

**ENGINEERING DESIGN AND CONSTRUCTION SUPERVISION
CLUSTER NORTH
PUNJAB RURAL SUSTAINABLE WATER SUPPLY AND SANITATION PROJECT**

**TEHSIL NOORPUR THAL, DISTRICT KHUSHAB VILLAGES(Lal Hussain, Chandi Balochan,
Haveli Chiragh Joiya, Pipli Sydean, Chak No 014-A/MB, Chak No 016/MB, Chak No 041/DB,
Chak No 042/DB, Chak No 043/DB, Chak No 044/DB, Chak No 045/DB, Chak No 054/DB,
Awanawala, Rakh Mahmood Shaheed)**

**BILL OF QUANTITIES
ABSTRACT OF COST**

Sr. No	Description	
1	WATER SUPPLY SYSTEM	
2	SEWERAGE SYSTEM	
3	ROAD RESTORATION	
4	ESMP COST	
5	EMPLOYER/ENGINEER'S FACILITIES	
TOTAL		
ADD 5% (PRA charges)		
GRAND TOTAL		
Rs. in Million		

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Awanawala, R
WATER SUPPLY
BILL OF QUANTITIES
SUMMARY OF COST**

Bill No.	Description	Cost
1.1)	INSTALLATION OF EJECTOR PUMP	
1.2)	PUBLIC STAND POST INCLUDING FILTRATION	
1.3)	ELECTRIFICATION	
1.4)	DISTRIBUTION NETWORK	
	TOTAL	

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042/DB, Chak No 043/DB, Chak No 044/DB, Chak No 045/DB, Chak No 054/DB, Awanawala, R**

BILL OF QUANTITIES

Bill No. 1.1.1: INSTALLATION OF EJECTOR PUMP

Sr. No.	Ref	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
1	23/1	Boring for tubewell in all types of soil except shingle and rock, from ground level to specific depth, including sinking and withdrawing of casing pipe, complete:- 1) Upto 0 to 100' depth d) 6" (150 mm) i/d 2) Upto 101' to 200' depth b) 6" (150 mm) i/d 3) Upto 201' to 300' b) 6" (150 mm) i/d	Per R. Ft of Bore	1500		
			Per R. Ft of Bore	1400		
			Per R. Ft of Bore	750		
2	23/13	Providing and installing P.V.C. blind pipe, B.S.S. in tubewell bore hole, including sockets and solvents and jointing with strainer, (PS-3051=BS-3505), etc. complete. b) Class-D (12 bar) v) 4" i/d (100 mm)	Per R. Ft	2490		
3	23/8	Providing and installing, P.V.C. strainer B.S.S. in tubewell bore hole, including sockets and solvents, etc. complete:- b) Class-D v) 4" i/d (100 mm)	Per R. Ft	1010		
4	23/13	Providing and installing P.V.C. Bail/End plug, in tubewell bore hole:- b) B.S.S. Class 'D' v) 4" i/d (100mm)	Per R. Ft	150		
5	23/17	Shrouding with graded pea gravel 3/8" to 1/8" (10 to 3 mm), around tubewell in bore hole.	cft	397.9		
6	23/31	Providing & mixing Bentonite clay / powder have swelling factor of 1200% for lining / seal and plug earthen boreholes / ponds in the specified ratio conforming to IS:6186 for stabilization of soil as specified by the designer etc complete in all respect.	Per Pounds	1041.57		
7	23/32	P/F Ejector Pump of specified Suction and Delivery heads, coupled with Single Phase Seimen Electric Motor of required rating for water supply i/c the cost of connection charges, necessary wire, PVC pipes etc complete in all respect as approved and directed by the Engineer Incharge. ii) G-IV (2-1/2" x 2") with 2.5 HP Electric Motor, 38-Mtr Suction and 38 M delivery head	Job	15		

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BILL OF QUANTITIES

Bill No. 1.1.1: INSTALLATION OF EJECTOR PUMP

Sr. No.	Ref	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
8	6/6	Providing and laying reinforced cement concrete (including prestressed concrete), using Ordinary Portland Cement / Sulphate resisting cement / Slag cement as may be required; coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in (c) Reinforced cement concrete in Pile cap, slab of rafts / strip foundation, base slab of column and retaining walls; etc and footing beams, other structural members other than those mentioned in 6(a-d) above not requiring form work (i.e. horizontal shuttering) complete in all respects:- (2) Type B (nominal mix 1: 1½: 3)	Per Cft	480		
9	6/12	Fabrication of mild steel reinforcement for cement concrete including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust) (b) Deformed bars (ii)(Grade-60)	100 kg	15.3		
10	N/S	Taking samples at every 5 ft. or from each stratum as per direction of the Engineer including submission construction charts etc. and results of analysis.	Each	730		
11	N/S	Geophysical logging of bore (self potential resistivity Both short normal and Gama) complete in all respect.	Job	15		
12	N/S	Physical & Chemical and Bacteriological Testing of Water	Per Sample	15		
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BILL OF QUANTITIES

Bill No. 1.2: PUBLIC STAND POST INCLUDING FILTRATION

Sr. No.	Ref	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
1	3/21	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling in layers around structure with excavated earth, watering and ramming lead upto one chain (30 m) and lift upto 5 ft. (1.5 m). 1) Depth upto 5ft (1.5m) 1) By Manual ii) Ordinary soil	1000 Cft	6.00		
2	26/43	Spraying termite proofing by using liquid FMC/ Biflex/ Terminex Exin/ Ms Hextar or equivalent @ specified suspension concentrate (SC), Mixing Ability- HEXTAR with Ratio (1:250) =540 Sft or equivalent approved liquid applying with shower and certificate will be provided by the contractor for 10- years complete in all respect. as approved by the Engineer Incharge	Per Sft	7,047.75		
3	6/5	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate). (h) Nominal mix Ratio 1: 3: 6	100 Cft	16.50		
4	7/4	Pacca brick work in foundation and plinth i) Cement, sand mortar Ratio 1 : 4	100 Cft	89.25		
5	6/37	Providing and laying damp proof course of cement concrete 1:2:4 (cement, sand, shingle), including bitumen coating. (b) with 2 coats of bitumen: i) 1½" thick (40 mm)	100 Sft	12.75		
6	6/39	Providing and laying vertical damp proof course with cement sand plaster and bitumen coating:- (b) with 2 coats of bitumen:- ii) Ratio 1:3 b) ¾" thick (20 mm)	100 Sft	12.75		
7	7/5	Pacca brick work in ground floor:- i) cement, sand mortar Ratio 1:4	100 Cft	89.25		

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BILL OF QUANTITIES

Bill No. 1.2: PUBLIC STAND POST INCLUDING FILTRATION

Sr. No.	Ref	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
8	6/6	Providing and laying reinforced cement concrete (including prestressed concrete), using Ordinary Portland Cement / Sulphate resisting cement / Slag cement as may be required; coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):-				
		(a) Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:- (2) Type B (nominal mix 1: 1½: 3)	Cft	4,387.20		
		(c) Reinforced cement concrete in Pile cap, slab of rafts / strip foundation, base slab of column and retaining walls; etc and footing beams, other structural members other than those mentioned in 6(a-d) above not requiring form work (i.e. horizontal shuttering) complete in all respects:- (2) Type B (nominal mix 1: 1½: 3)	Cft	1,183.50		
9	6/12	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):- (b) Deformed bars (ii)(Grade-60)	100 kg	166.95		
10	1/1	Carriage of 100 Cft. (2.83 cu.m) of all materials like stone aggregate, spawl , kankar lime (unslaked), surkhi , etc. or 150 Cft. (4.25 cu.m) of timber, by truck or by any other means owned by the contractor (crushed stone aggregate and bajri used in concrete items) Lead From Sargodah quarry	100 Cft	68.40		
11	11/9	Cement plaster 1:4 upto 20' (6.00 m) height:- b) ½" (13 mm) thick	100 Sft	277.20		

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Bill No. 1.2: PUBLIC STAND POST INCLUDING FILTRATION

Sr. No.	Ref	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
12	11/12	Cement plaster 3/8" (10 mm) thick under soffit of R.C.C. roof slabs only, upto 20' height. c) 1:4	100 Sft	74.70		
13	11/18	Cement pointing struck joints, on walls, upto 20' (6.00 m) height:- b)ratio 1:3	100 Sft	277.20		
14	3/15	Filling, watering and ramming earth under floors:- (i) with surplus earth from foundation, etc. (ii) with new earth excavated from out side, lead upto one chain (30m)	1000 Cft 1000 Cft	5.25 3.75		
15	3/16	Extra for every 50 ft. (15 m) additional lead or part thereof i) for earth work soft, ordinary, hard and very hard (up to 1000 ft)	1000 Cft	75.00		
16	6/2	Dry rammed brick or stone ballast, 1½" to 2"(40 mm to 50mm) gauge.	100 Cft	15.75		
17	10/22	Providing & Laying mosaic flooring consisting of one part of cement and marble powder in the ratio of 3:1 and two parts of marble chips,laid over 1"(25 mm) thick flooring of 1:2:4 cement concrete including rubbing and polishing complete with finishing :- 1½"(40 mm) thick mosaic flooring, consisting of ½ "(13mm) mosaic topping (b) using white cement	100 Sft	24.00		
18	10/35	Mosaic dado or skirting with one part of cement and marble powder in the ratio of 3:1 and two parts of marble chips, laid over ½"(13 mm) thick cement plaster 1:3, including rubbing and polishing, complete with finishing: (b) using white cement : ii) ½"(13 mm) thick	100 Sft	4.50		
19	10/42	Providing and fixing marble strip of any shade for dividing the mosaic flooring into panels a) Size 1½" x3/8" (40 x 10 mm)	Rft	225.00		

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Bill No. 1.2: PUBLIC STAND POST INCLUDING FILTRATION

Sr. No.	Ref	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
20	9/5	Single layer of tiles 9"x4½"x1½" (225x113x40 mm) laid over 4"(100 mm) earth and 1" (25 mm) mud plaster without Bhoosa, grouted with cement sand 1:3 on top of RCC roof slab, provided with 34 lbs.per %Sft. or 1.72 Kg/Sq.m bitumen coating sand blinded.	100 Sft	49.80		
21	26/38	Supplying and laying polythene sheet over D.P.C under floors and on roofs, etc. (i) 300 gauge (0.003" thick)	Sft	4,980.00		
22	9/15	Khuras on roof 2'x2'x6" (600 x 600 x 150 mm)	Each	15.00		
23	9/16	Bottom Khuras of brick masonry in cement mortar 1:6, 4'x2'x4½" (1200x600x113 mm) over 3" (75 mm) cement concrete 1:4:8.	Each	15.00		
24	10/10	Brick on edge flooring, laid in 1:6 cement mortar, over a bed of ¾" (20 mm) thick cement mortar 1:6.	100 Sft	33.00		
25	12/60 (b)	P/F 3/4" dia heavy duty sliding bolt of specified material i/c the cost of hardware omplete in all respect as approved and directed by the Engineer Incharge. b) brass sliding bolt, 10" (250 mm) long	Each	15.00		
26	11/23	Priming coat of chalk under distemper.	100 Sft	123.75		
27	11/24	Distempering (a) new surface ii) two coats	100 Sft	123.75		
29	10/45	Providing and laying superb quality Porcelain glazed tiles flooring of Master /Stile brand or approved equivalent manufacturer of specified size in approved design, Color and Shade with adhesive/ bond over 3/4" thick (1:3) cement plaster i/c the cost of sealer for finishing the joints i/c cutting grinding complete in all respect as approved and directed by the Engineer Incharge. a) Full body Glazed Tile (i) 400 mmX400 mm	Per Sft	1,336.50		

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BILL OF QUANTITIES

Bill No. 1.2: PUBLIC STAND POST INCLUDING FILTRATION

Sr. No.	Ref	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
30	25/62	P/F Iron door comprising of specified leaves made of 1-1/4" x1-1/4" x3/16" MS angle iron for leaf frame, diagonal and horizontal braces duly welded with MS. sheet 18-SWG i/c the cost of sliding bolt, tower bolt and painting 3-coats but excluding the cost of Chowkat complete in all respect as approved and directed by the Engineer incharge. (ii) Double Leaf	Per Sft	367.50		
31	12/17	Providing and fixing 2" wide MS/ GI Chowkat singel/double rebate made of 16 SWG MS sheet pressed/ welded/ supported with M.S. flat 1- 1/4"x1/8" i/c 6"long M.S. Flat 1"x1/8"hold fasts (6-Nos) welded/ screwed, punching of lock hole covered with MS Box,coating with antirust paint including filling with cement sand mortar (1:8) and embedding hold fast in cement concrete (1:2:4) ,complete in all respect as approved and directed by Engineer Incharge. (ii) 10.50 " wide	Per Sft	367.50		
32	25/42	Providing and fixing steel windows using M.S. sheet (16 SWG) moulded tubular pipe 1½"x1½" (40x40mm) for frame and 1¼"x1¼" (30x30mm) for leaves including M.S. square bars ¼"x¼" (6x6 mm) welded around each panel of frame, 5 mm thick glass panes fixed with double M.S. square tubular pipe 3/8"x3/8" (10x10mm) (22 SWG) beading with U' shaped rubber lining, brass fitting, holdfast, including painting three coats complete in all respects. a) For openable panels fixed with wire gauze 24 SWG, 12x12 mesh and glass panes ¼" (6 mm) thick.	Per Sft	540.00		
33	19/47 (v)	Providing and fixing uPVC rain water down pipe 110mm dia with shoe, bend, clamp etc.	Rft	195.00		

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Bill No. 1.2: PUBLIC STAND POST INCLUDING FILTRATION

Sr. No.	Ref	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
34	N/S	<p>Design, Supply, Install, Testing and Commissioning of water filtration plant, capable of removing Turbidity and Bacteria & Viruses, having capacity of 2000 litres/ hour, and fully automated (Auto filtration, flush and backwash process) complete in all respects as per drawings, specifications and directions of the Engineer. The major components include;</p> <p>Feed/ Backwash Pump (Stainless Steel, NEMA Insulation Class F and Pump Efficiency \geq 50%)</p> <p>Silica Sand Media (Suspended Solids Removal upto 100 micron)</p> <p>Activated Carbon Media (Coconut shells, NSF Certified Manufacturer)</p> <p>FRP Vessels (OP 150 psi, NSF Certified)</p> <p>Screen Filter (Washable, 70-100 Micron, Stainless Steel)</p> <p>UV Sterilizer of well-reputed brand in SS Vessel</p> <p>Raw and Product Water Tanks (500 Gallons, Food Grade Material)</p> <p>Pressure Gauges, Rotameters, Flow Meters, Level Switches/ Sensors, Multiport valves</p> <p>Stainless Steel 304 Frame Skid Panel</p> <p>Control panel skid for complete automation and manual operation</p> <p>Pipe work including feed water pipe line connection and delivery pipeline and necessary gate and flow regulating valves.</p> <p>Providing and fixing steel water taps including header.</p> <p>uPVC pipe and all necessary arrangements to drain off the spent/ waste water as per direction of Engineer.</p>	No.	12.00		

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Bill No. 1.2: PUBLIC STAND POST INCLUDING FILTRATION

