIT FITTINGS TRUNKINGS CABLE TRAYS MULTICORE AND SINGLE CORE CABLES AND WIRES ALL AS DISCRIBED BETWEEN FOLLOWING POINTS.</u>						
5.5.3	From manual fire station to fire detector	Lin. m	9				
5.5.4	From manual fire station to handhole "K" 14 x single core 1.5mm <sup>2</sup> PVC CONDUIT 36mm diameter.	Lin. m	70 5				



Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
	<b>SECTION-5 (Cont'd)</b>						
5.5.5	From manual fire station to control panel 6 x single core 1.5mm <sup>2</sup> Cable PVC conduit 28mm diameter.	m	12 2				
	Sub Total:						
	<b>SECTION-6 BERTH</b>						
	<u>SUPPLY INSTALLATION AND CONNECTION OF FOLLOWING PVC INSLATED CONTROL CABLES.</u>						
5.6.1	20 x single core 1.5mm <sup>2</sup> inter connection Cable between handhole "P" and manual fire station No.4.	Lin. m	3900				
5.6.2	16 x single core 1.5mm <sup>2</sup> inter connection Cable between manual fire station No.4 and No.3	Lin. m	1040				
5.6.3	12 x single core 1.5mm <sup>2</sup> inter connection Cable between manual fire station No.3 and No.2	Lin. m	780				
5.6.4	8 x single core 1.5mm <sup>2</sup> inter connection Cable between manual fire station No.2 and No.1.	Lin. m	520				
5.6.5	Ditto, but between handhole "Q" and manual fire station No.5	Lin. m	600				
5.6.6	Cables duct rigid PVC conduit 28mm diameter between trenches and manual fire station No.4.	Lin. m	4				
5.6.7	Ditto rigid PVC conduit 36mm diameter between trenches and manual fire station No.3	Lin. m	4				
5.6.8	Ditto rigid PVC conduit 42mm diameter between trenches and manual fire station No.2	Lin. m	4				
5.6.9	Ditto rigid PVC conduit 54mm diameter between trenches and manual fire station No.1.	Lin. m	4				
5.6.10	Ditto rigid PVC conduit 28mm diameter between trenches of small berth and manual fire station No.5.	Lin. m	1				

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
	<b>SECTION-6 (Cont'd)</b>						
	<u>SUPPLY ERECTION CONNECTION OF ALARM BELL MANUAL FIRE STATION EMERGENCY TELEPHONES ETC., AS INDICATED.</u>						
56.1	Manual fire station water proof type, push bottom for fire pump starting and local alarm bell.	set	4				
	Sub Total:						
	<b><u>DIVISION-6 SUB STATION</u></b>						
	<b><u>SECTION-1 PILING</u></b>						
1-1	Piling, reinforced concrete, precast, 400mm x 400mm x 22 meter including joint splice	each	25				
1-2	Test pile and loading test, 400mm x 400mm x 22 meter test load cap. 200 Ton (see spec.)	each	1				
	Sub Total:						
	<b><u>SECTION-2 EARTH WORK</u></b>						
2-1	Excavation	cu.m	254				
2-2	Backfill with compaction	"	146				
2-3	Disposal of soil (in site)	"	108				
2-4	Compacted rock rubble fill, under floor slab and foundation	"	45				
2-5	Gravel fill, to transformer Rm.	"	21.3				
2-6	Ditto, to around Bldg. 60mm thick.	"	6				
2-7	Placing concrete block, including excavation and disposal 150mm x 200mm	Lin.m	75.2				
	Sub Total:						

