

**CONSTRUCTION OF EXTERNAL UTILITIES ON MAIN ROADS BENAZIR TOWN, DEH
MANDIARI KARACHI**

SHAHEED MOHTERMA BENAZIR BHUTTO TOWNSHIP

**WATER TRANSMISSION MAIN FROM HAWKS BAY SCHEME 42 TO DEH MANDIARI,
SMBBT KARACHI**

BILL OF QUANTITIES

GRAND SUMMARY

S.No	DESCRIPTION	AMOUNT
A	PUMP ROOM & SUMP WELL	
B	PIPE AND FITTINGS WORKS	
C	ELECTRICAL WORKS (PUMP HOUSE)	
TOTAL COST OF THE PROJECT		

SEAL OF THE COMPANY

INITIAL

SIGNATURE OF BIDDER

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BILL OF QUANTITIES

BILL NO. A : PUMP ROOM & SUMP WELL

Sr.No	ITEMS REF./PAGE No	DESCRIPTION	UNIT	QTY	RATES(Rs.)	AMOUNT (Rs.)
PART-A (SCHEDULE ITEMS)						
1	Item 1 page 67 Vol-III,Part-III, PHEW CSR2012	Excavation for tanks and reservoir in soft soils i/c trimming and dressing sides to true alignment/design sections/profiles and shape levelling of beds of trenches to correct level and grade i/c laying of earth in 6" layer for construction of banks and dressing and disposal of surplus earth. Excavated earth within a one chain as directed by Engineer In charge i/c providing fence guards, lights, flags and temporary crossings for non vehicular traffic where ever required lift upto 5 ft. (1.52m) and lead upto one chain (30.5m) a) For Foundation of pumping station etc. i) ± 0'-0" ft to -5'-0"ft	Cft	5,275		
2	Item 16 page 74 Vol-III,Part-III, PHEW CSR2012	Add for additional lift of every three ft or part there of in item No. 1 to 15 (A & B) for excavation for pipelines & storage tanks tranches and pits. ii) -5'-0"ft to -8'-0"ft ii) -8'-0"ft to -11'-0"ft iii) -11'-0"ft to -14'-0"ft iv) -14'-0"ft to -17'-0"ft v) -17'-0"ft to -20'-0"ft vi) -20'-0"ft to -23'-0"ft	Cft Cft Cft Cft Cft	 3,165 3,165 3,000 2,965 2,965 2,305		
T OF THE PROJECT						
3	Item 22+13b page 3&4 Vol- III,Part-III, GENERAL CSR2012	Filling watering and ramming earth under floor with new earth excavated from outside lead upto one chain and lift upto 5 feet. I/c laying earth in 6" layers levelling dressing and watering for compaction etc. complete	Cft	25		
4	Item 2 page 15 Vol-III,Part-III, GENERAL -----	Dry rammed brick or stone ballast 1-1/2" to 2" gauge etc. complete (stone soling)	Cft	495		
5	Item 5, (i)+19bi,ii/2+ page 16&18, Vol-III, Part-III, GENERAL CSR2012	CONCRETE WORKS Cement concrete plain including placing compacting, finishing and curing, complete (including screening and washing of stone aggregate with shuttering. (Ratio 1:4:8) i) Below foundation, plinth beam,floor,ramps and where required etc.	Cft	375		