Sr. No.	Ref	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		<p>Design, Supply, Install, Testing and Commissioning of water filtration plant, capable of removing Turbidity and Bacteria & Viruses, having capacity of 1000 litres/ hour, and fully automated (Auto filtration, flush and backwash process) complete in all respects as per drawings, specifications and directions of the Engineer. The major components include;</p> <p>Feed/ Backwash Pump (Stainless Steel, NEMA Insulation Class F and Pump Efficiency \geq 50%)</p> <p>Silica Sand Media (Suspended Solids Removal upto 100 micron)</p> <p>Activated Carbon Media (Coconut shells, NSF Certified Manufacturer)</p> <p>FRP Vessels (OP 150 psi, NSF Certified)</p> <p>Screen Filter (Washable, 70-100 Micron, Stainless Steel)</p> <p>UV Sterilizeer of well-reputed brand in SS Vessel</p> <p>Raw and Product Water Tanks (500 Gallons, Food Garde Material)</p> <p>Pressure Gauges, Rotameters, Flow Meters, Level Switches/ Sensors, Multiport valves</p> <p>Stainless Steel 304 Frame Skid Panel</p> <p>Control panel skid for complete automation and manual operation</p> <p>Pipe work including feed water pipe line connection and delivery pipeline and necessary gate and flow regulating valves.</p> <p>Providing and fixing steel water taps including header.</p> <p>uPVC pipe and all necessary arrangements to drain off the spent/ waste water as per direction of Engineer.</p>	No.	3.00		

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Bill No. 1.2: PUBLIC STAND POST INCLUDING FILTRATION

Sr. No.	Ref	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
	B	SOAKAGE PIT				
36	3/21	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling in layers around structure with excavated earth, watering and ramming lead upto one chain (30 m) and lift upto 5 ft. (1.5 m). 1) By Manual ii) Ordinary soil	1000 Cft.	5.45		
37	10/30	Supplying and filling sand under floor; or plugging in wells.	100Cft	1.50		
38	6/5	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate): (h) Ratio 1: 3: 6	100 Cft.	2.40		
39	7/7	Pacca brick work other than building upto 10ft. (3 m) height. 1:3	100Cft	12.15		
40	6/6	Providing and laying reinforced cement concrete (including prestressed concrete), using Ordinary Portland Cement / Sulphate resisting cement / Slag cement as may be required; coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):- (a) Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:- (1) Type A (nominal mix 1:1:2)	Cft.	220.05		

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Bill No. 1.2: PUBLIC STAND POST INCLUDING FILTRATION

Sr. No.	Ref	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
41	6/12	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and steel chairs, etc. complete in all respect. and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also Includes removal of rust from bars):- (c) Deformed bars (Grade-60)	100 Kg	6.99		
41	1/1	Carriage of 100 Cft. (2.83 cu.m) of all materials like stone aggregate, spawl , kankar lime (unslaked), surkhi , etc. or 150 Cft. (4.25 cu.m) of timber, by truck or by any other means owned by the contractor. Lead from approved nearby quarry	1000Cft	3.75		
42	23/17	Shrouding with graded pea gravel 3/8" to 1/8" (10 to 3 mm), around tubewell in bore hole.	Per Cft	600.00		
43	3/5	Earthwork in ordinary soil for embankments lead upto 100 ft. (30 m), including ploughing, mixing and compaction by mechanical means at optimum moisture content and dressing to designed section, complete in all respects:- i) 95% to 100% maximum modified AASHTO dry density.	1000 Cft.	19.50		
Total Amount						

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BILL OF QUANTITIES

Bill No. 1.3: ELECTRIFICATION OF FILTRATION PLANT

Sr. No.	M.R.S (Item/Chap)	Description	Unit	Qty.	Rate (Rs.)	Amount (Rs.)
					In Figure	
1.0		<u>WIRING AND ACCESSORIES</u>				
1.1	8(c-ii)/24, 3(iii)/24, 16(i)/24, 34(ii)/24	Wiring of light or fan point from switch board/dimmer to the point with 3x1.5 mm ² (P+N+E) PVC insulated single core stranded cables in 25 mm PVC conduit/pipe concealed in walls, columns and slabs including accessories, PVC box, 10 Amp. gang switch 1 or 2 way as required, one for each light or fan and installed as in specifications complete in all respects.	Each	180		
1.2	8(c-iii)/24, 3(iii)/24	Circuit wiring from DB/ MCBs to gang switches board and from switch board to another switch board with 3x2.5 mm ² (P+N+E) PVC insulated single core stranded cables in 25mm PVC pipe/conduit concealed in walls, columns and slabs as required complete in all respects.	Each	60		
1.3	8(c-ii)/24, 3(iii)/24	The same as item No. 1.1 but from one light point to another light point.	Each	300		
1.4	8(c-iv)/24, 17(ii)/24, 39(i)/24, 3(iii)/24	10/13 Amp 3 pin universal flush mounting switch socket outlet wired from DB/MCBs to first outlet with 3x4 mm ² (P+N+E) single core cable stranded (away from switch board) in 25mm PVC pipe/conduit concealed in walls, columns and slabs as required complete in all respects.	Each	45		
1.5	8(c-iii)/24, 3(iii)/24, 16(ii), 38(i)	The same as item No.1.4 but wiring from one socket outlet to another socket outlet with 3x2.5 mm ² (P+N+E) single core stranded cable in 25mm PVC pipe/conduit concealed in walls, columns and slabs as required complete in all respects.	Each	45		
1.6	8(c-v)/24, 3(iii)/24, 38(ii)/24, 16(ii)/24	15/20 Amp 3 pin mounting switch socket outlet wired from DB MCBs to independent socket outlet with 3x6 mm ² (P+N+E) single core stranded cable (away from switchboard) in 25mm PVC pipe/conduit concealed in walls, columns and slabs as required complete in all respects.	Each	45		
2.0		<u>DISTRIBUTION BOARDS</u>				
		D.Bs with TP incoming adjustable moulded case circuit breaker and SP miniature outgoing circuit breakers, Panel box SWG 16 powder coated RAL colour 7032, IP class 44 and with all accessories. alongwith all installation and operational accessories as per specification or as shown on the drawings.				
2.1		<u>DB- ROOM</u>				
		01 No. Incoming 25 Amps (Adj.) MCCB TP 18kA Icu=100%Ics				
	85(b-iii)/24,	05 Nos. outgoing 10A, MCB, SP, RC=10 kA, Icu=100%Ics				
	'85(a-iii)/24,	04 No. outgoing 20A, MCB, SP, RC=10 kA, Icu=100%Ics				
	94(i)/24,	03 Nos. outgoing 10A, MCB, SP, RC=10 kA, Icu=100%Ics (Spare)				
	94(ii)/24,	P/F wall mounted DB (Distribution Board) 6" deep, 20-60A, made with 16SWG				
	94(iv)/24,	Sheet (Recessded/Surf ace mounted Type), Powder coated Paint, i/c the cost of				
	94(iii)/24,	Lock, Indication lights,Thimble, Copper Comb, Wiring, Netural & Earth Bar, Door				
	94(v)/24,	Earthing, Digital Voltmeter,Digital Ammeter,Volt Selector Swi tch, Ammeter				
	94(vi)/24,	selector switch, Current Transformers and Controles Complete in all respect as				
	94(xv)/24	approved and directed by the Engineer Incharge (Breakers will be Paid Separately).	Each	15		

**ENGINEERING DESIGN AND CONSTRUCTION SUPERVISION
CLUSTER NORTH
PUNJAB RURAL SUSTAINABLE WATER SUPPLY AND SANITATION PROJECT**

TEHSIL NOORPUR THAL, DISTRICT KHUSHAB VILLAGES(Lal Hussain, Chandhi Balochan, Haveli Chiragh Joiya, Pipli Sydean, Chak No 014-A/MB, Chak No 016/MB, Chak No 041/DB, Chak No 042/DB, Chak No 043/DB, Chak No 044/DB, Chak No 045/DB, Chak No 054/DB, Awanawala, R

BILL OF QUANTITIES

Bill No. 1.3: ELECTRIFICATION OF FILTRATION PLANT

Sr. No.	M.R.S (Item/Chap)	Description	Unit	Qty.	Rate (Rs.)	Amount (Rs.)
					In Figure	
3.0		<u>Conduits / Pipes</u>				
3.2	27(e)/23, 6/3	PVC pipe/conduit Class-D 100 mm dia with accessories suitable for laying multi-core cables in trenches/directly burried on road crossings including excavation.	Rft.	1,500		
4.0		<u>FANS & ACCESSORIES</u>				
4.1		Providing and fixing Copper Winded Exhaust Fan with louver and shutter made of Pak/Younas/G.F.C. i/c the cost of necessary cable and hardware for connection from ceiling rose complete as approved and directed by Engineer Incharge.				
		b) Steel body				
i)	102(b-ii)/24	18" dia	Each	45		
4.2		Providing and fixing Copper winded wall bracket fan made of Pak/Younas/G.F.C or NEECA approved equivalent i/c the cost of necessary cable and hardware for connection as approved and directed by Engineer				
i)	103(i)/24	18" Sweep dia	Each	60		
8.0		<u>Power Cables</u>				
8.1		Supply and erection of PVC insulated, PVC sheathed copper conductor cables for service connection, in prelaidd pipe/G.I. wire/trenches, etc. (rate for cable only):-				
(a)	11(c-vi)/24	PVC insulated, PVC sheathed 4 core, 600/1000 volt non armoured cable 10 mm (7/0.052")	Rft.	3,000		
8.2		Supply and erection of single core PVC insulated copper conductor cables, in prelaidd PVC pipe/M.S. conduit/G.I pipe/wooden strip batten/wooden casing an capping/G.I. wire/trenches (rate for cables only)				
(a)	8(c-vi)/24	450/750 volts, PVC insulated: 10 mm sq (7/0.052")	Rft.	4,500		
6.0		<u>EARTHING</u>				
6.1	111 /24	Providing,making & testing/commissionin of Rod type Earth point comprising of 5/8"dia.(16mmdia)10ft long copper coated M.S.rod driven in ground duly fixed with clamp with Tinned earth test link copper plate (300x50x10mm),i/c the cost of brass nuts,spacers,bolts washers lugs etc but excluding the cost of copper strand & manhole. as approved and directed by Engineer Incharge (Rod Type Earthing).	Each	30		
TOTAL MRS						-

**ENGINEERING DESIGN AND CONSTRUCTION SUPERVISION
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TEHSIL NOORPUR THAL, DISTRICT KHUSHAB VILLAGES(Lal Hussain, Chandi Balochan, Haveli Chiragh Joiya, Pipli Sydean, Chak No 014-A/MB, Chak No 016/MB, Chak No 041/DB, Chak No 042/DB, Chak No 043/DB, Chak No 044/DB, Chak No 045/DB, Chak No 054/DB, Awanawala, R

BILL OF QUANTITIES

Bill No. 1.3: ELECTRIFICATION OF FILTRATION PLANT

Item No.	Description	Unit	Qty.	Unit Rate (Rs.)	Total Amount (Rs.)
	Design, Supply, transportation at site, storage, installation, testing and commissioning of the following items of work (unless specifically stated otherwise) including all material, labour, tools and accessories etc. required for proper completion of each item as per specification and drawings and/or as directed by the Engineer.				
1.0	<u>LIGHT FITTINGS AND FANS</u>				
	Following LED Luminaries of suitable wattage make suitable for the project requirements. Contractor to submit lighting design calculation to determine the adequacy of the wattage and should adjust the number of LEDs/wattage as per project lighting requirements. The fitting shall be approved by the Engineer.				
1.1	Light Fixture Type LED Batten Ceiling/surface mounted, 18W complete in all respect with allied accessories. The fitting shall be approved by the Engineer.	Each	120		
1.2	Wall bracket Light Fixture Type LED 12 Watt energy saving lamp with holder and complete in all respect with allied accessories. The fitting shall be approved by the Engineer.	Each	30		
1.3	20W LED Water tight light fixture IP 65 complete in all respect with all allied accessories. The fitting shall be approved by the Engineer.	Each	90		
TOTAL NON MRS					-
TOTAL MRS + NON MRS					-

**ENGINEERING DESIGN AND CONSTRUCTION SUPERVISION
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PUNJAB RURAL SUSTAINABLE WATER SUPPLY AND SANITATION PROJECT
TEHSIL NOORPUR THAL, DISTRICT KHUSHAB VILLAGES(Lal Hussain, Chandi Balochan,
Haveli Chiragh Joiya, Pipli Sydean, Chak No 014-A/MB, Chak No 016/MB, Chak No 041/DB,
Chak No 042/DB, Chak No 043/DB, Chak No 044/DB, Chak No 045/DB, Chak No 054/DB,
Awanawala, R**

BILL OF QUANTITIES

Bill No. 1.4: DISTRIBUTION NETWORK

Sr. No.	Ref.	Description	Unit	Quantity	Rate (Rs)	Amount (Rs)
2nd BI-ANNUAL-2025 (01.07.2025 to 31.12.2025)						
1	3/46	Excavation of trenches in all kinds of soil, except cutting rock, for watersupply pipelines/electric cables upto 5 ft. (1.5 m) depth from ground level, including backfilling, trimming, dressing sides, leveling the beds of trenches to correct grade and cutting pits for joints, etc. complete in all respects.	1000Cft	72.50		
2	23/30	Providing, laying, cutting, jointing, testing and disinfecting High Density Polyethylene Pipe (HDPE-100) working presure pipe, Beta/ Dadex/ Popular/ IIL or equivalent including the cost of specials, in trenches, as approved & directed by the engineer incharge, complete in all respects. a) PN-6 (SDR-26) 1. 90 mm dia 2. 110 mm dia	Rft. Rft.	4,050.00 4,700.00		
3	6/5	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate). (f) Nominal Ratio 1: 2: 4	100Cft	4.50		
4	10/3	Supplying and filling sand under floor; or plugging in wells. (under Road)	100Cft	137.50		
Valve Chambers						
5	3/46	Excavation of trenches in all kinds of soil, except cutting rock, for watersupply pipelines/electric cables upto 5 ft. (1.5 m) depth from ground level, including backfilling, trimming, dressing sides, leveling the beds of trenches to correct grade and cutting pits for joints, etc. complete in all respects.	1000 Cft	6.18		
6	6/5	Cement concrete plain including placing, compacting, finishing and curing complete (including screenin and washing of stone aggregate): (h) Ratio 1: 3: 6 (f) Ratio 1: 2: 4	100 Cft 100 Cft	2.17 8.78		
7	7/7	Pacca brick work other than building upto 10ft. (3 m) height. i) cement, sand mortar:- Ratio 1:3	100 Cft	16.26		

**ENGINEERING DESIGN AND CONSTRUCTION SUPERVISION
CLUSTER NORTH
PUNJAB RURAL SUSTAINABLE WATER SUPPLY AND SANITATION PROJECT
TEHSIL NOORPUR THAL, DISTRICT KHUSHAB VILLAGES(Lal Hussain, Chandi Balochan,
Haveli Chiragh Joiya, Pipli Sydean, Chak No 014-A/MB, Chak No 016/MB, Chak No 041/DB,
Chak No 042/DB, Chak No 043/DB, Chak No 044/DB, Chak No 045/DB, Chak No 054/DB,
Awanawala, R**

BILL OF QUANTITIES

Bill No. 1.4: DISTRIBUTION NETWORK

Sr. No.	Ref.	Description	Unit	Quantity	Rate (Rs)	Amount (Rs)
8	21/11	Providing and fixing 1¼"x1¼"x3/16" (31x31x5 mm) angle iron step, in manhole chambers, including carriage and setting the same in work to correct lines and levels.	Each	54.00		
9	11 /8	Cement plaster 1:3 upto 20' (6.00 m) height:- b) ½" (13 mm) thick	100 Sft	10.80		
10	6/6	Providing and laying reinforced cement concrete (including prestressed concrete), using Ordinary Portland Cement / Sulphate resisting cement / Slag cement as may be required; coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):-				
		(a) Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:- (3) Type C (nominal mix 1: 2: 4)	Per Cft	632.10		
11	6/12	Fabrication of mild steel reinforcement for cement concrete including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust) (b) Deformed bars (ii)(Grade-60)	100 kg	47.50		
12	10/10	Brick on edge flooring, laid in 1:6 cement mortar, over a bed of ¾" (20 mm) thick cement mortar 1:6.	100 Sft.	2.88		
13	23/35	Providing and fixing sluice valve of B.S.S. quality and weight, Class 'B', for cast iron pipe line, and Asbestos cement pipe line (including cost of jointing material):- a) 3" i/d (75 mm) b) 4" i/d (100 mm)	No. No.	9.00 5.00		
14	23/37	Providing and fixing, air valve 2½" (65mm) dia of B.S.S. quality and weight (complete with jointing material). b) double	Each	4.00		