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
<b>SECTION-3 CONCRETE WORK</b>							
3-1	Leveling Concrete, class-C as specified in T/S, part 2 in place top of compacted fill.	Cu.m	5.7				
3-2	Reinforced concrete, pile caps class-A as specified in T/S, part 2 including forming.	"	8.5				
3-3	Ditto, but grade beams.	"	32.6				
3-4	Ditto, but columns.	"	11.9				
3-5	Ditto, but walls.	"	6.2				
3-6	Ditto, but roof beams.	"	19.2				
3-7	Ditto, but roof slabs.	"	40.2				
3-8	Ditto, but generator bed.	"	8.2				
3-9	Reinforced concrete, floor slab Class-B as specified in T/S, part 2 including forming.	"	12.7				
3-10	Ditto, in place cable trench	"	6.2				
3-11	Ditto, in place stoops.	"	2.1				
3-12	Reinforcing steel bars, deformed 13mm dia or less.	kg	5,354				
3-13	Ditto, 16mm dia up to 25mm dia	kg	8,750				
3-14	E.W.W.F., install floor slab on grade, 150 x 150/#8 x #8	sq.m	127				
3-15	Expansion joint filler and seal, around generator bed, 12mmx100mm	Lin.m	15				
Sub Total:							
<b>SECTION 4-CONCRETE MASONRY</b>							
4-1	Hollow core concrete block, including setting and grouting cement mortar: 200mm thick wall.	sq.m	371				
4-2	Reinforcing steel bars, deformed, 13mm dia.	kg	272				
4-3	Ditto, 16mm dia.	kg	916				
Sub Total:							

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
<u>SECTION-5 MISCELLANEOUS METAL.</u>							
5-1	Cable trench cover, 4.5mm checkered steel plate 560mm wide	l.in.m	15.4				
5-2	Ditto, 660mm wide	"	3.5				
5-3	Ditto, 760mm wide	"	3				
5-4	Ditto, 1,030mm wide	"	4.7				
5-5	Cable trench corner angle L-50mm x 50mm x 6mm with edging and anchors	"	68.2				
Sub Total:							
<u>SECTION-6 MOISTURE PROTECTION</u>							
6-1	Elastomeric roofing, on concrete roof slab.	sq.m	351				
6-2	Caulking and sealing, to around door and window opening.	Lin.m	99				
Sub Total:							
<u>SECTION-7 DOORS, WINDOWS AND FRAME</u>							
7-1	Double hinged steel angle framed wire mesh door, including frame and hardware. type-1/SD, 2,950mm x 2,500mm	pair	3				
7-2	Sliding metal hanger door, including frame and hardware type-2/SD, 2,100mm x 3,100mm	each	1				
7-3	Ditto, type-3/SD, 1,800mmx3,100mm	each	2				
7-4	Double hinged aluminum flush door, louvered bottom, including frame and hardware type-1/AD, 1,600mm x 2,000mm	pair	2				
7-5	Single hinged aluminum flush door, including frame and hardware type-2/AD, 800mm x 2,000mm	each	2				
7-6	Sliding aluminum window, including insect screen section, frame and hardware. type-1/AW, 1,500mm x 900mm	each	6				

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
SECTION-7 (Cont'd)							
7-7	Air intake aluminum louver, including frame. type-1/AL, 1,900mm x 1,500mm	each	2				
7-8	Glass and glazing, 6,8mm thick wire mesh glass	sq.m	9				
Sub Total:							
<u>SECTION-8 FINISHES</u>							
<u>Exterior</u>							
8-1	Cement mortar steel trowel finished base, 400mm High.	Lin.m	42				
8-2	Ditto, 300mm High	"	9.2				
8-3	Sprayed colored cement mortar finish, to wall	sq.m	273				
8-4	Ditto, to soffit	"	124				
8-5	Cement mortar broomed finish, on stoops	"	19				
8-6	Exterior-oil paint finish, to metal surfaces	"	77				
<u>INTERIOR</u>							
8-7	Cement mortar steel trowel finish, on floor	"	127				
8-8	Vinyl paint finish, to exposed concrete and block base.	"	14				
8-9	Ditto, to exposed concrete and concrete block wall.	"	660				
8-10	Ditto, to exposed concrete ceiling	"	198				
8-11	Oil paint finish, to metal surface	"	77				
Sub Total:							