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6	Item 5, (h)+19bi,ii/2+ page 16&18, Vol-III, Part-III, GENERAL CSR2012	Cement concrete plain including placing compacting, finishing and curing, complete (including screening and washing of stone aggregate with shuttering. (Ratio 1:3:6) i) PCC pads, ramps and where required etc.	Cft	50		
		<u>REINFORCED CEMENT CONCRETE (SUB-STRUCTURE)</u>				
7	Item 6, (a I) page 17, Vol-III, Part-III, GENERAL CSR2012	Reinforced cement concrete work including all labour and material except the cost of steel reinforcement and its labour for bending and binding which will be paid separately. This rate also includes all kinds of forms moulds lifting shuttering curing rendering and finishing the exposed surface (including screening and washing of shingle). RC work in roof slab, beams, columns, rafts. Lintels and other structural members laid in situ or precast laid in position completed in all respect. Ratio (1:2:4) 90 Lbs. cement 2Cft sand 4Cft shingle 1/8" to 1/4" gauge complete in all respect, as per specifications & relevant drawings and all works to the entire satisfaction of the Engineer. (Ratio 1:2:4)				
	a)	TANK i) Tank Bottom slab ii) Tank Wall iii) Tank Top Slab iv) Column upto Plinth Level v) Plinth Beams in Tank	Cft Cft Cft Cft Cft	1,425 1,250 615 505 80		
	b)	MANHOLE i) Bottom slab ii) Wall iii) Top Slab	Cft Cft Cft	40 195 30		
		<u>BITUMEN COATING</u>				
8	Item 9, page 71, Vol-III, Part-III, GENERAL CSR2012	Bitumen coating to plastered or cement concrete surface, complete in all respect, as per specifications & relevant drawings and all works to the entire satisfaction of the Engineer. i) Over Blinding /Structure sides & Top	Sft	4,335		
		<u>REINFORCED CEMENT CONCRETE (SUPER-STRUCTURE)</u>				
9	Item 6, (a I) page 17, Vol-III, Part-III, GENERAL CSR2012	Reinforced cement concrete work including all labour and material except the cost of steel reinforcement and its labour for bending and binding which will be paid separately. This rate also includes all kinds of forms moulds lifting shuttering curing rendering and finishing the exposed surface (including i) Columns ii) Roof Beams & lintels iii) Roof Slab	Cft Cft Cft	100 110 245		

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10	Item 8 (b), Page-17, Vol-III, Part-III, GENERAL CSR2012	<u>STEEL REINFORCEMENT</u> Providing and fabrication of steel reinforcement for cement concrete, including cutting, bending, laying in position, ranking joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars). The rate includes b) Using Tor Bars Sub-structure steel Super-structure steel	M.Ton M.Ton	14 2		
11	Item 28 (b) Page-19, Vol-III, Part-III, GENERAL CSR2012	<u>MASONRY WORK</u> Block Masonry walls Damp proof course with (cement, sand and shingle concrete 1:2:4) including 2 coats of asphaltic mixture. (2" thick)	Sft	55		
12	Item 23, page-19, Vol-III, Part-III, GENERAL CSR2012	Provide and laying 1:3:6 cement concrete solid block masonry wall above 6" in thickness set in 1:6 cement mortar in G.floor super structure including racking out joints & curing etc. complete in all respect, as per specifications & relevant drawings and all works to the entire satisfaction of the For Block masonry steps For Block masonry Walls	Cft Cft	50 640		
13	16(d)/Page-42 Vol-III, Part-II CSR2012	<u>CC Finish Floor</u> Providing and laying 1" thick topping cement concrete (1:2:4) including surface finishing and dividing into panels. (d) 3" thick (1:2:4) Floor	Sft	630		
14	Item 13 (c), page 52, Vol-III, Part-III, GENERAL CSR2012 a) b)	Cement Plaster Internal 1:6 :Providing and applying 3/4" thick cement plaster upto 12' height on walls, columns, beams, chajjas etc. with cement mortar 1:6 including all corners, recesses, jambs, raking out joints of masonry, scaffolding, making drip courses, curing etc. nailing 9" wide heavy duty On wall On Ceiling	Sft Sft	1,090 490		
15	Item 23, 24(a,b,c), Page-54, Vol-III, Part-III, GENERAL CSR2012	Providing and applying (1st coat, 2nd & 3rd coat) distemper over and including a coat of priming chalk distemper over plastered surface at any height in any floor including preparation of surface, filling depression with putty, rubbing, sand papering and cleaning etc. complete in all respect, as per specifications & relevant drawings and all works to the entire satisfaction of the Engineer.(On ceiling)	Sft	490		
16	Item 30 (a,b), page-73, Vol-III, Part-III, GENERAL CSR2012	Providing and applying painting with enamel paint on masonry wall etc. complete in all respect, as per specifications & relevant drawings and all works to the entire satisfaction of the Engineer.(On Wall)	Sft	1,090		