**ENGINEERING DESIGN AND CONSTRUCTION SUPERVISION
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TEHSIL NOORPUR THAL, DISTRICT KHUSHAB VILLAGES(Lal Hussain, Chandi Balochan,
Haveli Chiragh Joiya, Pipli Sydean, Chak No 014-A/MB, Chak No 016/MB, Chak No 041/DB,
Chak No 042/DB, Chak No 043/DB, Chak No 044/DB, Chak No 045/DB, Chak No 054/DB,
Awanawala, R**

BILL OF QUANTITIES

Bill No. 1.4: DISTRIBUTION NETWORK

Sr. No.	Ref.	Description	Unit	Quantity	Rate (Rs)	Amount (Rs)
15	1/1	Carriage of 100 Cft. (2.83 cu.m) of all materials like stone aggregate, spawl, kankar lime (unslaked), surkhi, etc. or 150 Cft. (4.25 cu.m) of timber, by truck or by any other means owned by the contractor. (crushed stone aggregate and bajri used in concrete items) (Lead from sargodha quarry)	100 Cft.	19.50		
16	N/S	Providing, transportation, fixing and Jointing of MS flanges to joint the valves (sluice valve, air valve and fire hydrant) with HDPE pipe line complete in all respect and as per approval of The Engineer. 1. 90 mm dia 2. 110 mm dia	Each Each	18.00 10.00		
17	N/S	Providing & fixing of RPC manhole cover manufactured with 100% recycled plastic composite material, 650 mm (26"dia) with clear opening size 600 mm (24" dia) and rpc manhole frame having dia meter 790 mm (31.1") with average breaking load capacity of 10 ton and weight including frame of 50 kg (minimum).	Per set	18.00		
18	N/S	Providing & installation of GI water supply connection pipe including 15mm (1/2") inner dia HDPE pipe from distribution line to plinth level, 1/2" inner dia GI pipe 4ft/height from plinth level of the building, GI saddle clamp, brass with foam & nuts, ferrule double action complete in all respect. It includes (1/2") saddle clamp 110 mm x 1/2", brass ferrule 1/2", HDPE pipe connector for ferrule valve joint, 15 mm x (1/2") nipple, 15 mm female elbow, 15 mm x 1/2" GI pipe (4ft & 1 ft.). It also includes carriage, loading and unloading complete in all respect as per drawings, specifications and directed by the Engineer. (including water meter manual operation- dry type digit and pointer type (LXSG-15E-65E) dry operational with magnetic field and moving rotary fan with multi jet)	No.	120.00		
19	N/S	Connection from 90 mm dia pipe Manual boring for laying of 90mm dia HDPE Pipe under roads/nulla etc complete in all respects to satisfaction of Engineer In-charge.	Rft	100.00		
Total Amount						-

**ENGINEERING DESIGN AND CONSTRUCTION SUPERVISION
CLUSTER NORTH
PUNJAB RURAL SUSTAINABLE WATER SUPPLY AND SANITATION PROJECT**

**TEHSIL NOORPUR THAL, DISTRICT KHUSHAB VILLAGES(Lal Hussain, Chandi Balochan, Haveli
Chiragh Joiya, Pipli Sydean, Chak No 014-A/MB, Chak No 016/MB, Chak No 041/DB, Chak No
042/DB, Chak No 043/DB, Chak No 044/DB, Chak No 045/DB, Chak No 054/DB, Awanawala, R**

**SEWERAGE LINES, PUMPING STATION AND ALLIED WORKS
BILL OF QUANTITIES**

SUMMARY OF COST

Bill No.	Description	Cost
2.1	INDIVIDUAL SEPTIC TANK AND SOKAGE PIT	
2.2	COMMUNAL SEPTIC TANK AND SOKAGE PIT	
2.3	SEWER LINE	
2.4	BRICK DRAIN	
2.5	INFLUENT WASTE WATER PUMPING STATION	
2.6	ANAEROBIC BAFFLED REACTOR	
2.7	STAFF QUARTER	
2.8	BOUNDARY WALL (D/S & ABR)	
2.9	ELECTRIFICATION (D/S & ABR)	
2.10	INSTALLATION OF EJECTOR PUMP	
TOTAL AMOUNT		

**ENGINEERING DESIGN AND CONSTRUCTION SUPERVISION
CLUSTER NORTH
PUNJAB RURAL SUSTAINABLE WATER SUPPLY AND SANITATION PROJECT
TEHSIL NOORPUR THAL, DISTRICT KHUSHAB VILLAGES(Lal Hussain, Chandi Balochan,
Haveli Chiragh Joiya, Pipli Sydean, Chak No 014-A/MB, Chak No 016/MB, Chak No 041/DB,
Chak No 042/DB, Chak No 043/DB, Chak No 044/DB, Chak No 045/DB, Chak No 054/DB,
Awanawala, Rakh Mahmood Shaheed)**

BILL OF QUANTITIES

BILL NO. 2.1 SEPTIC TANK AND SOAKAGE PIT

SR. NO.	Ref	DESCRIPTION	UNIT	QUANTITY	UNIT RATE	AMOUNT
					(Rs)	(Rs)
		2nd BI-ANNUAL-2025 (01.07.2025 to 31.12.2025) SEPTIC TANK (CIVIL WORKS)				
1	3/21	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling in layers around structure with excavated earth, watering and ramming lead 'upto one chain (30 m) and lift upto 5 ft. (1.5 m). 1) By Manual ii) Ordinary soil	1000 Cft.	238.92		
2	10/3	Supplying and filling sand under floor; or plugging in wells.	100Cft	43.44		
3	6/5	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate): (h) Ratio 1: 3: 6	100 Cft.	65.70		
4	6/6	Providing and laying reinforced cement concrete (including prestressed concrete), using Ordinary Portland Cement / Sulphate resisting cement / Slag cement as may be required; coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):- (a) Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:- (1) Type A (nominal mix 1:1:2)	Cft.	5,576.61		

**ENGINEERING DESIGN AND CONSTRUCTION SUPERVISION
CLUSTER NORTH**

PUNJAB RURAL SUSTAINABLE WATER SUPPLY AND SANITATION PROJECT

**TEHSIL NOORPUR THAL, DISTRICT KHUSHAB VILLAGES(Lal Hussain, Chandi Balochan,
Haveli Chiragh Joiya, Pipli Sydean, Chak No 014-A/MB, Chak No 016/MB, Chak No 041/DB,
Chak No 042/DB, Chak No 043/DB, Chak No 044/DB, Chak No 045/DB, Chak No 054/DB,
Awanawala, Rakh Mahmood Shaheed)**

BILL OF QUANTITIES

BILL NO. 2.1 SEPTIC TANK AND SOAKAGE PIT

SR. NO.	Ref	DESCRIPTION	UNIT	QUANTITY	UNIT RATE	AMOUNT
					(Rs)	(Rs)
5	6/12	(c) Reinforced cement concrete in Pile cap, slab of rafts / strip foundation, base slab of column and retaining walls; etc and footing beams, other structural members other than those mentioned in 6(a-d) above not requiring form work (i.e. horizontal shuttering) complete in all respects:- 1) Type A (nominal mix 1: 1: 2)	Cft.	12,923.40		
6	7/7	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):- (c) Deformed bars (Grade-60)	100 Kg	671.51		
7	11/8	Pacca brick work other than building upto 10ft. (3 m) height. 1:3	100Cft	380.81		
8	19/47	Cement plaster 1:3 upto 20' (6.00 m) height:- b) ½" (13 mm) thick	100 Sft.	825.36		
9	23/17	Providing, fixing, testing and commissioning of µ-PVC (Unplasticized Polyvinyl Chloride Nikasi/SWV pipe, Dadex/Popular/Beta or approved equivalent manufacturer, plain/Bell Ended/Z-Joints conforming to BS4514/BS5255-EN1329 including the cost of specials and Solvents complete in all respects, as per drawings & specifications and/ or as approved and directed by the Engineer Incharge. (iii) 50mm (v) 110 mm	P.Rft P.Rft	4,344.00 22,806.00		
		Shrouding with graded pea gravel 3/8" to 1/8" (10 to 3 mm), around tubewell in bore hole.	Per Cft	3,393.75		

**ENGINEERING DESIGN AND CONSTRUCTION SUPERVISION
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PUNJAB RURAL SUSTAINABLE WATER SUPPLY AND SANITATION PROJECT

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Haveli Chiragh Joiya, Pipli Sydean, Chak No 014-A/MB, Chak No 016/MB, Chak No 041/DB,
Chak No 042/DB, Chak No 043/DB, Chak No 044/DB, Chak No 045/DB, Chak No 054/DB,
Awanawala, Rakh Mahmood Shaheed)**

BILL OF QUANTITIES

BILL NO. 2.1 SEPTIC TANK AND SOAKAGE PIT

SR. NO.	Ref	DESCRIPTION	UNIT	QUANTITY	UNIT RATE	AMOUNT
					(Rs)	(Rs)
10	1/1	Carriage of 100 Cft. (2.83 cu.m) of all materials like stone aggregate, spawl , kankar lime (unslaked), surkhi , etc. or 150 Cft. (4.25 cu.m) of timber, by truck or by any other means owned by the contractor. Lead from approved nearby quarry	1000Cft	160.22		
A-Total Amount						
	B	SOAKAGE PIT				
1	3/21	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling in layers around structure with excavated earth, watering and ramming lead 'upto one chain (30 m) and lift upto 5 ft. (1.5 m). 1) By Manual ii) Ordinary soil	1000 Cft.	197.11		
2	10/30	Supplying and filling sand under floor; or plugging in wells.	100Cft	54.30		
3	6/5	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate): (h) Ratio 1: 3: 6	100 Cft.	86.88		
4	7/7	Pacca brick work other than building upto 10ft. (3 m) height. 1:3	100Cft	439.83		

**ENGINEERING DESIGN AND CONSTRUCTION SUPERVISION
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Haveli Chiragh Joiya, Pipli Sydean, Chak No 014-A/MB, Chak No 016/MB, Chak No 041/DB,
Chak No 042/DB, Chak No 043/DB, Chak No 044/DB, Chak No 045/DB, Chak No 054/DB,
Awanawala, Rakh Mahmood Shaheed)**

BILL OF QUANTITIES

BILL NO. 2.1 SEPTIC TANK AND SOAKAGE PIT

SR. NO.	Ref	DESCRIPTION	UNIT	QUANTITY	UNIT RATE	AMOUNT
					(Rs)	(Rs)
5	6/6	Providing and laying reinforced cement concrete (including prestressed concrete), using Ordinary Portland Cement / Sulphate resisting cement / Slag cement as may be required; coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):-				
		(a) Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:-				
		(1) Type A (nominal mix 1:1:2)	Cft.	7,965.81		
6	6/12	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and steel chairs, etc. complete in all respect. and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also Includes removal of rust from bars):-				
		('c) Deformed bars (Grade-60)	100 Kg	253.00		
7	1/1	Carriage of 100 Cft. (2.83 cu.m) of all materials like stone aggregate, spawl , kankar lime (unslaked), surkhi , etc. or 150 Cft. (4.25 cu.m) of timber, by truck or by any other means owned by the contractor. Lead from approved nearby quarry				
			1000Cft	135.75		

**ENGINEERING DESIGN AND CONSTRUCTION SUPERVISION
CLUSTER NORTH**

PUNJAB RURAL SUSTAINABLE WATER SUPPLY AND SANITATION PROJECT

**TEHSIL NOORPUR THAL, DISTRICT KHUSHAB VILLAGES(Lal Hussain, Chandi Balochan,
Haveli Chiragh Joiya, Pipli Sydean, Chak No 014-A/MB, Chak No 016/MB, Chak No 041/DB,
Chak No 042/DB, Chak No 043/DB, Chak No 044/DB, Chak No 045/DB, Chak No 054/DB,
Awanawala, Rakh Mahmood Shaheed)**

BILL OF QUANTITIES

BILL NO. 2.1 SEPTIC TANK AND SOAKAGE PIT

SR. NO.	Ref	DESCRIPTION	UNIT	QUANTITY	UNIT RATE	AMOUNT
					(Rs)	(Rs)
8	23/17	Shrouding with graded pea gravel 3/8" to 1/8" (10 to 3 mm), around tubewell in bore hole.	Per Cft	21,720.00		
B-Total Amount						
Grand Total						

**ENGINEERING DESIGN AND CONSTRUCTION SUPERVISION
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TEHSIL NOORPUR THAL, DISTRICT KHUSHAB VILLAGES(Lal Hussain, Chandi Balochan,
Haveli Chiragh Joiya, Pipli Sydean, Chak No 014-A/MB, Chak No 016/MB, Chak No 041/DB,
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Awanawala, Rakh Mahmood Shaheed)**

BILL OF QUANTITIES

BILL NO. 2.2 SEPTIC TANK AND SOAKAGE PIT

SR. NO.	Ref	DESCRIPTION	UNIT	QUANTITY	UNIT RATE	AMOUNT
					(Rs)	(Rs)
		2nd BI-ANNUAL-2025 (01.07.2025 to 31.12.2025) SEPTIC TANK (CIVIL WORKS)				
1	3/21	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling in layers around structure with excavated earth, watering and ramming lead upto one chain (30 m) and lift upto 5 ft. (1.5 m). 1) By Manual ii) Ordinary soil	1000 Cft.	47.30		
2	10/3	Supplying and filling sand under floor; or plugging in wells.	100Cft	2.64		
3	6/5	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate): (h) Ratio 1: 3: 6	100 Cft.	10.93		
4	6/6	Providing and laying reinforced cement concrete (including prestressed concrete), using Ordinary Portland Cement / Sulphate resisting cement / Slag cement as may be required; coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.): (a) Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:- (1) Type A (nominal mix 1:1:2)	Cft.	4,707.71		

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Awanawala, Rakh Mahmood Shaheed)**

BILL OF QUANTITIES

BILL NO. 2.2 SEPTIC TANK AND SOAKAGE PIT

SR. NO.	Ref	DESCRIPTION	UNIT	QUANTITY	UNIT RATE	AMOUNT
					(Rs)	(Rs)
5	0.77	(c) Reinforced cement concrete in Pile cap, slab of rafts / strip foundation, base slab of column and retaining walls; etc and footing beams, other structural members other than those mentioned in 6(a-d) above not requiring form work (i.e. horizontal shuttering) complete in all respects:- 1) Type A (nominal mix 1: 1: 2)	Cft.	2,488.60		
	6/12	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):- (c) Deformed bars (Grade-60)	100 Kg	261.21		
6	19/47	Providing, fixing, testing and commissioning of µ-PVC (Unplasticized Polyvinyl Chloride Nikasi/SWV pipe, Dadex/Popular/Beta or approved equivalent manufacturer, plain/Bell Ended/Z-Joints conforming to BS4514/BS5255-EN1329 including the cost of specials and Solvents complete in all respects, as per drawings & specifications and/ or as approved and directed by the Engineer Incharge. (iii) 50mm (v) 110 mm	P.Rft	96.00		
			P.Rft	504.00		
7	6/32	Providing and embedding 10" (250mm) wide PVC water stopper in expansion joints of RCC structures (Retaining walls, water tanks, Slabs) complete in all respect ii) 10 mm thick	Rft	542.84		
8	1/1	Carriage of 100 Cft. (2.83 cu.m) of all materials like stone aggregate, spawl , kankar lime (unslaked), surkhi , etc. or 150 Cft. (4.25 cu.m) of timber, by truck or by any other means owned by the contractor. Lead from approved nearby quarry	100Cft	29.27		