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
<u>SECTION-9 VENTILATION</u>							
9-1	Roof ventilator, roof-mounted, direct-driven propeller fan, complete with weather-proof housing and base, gravity operated back-draft damper and disconnecting switch, cap. 490 CMM at 12mm S.P. 3.7 kw, 3 $\phi$ - 380V, 50 Hz.	set.	1				
9-2	Wall exhaust fan, wall mounted, direct-driven propeller fan with automatic shutter. cap. 85 CMM at 6mm S.P. 400 watts, 1 $\phi$ -220V, 50 Hz.	set	2				
9-3	Ditto, cap. 34 CMM at 6mm S.P. 80 watts, 1 $\phi$ 220V, 50 Hz.	set	1				
9-4	Ditto, But explosion - proof type cap. 18 CMM at 6mm S.P. 50 watts, 1 $\phi$ -220V, 50 Hz.	set	1				
Sub Total:							
Total:							

BILL OF QUANTITIES

PART VIII

BUILDINGS

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SUMMARY

PART VIII BUILDINGS

Division 1	Terminal Office Building .....	RS.
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<hr/>		
	Total .....	RS.



Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
<b>PART VIII: BUILDINGS</b>							
<b>DIVISION-1 TERMINAL OFFICE BUILDING</b>							
<b>SECTION 1: Piling</b>							
1.1	Piling, reinforced concrete, precast 400mm x 400mm x 22m including joint splice	Each	70				
1.2	Test pile and loading test 400mm x 400mm x 22m test load cap. 200 Ton (see spec.)	Each	2				
Sub Total:							
<b>SECTION 2: Earth Work</b>							
2.1	Excavation	cu.m	578				
2.2	Backfill with compaction	cu.m	391				
2.3	Disposal of soil (in Site)	cu.m	187				
2.4	Compacted rock rubble fill under floor slab and foundation	cu.m	130				
2.5	Gravel fill, to around Bldg. 60mm thick	cu.m	12.4				
2.6	Placing concrete block, including excavation on disposal 150mm x 200mm	Lin.m	134				
Sub Total:							
<b>SECTION 3: Concrete Work</b>							
3.1	Class C as specified in T/S, part 2 Levelling Concrete in placing on top of compacted fill.	cu.m	10.2				
3.2	Class A as specified in T/S part 2 reinforced concrete, pile caps including formwork	cu.m	38				
3.3	Ditto, but grade beams	cu.m	62.7				
3.4	Ditto, but girders and beams- 1st floor	cu.m	53.5				

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
	(SECTION 3 cont'd)						
3.5	Ditto, but girders and beams-roof slab	cu.m	54.7				
3.6	Ditto, but in columns	cu.m	51.9				
3.7	Ditto, but 1st floor slab	cu.m	88.5				
3.8	Ditto, but roof slab	cu.m	118				
3.9	Ditto, but stair-case wall	cu.m	17.4				
3.10	Ditto, but main stair-case	cu.m	4.4				
3.11	Ditto, but fire escapes	cu.m	6				
3.12	Class E as specified in T/S, part 2 Light-weight concrete, providing in 1st floor toilet area.	cu.m	1.1				
3.13	Class E as specified in T/S, part 2 reinforced concrete, including forming for placing floor slab on grade and stoops i/c formwork.	cu.m	75				
3.14	Reinforcing deformed steel bars, 13mm dia or less	kg	26,311				
3.15	Ditto, 16mm dia up to 25mm dia. E.W.W.F. Electric Welding wire Fabricate	kg	33,376				
3.16	Install floor slab on grade spacing 150mm x 150mm for Bar No. 8	sq.m	660				
	Sub Total:						
	<u>SECTION 4: Concrete Masonry</u>						
4.1	Hollow core concrete block, including setting and grouting cement mortar 200mm thick wall ASTM C90 - Type I - Grade N-I.	sq.m	476				
4.2	Ditto, 100mm thick wall ASTM C-90 Type I - Grade S-I.	sq.m	833				
4.3	Reinforcing deformed steel bars, 13mm dia.	kg	4,220				
	Sub Total:						