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17		<u>ROOF SCREEDING AND WATERPROOFING</u> Provide and lay roof treatment over roof & skirting as per specifications and shown in drawings and details consisting of following items:				
a	13 /Page-35, Chp. 7 Vol-III, Part-II,	Two coats of bitumen laid hot using 34 lbs. for % sft over roof and blinded with sand at one cft per % sft	Sft	490		
b	38/Page-38, Vol-III, Part-II CSR2012	Providing and laying single per layer of polythene sheet 0.13mm thick for water proofing as per specification and instruction of engineer incharge	Sft	490		
c	16(d)/Page-42 Vol-III, Part-II CSR2012	Providing and laying 1" thick topping cement concrete (1:2:4) including surface finishing and dividing into panels. (d) 3" thick (1:2:4) Roof screeding	Sft	490		
18	Item 2,3, Page- 91, Vol-III, Part- II CSR2012	<u>MS Works</u> Fabrication ,erection and fitting in position of heavy steel work with angles,tees,flat iron, round iron and sheet iron for making trusses, girders tands etc. including cutting tanks, drilling rivetting,handling assembling and fixing.				
	a)	MS Door	Kg	225		
	b)	MS Windows	Kg	340		
	c)	MS Girder incl.plates etc	Kg	185		
19	5(c,I,ii)/P-69,70 Vol-III, Part-II, CSR2012	<u>PAINTING WORK</u> Providing and applying enamel painting (first & subsequent coat) in position doors, windows & ventilators any type (at any floor & height)etc. complete in all respect as per drawing and specifications and to the entire satisfaction of the Engineer.	Sft	355		
20	Item J-1 pge 35 Vol-III,Part-III, PHEW CSR2012	Providing and fixing C.I manhole cover & Frame i/c cost of material and painting etc. complete in all respect as per drawing and specifications and to the entire satisfaction of the Engineer.	Kg	160		
21	Item B-1 pge 56 Vol-III,Part- III, PHEW CSR2012	Providing "Expansion joint" in concrete work of 9" wide corrugated PVC (with bulb) i.e soldering and providing wooden key of partal wood i/c cutting of planks to the exact shape of structure and cost of the material and labour etc. complete in all respect as per drawing and specifications and to the entire satisfaction of the Engineer.	Rft	140		

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		<u>EXTERNAL FINISHES</u>				
22	13(c)/P-52 Vol-III, Part-II, CSR2012	Providing and applying 3/4" thick cement plaster upto 12' height on walls, columns, beams, chajjas etc. with cement mortar 1:6 including all corners, recesses, jambs, raking out joints of masonry, scaffolding, making drip courses, curing etc. nailing 9" wide heavy duty metal lath strip nailed at junction of RCC & masonry, etc. complete in all respect, as per specifications & relevant drawings and all works to the entire satisfaction of the Engineer.	Sft	1,530		
23	38(a & b)/P-56 Vol-III, Part-II, CSR2012	Providing and applying preparing the surface and painting with weather coat i/c rubbing the surface with rubbing brick /sand paper, filling the voids with chalk/ plaster of Paris and then painting with weather coat of approved make (1st coat, 2nd & subsequent coat) etc. complete in all respect, as per specifications & relevant drawings and all works to the entire satisfaction of the Engineer. <i>(New surface)</i>	Sft	1,530		
24	Item H-I(a), III(b)/Pg.32 Chp 2 Vol-III, Part-III (PHED Works)	<u>PIPES (M.S)</u> Manufacturing, Supplying & fixing black steel M.S pipe made out of M.S sheet confirming to API 5L grade X-42 Spirally Welded & Externally asphalt coated with fiber glass 5mm thick (3 layers) & Internally C.C lining 8mm thick (AWWA specification) i/c laying jointing with Hilical welding in trenches i/c cost of bends of any degree & testing with water specified pressure for different dia of pipes as below (Spirally welded) i) 609.60mm (24") OD x 7.1mm WT (for Manifold) ii) 254mm (10") OD x 5.6 mm WT (for Delivery & Suction)	Rft Rft	30 114		
25	Item H-II(b), III(b)/Pg.32 Chp 2 Vol-III, Part-III (PHED Works) CSR2012	<u>M.S PIPE SLEEVES</u> Manufacturing, supplying and laying/fixing black steel M.S Pipe made out of M.S sheet conforming to DIN 30670 standard and externally 3 layers of poly ethylene tap coating and internally C.C lining as per(AWWA Specification) i/c laying, jointing with shield metal Arc welding (SMAW) in trenches and testing with water specified pressure for different dia of pipes as below, complete in all respect as per drawing and as directed by the Engineer. i) 457.2 mm (18") O.D X 6.4 mm WT	Rft	5		
	Item 8 e & f, Pg.8 Chp 4 Vol-III, Part-III (PHED Works) CSR2012	Providing and fixing M.S flange made of M.S Plate having a thickness and total weight as mentioned against each item it includes the cost of making holes facing welding, nuts bolts, rubber paking, white lead ,fitter, cartages etc complete i) 10" dia weighing 4.848 kgs ii) 24" dia weighing 24.505 kgs	Nos. Nos.	35 8		
SUB TOTAL AMOUNT (A)						