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Awanawala, Rakh Mahmood Shaheed)**

BILL OF QUANTITIES

BILL NO. 2.2 SEPTIC TANK AND SOAKAGE PIT

SR. NO.	Ref	DESCRIPTION	UNIT	QUANTITY	UNIT RATE	AMOUNT
					(Rs)	(Rs)
9	3/46	Valve Chambers Excavation of trenches in all kinds of soil, except cutting rock, for watersupply pipelines/electric cables upto 5 ft. (1.5 m) depth from ground level, including backfilling, trimming, dressing sides, leveling the beds of trenches to correct grade and cutting pits for joints, etc. complete in all respects.	1000 Cft	4.12		
10	6/5	Cement concrete plain including placing, compacting, finishing and curing complete (including screenin and washing of stone aggregate): (h) Ratio 1: 3: 6 (f) Ratio 1: 2: 4	100 Cft 100 Cft	1.44 0.12		
11	7/7	Pacca brick work other than building upto 10ft. (3 m) height. i) cement, sand mortar:- Ratio 1:3	100 Cft	10.84		
12	21/11	Providing and fixing 1¼"x1¼"x3/16" (31x31x5 mm) angle iron step, in manhole chambers, including carriage and setting the same in work to correct lines and levels.	Each	36.00		
13	11/8	Cement plaster 1:3 upto 20' (6.00 m) height:- b) ½" (13 mm) thick	100 Sft	7.20		
14	6/6	Providing and laying reinforced cement concrete (including prestressed concrete), using Ordinary Portland Cement / Sulphate resisting cement / Slag cement as may be required; coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):-				

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BILL OF QUANTITIES

BILL NO. 2.2 SEPTIC TANK AND SOAKAGE PIT

SR. NO.	Ref	DESCRIPTION	UNIT	QUANTITY	UNIT RATE	AMOUNT
					(Rs)	(Rs)
15	0.84	(a) Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:- (3) Type C (nominal mix 1: 2: 4)	Per Cft	421.39		
		(c) Reinforced cement concrete in Pile cap, slab of rafts / strip foundation, base slab of column and retaining walls; etc and footing beams, other structural members other than those mentioned in 6(a-d) above not requiring form work (i.e. horizontal shuttering) complete in all respects:- (3) Type C (nominal mix 1: 2: 4)	Per Cft	576.00		
	6/12	Fabrication of mild steel reinforcement for cement concrete including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust) (b) Deformed bars (ii)(Grade-60)	100 kg	31.68		
16	10/10	Brick on edge flooring, laid in 1:6 cement mortar, over a bed of ¾" (20 mm) thick cement mortar 1:6.	100 Sft.	1.92		
17	23/35	Providing and fixing sluice valve of B.S.S. quality and weight, Class `B', for cast iron pipe line, and Asbestos cement pipe line (including cost of jointing material):- b) 4" i/d (100 mm)	No.	12.00		
18	1/1	Carriage of 100 Cft. (2.83 cu.m) of all materials like stone aggregate, spawl, kankar lime (unslaked), surkhi, etc. or 150 Cft. (4.25 cu.m) of timber, by truck or by any other means owned by the contractor. (crushed stone aggregate and bajri used in concrete items) (Lead from sargodha quarry)	100 Cft.	28.01		

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BILL OF QUANTITIES

BILL NO. 2.2 SEPTIC TANK AND SOAKAGE PIT

SR. NO.	Ref	DESCRIPTION	UNIT	QUANTITY	UNIT RATE	AMOUNT
					(Rs)	(Rs)
19	N/S	Providing, transportation, fixing and Jointing of MS flanges to joint the valves (sluice valve, air valve and fire hydrant) with HDPE pipe line complete in all respect and as per approval of The Engineer. 2. 110 mm dia	Each	24.00		
20	NS	Providing and Fixing RPC Manhole Cover Manufactured with 100% Recycled Plastic Composite Material, 650 mm (26" dia) with clear opening size 600 mm (24" dia) and RPC manhole frame having dia meter 790 mm (31.1") with average breaking load capacity of 10 Ton and weight including frame of 50 kg (Minimum).	Per Set	22.00		
A-Total Amount						

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BILL OF QUANTITIES

BILL NO. 2.2 SEPTIC TANK AND SOAKAGE PIT

SR. NO.	Ref	DESCRIPTION	UNIT	QUANTITY	UNIT RATE	AMOUNT
					(Rs)	(Rs)
	B	SOAKAGE PIT				
1	22/1	Excavation of well in dry upto 20'(6 metre) below ground level, and disposal of soil within one chain (30 metre) a) in ordinary soil or sand :- i) from 0' to 5' (o to 1.5 m) depth ii) from 5.1' to 10' (1.5 to 3.0 metre) depth	1000 Cft. 1000 Cft.	1.09 0.62		
2	6/5	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate): (h) Ratio 1: 3: 6	100 Cft.	1.55		
3	7/7	Pacca brick work other than building upto 10ft. (3 m) height. 1:3	100Cft	5.94		
4	7/10	Extra for pacca brick work in steining of wells or any other circular masonry.	100Cft	5.94		
5	6/6	Providing and laying reinforced cement concrete (including prestressed concrete), using Ordinary Portland Cement / Sulphate resisting cement / Slag cement as may be required; coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):-				
	0.77	(a) Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:- (1) Type A (nominal mix 1:1:2)	Cft.	106.81		

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BILL OF QUANTITIES

BILL NO. 2.2 SEPTIC TANK AND SOAKAGE PIT

SR. NO.	Ref	DESCRIPTION	UNIT	QUANTITY	UNIT RATE	AMOUNT
					(Rs)	(Rs)
6	6/12	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and steel chairs, etc. complete in all respect. and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also Includes removal of rust from bars):- (c) Deformed bars (Grade-60)	100 Kg	3.88		
7	1/1	Carriage of 100 Cft. (2.83 cu.m) of all materials like stone aggregate, spawl , kankar lime (unslaked), surkhi , etc. or 150 Cft. (4.25 cu.m) of timber, by truck or by any other means owned by the contractor. Lead from approved nearby quarry	1000Cft	2.18		
8	10/30	Supplying and filling sand under floor; or plugging in wells.	100Cft	0.76		
9	16/15	Supply and dumping at site, without boat, including handling of materials within three chains (90 m) b) shingle or spawl c) brick bats	100Cft. 100Cft.	0.20 3.07		
10	3/13	Rehandling of earthwork: a) Lead upto a single throw of Kassi, phaorah or shovel	1000Cft	1.00		
11		Transportation of earth all types when the total distance, including the lead covered in the item of work, is more than 1000 ft. (300 m) Total Lead 2 KM (Transportation will be paid as per actual lead chart to be approved by the Engineer)	1000Cft	0.24		

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BILL OF QUANTITIES

BILL NO. 2.2 SEPTIC TANK AND SOAKAGE PIT

SR. NO.	Ref	DESCRIPTION	UNIT	QUANTITY	UNIT RATE	AMOUNT
					(Rs)	(Rs)
12	25/71	Providing and fixing barbed wire fencing on compound wall, consisting of 1½"x1½"x3/16" (40x40x5 mm), angle iron post 3¼ ft. (990 mm) long, 5 to 6 ft. (1500 to 1800 mm) centre to centre, embedded in cement concrete 1:4:8, base of size 9"x9"x12" (225x225x300 mm) and three rows of barbed wire, painting posts, etc. complete in all respects.	100Rft.	3.42		
13	NS	Providing and Fixing RPC Manhole Cover Manufactured with 100% Recycled Plastic Composite Material, 650 mm (26"dia) with clear opening size 600 mm (24" dia) and RPC manhole frame having dia meter 790 mm (31.1") with average breaking load capacity of 10 Ton and weight including frame of 50 kg (Minimum).	Per Set	2.00		
B-Total Amount						
Grand Total						

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BILL OF QUANTITIES**

BILL NO 2.3 SEWER LINES

SR. NO.	Ref	DESCRIPTION	UNIT	QUANTITY	UNIT RATE	AMOUNT
					(Rs)	(Rs)
A		2nd BI-ANNUAL-2025 (01.07.2025 to 31.12.2025) SEWER LINE				
1	3/43	Earth work excavation in open cutting for water supply lines, sewers and manholes including backfilling, shuttering of wooden vertical planks, struts and beams, dressing to correct section and dimension according to templates and levels and removing surface water i/c back filling in all types of soil except shingle, gravel and rock, complete in all respect. If wooden planks, beams and struts are not used at site, the Composite Rates may be reduced by 1) By Manual i) RS. 5,489.75 1000 Cft ii) RS. 6,418.75 1000 Cft i) 0 ft. to 7.0 ft. (0 to 2.10 m) depth	1000 Cft.	1,099.06		
2	21/3	Providing and laying R.C.C pipe sewers,moulded with R.C.C 1:1.5:3 conforming to ASTM specifications C-76-79 (Latest version), class II,Wall B including carriage of pipes from factory to site of work, lowering in trenches to correct alignment and grade, jointing with rubber ring, cutting pipes where necessary, testing, etc. complete. a) Class-II (i) 310 mm (12") i/d b) Class-III (i) 310 mm (12") i/d	Rft.	44,743.00		
3	3/25	Compaction of earthwork with power road roller (compaction equipment to be decided as per site condition after approval of the Engineer), including ploughing, mixing, moistening earth to optimum moisture content in layers, etc. complete: ii) 90% maximum modified AASHO dry density (backfilling)	1000 Cft.	116.29		
4	21/22	Providing and laying sand under and around the sewer pipe, including leveling, manual compaction, complete in all respect. (Provisional Qty for filling under major road as per approval of the Engineer.)	100Cft.	152.46		

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BILL OF QUANTITIES**

BILL NO 2.3 SEWER LINES

SR. NO.	Ref	DESCRIPTION	UNIT	QUANTITY	UNIT RATE	AMOUNT
					(Rs)	(Rs)
5	21/21	Providing and laying crushed stone aggregate of 1/4" to 1-1/2" guage under and around the sewer pipe, including leveling, manual compaction, complete in all respects.	100Cft	1,372.14		
6	3/17	Transportation of earth all types when the total distance, including the lead covered in the item of work, is more than 1000 ft. (300 m) (Transportation will be paid as per actual lead chart to be approved by the Engineer) a) upto ¼ mile (400 m).	1000 Cft.	387.74		
		MANHOLES and House Connection Chamber				
7	3/43	Earth work excavation in open cutting for water supply lines, sewers and manholes including backfilling, shuttering of wooden vertical planks, struts and beams, dressing to correct section and dimension according to templates and levels and removing surface water i/c back filling in all types of soil except shingle, gravel and rock, complete in all respect. 1) By Manual i) RS. 5,489.75 1000 Cft ii) RS. 6,418.75 1000 Cft i) 0 ft. to 7.0 ft. depth ii) 7-01 ft. to 15.0 ft. depth	1000 Cft. 1000 Cft.	392.59 14.59		
8	21/21	Providing and laying crushed stone aggregate of 1/4" to 1" guage under and around the sewer pipe,including leveling, manual compaction, complete in all respects.	100Cft.	451.51		
9	6/5	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate): nominal mix Ratio 1:3:6 nominal mix Ratio 1:2:4	100Cft 100Cft	273.37 143.97		

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BILL NO 2.3 SEWER LINES

SR. NO.	Ref	DESCRIPTION	UNIT	QUANTITY	UNIT RATE	AMOUNT
					(Rs)	(Rs)
10	6/6	Providing and laying reinforced cement concrete (including prestressed concrete), using coarse sand and screened graded and washed aggregate, in required shape and design, ncluding forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in posi tion, etc.) (a) (i) Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:-				
	0.84	(2) Type B (nominal mix 1: 1½: 3)	Per Cft	1,901.81		
11	6/12 (c)	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):- (c) Deformed bars (Grade-60)	100Kg	51.76		
12	1/1	Carriage of 100 Cft. (2.83 cu.m) of all materials like stone aggregate, spawl , kankar lime (unslaked), surkhi , etc. or 150 Cft. (4.25 cu.m) of timber, by truck or by any other means owned by the contractor (crushed stone aggregate and bajri used in concrete items) Lead From Approved Query)	100 Cft.	1,601.00		
13	7/7	Pacca brick work other than building upto 10ft. (3 m) height. i) cement, sand mortar:- Ratio 1:3	100Cft.	697.77		
14	7/10	Extra for pacca brick work in steining of wells or any other circular masonry..	100Cft.	620.92		
15	11/16	Cement pointing flush upto 20' (6.00m) height:- a) ratio 1:2	100 Sft.	697.16		
16	11/8	Cement plaster 1:3 upto 20' (6.0 m) ht: b) 1/2"(13mm) thick	100 Sft.	1,135.59		

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BILL OF QUANTITIES**

BILL NO 2.3 SEWER LINES

SR. NO.	Ref	DESCRIPTION	UNIT	QUANTITY	UNIT RATE	AMOUNT
					(Rs)	(Rs)
17	21/6	Constructing standard gully grating chamber, 3'x2½' (900x750 mm), with chinaware trap as per PHED Drawing STD/PD No. 3 of 1977, complete in all respects.	Each	139.00		
18	19/47	Providing, fixing, testing and commissioning of µ-PVC (Unplasticized Polyvinyl Chloride Nikasi/SWV pipe, Dadex/Popular/Beta or approved equivalent manufacturer, plain/Bell Ended/Z-Joints conforming to BS4514/BS5255-EN1329 including the cost of specials and Solvents complete in all respects, as per drawings & specifications and/ or as approved and directed by the Engineer Incharge. (v) 4"(110 mm)	Rft.	8,842.00		
19	21/11	Providing and fixing 1¼"x1¼"x3/16" (31x31x5 mm) angle iron step, in manhole chambers, including carriage and setting the same in work to correct lines and levels.	Each	3,882.00		
20	13/9	Bitumen coating to plastered or cement concrete surface: - i) 20 lbs. per 100 Sft. (9.07 Kg per Sq.m)	100 Sft.	1,135.59		
21	21/7	Extra for making and finishing benching floor work in manholes chambers with 1/8(3mm) thick cement	100 Sft.	128.43		
22	25/10+1 1	Fabrication of heavy steel work, with angle, tees, flat iron round iron and sheet iron for making trusses, girders, tanks, etc., including cutting, drilling, rivetting, handling, assembling and fixing, but including erection in position. (For Grating)	100 Kg	2.89		
23	3/17	Transportation of earth all types when the total distance, including the lead covered in the item of work, is more than 1000 ft. (300 m) (Transportation will be paid as per actual lead chart to be approved by the Engineer) a) upto ¼ mile (400 m).	1000 Cft.	93.99		
Sub Total (A)						

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BILL OF QUANTITIES**

BILL NO 2.3 SEWER LINES

SR. NO.	Ref	DESCRIPTION	UNIT	QUANTITY	UNIT RATE	AMOUNT
					(Rs)	(Rs)
B		NON MRS ITEMS				
1	NS	Providing and Fixing RPC Manhole Cover Manufactured with 100% Recycled Plastic Composite Material, 650 mm (26"dia) with clear opening size 600 mm (24" dia) and RPC manhole frame having dia meter 790 mm (31.1") with average breaking load capacity of 10 Ton and weight including frame of 50 kg (Minimum).	Per Set	1,022.00		
					Sub Total (B)	
					Grand Total	