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
<u>SECTION 5: Miscellaneous Metal</u>							
5.1	Handrail, 2.3mm x 50mm x 150mm SQ. steel pipe handrail and SQ pipe balusters anchored to concrete treads 1,100mm High install to main stairway	Lin.m	11.2				
5.2	Ditto, install to fire escapes	Lin.m	19				
5.3	Roof hatch cover, steel angle framed 1.6mm steel plate cover hinged to metal frame and anchored to concrete, curb with bolts Size, 1,000mm x 1,000mm	Each	1				
5.4	Ceiling suspension system, consists of light-weight steel channels, clamps, rods, runners and nailers	sq.m	1,249				
5.5	Steel ladder rungs, 19mm dia. of Steel Bar	Each	13				
Sub Total:							
<u>SECTION 6: Carpentry</u>							
6.1	Finish lumber, install to window trims	cu.m	0.36				
6.2	Wood bench, 25mm thick plywood top with edging including metal brackets 400 mm wide x 1,650mm long (Rm. No.102)	Each	1				
6.3	Ditto, 400mm wide x 2,750mm long (Rm. No.111)	Each	1				
6.4	Kitchen Counter 25mm thick plywood counter with edging Size, 500mm wide x 1,500mm long	Each	1				
6.5	Information Counter 25mm thick plywood counter with edging Size, 500mm wide x 2,000mm long	Each	1				
Sub Total:							

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
<b>SECTION 7: Moisture Protection</b>							
7.1	Elastomeric roofing, on concrete roof slab	sq.m	882				
7.2	40mm thick rigid insulation, fastened under roof slab	sq.m	569				
7.3	Caulking and sealing, to around door and window opening	Lin.m	270				
7.4	Metal water-proofing sheet, on 1st floor toilet room area	sq.m	35				
Sub Total:							
<b>SECTION 8: Doors, Windows, and Frame</b>							
8.1	Double hinged aluminum glazed door with full glazed side partition and transom, including frame and hardware Type - 1/AD, 4,600mm x 2,600mm	Pair	1				
8.2	Ditto Type, 2/AD, 4,600mm x 2,600mm	Pair	1				
8.3	Double hinged aluminum glazed top flash doow with transom including frame and hardware Type - 3/AD, 1,600mm x 2,600mm	Pair	4				
8.4	Double hinged plywood flush door including frame and trim and hardware Type - 1/WD, 1,900mm x 1,920mm	Pair	3				
8.5	Single hinged plywood flush door with sightglass, including frame and trim, and hardware Type - 2/WD and 2A/WD, 900mm x 1,920mm	Each	33				
8.6	Ditto, Type - 5/WD, 900mm x 1,826mm	Each	1				
8.7	Sliding aluminum window, including insect screen section, frame and hardware Type - 1/AW, 1,700mm x 1,500mm	Each	30				
8.8	Ditto Type - 2/AW, 1,700mm x 900mm	Each	2				

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
	(SECTION 8 cont'd)						
8.9	Ditto Type - 3/AW, 1,000mm x 900mm	Each	1				
8.10	Project-out aluminum window, including frame and hardware Type - 4/AW, 700mm x 900mm	Each	4				
8.11	Sliding wood window, including wood frame and hardware Type - 1/WW, 1,900mm x 885mm	Each	1				
8.12	Aluminum louver, including frame Type - 1/AL, 900mm x 600mm	Each	1				
8.13	Glass and glazing 6mm thick polished plate glass	sq.m	26				
8.14	Ditto 6.8mm thick wired mesh glass	sq.m	5				
8.15	Ditto 3mm thick clear sheet glass double strength	sq.m	79				
8.16	Ditto 3mm thick frosted sheet glass double strength	sq.m	4				
	Sub Total:						
	<u>SECTION 9: FINISHES</u>						
	<u>Exterior</u>						
9.1	Sprayed colored cement mortar finish, to wall	sq.m	750				
9.2	Ditto, to soffit	sq.m	192				
9.3	Ditto, to fire escapes	sq.m	33				
9.4	Cement mortar steel trowel finished base, 400mm high	Lin.m	112				
9.5	Ditto, 100mm high, (fire escapes)	Lin.m	6.2				
9.6	Ditto, 400mm high (fire escapes)	Lin.m	13				
9.7	Cement mortar steel trowel finished treads and risers (fire escapes)	sq.m	9				
9.8	Ditto, to landing and wall (fire escapes)	sq.m	10				