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		PART-B (NON SCHEDULE ITEMS)				
26		<u>PUDLO FLOOR</u> Providing and laying 3" thick cement concrete (1:2:4) Floor with water proofing agent pudlo mixed as per manufacturer's recommendation including surface finishing and dividing into panels. Etc, complete in all respect, as per specifications & relevant drawings and all works to be carried out the satisfaction of the Engineer.	Sft	630		
27		<u>PUDLO PLASTER</u> Providing and applying 3/4" thick plain plaster using OPC and water proofing material (Pudlo) mixed as per manufacturer's recommendation for internal surface with 1:5 cement mortar on walls, ceiling or where required etc, complete in all respect, as per specifications & relevant drawings and all works to be carried out the satisfaction of the Engineer.	Sft	3,170		
28		<u>LADDER RUNGS</u> Providing fixing and erecting epoxy coated M.S Ladder /rungs 1" dia bars rungs @ 12" c/c in tank, with anti corrosive and enamel paint etc, complete in all respect, as per specifications & relevant drawings and all works to be carried out the satisfaction of the Engineer.	Each	51		
29		<u>VENT PIPE</u> Providing and fixing 4" dia hole with M.S goose neck/ vent pipe including all necessary arrangement for concrete cutting, and pipe fixing, painted with 3 coats of approved enamel paint over a coat of shop primer etc, complete in all respect, as per specifications & relevant drawings and all works to be carried out the satisfaction of the Engineer.	Each	3		
30		<u>M.S FITTINGS</u> Manufacturing, Supplying & fixing black steel M.S fittings made out of M.S sheet confirming to API 5L grade X-42 Spirally Welded & Externally asphalt coated with fiber glass 5mm thick (3 layers) & Internally C.C lining 8mm thick (AWWA specification) i/c laying jointing with Hilical welding in trenches & testing with water specified pressure for different dia of pipes as below (Spirally welded)				
		<u>TEES (Unequal)</u> i) 609.60mm (24") OD x 7.9mm WT (24" x 24" x 10")	No	5		
31		<u>GATE VALVE</u> Providing, fixing, jointing and testing of Flanged Gate valve of approved quality, including nut, bolts gasket and washers etc. Complete in all respect as per drawing and specifications and as directed by the Engineer.				
		i) 10 in (PN-16)	No	5		