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TEHSIL NOORPUR THAL, DISTRICT KHUSHAB VILLAGES(Lal Hussain, Chandi
Balochan, Haveli Chiragh Joiya, Pipli Sydean, Chak No 014-A/MB, Chak No 016/MB,
Chak No 041/DB, Chak No 042/DB, Chak No 043/DB, Chak No 044/DB, Chak No
045/DB, Chak No 054/DB, Awanawala, Rakh Mahmood Shaheed)
BILL OF QUANTITIES**

BILL NO. 2.4 BRICK DRAIN

Sr. No	Ref	DESCRIPTION	UNIT	QTY.	RATE (Rs.)	AMOUNT (Rs.)
		MRS, 2nd BI-ANNUAL-2025				
1	4/13	Dismantling brick work in lime or cement mortar.	100Cft.	236.65		
2	4/19	c) Dismantling cement concrete 1:2:4 plain.	100Cft.	54.01		
3	4/20	Dismantling cement concrete reinforced, separating reinforcement from concrete, cleaning and straightening the same.	100Cft.	36.01		
4	3/7	Earthwork excavation in open cutting for storm water channels, drains, sullage drains in open areas, roads, streets, lanes, including under pinning of walls and shoring to protect existing works, shuttering and timbering the trenches, dressed to designed level and dimensions, trimming, removal of surface water from trenches, back filling and surplus excavated material disposed of and dressed within 50 ft. (15 m) lead:-				
		1) Upto 5' (1.5 meter) depth	1000 Cft	114.68		
		2) From 5.01 ft. (1.5 m) to 10.0 ft. (3.0 m) depth	1000 Cft	11.47		
5	10/3	Supplying and filling sand under floor; or plugging in wells. (Provisional for road cuts to be decided by the competent authority)	100 Cft.	23.57		
6	3/24	Compaction of earthwork (soft, ordinary or hard soil) :- a) Mixing, moistening earth to optimum moisture content in layers for compaction, etc. complete. c) Ramming earthwork (all types of soil).	1000 Cft.	87.70		
			1000 Cft.	87.70		
7	6/5(h)	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate): (h) Ratio 1: 3: 6 (Lean Concrete)	100 Cft.	130.18		

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045/DB, Chak No 054/DB, Awanawala, Rakh Mahmood Shaheed)
BILL OF QUANTITIES**

BILL NO. 2.4 BRICK DRAIN

Sr. No	Ref	DESCRIPTION	UNIT	QTY.	RATE (Rs.)	AMOUNT (Rs.)
8	6/5(f)	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate): (f) Ratio 1: 2: 4	100 Cft.	24.84		
9	6/6	Providing and laying reinforced cement concrete (including prestressed concrete), using Ordinary Portland Cement / Sulphate resisting cement / Slag cement as may be required; coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):- (a) Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:- (2) Type B (nominal mix 1:1.5:3)	Per Cft	3739.59		
10	6/12 (b)	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):- (ii) (Grade-60)	100 Kg	93.29		
11	7/7 (i)	Pacca brick work other than building upto 10ft. (3 m) height. 1:3	100Cft.	473.30		
12	11/8	Cement plaster 1:3 upto 20' (6.00 m) height:- b) ½" (13 mm) thick	100 Sft.	1262.13		

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045/DB, Chak No 054/DB, Awanawala, Rakh Mahmood Shaheed)
BILL OF QUANTITIES**

BILL NO. 2.4 BRICK DRAIN

Sr. No	Ref	DESCRIPTION	UNIT	QTY.	RATE (Rs.)	AMOUNT (Rs.)
13	3/17	Transportation of earth all types when the total distance, including the lead covered in the item of work, is more than 1000 ft. (300 m) Total Lead 2 KM (Transportation will be paid as per actual lead chart to be approved by the Engineer)	1000 Cft	33.97		
14	1/1	Carriage of 100 Cft. (2.83 cu.m) of all materials like stone aggregate, spawl , kankar lime (unslaked), surkhi , etc. or 150 Cft. (4.25 cu.m) of timber, by truck or by any other means owned by the contractor (crushed stone aggregate and bajri used in concrete items) Lead From nearest quarry (Sargodha Quarry) (193km)	100 Cft.	172.09		
15	13/9 (i)	Bitumen coating to plastered or cement concrete surface:- i) 20 lbs. per 100 Sft. (9.07 Kg per Sq.m)	100 Sft	690.14		
16	19/47	Providing, fixing, testing and commissioning of μ -PVC (Unplasticized Polyvinyl Chloride) Nikasi/ SWV pipe, Dadex / Popular / Beta or approved equivalent manufacturer, plain / Bell Ended / Z - Joints conforming to BS 4514 / BS 5255 - EN 1329 including the cost of specials and Solvents complete in all respects, as per drawings & specifications and / or as approved and directed by the Engineer Incharge. (iii) 50mm (v) 110 mm	Per Rft Per Rft	3924.02 2995.20		

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BILL OF QUANTITIES**

BILL NO. 2.4 BRICK DRAIN

Sr. No	Ref	DESCRIPTION	UNIT	QTY.	RATE (Rs.)	AMOUNT (Rs.)
17	25/10	Fabrication of heavy steel work, with angle, tees, flat iron round iron and sheet iron for making trusses, girders, tanks, etc., including cutting, drilling, rebitting, handling, assembling and fixing, but excluding erection in position. (screen)	100 Kg	1.41		
18	N/S	Providing & fixing of RPC slab manufactured with 100% recycled plastic composite material. 1.5 ft x 3 ft. 2 ft x 3 ft.	Nos Nos	550.00 927.75		
Total Amount						-

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042/DB, Chak No 043/DB, Chak No 044/DB, Chak No 045/DB, Chak No 054/DB, Awanawala, R**

BILL OF QUANTITIES

BILL NO 2.5 INFLUENT WASTEWATER PUMPING STATION

SR. NO.	Ref	DESCRIPTION	UNIT	QUANTITY	UNIT RATE	AMOUNT
					(Rs)	(Rs)
A		MRS 2nd BI-ANNUAL-2025 (01.07.2025 to 31.12.2025)				
		CIVIL WORKS				
1	3/49	Jungle clearance and removing within 100 ft. (30 m). (Provisional Qty to be executed after approval of the Engineer)				
		a) Ordinary	100 Sft.	7.20		
		b) Heavy	100 Sft.	4.80		
2	3/50	Uprooting Sarkanda growth and disposal within 100 ft. (30 m) (Provisional Qty to be executed after approval of the Engineer)	100 Sft.	6.00		
3	26/36	Bailing out water:- (Provisional Qty to be executed after approval of the Engineer)				
		b) by pump	1000 Cft	7.20		
4	3/21(a)	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling in layers around structure with excavated earth, watering and ramming lead 'upto one chain (30 m) and lift upto 5 ft. (1.5 m)				
		1) Depth upto 5ft (1.5m)				
		b) By Excavator				
		ii) in ordinary soil.	1000 Cft.	6.00		
		2) a) Depth from 5.1 ft (1.5m) to 15 ft (4.5 m):- By E				
		ii) Ordinary soil	1000 Cft.	8.00		
		b) Depth above 15.1 ft (4.5 m):-				
		ii) Ordinary soil	1000 Cft.	2.00		
5	26/43	Spraying termite proofing by using liquid FMC / Biflex / Terminex Exin / Ms Hextaror equivalent @ specified suspension concentrate (SC), Mixing Ability-HEXTAR with Ratio (1:250) =540 Sft or equivalent approved liquid applying with shower and certificate will be provided by the contractor for 10 years complete in all respect as approved by the Engineer Incharge.	Sft	1,108.00		
6	6/5	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):				
		(f) Nominal mix Ratio 1:2:4	100Cft	4.00		

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042/DB, Chak No 043/DB, Chak No 044/DB, Chak No 045/DB, Chak No 054/DB, Awanawala, R**

BILL OF QUANTITIES

BILL NO 2.5 INFLUENT WASTEWATER PUMPING STATION

SR. NO.	Ref	DESCRIPTION	UNIT	QUANTITY	UNIT RATE	AMOUNT
					(Rs)	(Rs)
7	13/9	Bitumen coating to plastered or cement concrete surface:- i) 20 lbs. per 100 Sft. (9.07 Kg per Sq.m)	100 Sft.	36.00		
8	6/6	Providing and laying reinforced cement concrete (including prestressed concrete), using Ordinary Portland Cement / Sulphate resisting cement / Slag cement as may be required; coarse sand and screened graded and washed aggregate, in requi red shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and f inishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):- (a) Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:- (1) Type A (nominal mix 1:1:2)	Per Cft	3,300.00		
		(c) Reinforced cement concrete in Pile cap, slab of rafts / strip foundation, base slab of column and retaining walls; etc and footing beams, other structural members other than those mentioned in 6(a-d) above not requiring form work (i.e. horizontal shuttering) complete in all respects:- (1) Type A (nominal mix 1: 1: 2)	Per Cft	1,434.00		
9	6/12	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position making joints and fastenings including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars) C) Deformed bars (Grade 60)	100 Kg	214.80		

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BILL OF QUANTITIES

BILL NO 2.5 INFLUENT WASTEWATER PUMPING STATION

SR. NO.	Ref	DESCRIPTION	UNIT	QUANTITY	UNIT RATE	AMOUNT
					(Rs)	(Rs)
15	25/10,11	Providing and fabrication of heavy steel work with angle, tees, flat iron, round iron and sheet iron for making trusses, girders, tanks, etc., including, cutting, drilling, rivitting, handling, assembling and fixing, including erection and fitting in position iron trusses, staging of water tanks, etc. as per drawings. (Perovisional Qty)	100 Kg	16.70		
16	25/35	Providing and fixing terrace railing of 2" (50mm) i/d conduit pipe 16 SWG, welded with 5/8"x5/8" (16x16mm) suitable arrangement, complete in all respects, as per design and drawing.	Per Rft.	234.00		
18	1/1	Carriage of 100 Cft. (2.83 cu.m) of all materials like stone aggregate, spawl , kankar lime (unslaked), surkhi , etc. or 150 Cft. (4.25 cu.m) of timber, by truck or by any other means owned by the contractor. Lead From approved nearby quarry	100Cft.	39.97		
19	23/18	Providing, laying, cutting, jointing, testing and disinfecting cast iron pipe line (BS-2035) in trenches, with flanged and flanged joints, complete in all respects: - iv) 6" (150 mm) i/d v) 8" (200 mm) i/d	Rft Rft	70.00 20.00		
21	23/21	Providing and fixing cast iron special of B.S.S. Class `B' (such as bend, tee cross collar , reducer, tail piece, flanged spigot, cap, flanged socket, taper, angle branch, plug etc.) for cast iron pipe line , complete:- b) C.I flanged specials, with flanged and flanged joints:- i) 3" to 6" (75 to 150 mm) i/d	Per Kg	1,380.00		
22	23/35	Providing and fixing sluice valve of B.S.S. quality and weight, Class `B', for cast iron pipe line, and Asbestos cement pipe line (including cost of jointing material):- d) 6" i/d (150 mm)	Each	5.00		

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BILL OF QUANTITIES

BILL NO 2.5 INFLUENT WASTEWATER PUMPING STATION

SR. NO.	Ref	DESCRIPTION	UNIT	QUANTITY	UNIT RATE	AMOUNT
					(Rs)	(Rs)
23	23/35	Providing and fixing heavy duty Check valve of specified diameter and material for pressure rating PN-16 made of Crane (USA), Hatersly (UK), Scon (Pakistan) or approved equivalent manufacturer i/c the cost of all accessories flanges,nut/bolt and gasket where required complete in all respect as approved and directed by the Engineer Incharge. (b) Flange Ended Ductile Iron Valve (xi) 6" dia	Each	5.00		
22	3/17	Transportation of earth all types when the total distance, including the lead covered in the item of work, is more than 300m a) upto ¼ mile (400 m). b) for every 330 ft. (100 m) additional lead or part thereof, beyond ¼ mile (400 m) upto one mile. (1.6 Km.) (Lead 1 Km)	1000 Cft.	12.00		
23	13/45	Preparing surface and painting with Matt/Glossy high chemical resistant/hard wearing Polyurethane paint (Epoxy Paint) by sprayer/Brush i/c the cost of Primer coat , all material and labour complete in all respects as approved and directed by the Engineer Incharge. (i)Priming Coat (ii) Each and subsequent Coat	Per Sft Per Sft	2,578.00 5,156.00		
25	3/46	FORCEMAIN Excavation of trenches in all kinds of soil, except cutting rock, for watersupply pipelines/electric cables upto 5 ft. (1.5 m) depth from ground level, including backfilling, trimming, dressing sides, leveling the beds of trenches to correct grade and cutting pits for joints, etc. complete in all respects. i) ordinary	1000 Cft.	1.76		
26	10/3	Providing and laying sand under and around the sewer pipe, including leveling, manual compaction, complete in all respect. (for bedding of forcemain)	100Cft.	1.66		

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BILL OF QUANTITIES

BILL NO 2.5 INFLUENT WASTEWATER PUMPING STATION

SR. NO.	Ref	DESCRIPTION	UNIT	QUANTITY	UNIT RATE	AMOUNT
					(Rs)	(Rs)
27	6/5	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate): (Thrust Blocks pervisional Qty) (f) Nominal mix Ratio 1: 2: 4	100Cft	0.50		
28	23/30	Providing, laying, cutting, jointing, testing and disinfecting High Density Polyethylene Pipe (HDPE-100) working presure pipe conforming to standard ISO4427, PS3580, Beta/ Dadex/ Popular/ IIL or approved equivalent manufacturer, including the cost of specials, in trenches,as approved & directed by the engineer incharge, complete in all respects. PN-8 ii) 110 mm	Rft	200.00		
29	23/35	Providing and fixing sluice valve of B.S.S. quality and weight, Class `B', for cast iron pipe line, and Asbestos cement pipe line (including cost of jointing material):- b) 4" i/d (100 mm)	Each	4.00		
30	1/1	Carriage of 100 Cft. (2.83 cu.m) of all materials like stone aggregate, spawl , kankar lime (unslaked), surkhi , etc. or 150 Cft. (4.25 cu.m) of timber, by truck or by any other means owned by the contractor. Lead from approved nearby quarry	100Cft.	0.44		
31	3/13(a) & 24(c)	Rehandling of earthwork, lead upto a single throw of kassi, phaorah or shovel, including ramming earth in all types of soil.	1000 Cft.	1.56		
TOTAL MRS ITEMS (A)						

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BILL OF QUANTITIES

BILL NO 2.5 INFLUENT WASTEWATER PUMPING STATION

SR. NO.	Ref	DESCRIPTION	UNIT	QUANTITY	UNIT RATE	AMOUNT
					(Rs)	(Rs)
1	B Quotation	<p>CIVIL AND MECHANICAL WORKS NON-MRS</p> <p>Designing, manufacturing, testing at manufacturer's workshop, supplying at site, installation, testing, commissioning, guarantee and maintenance for one year during defect Liability Period of each item of following equipment: Close coupled, non-clogging submersible Pump for sewage/wastewater application, following discharge and rated head with suitable AC induction, totally enclosed, 3-Ph, 400 V, 50 Hz, insulation class F, Ingress protection IP 68 motors to be installed in wet well, alongwith electrical cable upto 10 m and control cable upto 10m, motor control unit, pressure gauge at discharge side, 01 Nos. sluice valve, 01 No non-return valve including final inspection at test bed as per Specifications. All equipment shall be from internationally reputed approved manufacturers and have USA/Europe origin</p> <p>a) Pump Type: Submersible Application: Municipal sewage/wastewater Capacity = 25 m3/hr Head = 30 ft Min. Free Particle Size = 50 mm Min. Pump Efficiency = 70% Maximum speed = 1500-3000 rpm Casing: Cast iron ASTM A 48 Class 35, EN GJL 250 or better Impeller: Cast iron ASTM A 48 Class 35, EN GJL 250 or better Shaft: Stainless Steel AISI 431 or better Shaft Sleeve: Stainless Steel AISI 304 or better Mechanical Seal: Two mechanical seals Primary Seal : Silicon Carbide-Silicon Carbide Secondary Seal: Silicon Carbide-Carbon. Ingress Protection = IP 68</p>	No	2.00		