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
9.9	Cement mortar broomed finish, on stoops	sq.m	15				
9.10	Oil paint finish to metal surfaces	sq.m	55				
	<u>Interior</u>						
9.11	Cement mortar steel trowel finish, on floor	sq.m	1,115				
9.12	Ditto, on tread and riser	sq.m	17.8				
9.13	Ceramic mosaic tile floor, including setting bed	sq.m	71.3				
9.14	Terrazzo tile floor with setting bed	sq.m	28.7				
9.15	Cement mortar base, 100mm high	Lin.m	763				
9.16	Ditto, 200mm high in stairway	lin.m	6.8				
9.17	Cement mortar border, 100 x 45 in stairway	Lin.m	14				
9.18	Gypsum plaster wall	sq.m	1,905				
9.19	Glazed ceramic tile wall, including setting bed	sq.m	271				
9.20	Gypsum plaster ceiling	sq.m	24				
9.21	Acoustic tile ceiling, with metal edging	sq.m	973				
9.22	Asbestos cement board ceiling with metal edging	sq.m	252				
9.23	Ceramic tile non-slip type on stairs	Lin.m	69				
9.24	Interior vinyl paint finish, to cement mortar base surface	sq.m	79				
9.25	Ditto, to gypsum plaster wall surface	sq.m	1,905				
9.26	Ditto, to gypsum plaster ceiling surface	sq.m	24				
9.27	Ditto, to asbestos cement board, ceiling surface	sq.m	252				

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
	(SECTION 9 cont'd)						
9.28	Oil painting finish, to wood surfaces	sq.m	234				
9.29	Ditto, to metal surfaces	sq.m	36				
	Sub Total:						
	<u>SECTION 10: Specialties</u>						
10.1	Metal toilet partition, including doors and hardware	lump sum	1				
10.2	Soap dish	Each	9				
10.3	Cartain rod, chrom plated brass pipe, 25mm dia. 920 long	Each	2				
10.4	Coat hook of brass	Each	8				
	Sub Total:						
	<u>SECTION 11: Plumbing</u>						
11.1	Water closet (No.1) Vitreous-china, flush valve, siphnic wash down with supply and waste trim assembly including peper holder	set	1				
11.2	Water closet Except flush valve siphnic wash down out with flush tank	set	1				
11.3	Watercloset (No. 3) Vitreous-china, Asia type, with flush tank supply and waste trim assembly including paper holder	set	4				
11.4	Urinal (No. 1) Vitreous-china, wall hung, integral trap with flush valve, supply & waste trim assembly	set	4				
11.5	Urinal (No. 2) Same as Item 11.4	set	4				
11.6	Lavatory Vitreous-china, flat top with anti-splash, cold water supply only. supply & waste trim assembly	set	8				

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
	(SECTION 11 cont'd)						
11.7	Service sink Vitreous-china, on "S"-type trap, cold water supply only with supply and waste trim assembly	set	2				
11.8	Shower assembly Concealed type, cold water supply only	Each	9				
11.9	Glass shelf, 457mm x 127mm	Each	8				
11-10	Mirror 455mm x 608mm	Each	8				
11-11	Electric water cooler Babble type, air-cooled condenser, freestanding, tank cap, 2.5 litres 1ø - 220V - 50 Hz	Each	2				
11-12	Water storage tank, installed on roof slab with reinforced concrete found, storage cap, 10,000 liters, FRP type including pipe connections, manhole, and ladders	Each	1				
11-13	Cold waterservice piping including fittings, insulation, and metal supports and misc. materials 3" dia. (75 mm)	Lin.m	5				
11.14	Ditto 2" dia. (50 mm)	Lin.m	45				
11.15	Ditto 1-1/2" dia. (38 mm)	Lin.m	45				
11.16	Ditto 1-1/4" dia. (32 mm)	Lin.m	40				
11.17	Ditto 1" dia. (25 mm)	Lin.m	20				
11.18	Ditto 3/4" dia. (19 mm)	Lin.m	6				
11.19	Ditto 1/2" dia. (13 mm)	lin.m	55				
11.20	Gate valve with valve box 2" dia. (50 mm)	Each	1				
11.21	Gate valve, 2" dia. (50 mm)	Each	1				
11.22	Ditto 1/2" dia. (13 mm)	Each	5				
11.23	Float valve, 2" dia. (50 mm)	Each	1				
11.24	Glove valve, 1/2" dia. (13 mm)	Each	4				
11.25	Hose bibb, 3/4" dia. (19 mm)	Each	1				



Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
(SECTION 11 cont'd)							
11.26	Soil, waste & drain piping, cast-iron pipe including fittings and joint materials 4" dia. pipe (100 mm)	Lin.m	22				
11.27	Ditto, 3" dia. pipe (75 mm)	Lin.m	21				
11.28	Ditto, 2-1/2" dia. pipe (64 mm)	Lin.m	7				
11.29	Ditto, 2" dia. pipe (50 mm)	Lin.m	20				
11.30	Ditto, 1-1/2" dia. pipe (38 mm)	Lin.m	12				
11.31	Floor drain, 2" dia. with trap (50 mm)	Each	4				
11.32	Shower drain, 3" dia. with trap (75 mm)	Each	3				
11.33	Floor cleanout, 4" dia. (100 mm)	Each	1				
11.34	Ditto, 3" dia. (75 mm)	Each	3				
11.35	Funnel drain, 1-1/4" dia. (32 mm)	Each	2				
11.36	Vent piping, including pipe fittings and pipe supports 4" dia. pipe (100 mm)	Lin.m	6				
11.37	Ditto, 2-1/2" dia. (64 mm)	Lin.m	5				
11.38	Ditto, 2" dia. (50 mm)	Lin.m	18				
11.39	Ditto, 1-1/2" dia. (38 mm)	Lin.m	19				
11.40	Ditto, 1-1/4" dia. (32 mm)	Lin.m	12				
11.41	Vent cap, 4" dia cast-iron (100 mm)	Each	1				
Sub Total:							
SECTION 12: Air Conditioning and Ventilation							
12.1	Room air conditioner, wall mounted, self-contained, cooling cap, 5,390 KCAL/HR fan cap, 12.7 cmm, air thru 15.2 meter 2.9 litres per hour moisture removal, 15.5Amps, 1ϕ-220V-50Hz	set	24				
12.2	Wall exhaust fan, (No.1) Wall mounted, direct-driven, propeller fan with gravity shutters, Rated cap. 16.0 cmm, 41.0 watts, 1ϕ-220V-50Hz	set	8				

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
(SECTION 12 cont'd)							
12.3	Wall exhaust fan, (No.2) same as exhaust fan No.1 except rated cap. 6.0 cmm, 37.0 watts, 1φ-220-50Hz	set	1				
12.4	Wall exhaust fan (No.3) same as exhaust fan No.1 except moisture-proof type and cap. 12.0 cmm, 35.0 watts, 1φ-220V-50Hz	set	2				
12.5	Condensation drain piping (13mm) 1/2" dia. PVC pipe including fittings, supports and sleeves	Lin.m	105				
	Sub Total:						
	TOTAL:						