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32		<u>NON RETURN VALVE</u> Provide and install imported flanged non return valve with flanges required from approved manufacturers of Japan/Europe/USA including Complete in all respect as per drawing and specification and as directed by the Engineer.				
		i) 10 in (PN-16)	No	5		
33		<u>CHAIN PULLEY</u> Providing and fixing chain pulley of 1 ton capacity with chain of 6 meter length as per site requirement & instruction of Engineer/Incharge.				
			Set	1		
34		<u>PUDDLE FLANGE</u> Providing and fixing M.S puddle flange of the following diameters, complete in all respect as per drawing and as directed by the engineer.				
		i) 609.60mm (24") OD	No	1		
35		<u>PUMPS AND MOTORS</u> Providing, installing testing and commissioning of dry setup vertical turbine pumps including cost of motor of approved quality and required H.P. having rpm not exceeding 1450, i/c cost of Standard Motor Control Unit complete in all respect as per drawings and specification and as directed by the Engineer Incharge.				
		Pumps 1050 Imp GPM and head of 200 ft (4+1) (H.P =100)	No	5		
SUB TOTAL AMOUNT (B)						
SUB TOTAL AMOUNT (A)						
We Quote% above/below on schedule items						
TOTAL AMOUNT (A+B)						

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BILL NO. B : PIPE & FITTINGS

Sr.No	ITEMS REF./PAGE No	DESCRIPTION	UNIT	QTY	RATES(Rs.)	AMOUNT (Rs.)
PART-A (SCHEDULE ITEMS)						
EXCAVATION						
1	Item A-1/ Pg.60 Vol-III, Part-III, chap-II CSR2012	Excavation for pipe line in trenches, and test pits in all kind of soft soils i/c trimming and dressing sides to true alignment, and shape, leveling of beds of trenches to correct level and grade cutting joints holes and disposal of surplus earth with in a one chain as directed by the Engineering Incharge, providing fence guard light flags and temporary crossing for non vehicular traffic where ever required lift upto 5 ft (1.52 m) and lead upto one chain (30.5 m)	ft ³	613,246		
2	Item 16/ Pg.74 Vol-III, Part-III, chap-II CSR2012	Add for extra lift of every 3ft(1.0m) or part there of in above item for excavation for pipe lines & trenches and pits.	ft ³	138,085		
ST OF THE PROJECT						
		ii) -5'-0"ft to -8'-0"ft	ft ³	7,894		
		ii) -8'-0"ft to -11'-0"ft	ft ³	2,133		
		iii) -11'-0"ft to -14'-0"ft	ft ³			
3	Item A-3/ Pg.61 Vol-III, Part-III, chap-II CSR2012	Excavation for pipe line in trenches, and pits in all kind of hard soils i/c trimming and dressing sides to true alignment and shape, leveling of beds of trenches to correct level and grade cutting joints holes and disposal of surplus earth within a one chain as directed by the Engineers incharge. Providing fence guard light flags and temporary crossing for non vehicular traffic where ever required lift up tp 5 ft (1.52 m) and lead upto one chain (30.5 m)	ft ³	59,179		
	Item 16/ Pg.74 Vol-III, Part-III, chap-II CSR2012	Add for extra lift of every 3ft(1.0m) or part there of in above item for excavation for pipe lines & trenches and pits.	ft ³	3,383		
		ii) -5'-0"ft to -8'-0"ft	ft ³	914		
		ii) -8'-0"ft to -11'-0"ft	ft ³			
		iii) -11'-0"ft to -14'-0"ft	ft ³			
SAND BEDDING						
4	Item 29/ Pg.26 Vol-III, Part-III, chap-5 CSR2012	Supplying and Filling Sand under Trench , floor and plugging in walls.	ft ³	60,362		

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BILL NO. B : PIPE & FITTINGS