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BILL OF QUANTITIES

BILL NO 2.5 INFLUENT WASTEWATER PUMPING STATION

SR. NO.	Ref	DESCRIPTION	UNIT	QUANTITY	UNIT RATE	AMOUNT
					(Rs)	(Rs)
		<p>b) Motor Rated power suitable for Pump described in "a" Insulation Class = F Ingress Protection = IP 68 Min. Efficiency = as per IE-2</p> <p>c) Motor Control Unit (MCU) 2) Motor Control Unit (MCU) MCU (Motor Control Unit) consisting of MCCB, Over/Under voltage relay, Phase reversal relay, volt meter, ampere meter, EVR, Volt Selector Switch, Ampere Selector Switch, Current Transformer, indicating lights for all above relays, on/off push buttons. VFD Motor Control Unit with Dry running relay, Circuit Breaker, DC SPD, AC SPD, DC Change Over Switch, Auto Start Stop with Any input, Self-diagnostic and Self Protection, Dry Run Protection, Digital Controls with Complete Protective Functions, Ground Fault Monitoring, AC Short Circuit Protection, Under / Over Voltage and Over/ Current Protection, Reverse current Blocking, -10 to 40 Degree Celsius, Remote Monitoring and MPPT, water Level Detection, Pressure Level Detection, A/M Selector Switch, etc. All contained in lockable cabinet complete in all respect.</p>				

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BILL OF QUANTITIES

BILL NO 2.5 INFLUENT WASTEWATER PUMPING STATION

SR. NO.	Ref	DESCRIPTION	UNIT	QUANTITY	UNIT RATE	AMOUNT
					(Rs)	(Rs)
2	Quotation	<p>Designing, manufacturing, testing at manufacturer's workshop, supplying at site, installation, testing, commissioning, guarantee and maintenance for one year during defect Liability Period of each item of following equipment:</p> <p>Close coupled, non-clogging submersible Pump for sewage/wastewater application, following discharge and rated head with suitable AC induction, totally enclosed, 3-Ph, 400 V, 50 Hz, insulation class F, Ingress protection IP 68 motors to be installed in wet well, alongwith electrical cable upto 10 m and control cable upto 10m, motor control unit, pressure gauge at discharge side, 01 Nos. sluice valve, 01 No non-return valve including final inspection at test bed as per Specifications. All equipment shall be from internationally reputed approved manufacturers and have USA/Europe origin.</p> <p>a) Pump Type: Submersible Application: Municipal sewage/wastewater Capacity = 35 m3/hr Head = 30 ft Min. Free Particle Size = 50 mm Min. Pump Efficiency = 70% Maximum speed = 1500-3000 rpm Casing: Cast iron ASTM A 48 Class 35, EN GJL 250 or better Impeller: Cast iron ASTM A 48 Class 35, EN GJL 250 or better Shaft: Stainless Steel AISI 431 or better Shaft Sleeve: Stainless Steel AISI 304 or better Mechanical Seal: Two mechanical seals Primary Seal : Silicon Carbide-Silicon Carbide Secondary Seal: Silicon Carbide-Carbon. Ingress Protection = IP 68</p> <p>b) Motor Rated power suitable for Pump described in "a)" Insulation Class = H</p>	No	3.00		

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BILL OF QUANTITIES

BILL NO 2.5 INFLUENT WASTEWATER PUMPING STATION

SR. NO.	Ref	DESCRIPTION	UNIT	QUANTITY	UNIT RATE	AMOUNT
					(Rs)	(Rs)
3	RA-05	Ingress Protection = IP 68 Min. Efficiency = as per IE-2 c) Motor Control Unit (MCU) 2) Motor Control Unit (MCU) MCU (Motor Control Unit) consisting of MCCB, Over/Under voltage relay, Phase reversal relay, volt meter, ampere meter, EVR, Volt Selector Switch, Ampere Selector Switch, Current Transformer, indicating lights for all above relays, on/off push buttons. VFD Motor Control Unit with Dry running relay, Circuit Breaker, DC SPD, AC SPD, DC Change Over Switch, Auto Start Stop with Any input, Self-diagnostic and Self Protection, Dry Run Protection, Digital Controls with Complete Protective Functions, Ground Fault Monitoring, AC Short Circuit Protection, Under / Over Voltage and Over/ Current Protection, Reverse current Blocking, -10 to 40 Degree Celsius, Remote Monitoring and MPPT, water Level Detection, Pressure Level Detection, AM Selector Switch etc. All Providing Fixing Malleable Iron Steps conforming to ASTM 48 specification for grey iron or equal including the manhole as per drawing including carrier and setting the same to correct line and levels to the satisfaction of Engineer Incharge.	No.	58.00		
4	RA-01	Providing and fixing motorized operated penstock gate (including gear and automatic switch) as per B.S.S 7775 of below mentioned size with CI shutter and frame/channel with interior brass channel on bottom and two sides through which gate travels i/c non-magnetic SS spindle with square thread CI head stock and wheel etc complete in all respect as per drawing and directed by the engineer incharge Penstock Gate Size with clear opening (310mm x 310mm)	No.	2.00		

**ENGINEERING DESIGN AND CONSTRUCTION SUPERVISION
CLUSTER NORTH
PUNJAB RURAL SUSTAINABLE WATER SUPPLY AND SANITATION PROJECT**

**TEHSIL NOORPUR THAL, DISTRICT KHUSHAB VILLAGES(Lal Hussain, Chandi Balochan, Haveli
Chiragh Joiya, Pipli Sydean, Chak No 014-A/MB, Chak No 016/MB, Chak No 041/DB, Chak No
042/DB, Chak No 043/DB, Chak No 044/DB, Chak No 045/DB, Chak No 054/DB, Awanawala, R**

BILL OF QUANTITIES

BILL NO 2.5 INFLUENT WASTEWATER PUMPING STATION

SR. NO.	Ref	DESCRIPTION	UNIT	QUANTITY	UNIT RATE	AMOUNT
					(Rs)	(Rs)
5	RA-02	<u>FORCEMAIN</u> Providing, transportation, fixing and Jointing of MS flanges to joint the valves with HDPE pipe line complete in all respect and as per approval of The Engineer. MS Flange (100mm) 4" Dia	Each	4.00		
					Sub Total (B)	
					Total Amount (A+B)	
					Grand Total	

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Chak No 042/DB, Chak No 043/DB, Chak No 044/DB, Chak No 045/DB, Chak No 054/DB,
Awanawala, R**

BILL OF QUANTITIES

BILL NO. 2.6 ANAEROBIC BAFFLED REACTOR

SR. NO.	Ref	DESCRIPTION	UNIT	QUANTITY	UNIT RATE	AMOUNT
					(Rs)	(Rs)
		MRS, 2nd BI-ANNUAL-2025 (01.07.2025 to 31.12.2025)				
		CIVIL WORKS				
1	3/47	Jungle clearance and removing within 100 ft. (30 m). (Provisional Qty to be executed after approval of the Engineer)				
		a) Ordinary	100 Sft.	435.60		
		b) Heavy	100 Sft.	435.60		
2	3/48	Uprooting Sarkanda growth and disposal within 100 ft. (30 m) (Provisional Qty to be executed after approval of the Engineer)	100 Sft.	435.60		
3	26/35	Bailing out water:- (Provisional Qty to be executed after approval of the Engineer) b) by pump	1000 Cft	217.80		
4	3/25	Compaction of earthwork with power road roller (compaction equipment to be decided as per site condition after approval of the Engineer), including ploughing, mixing, moistening earth to optimum moisture content in layers, etc. complete: (Surplus earth for sewer line and disposal will be used) i) 95% to 100% maximum modified AASHO dry density.	1000 Cft	108.00		
5	3/21	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling in layers around structure with excavated earth, watering and ramming lead upto one chain (30 m) lift upto 5 ft (1.5m). b) By Excavator ii) Ordinary soil	1000 Cft.	69.66		
6	3/27	Extra for slush or Daldal including. (Provisional Qty to be executed after approval of the Engineer)dewatering.	1000 Cft	2.00		
7	21/19	Desilting/Desludging of disposal work collecting tank, including removal of sludge within 3 chains (90 metre).	100Cft.	108.90		
8	10/3	Supplying and filling sand under floor; or plugging in wells.	100Cft	8.27		

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Awanawala, R**

BILL OF QUANTITIES

BILL NO. 2.6 ANAEROBIC BAFFLED REACTOR

SR. NO.	Ref	DESCRIPTION	UNIT	QUANTITY	UNIT RATE	AMOUNT
					(Rs)	(Rs)
9	6/5	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate): (h) Ratio 1: 3: 6	100 Cft.	12.91		
10	6/6	Providing and laying reinforced cement concrete (including prestressed concrete), using Ordinary Portland Cement / Sulphate resisting cement / Slag cement as may be required; coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):- (a) (i) Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:- (1) Type A (nominal mix 1:1:2) (c) Reinforced cement concrete in Pile cap, slab of rafts / strip foundation, base slab of column and retaining walls; etc and footing beams, other structural members other than those mentioned in 6(a-d) above not requiring form work (i.e. horizontal shuttering) complete in all respects:- 1) Type A (nominal mix 1: 1: 2)	Cft.	4,911.01		
11	6/12	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and steel chairs, etc. complete in all respect. and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also Includes removal of rust from bars):- (b) Deformed bars (ii)(Grade-60)	100 Kg	281.22		
12	7/7(i)	Pacca brick work other than building upto 10ft. (3 m) height. i) cement, sand mortar:- Ratio 1:3	100Cft.	21.98		

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BILL OF QUANTITIES

BILL NO. 2.6 ANAEROBIC BAFFLED REACTOR

SR. NO.	Ref	DESCRIPTION	UNIT	QUANTITY	UNIT RATE	AMOUNT
					(Rs)	(Rs)
13	23/42	Providing, laying, cutting, jointing, testing and disinfecting High Density Polyethylene Pipe (HDPE-100) working pressure pipe, Beta/ Dadex/ Popular/ IIL or equivalent including the cost of specials, in trenches, as approved & directed by the engineer incharge, complete in all respects. b) PN-8 (SDR-21)				
		ii) 110 mm	P.Rft	3,711.00		
14	23/51	Providing and fixing heavy duty Gate valve of specified diameter and material for pressure rating PN-16 mde of Crane (USA), Hatersly (UK) or Scon (Pakistan) i/c the cost of all accessories flanges,nut/bolt and gasket where required complete in all respect as approved and directed by the Engineer Incharge. (b) Flange Ended Ductile Iron Valve (ix) 4" dia	Each	6.00		
15	23/21	Providing, laying, cutting, jointing, testing and disinfecting cast iron pipe line (BS-2035) in trenches (and vent), with flanged and flanged joints, complete in all respects:- d) 6" (150 mm) i/d	P.Rft	66.00		
16	23/29	Providing and fixing cast iron specials of B.S.S. Class 'B' (such as bend, tee, cross collar, reducer, tail piece, flanged socket, flanged spigot, cap, taper, angle branch, plug, etc) for Asbestos cement pipe line, with comet joint and rubber ring, complete. i) 3" to 6" (75 to 150 mm) i/d	Per Kg	569.00		
17	11/8a	Cement plaster 1:3 upto 20' (6.00 m) height:- 3/8" (10 mm) thick	100Sft	58.61		
18	6/31A	Providing and embedding 10" (250mm) wide PVC water stopper in expansion joints of RCC structures (Retaining walls, water tanks, Slabs) complete in all respect. i) 6 mm thick	Rft	244.80		

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Awanawala, R**

BILL OF QUANTITIES

BILL NO. 2.6 ANAEROBIC BAFFLED REACTOR

SR. NO.	Ref	DESCRIPTION	UNIT	QUANTITY	UNIT RATE	AMOUNT
					(Rs)	(Rs)
19	1/1	Carriage of 100 Cft. (2.83 cu.m) of all materials like stone aggregate, spawl , kankar lime (unslaked), surkhi , etc. or 150 Cft. (4.25 cu.m) of timber, by truck or by any other means owned by the contractor. Lead from approved nearby quarry	1000Cft	91.59		
20	13/45	Preparing surface and painting with Matt/Glossy high chemical resistant/hard wearing Polyurethane paint (Epoxy Paint) by sprayer/Brush i/c the cost of Primer coat , all material and labour complete in all respects as approved and directed by the Engineer Incharge. (i)Priming Coat (ii) Each and subsequent Coat	Per Sft Per Sft	11,491.00 22,982.00		
21	10/45	Providing and laying Tuff Pavers, having 7000PSI, crushing strength of approved manufacturer, over 2" to 3" sand cushion i/c grouting with sand in joints i/c finishing to require slope. Complete in all respect. 50% Grey / 50% Coloured) b) 60-mm thick	Per Sft	4,000.00		
22	18/3a	Providing and laying sub-base course of stone product approved quality and grade, including placing, mixing, spreading and compaction of sub-base material to required depth, camber, grade to achieve 100% maximum modified AASHO dry density, including carriage of all material to site of work except gravel and aggregate.	100Cft.	20.00		
23	13/33	Providing and applying weather shield paint of approved quality on external surface of building including preparation of surface, application of primer complete in all respect: a) new surface: i) 1st coat ii) 2nd coat	100 Sft. 100 Sft.	21.20 21.20		

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BILL OF QUANTITIES

BILL NO. 2.6 ANAEROBIC BAFFLED REACTOR

SR. NO.	Ref	DESCRIPTION	UNIT	QUANTITY	UNIT RATE	AMOUNT
					(Rs)	(Rs)
24	3/15	Filling, watering and ramming earth under floors:- i) with surplus earth from foundation, etc. ii) with new earth excavated from outside,	1000 Cft. 1000 Cft.	48.76 97.14		
25	3/16	Extra for every 50 ft. (15 m) additional lead or part thereof i) for earhtwork soft, ordinary, hard and very hard.(Lead 1000ft)	1000 Cft.	97.14		
26	3/17	Transportation of earth all types when the total distance, including the lead covered in the item of work, is more than 1000 ft. (300 m) (Transportation will be paid as per actual lead chart to be approved by the Engineer) a) upto ¼ mile (400 m).	1000 Cft.	97.14		
A-Total Amount						
B		NON MRS				
1	N/S	Providing & fixing of RPC manhole cover manufactured with 100% recycled plastic composite material, 650 mm (26"dia) with clear opening size 600 mm (24" dia) and rpc manhole frame having dia meter 790 mm (31.1") with average breaking load capacity of 10 ton and weight including frame of 50 kg (minimum).	Each	18.00		
2	N/S	Mannual boring for laying of HDPE Pipe under roads complete in all respects to satisfaction of Engineer In-charge. (Provisional Qty) i) 110 mm	Rft	40.00		
B-Total Amount						
Grand Total (A+B)						

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Awanawala, R
BILL OF QUANTITIES**