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS.		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
	<u>DIVISION 2: GATE HOUSE</u>						
	<u>SECTION 1: Earth Work</u>						
1.1	Excavation	cu.m	49				
1.2	Backfill with compaction	cu.m	10				
1.3	Disposal of soil (in Site)	cu.m	39				
1.4	Compacted rock rubble fill, under floor slab and foundation	cu.m	17				
	Sub Total:						
	<u>SECTION 2: Concrete Work</u>						
2.1	Class A as specified in T/S, part 2 reinforced concrete, including formwork, in place grade beam and floor slab.	cu.m	35.8				
2.2	Ditto, but in column	cu.m	0.3				
2.3	Ditto, but in roof beams	cu.m	5.8				
2.4	Ditto, but in roof slab	cu.m	13.8				
2.5	Reinforcing steel deformed bars, 13mm dia. or less	kg	2,660				
2.6	Ditto 19mm dia. and up to 22mm dia.	kg	1,305				
	Sub Total:						
	<u>SECTION 3: Concrete Masonry</u>						
3.1	Hollow core concrete block including setting and grouting cement mortar 200mm thick wall	sq.m	81				
3.2	Ditto, 100mm thick wall ASTM C-90 Type I - Grade N-1	sq.m	12				
3.3	Reinforcing steel deformed bars, 13mm dia. and 16mm dia.	kg	376				
	Sub Total:						

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
<b>SECTION 4: Miscellaneous Metal</b>							
4.1	Ceiling suspension system consisting of lightweight steel channels, clamps, rods, runners and nailers	sq.m	53				
Sub Total:							
<b>SECTION 5: MOISTURE PROTECTION</b>							
5.1	Elastomeric roofing, on concrete roof slab	sq.m	122				
5.2	40mm thick rigid insulation fastened under roof slab	sq.m	48				
5.3	Caulking and sealing, around door and window openings	Lin.m	54				
Sub Total:							
<b>SECTION 6: Doors, Windows, and Frames</b>							
6.1	Single hinged aluminum flush door, including frame and hardware Type - 1/AD, 800mm x 2,000mm	Each	3				
6.2	Single hinged plywood flush door, including wood frame and trim, and hardware Type - 1/WD, 900mm x 1,920mm	Each	2				
6.3	Sliding aluminum window, including insect screen section, frame and hardware Type - 1/AW, 1,700mm x 1,500mm	Each	5				
6.4	Ditto, Type - 2/AW, 1,100mm x 900mm	Each	1				
6.5	Glass and glazing 3mm thick clear sheet glass, double strength	sq.m	13				
6.6	Ditto, 3mm thick frosted sheet glass, double strength	sq.m	1.2				
Sub Total:							

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
<b>SECTION 7: Finishes Exterior and Interior</b>							
7.1	Sprayed colored cement mortar finish, to wall	sq.m	94				
7.2	Ditto, to soffit	sq.m	60				
7.3	Cement mortar steel trowel finished base, 250mm high	lin.m	8				
7.4	Ditto, 150mm high	lin.m	0.5				
7.5	Cement mortar broomed finish on stoops	sq.m	47				
7.6	Cement mortar steel trowel finish on floor	sq.m	49				
7.7	Ceramic mosaic tile floor, including setting bed	sq.m	4				
7.8	Cement mortar base, 100mm high	lin.m	37				
7.9	Glazed ceramic tile wall, including setting bed	sq.m	16.1				
7.10	Gypsum plaster wall	sq.m	81				
7.11	Acoustic tile ceiling	sq.m	49				
7.12	Asbestos cement board ceiling	sq.m	4				
7.13	Vinyl paint finish, to mortar base	sq.m	4				
7.14	Ditto, to gypsum plaster wall	sq.m	81				
7.15	Ditto, to Asbestos cement board ceiling	sq.m	4				
7.16	Oil paint finish, wood surfaces	sq.m	9				
Sub Total:							
<b>SECTION 8: Plumbing</b>							
8.1	Water closet, Vitreous-china, asian type with flush tank, supply & waste trim assembly including paper holder	set	1				
8.2	Lavatory Vitreous-china, flat-top with anti-splash, cold water supply only, supply & waste trim assembly	set	1				