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5	Item 24/ Pg.77 Vol-III, Part-III, chap-II CSR2012	<u>BACKFILL</u> Refilling the excavated stuff in trenches in 150mm thick layer including watering, ramming to full compaction etc complete in all respect as per drawing ,specification and as directed by the Engineer Incharge.	ft ³	483,132		
6	Item 5(f) /Pg.16 Chp 4 Vol-III, Part-II (General finished works) CSR2012	<u>CEMENT CONCRETE</u> Cement Concrete Plain 1:2:4 including placing compacting finishing and curing complete in all respect as per drawing and approval of the Engineer Incharge. i) Concrete Pipe Encasement ii) Thrust Blocks	ft ³ ft ³	4,945 706		
7	Item H-II(b), III(b)/Pg.32 Chp 2 Vol-III, Part-III (PHED Works)	<u>PIPES (M.S)</u> Manufacturing, Supplying & fixing black steel M.S pipe made out of M.S sheet confirming to API 5L grade X-42 Spirally Welded & Externally asphalt coated with fiber glass 5mm thick (3 layers) & Internally C.C lining 8mm thick (AWWA specification) i/c laying jointing with Hilical welding in trenches i/c cost of bends of any degree & testing with water specified pressure for different dia of pipes as below (Spirally welded) i) 609.60mm (24") OD x 7.1mm WT ii) 457.20mm (18") OD x 6.4mm WT	Rft Rft	20,393 9,633		
8	Item 8 e & f./Pg.8 Chp 4 Vol-III, Part-III (PHED Works) CSR2012	<u>M.S FLANGES</u> Providing and fixing M.S flange made of M.S Plate having a thickness and total weight as mentioned against each item it includes the cost of making holes facing welding, nuts bolts, rubber paking, white lead ,fitter, cartages etc complete i) 33" dia weighing 32.7 kgs ii) 24" dia weighing 24.505 kgs iii) 18" dia weighing 8.081 kgs iv) 4" dia weighing 2.424 kgs	Nos. Nos. Nos. Nos.	2 80 38 24		
SUB TOTAL AMOUNT (A)						

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		PART-B (NON SCHEDULE ITEMS)				
9		<u>SELECTED BACKFILL</u> Backfilling the excavated stuff (clean) in trenches in 150mm thick layer including watering, ramming to full compaction etc complete in all respect as per drawing ,specification and as directed by the Engineer Incharge.	ft³	200,018		
10		<u>M.S FITTINGS</u> Manufacturing, Supplying & fixing black steel M.S fittings made out of M.S sheet confirming to API 5L grade X-42 Spirally Welded & Externally asphalt coated with fiber glass 5mm thick (3 layers) & Internally C.C lining 8mm thick (AWWA specification) i/c laying jointing with Hilical welding in trenches & testing with water specified pressure for different dia of pipes as below (Spirally welded)				
		<u>TEES (Unequal)</u>				
		i) 838.2mm (33") OD x 7.9mm WT (33" x 33" x 24")	Nos	1		
		ii) 609.60mm (24") OD x 7.1mm WT (24" x 24" x 18")	Nos	1		
		iii) 609.60mm (24") OD x 7.1mm WT (24" x 24" x 4")	Nos	3		
		iv) 457.20mm (18") OD x 6.4mm WT (18" x 18" x 4")	Nos	1		
11		<u>GATE VALVE</u> Providing, fixing, jointing and testing of Flanged C.I Gate valve of approved quality, including nut, bolts gasket and washers etc. Complete in all respect as per drawing and specifications and as directed by the Engineer.				
		i) 33 in (PN-16)	No	1		
		ii) 24 in (PN-16)	No	2		
		iii) 18 in (PN-16)	No	2		
12		<u>AIR RELEASE VALVE</u> Supplying, installing, jointing and fixing C.I Air Valve (Double acting) with SS ball heavy duty pattern of approved manufacturer's specification (test pressure) as per standard including 50mm dia isolating flanged gate valve etc complete in all respect, as per specifications & relevant drawings and all works to the entire satisfaction of the Engineer.				
		i) 3 in (PN-16)	No	15		
13		<u>WASH OUT VALVE</u> Providing, fixing, jointing and testing of Flanged C.I Washout valve of approved quality, including nut, bolts gasket and washers etc. Complete in all respect as per drawing and specifications and as directed by the Engineer.				
		i) 4 in (PN-16)	No	4		

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WATER TRANSMISSION MAIN FROM HAWKS BAY SCHEME 42 TO DEH MANDIARI, SMBBT
KARACHI**