BILL NO. 2.7 STAFF QUARTER

Sr. No.	Ref	Description	Unit	Quantity	Rate (Rs)	Amount (Rs)
1	3/21	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling in layers around structure with excavated earth, watering and ramming lead upto one chain (30 m) depth upto 5 ft (1.5m). 2) a) By Excavator ii) Ordinary soil iii) Hard soil or Soft murum	1000 Cft. 1000 Cft.	2.13 2.13		
2	3/8	Excavation in shingle or gravel formation and rock, not requiring blasting, undressed lead upto 100 ft (30 m). i) Dry	1000 Cft.	4.26		
3	3/18	Dressing and levelling of earhtwork to designed section, etc. complete:- c) Gravel work or soft rock not requiring blasting.	1000 Cft.	4.26		
4	26/43	Spraying termite proofing by using liquid FMC/ Biflex/ Terminex Exin/Ms Hextar or equivalent @ specified suspension concentrate (SC), Mixing Ability-HEXTAR with Ratio (1:250) = 540 Sft or equivalent approved liquid applying with shower and certificate will be provided by the contractor for 10- years complete in all respect as approved by the Engineer Incharge.	Sft	4,049.02		
5	6/5	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate). (f) Nominal mix Ratio 1: 2: 4 (i) Nominal mix Ratio 1: 3: 6	100 Cft. 100 Cft.	2.30 6.56		
6	6/13	Precast cement concrete solid or face blocks (1:2:4), including cost of templates.	Cft.	1,634.80		
7	6/37	Providing and laying damp proof course of cement concrete 1:2:4 (cement, sand, shingle), including bitumen coating. (b) with 2 coats of bitumen: i) 1½" thick (40 mm)	100 Sft.	3.18		

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BILL NO. 2.7 STAFF QUARTER

Sr. No.	Ref	Description	Unit	Quantity	Rate (Rs)	Amount (Rs)
8	6/39	Providing and laying vertical damp proof course with cement sand plaster and bitumen coating:- (a) with one coat of bitumen and one coat of polythene sheet 500 gauge: ii) Ratio 1:3 b) ¾" thick (20 mm)	100 Sft.	2.80		
9	6/14	Precast cement concrete hollow blocks (1: 2: 4) , including cost of templates and constructing walls thereof.	Cft.	1,553.58		
10	6/6	Providing and laying reinforced cement concrete (including prestressed concrete), using Ordinary Portland Cement / Sulphate resisting cement / Slag cement as may be required; coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):-				
		(a) Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:- (2) Type B (nominal mix 1: 1½: 3)	Per Cft	813.96		
		(c) Reinforced cement concrete in Pile cap, slab of rafts / strip foundation, base slab of column and retaining walls; etc and footing beams, other structural members other than those mentioned in 6(a-d) above not requiring form work (i.e. horizontal shuttering) complete in all respects:- (2) Type B (nominal mix 1: 1½: 3)	Per Cft	608.76		

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BILL NO. 2.7 STAFF QUARTER

Sr. No.	Ref	Description	Unit	Quantity	Rate (Rs)	Amount (Rs)
11	6/12	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):- (b) Deformed bars (ii)(Grade-60)	100 kg	29.56		
12	1/1	Carriage of 100 Cft. (2.83 cu.m) of all materials like stone aggregate, spawl , kankar lime (unslaked), surkhi , etc. or 150 Cft. (4.25 cu.m) of timber, by truck or by any other means owned by the contractor. Lead From Sargodha quarry	100Cft.	22.00		
13	11/9	Cement plaster 1:4 upto 20' (6.00 m) height:- a) 3/8" (10 mm) thick	100 Sft.	55.24		
14	11/12	Cement plaster 3/8" (10 mm) thick under soffit of R.C.C. roof slabs only, upto 20' height. c) 1:4	100 Sft.	24.00		
15	3/15	Filling, watering and ramming earth under floors:- (i) with surplus earth from foundation, etc (ii) with new earth excavated from out side, lead upto one chain (30m)	1000 Cft. 1000 Cft.	1.88 2.62		
16	3/16	Extra for every 50 ft. (15 m) additional lead or part thereof i) for earth work soft, ordinary, hard and very heard (up to 1000 ft)	1000 Cft.	52.40		
17	10/3	Supplying and filling sand under floor; or plugging in wells. (Provisional as Slect Fill)	100 Cft.	26.72		
18	6/2	Dry rammed brick or stone ballast, 1½" to 2"(40 mm to 50 mm) gauge.	100 Cft.	3.74		

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BILL NO. 2.7 STAFF QUARTER

Sr. No.	Ref	Description	Unit	Quantity	Rate (Rs)	Amount (Rs)
19	10/45	Providing and laying superb quality Porcelain glazed tiles flooring of MASTER brand of specified size in approved design,Color and Shade with adhesive/bondover 3/4" thick (1:3) cement plaster i/c the cost of sealer for finishing the joints i/c cutting grinding complete in all respect as approved and directed by the Engineer Incharge. a) Full body Glazed tiles (i) 400 mm x 400 mm	Sft	847.70		
20	10/33	Tile skirting laid in 1:2 cement mortar, over 3/4"(20 mm) thick cement mortar, 1:2 including cement washing and filling joints complete:- (b) mosaic tiles	100 Sft.	1.78		
21	10/37	Providing and laying 3/8" thick Prepolished Marble skirting/ risers having uniform texture (spotless) of size 24" x 6" of approved quality and shade with adhesive bond over 3/4" thick (1:2) cement sand mortar complete in all respect i/c the cost of matching sealer to finish the joints as approved and directed by the Engineer Incharge. i) China Verona	Sft	286.72		
22	9/5	Single layer of tiles 9"x4½"x1½" (225x113x40 mm) laid over 4"(100 mm) earth and 1" (25 mm) mud plaster without Bhoosa, grouted with cement sand 1:3 on top of RCC roof slab, provided with 34 lbs.per %Sft. or 1.72 Kg/Sq.m bitumen coating sand blinded.	100 Sft.	14.54		
23	26/38	Supplying and laying polythene sheet over D.P.C under floors and on roofs, etc. (i) 300 gauge (0.003" thick)	Per Sft.	1,454.00		

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BILL NO. 2.7 STAFF QUARTER

Sr. No.	Ref	Description	Unit	Quantity	Rate (Rs)	Amount (Rs)
24	12/16	Providing and fixing M.S. sheet hollow pressed frame of doors, windows, C. windows, etc. (chowkat only) of 20 SWG welded with M.S. flat 6"x 1¼" x 1/8" (150 mmx30mmx3mm) M.S. holdfast 9"x1"x1/8" (225mmx25mmx3mm) welded/screwed 4" (100 mm) long iron hinges, including filling chowkat with cement sand mortar 1:8 and embedding holdfast in cement concrete 1:2:4, complete in all respects:				
		a) single rebate	Per Sft.	133.00		
		b) double rebate	Per Sft.	42.00		
25	12/12	P/F 1-1/2" thick solid flush door comprising of 2.5 mm thick Commercial ply compressed over 2.5 mm thick commercial ply over 1" thick packing wood in style and rails under proper pressure i/c the cost of nails, tower bolt , handles, glue, sawing charges, Painting charges, sand papering and 3/8" thick matching wooden lipping as approved and directed by the Engineer Incharge.				
			Per Sft.	175.00		
26	12/60	P/F 3/4" dia heavy duty sliding bolt of specified material i/c the cost of hardware omplete in all respect as approved and directed by the Engineer Incharge.				
		b) brass				
		i) 10" (250 mm) long	Each	8.00		
27	13/5	Painting new surface:- c) Preparing surface and painting of doors and windows any type (including edges):- i) priming coat. ii) each subsequent coat of paint. (2 coats)				
			100 Sft.	3.50		

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BILL NO. 2.7 STAFF QUARTER

Sr. No.	Ref	Description	Unit	Quantity	Rate (Rs)	Amount (Rs)
28	25/52	Providing and fitting all types of glazed aluminium windows of anodised bronze colour partly fixed and partly sliding using delux sections of approved manufacturer having frame size of 100 x 20 mm (4"x $\frac{3}{4}$ ") and leaf frame sections of 50 x 20 mm (2"x $\frac{3}{4}$ "), all of 1.6mm thickness including 5 mm thick imported tinted glass with rubber gasket using pproved standard latches, hardware etc., as approved by the Engineer in-charge.	Per Sft.	252.00		
29	25/58	Providing and fixing M.S. flat $\frac{1}{2}$ "x1/8" (13mm x 3mm) grill including $\frac{3}{4}$ " x 1/8" (20 mmx3 mm) M.S. flat f rame, in windows of approved design, including painting three coats, complete in all respects.	Per Sft.	252.00		
30	11/23	Priming coat of chalk under distemper.	100 Sft.	41.66		
31	11/24	Distempering (a) new surface ii) two coats	100 Sft.	41.66		
32	11/18	Cement pointing struck joints, on walls, upto 20' (6.00 m) hieght:- (external wall) a) ratio 1:2	100 Sft.	41.98		
		PLUMBING WORKS				
33	19/7	Providing and fitting glazed earthen ware wash hand basin /vanity 56x40 cm (22"x16") including bracket set, waste pipe and waste coupling, etc. ii) coloured, with pedestal	Each	2.00		
34	19/8	Providing and fixing stainless steel sink with drain board, size 120x60 cm (48"x24") including bracket set, waste pipe and waste coupling.	Each	2.00		
35	19/29	Providing and fixing chromium plated shower rose:- ii) 2x15 cm ($\frac{3}{4}$ "x6")	Each	2.00		
36	19/30	Providing and fixing, chromium plated mixing valve, for wash hand basin, sink or shower.	Each	6.00		

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BILL NO. 2.7 STAFF QUARTER

Sr. No.	Ref	Description	Unit	Quantity	Rate (Rs)	Amount (Rs)
37	23/19	Providing, laying, cutting, jointing, testing and disinfecting G.I. pipe line in trenches, with socket joints, using G.I pipes of B.S.S. 1387-1967 complete in all respects with specials and valves:- ii) Medium Quality (Provisional) b) ¾" i/d (20 mm) 2.65mm thick c) 1" i/d (25 mm) 3.25mm thick	Per Rft. Per Rft.	55.20 40.00		
38	19/4	Providing and fitting glazed earthen ware water closet, squatter type, combined with foot rest. ii) coloured	Each	2.00		
39	19/13	Providing and fitting plastic made low down flushing cistern 1363 liters (3 gallons) capacity, including bracket set, copper connection etc., complete. ii) coloured	Each	2.00		
40	19/20	Providing and fixing looking glass 55x40 cm size and 5mm thick, first quality	Each	2.00		
41	19/23	Providing and fixing Bathroom Accessories (7-piece set) Master brand - One Cosmetic Shelf, One Towel rod with bracket, One soap dish, One double hook, One towel ring, brush holder, toilet paper holder & looking glass i/c the cost of hardwares etc complete in all respect as approved and directed by the Engineer incharge. i) Plastic Soap Dish ii) Plastic toilet paper holder iii) Plastic towel rail iv) Plastic shelf 60x13 cm (24:x5") with bracket and railing	Each Each Each Each	2.00 2.00 2.00 2.00		
42	19/27	Providing and fixing chromium plated bib cock i) 2 cm (¾")	Each	8.00		
43	19/34	Providing and fixing floor trap of cast iron, including concrete chamber all round, and C.I grating: ii) 10x7.5 cm (4"x3")	Each	4.00		

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Chak No 042/DB, Chak No 043/DB, Chak No 044/DB, Chak No 045/DB, Chak No 054/DB,
Awanawala, R
BILL OF QUANTITIES**

BILL NO. 2.7 STAFF QUARTER

Sr. No.	Ref	Description	Unit	Quantity	Rate (Rs)	Amount (Rs)
44	19/36	Providing and fitting gully trap, including cement concrete, cost of PVC grating 15x15cm and masonry chamber 30x30cm.	Each	4.00		
45	23/33	Providing, laying, testing and commissioning of POLY PROPYLENE RANDOM COPOLYMER (PPRC) water supply pipe (Dadex/ Popular/ Beta or approved equivalent manufacturer, with specified pressure rating PN (PRESSURE NOMINAL) and conforming to DIN 8077-8078 code i/c cost of solvent, specials, making jharries complete in all respect as approved and directed by Engineer Incharge. (Internal/ External Diameters mentioned). b) PN-20 pipe				
		(ii) 25 mm	Rft	138.00		
		(iii) 32 mm	Rft	40.00		
46	19/47	Providing, fixing, testing and commissioning of μ -PVC (Unplasticized Polyvinyl Chloride) Nikasi/ SWV pipe, Dadex/ Popular/ Beta or approved equivalent manufacturer, plain/ Bell Ended/ Z-Joints conforming to BS 4514/ BS5255 - EN 1329 including the cost of specials and Solvents complete in all respects, as per drawings & specifications and/ or as approved and directed by the Engineer Incharge.				
		(iv) (82mm)	Rft	294.00		
		(v) (110 mm)	Rft	30.00		
		(vi) (160 mm)	Rft	80.00		
47	19/49	Providing, fixing, testing and commissioning of μ -PVC (Unplasticized polyvinyl Chloride) Nikasi/ waste pipe Fittings make of Dadex/ Popular/ Beta or approved equivalent manufacturer, conforming to code EN-1329 including the cost of Solvents complete in all respect as approved and directed by the Engineer Incharge. a) P-Trap				
		(i) 4" dia	Each	8.00		

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Awanawala, R
BILL OF QUANTITIES**

BILL NO. 2.7 STAFF QUARTER

Sr. No.	Ref	Description	Unit	Quantity	Rate (Rs)	Amount (Rs)
48	19/51	Providing and hoisting vertical/horizontal type storage tank of required capacity made of rotationally molded from (HDPE), double ply polyethelene of approved manufacturer i/c cost of making connection for inlet/ outlet pipe, float valve i/c all cost of specials & labour complete in all respect as approved and directed by the Engineer Incharge.	Per gallon	400.00		
49	12/25	Providing and fixing almirah shutter comprising of 3/4" thick both side Laminated/ Glossy MDF (Karachi) sheet with 1" x 3/4" deodar wood golla all around the leaf fixed on (3"x1" Kail wood frame i/c the cost of 1/2" full brass hinges, C.P. handles, catchers, screws, and rawal plugs, polishing/ painting 3 coat to gola & frame i/c the cost of locking arrangement complete in all	Sft	120.00		
		Providing and hoisting vertical/horizontal type storage tank of required capacity made of rotationally molded from (HDPE), double ply polyethelene of approved manufacturer i/c cost of making connection for inlet/outlet pipe, float valve i/c all cost of specials & labour complete in all respect as approved and directed by the Engineer Incharge.	Per Gallon	400.00		
Total MRS Items						
50	N/S	NON MRS TTEMS Providing and installing domestic pump and motor including boring, pipe, strainer, fittings etc. Compete in all respect.	Each	2.00		
Total Non - MRS Items						
Total Amount						

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BILL OF QUANTITIES

Bill No. 2.8: BOUNDARY WALL (D/S &ABR)

Sr. No.	Ref.	Description	Unit	Quantity	Rate (Rs)	Amount (Rs)
1	A 3/21	MRS,2nd BI-ANNUAL-2025 (01.07.2025 to 31.12.2025) Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling in layers around structure with excavated earth, watering and ramming lead upto one chain (30 m)lift upto 5 ft (1.5m). b) By Excavator ii) in ordinary soil.	1000Cft	7.80		
2	6/5	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate): (h) Ratio 1:3:6	100Cft	3.22		
3	6/6	Providing and laying reinforced cement concrete (including prestressed concrete), using Ordinary Portland Cement / Sulphate resisting cement / Slag cement as may be required; coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):- (a) Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:- (2) Type B (nominal mix 1: 1½: 3) (c) Reinforced cement concrete in Pile cap, slab of rafts / strip foundation, base slab of column and retaining walls; etc and footing beams, other structural members other than those mentioned in 6(a-d) above not requiring form work (i.e. horizontal shuttering) complete in all respects:- (2) Type B (nominal mix 1: 1½: 3)	Cft	545.04		
4	6/12	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):- C) Deformed bars (Grade 60)	100 Kg	43.90		