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
	(SECTION 8 cont'd)						
8.3	Glass shelf, 457mm x 127mm	Each	1				
8.4	Mirror, 455mm x 608mm	Each	1				
8.5	Cold water piping, including fittings, insulation, and metal supports and misc. materials 19mm dia. pipe	Lin.m	6				
8.6	Ditto, 13mm dia. pipe	Lin.m	5				
8.7	Gate valve with box, 19mm dia.	Each	1				
8.8	Globe valve, 13mm dia.	Each	1				
8.9	Soil, waste & drain piping, cast-iron pipe including fittings and joint materials 4" dia. pipe (100 mm)	Lin.m	3.5				
8.10	Ditto, 2" dia. pipe (50 mm)	Lin.m	1.5				
8.11	Floor cleanout, 4" dia. (100 mm)	Each	1				
8.12	Vent piping, including pipe fittings and pipe supports 2" dia. (50 mm)	Lin.m	5				
	Sub Total:						
	<u>SECTION 9: Air Conditioning</u>						
9.1	Room air conditioner, (No.1) wall mounted, self-contained, cooling cap, 5,390 KCAL/HR fan cap. 12.7 cmm, air thru 15.2 meter, 2.9 litres per hour moisture removal, 15.5Amps, 1ø-220V-50Hz	set	1				
9.2	Room air conditioner (No.2) same as No.1 except cooling cap 3,030 KCAL/HR fan cap 9.9 cmm, air thru 11.6 meter, 1.04 litres per hour moisture removal 10 Amps, 1ø-220V-50Hz	set	1				

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
9.3	(SECTION 9 cont'd) Wall exhaust fan Wall mounted, direct-driven propeller fan with exhaust louver cap. 2.3 cmm 200 watts, 1φ- 220V-50Hz	set	1				
	Sub Total:						
	TOTAL:						

Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
	<u>DIVISION-3 SEWER SYSTEM</u>						
	<u>SECTION 1: Sewer System</u>						
1.1	Sewer line, including excavation and disposal, and joint materials, CIP, 4" dia. (100 mm) (Cast Iron Pipe)	Lin.m	30.8				
1.2	Ditto, CIP, 6" dia. (150 mm)	Lin.m	80.9				
1.3	Ditto, Asbestos Cement Pipe, 6" dia. (150 mm)	Lin.m	52.9				
1.4	Sewer manhole, reinforced concrete including formwork, rebars, medium duty manhole cover with frame, and excavation with disposal. 950mmx950mmx1,100mm depth (No.1)	Each	1				
1.5	Ditto, 950mmx950mmx800mm depth (No.3)	Each	1				
1.6	Ditto, 950 x 950 x 950 depth (No.4) mm mm mm	Each	1				
1.7	Ditto, 950 x 950 x 1,100 depth (No.5) mm mm mm	Each	1				
1.8	Ditto, 950 x 950 x 1,258 depth (No.6) mm mm mm	Each	1				
1.9	Ditto, 950 x 950 x 1,363 depth (No.7) mm mm mm	Each	1				
1.10	Ditto, 950 x 950 x 1,411 depth (No.8) mm mm mm	Each	1				
1.11	Sewer manhole, same as manhole No.1 except deep type and sand pump cap. 3.7 KW, 5 HP, 0.4 m <sup>3</sup> /min. Size, 950 x 950 x 1,900 depth (No.2) mm mm mm	Each	1				
1.12	Waste type manhole reinforced concrete including forming, rebars, cover, vent piping, and excavation with disposal Size, 600 x 600 x 700 depth. mm mm mm	Each	1				
1.13	Grease interceptor reinforced concrete including forming, rebars, cover, and removable battle, and excavation with disposal Size, 650 x 960 x 800 depth mm mm mm	Each	1				



Item No.	Pay Item	Unit	Quantity (Approx.)	Schedule Rate in PAK. RS		Item Price in PAK. RS	
				RS.	Paisa	RS.	Paisa
	(SECTION 1 cont'd)						
1.14	Septic tank reinforced concrete class A as specified in T/S part 2, including forming, rebar, sand fill, and mechanical pumping, air blowring, control, and piping in complete.	set	1				
	Sub Total:						
	<u>SECTION 2: Water Service Line</u>						
2.1	Water service line, including trenching and disposal PVC pipe, 1" dia. (25 mm)	Lin.m	78				
2.2	Concrete encasement 200mm x 200mm section	Lin.m	27				
	Sub Total:						
	TOTAL:						