BILL OF QUANTITIES

BILL NO. B : PIPE & FITTINGS

Sr.No	ITEMS REF/PAGE No	DESCRIPTION	UNIT	QTY	RATES(Rs.)	AMOUNT (Rs.)
14		<u>R.C.C VALVE CHAMBER</u> Construction and making of RCC Valve chamber of size (1800 mm x 1800 mm) depth as shown in drawings for wash out ,Gate valve and air Valve of approved design all works comprising of (Excavation back filling and disposal of surplus earth , Pcc concrete, RCC bottom & top slab & walls, cc benching complete with curing and finishing, providing and fixing MS foot rest (rungs) as shown on drawings, . Including cost of Reinforcement bars, Fair face Steel form work, C.I cover and frame heavy duty (weight) as shown and bitumen coating on outer surface up to substructure level etc, complete in all respect, as per specifications & relevant drawings and all works to the entire satisfaction of the Engineer.	No	24		
15		<u>REINSTATEMENT</u> Rehabilitation / Re construction of road including Sub grade, Granular Base Course, Aggregate Base Course and Asphalt Base Course etc complete in all respect as per specification and as directed by the Engineer Incharge.	sq.ft	2721		
16		<u>Land Acquisition</u>	Lumsum	1		
SUB TOTAL AMOUNT (B)						
SUB TOTAL AMOUNT (A)						
We Quote% above/below on schedule items						
TOTAL AMOUNT (A+B)						

SEAL OF THE COMPANY INITIAL
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SIGNATURE OF BIDDER

INSTRUCTION OF EXTERNAL UTILITIES ON MAIN ROADS BENAZIR TOWN, DEH MANDIARI KARACH
SHAHEED MOHTERMA BENAZIR BHUTTO TOWNSHIP
WATER TRANSMISSION MAIN FROM HAWKS BAY SCHEME 42 TO DEH MANDIARI, SMBBT KARACH

BILL OF QUANTITIES

BILL NO. C : ELECTRICAL WORKS

Sr.No	ITEMS REF./PAGE No	DESCRIPTION	UNIT	QTY	RATES(Rs.)	AMOUNT (Rs.)
		(NON-SCHEDULE ITEMS)				
		<u>L.V. SWITCH BOARDS / DISTRIBUTION BOARDS</u> Supply, installation, testing & commissioning of following Floor/Wall mounted surface type Sub Main Distribution Boards (SMDB)/Distribution Board (DB) made with 16 SWG sheet metal, dust protected, vermin proof housing coated with approved color having all the necessary switching and protections, as per specification, complete in all respect.				
		i) SMDB-PR	No.	1		
		ii) DB-LP	No.	1		
		Supply, installation, testing & commissioning of following Isolator Switch etc., in 16 SWG sheet metal steel enclosure with neutral and earth terminal strips, including all accessories as shown on the drawing, complete in all respect.				
		i) 160A, TPN Weatherproof type	Nos.	5		
		<u>LOW VOLTAGE CABLES AND WIRES</u> Supply, Installation, testing and commissioning of following size of multi core PVC insulated, PVC sheathed non-armoured copper conductor 0.6 kV/1 kV voltage grade cable in already laid raceways or in ducts including all accessories lugs, cable glands, etc. as per drawings and specifications, complete in all respect.				
		(a) 4- Core - CU/PVC/ PVC Cable (600 / 1000V)				
		i) 4- Core - 70 Sq.mm	Rft.	130		
		ii) 4- Core - 6 Sq.mm	Rft.	8		
		(b) 1- Core - CU.PVC Cable as ECC				
		i) 1-Core - 35 Sq.mm	Rft.	130		
		ii) 1-Core - 6 Sq.mm	Rft.	8		
		<u>CONDUITS & PIPES</u> Providing and laying of following size uPVC class D pipe for Incoming cable from Manhole to SMDB-PR buried in ground / under roads / under floor, including excavation for laying of pipe, bricks, warning tape, and backfilling with new and fresh soil etc. as per specification. and as shown on drawing complete in all respect.				
		i) 150mm dia uPVC	Rft.	35		
		Providing and Construction of manhole Size 600 x 600 x 900mm deep, 6" thick, concrete 1:2:4 ratio with 450mm round heavy duty cast iron cover, 100% water proof, complete in all respect, (For Main incoming Cable).	No.	1		

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BILL NO. C : ELECTRICAL WORKS

Sr.No	ITEMS REF./PAGE No	DESCRIPTION	UNIT	QTY	RATES(Rs.)	AMOUNT (Rs.)
6		<u>WIRING ACCESSORIES</u> Supply, installation, testing and commissioning of following Five gang type and Socket Outlet including 16 SWG Sheet Steel powder coated back Boxes with earth terminal, recessed in wall, complete in all respects. i) Five Gang Switch 10A Weatherproof type ii) 15A 3 Pin Switch Socket Outlet Weatherproof type	No. Nos.	1 2		
7		<u>LIGHTING FIXTURES & WIRINGS</u> Supply, installation, testing and commissioning of following Light fixtures complete with starters, electronic ballast, lamps, drivers, mounting accessories etc., complete in all respects. Lighting fixture samples must be submitted to consultant for approval. i) Wall mounted Weatherproof fluorescent light fixture with Clear Prismatic Cover (IP-65) and 2X36W T8 ii) Wall mounted External light fixture IP-65 with 1x26W CFL lamp	Nos. Nos.	4 3		
8		Supply, laying, testing and commissioning of following wiring items complete with cables & wires, conduiting accessories, fan hook, ceiling rose, 3x1.5sqmm cable up to fixture as per drawings and specifications, complete in all respects. Supply, installation, testing & commissioning of circuit wiring from DB to switch board including wiring between switches on the same circuit with 3x2.5 sq.mm. single core PVC insulated wires in 20 mm dia. PVC conduit surface / recessed in wall, column, ceiling, etc., including related civil works, complete with all conduit accessories as per specification.	No.	1		
9		Supply, installation, testing & commissioning of wiring for light point from switch board to light point with 3x1.5 sq.mm. wires in 20 mm or appropriate dia PVC conduit, complete in all respect.	Nos.	5		
10		Supply, installation, testing & commissioning of wiring from light point to light point with 3x1.5 sq.mm. wires in 20 mm or appropriate dia PVC conduit, complete in all respect.	Nos.	2		
11		Supply, installation, testing & commissioning of wiring of 15A, Socket Outlet from DB to Socket Outlet with 3 x 4 sq.mm. single core PVC installed wire in 25 mm dia. PVC conduit surface / recessed in wall, column, ceiling, etc., complete with all conduit accessories as per specification.	Nos.	2		

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BILL NO. C : ELECTRICAL WORKS

Sr.No	ITEMS REF./PAGE No	DESCRIPTION	UNIT	QTY	RATES(Rs.)	AMOUNT (Rs.)
12		<u>CABLE TRAY</u> Providing and Installing of following size of base perforated for Power Distribution, Fabricated with 16 SWG. M.S Sheet steel Hot dip Galvanized including all installation accessories (Hot Dip Galvanized) such as appropriate sizes and lengths of M.S. Rod / Angle Iron Supports and Rawl Bolts etc. Complete in all respect as shown in drawings and specification or as directed by the Engineer. i) 400 mm x 100 mm ii) 200 mm x 100 mm	Rft. Rft.	35 40		
13		<u>EARTHING SYSTEM</u> Supply, installation, testing and commissioning of following items for complete earthing system including all connecting accessories as per drawings & specifications complete in all respect. i) Earth pit with Rod type earth electrode, 20 mm dia and 3 meter long copper rod .	Nos.	1		
14		Supply, installation, testing and commissioning of following size of PVC insulated Cu.Conductor cable as earth continuity conductor (ECC),complete in all respect. i) 70 Sq.mm ii) 10 Sq.mm	Rft. Rft.	50 20		
TOTAL AMOUNT						

SEAL OF THE COMPANY

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