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BILL OF QUANTITIES

Bill No. 2.8: BOUNDARY WALL (D/S &ABR)

Sr. No.	Ref.	Description	Unit	Quantity	Rate (Rs)	Amount (Rs)
5	1/1	Carriage of 100 Cft. (2.83 cu.m) of all materials like stone aggregate, spawl , kankar lime (unslaked), surkhi , etc. or 150 Cft. (4.25 cu.m) of timber, by truck or by any other means owned by the contractor. Lead From approved quarry	100Cft	11.64		
6	7/4	Pacca brick work in foundation and plinth in:- i) Cement, sand mortar:- Ratio 1:3	100Cft.	57.34		
7	6/37	Providing and laying damp proof course of cement concrete 1:2: 4(using cement, sand and shingle), including bi tumen coating :- (b) with 2 coats of bitumen: ii) 2" thick (50 mm)	100Sft	9.00		
8	7/7	Pacca brick work other than building upto 10ft. (3 m) height. Ratio 1:3	1000Cft	38.62		
9	11/8	Cement plaster 1:3 upto 20' (6.00 m) height:- b) ½" (13 mm) thick	100 Sft.	64.58		
10	11/18	Cement pointing struck joints, on walls, upto 20' (6.00 m) hieght:- a) Ratio 1:2	100 Sft.	64.58		
11	25/31	Making and fixing steel grated door with 1/16" thick (1.5mm) sheeting, including angle iron frame 2"x2"x3/8" (50x50x10 mm) and ¾" (20 mm) square bars 4" (100 mm) centre to centre, with locking arrangement.	P.Sft	144.00		
12	13/5 (d)	Painting new surface:- d) Preparing surface and painting guard bars, gates of iron bars, gratings, railing (including standards, braces, etc.) and in similar open work: i) priming coat.	100 Sft.	1.44		
		ii) each subsequent coat of paint.(2 Coats)	100 Sft.	2.88		
13	13/33	Providing and applying weather shield paint of approved quality on external surface of building including preparation of surface, application of primer complete in all respect. a) new surface: i) 1st coat	100 Sft.	86.66		
		ii) 2nd coat	100 Sft.	86.66		

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BILL OF QUANTITIES

Bill No. 2.8: BOUNDARY WALL (D/S & ABR)

Sr. No.	Ref.	Description	Unit	Quantity	Rate (Rs)	Amount (Rs)
		Providing and fixing anti climb high security galvanized razor cut wire fencing having double sharp four U-shaped pointed 0.5 mm thick (22mmx15 mm barbs) spaced @ 33 mm c/c cladded over 2.5 mm dia high tensile Core wire making coil fencing of specified diameter @ 4" c/c fixed on 2'-3" high M/S angle iron post 1½"x1½"x3/16"embedded in base of PCC (1:2:4) (4"x4"x9") @ 4' apart i/c the cost of 2 No. bars 3/8" dia welded horizontantly with angle iron posts , binding wire, painting of posts, etc. complete in all respects as pproved and directed by the Engineer incharge.				
		(ii) 18 " diameter	Rft	800.00		
Total (A) (Rs.)						

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BILL OF QUANTITIES

Bill No. 2.9: ELECTRIFICATION OF DISPOSAL STATION

Sr. No.	M.R.S (Item/Chap)	Description	Unit	Qty.	Rate (Rs.)	Amount (Rs.)
					In Figure	
1.0		<u>WIRING AND ACCESSORIES</u>				
1.1	8(c-ii)/24, 3(iii)/24, 16(i)/24, 34(ii)/24	Wiring of light or fan point from switch board/dimmer to the point with 3x1.5 mm ² (P+N+E) PVC insulated single core stranded cables in 25 mm PVC conduit/pipe concealed in walls, columns and slabs including accessories, PVC box, 10 Amp. gang switch 1 or 2 way as required, one for each light or fan and installed as in specifications complete in all respects.	Each	20		
1.2	8(c-iii)/24, 3(iii)/24	Circuit wiring from DB/ MCBs to gang switches board and from switch board to another switch board with 3x2.5 mm ² (P+N+E) PVC insulated single core stranded cables in 25mm PVC pipe/conduit concealed in walls, columns and slabs as required complete in all respects.	Each	8		
1.3	8(c-ii)/24, 3(iii)/24	The same as item No. 1.1 but from one light point to another light point.	Each	20		
1.4	8(c-iv)/24, 17(ii)/24, 39(i)/24, 3(iii)/24	10/13 Amp 3 pin universal flush mounting switch socket outlet wired from DB/MCBs to first outlet with 3x4 mm ² (P+N+E) single core cable stranded (away from switch board) in 25mm PVC pipe/conduit concealed in walls, columns and slabs as required complete in all respects.	Each	4		
1.5	8(c-iii)/24, 3(iii)/24, 16(ii), 38(i)	The same as item No.1.4 but wiring from one socket outlet to another socket outlet with 3x2.5 mm ² (P+N+E) single core stranded cable in 25mm PVC pipe/conduit concealed in walls, columns and slabs as required complete in all respects.	Each	8		
1.6	8(c-v)/24, 3(iii)/24, 38(ii)/24, 16(ii)/24	15/20 Amp 3 pin mounting switch socket outlet wired from DB MCBs to independent socket outlet with 3x6 mm ² (P+N+E) single core stranded cable (away from switchboard) in 25mm PVC pipe/conduit concealed in walls, columns and slabs as required complete in all respects.	Each	6		
2.0		<u>Road / Street Lighting Poles and Foundations</u>				
2.1	69(a-ii)/24, 85(a-i)/24	10m high single arm octagonal shape electric street light pole, made of hot dipped 4.5 mm thick (7 SWG) galvanized steel, tapered from 225 mm at bottom to 100 mm at top, with 1500 mmx60 mmx4mm thick dia. arm for luminaire installation, duly G.I.welded with 470x470x20 mm base plate with the help of 4 no triangular stiffeners 100x350x20 mm of GI sheet, with built in junction box with shutter & one (01) no. 2A SP MCB 10kA breaker, i/c the cost of nuts & J-rag bolts, duly fixed in prelaid concrete foundation, foundation will be paid additionally as approved and directed by the Engineer Incharge.	Each	12		
2.2	11 (c)/6, 8 (ii)/6, 12/9, 3/10	Road/Street Lighting Pole Foundations including 04 nos. of dia 25mm J-Bolts, PVC long Bends Class (3000 Psi- cylinder strength) concrete, 60 grade reinforced steel, Excavation, Blinding Concrete, Common Backfilling & Bitchmen Coating etc. as shown on drawing. Complete in all respect.	Each	12		
3.0		<u>DISTRIBUTION BOARDS</u>				
		D.Bs with TP incoming adjustable moulded case circuit breaker and SP miniature outgoing circuit breakers, Panel box SWG 16 powder coated RAL colour 7032, IP class 44 and with all accessories. alongwith all installation and operational accessories as per specification or as shown on the drawings.				

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BILL OF QUANTITIES

Bill No. 2.9: ELECTRIFICATION OF DISPOSAL STATION

Sr. No.	M.R.S (Item/Chap)	Description	Unit	Qty.	Rate (Rs.)	Amount (Rs.)
					In Figure	
3.1		DB- PUMP ROOM				
		01 No. Incoming 25 Amps (Adj.) MCCB TP 18kA Icu=100%lcs				
		03 Nos. outgoing 10A, MCB, SP, RC=10 kA, Icu=100%lcs				
	85(b-iii)/24,	01 No. outgoing 20A, MCB, SP, RC=10 kA, Icu=100%lcs				
	'85(a-iii)/24,					
	94(i)/24,	02 Nos. outgoing 10A, MCB, SP, RC=10 kA, Icu=100%lcs (Spare)				
	94(ii)/24,					
	94(iv)/24,	03 Nos. outgoing 10A, MCB, SP, RC=10 kA, Icu=100%lcs (Space)				
	94(iii)/24,	P/F wall mounted DB (Distribution Board) 6" deep, 20-60A, made with 16SWG	Each	2		
	94(v)/24,	Sheet (Recessded/Surf ace mounted Type), Powder coated Paint, i/c the cost of				
	94(vi)/24,	Lock, Indication lights,Thimble, Copper Comb, Wiring, Netural & Earth Bar, Door				
	94(xv)/24	Earthing, Digital Voltmeter,Digital Ammeter,Volt Selector Swi tch, Ammeter selector switch, Current Transformers and Controles Complete in all respect as approved and directed by the Engineer Incharge (Breakers will be Paid Separately).				
4.0		MAIN PANEL BOARD				
4.1		LV Switchgear Panel/Main Panel Board of 14 SWG, IP class 54/44 & RAL 7032 including I/C and O/G following electrical items, foundation/base frame with all installation and operational accessories as per site requirements, as per tender specifications and drawings and as directed by the Engineer.				
		MATERIAL INCOMING				
		01 No. 63 Amps (Adj.) MCCB TP 25kA Icu=100%lcs				
		01 No. VSS (07 position)				
		01 No. 0-600 Volts AC DIGITAL Voltmeter				
		03 Nos. 80/5 Amps Current Transformers				
	86(a-iii)/24	01 No. ASS (R-Y-B-OFF)				
	87(a-i)/24,	01 No. 0-100 Amps AC DIGITAL Ammeter				
	87(a-vi)/24,					
	87(a-i)/24,	03 Nos. RYB and indication lights				
	94(i)/24,	OUTGOING				
	94(ii)/24,	01 No. 20 Amps (Adj.) MCB DP 10kA Icu=100%lcs	Each	2		
	94(iv)/24,	(For S PUMP)				
	94(iii)/24,	01 Nos. 20 Amps (Adj.) MCB DP 10kA Icu=100%lcs				
	94(v)/24,	(For HP RUNNING MOTORS)				
	94(vi)/24,	01 Nos. 20 Amps (Adj.) MCB DP 10kA Icu=100%lcs				
	94(xv)/24	(For HP STAND BY MOTORS)				
		01 No. 25 Amps (Adj.) MCCB TP 18kA Icu=100%lcs				
		(For DB- PUMP ROOM)				
		01 Nos. 25 Amps (Adj.) MCCB TP 18kA Icu=100%lcs				
		(For External lighting)				
		01 No. 25 Amps (Adj.) MCCB TP 18kA Icu=100%lcs				
		(For PFI)				
		02 Nos. 25 Amps (Adj.) MCCB TP 18kA Icu=100%lcs				
		(Spare)				
		1 Nos. 32 Amp. Magnetic Contactor AC-3, With Push Button				
		14 SWG steel sheet Panel RAL 7032, IP= 54/44 and all other accessories,				
		Electrolytic copper bus bar with electrical grade PVC mountings 3 for each, nuts, bolts and washers, control MCB etc. (130Amps. R+Y+B N, 50 Hz, 415 V, AC)				
		All other accessories required for completion of the qulaity works including Cable gland and lugs etc				

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Sr. No.	M.R.S (Item/Chap)	Description	Unit	Qty.	Rate (Rs.)	Amount (Rs.)
					In Figure	
		Contractor shall submit the genuine certificate from the manufacturer/authorized agent clear by indicating the project name make/model/rating of MCCB, MCB, magnetic contactors, terminal blocks and voltmeters/ ammeter alongwith warranties.				
5.0		<u>Conduits / Pipes</u>				
5.1	25(b)/23	PVC pipe/conduit Class-B 100 mm dia with accessories suitable for laying multi-core cables in walls/barriers/structure.	Rft.	400		
5.2	25(b)/23, 6/3	PVC pipe/conduit Class-B 100 mm dia with accessories suitable for laying multi-core cables from pole to pole in trenches/directly burried including excavation.	Rft.	300		
5.3	27(e)/23, 6/3	PVC pipe/conduit Class-D 100 mm dia with accessories suitable for laying multi-core cables in trenches/directly burried on road crossings including excavation.	Rft.	100		
6.0		<u>FANS & ACCESSORIES</u>				
6.1		Providing and fixing Copper Winded Exhaust Fan with louver and shutter made of Pak/Younas/G.F.C. i/c the cost of necessary cable and hardware for connection from ceiling rose complete as approved and directed by Engineer Incharge.				
		a) Plastic body				
i)	102(a-ii)/24	12" dia	Each	4		
6.2		Providing and fixing Copper winded wall bracket fan made of Pak/Younas/G.F.C or NEECA approved equivalent i/c the cost of necessary cable and hardware for connection as approved and directed by Engineer				
i)	103(i)/24	18" Sweep dia	Each	2		
6.3		Providing and fixing Copper winded ceiling fan made of Pak/Younas/G.F.C or NEECA approved equivalent i/c the cost of necessary cable and hardware for connection as approved and directed by Engineer Incharge.				
i)	104(iii)/24	56" dia	Each	6		
7.0		<u>LED Road Light Fixtures</u>				
7.1		Road Lighting LED Cobra-head Luminaries of 90 Watt with 10800 Lumens conforming to IP 66 & IK 08 or above Philips/Osram/Thorn or equivalent with corrosion resistant die casted Aluminium housing, silicon gasket in special groove, UV stable & scratch resistant synthetic materials, thermally hardened glass complete with LED Chip (Philips Lumiled/Cree/Nichia/ Osram make or equivalent), programmable LED driver (Harvard/ TCI/ Lumotech/ Philips/VOSSLOHSchwabe/ Lightech make or equivalent), minimum 10kV surge protection rating i/c the cost of all accessories/ components required for proper operation, fully flexible for future upgradation and easy replacements for maintenance purposes, bucket elevator charges as approved and directed by the Engineer Incharge.	Each	12		
	70(c-v)/24					

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BILL OF QUANTITIES

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Sr. No.	M.R.S (Item/Chap)	Description	Unit	Qty.	Rate (Rs.)	Amount (Rs.)
					In Figure	
8.0		<u>Power Cables</u>				
8.1		Supply and erection of PVC insulated, PVC sheathed copper conductor cables for service connection, in prelaidd pipe/G.I. wire/trenches, etc. (rate for cable only):- PVC insulated, PVC sheathed 4 core, 600/1000 volt non armoured cable				
(a)	11(c-vi)/24	10 mm (7/0.052") For Motor	Rft.	700		
(b)	11(c-vii)/24	16 mm (7/0.064") From WAPDA to MPB	Rft.	300		
8.2		Supply and erection of single core PVC insulated copper conductor cables, in prelaidd PVC pipe/M.S. conduit/G.I pipe/wooden strip batten/wooden casing an capping/G.I. wire/trenches (rate for cables only) 450/750 volts, PVC insulated:				
(a)	8(c-iv)/24	4 mm sq (7/0.036")	Rft.	275		
(b)	8(c-vi)/24	10 mm sq (7/0.052")	Rft.	700		
(c)	8(c-vii)/24	16 mm sq (7/0.064")	Rft.	500		
8.3		3 Nos. 1 core 2.5 mm ² Cu/PVC 450/750 Voltage grade cable (stranded conductor) (Imported copper shall be used. Verified documentary evidence for source of copper & PVC shall be furnished prior to manufacturing) from junction box to the fitting through the hollow of pole.				
	8(c-iii)/24	For 10m Pole	Each	12		
9.0		<u>CABLE TRAYS</u>				
9.1		Providing and fixing 4" deep cable tray with straight flange fabricated with perforated G.I. Sheet of specified guage, size and depth duly wall supported/ ceiling hung on painted brackets of MS angle iron of 1"x1"x1/8" and MS patti of 1-1/2"x3/16" size @5 ft. C/C, hangers i/c the cost of hardwares as approved and directed by the Engineer Incharge.				
		(a) 16 SWG				
	98 (a-i)/24	(i) 4"X4"	Rft.	200		
9.2		Providing and fixing screwless cable tray cover fabricated with 18 SWG G.I. Sheet of required size i/c the cost of hardware as approved and directed by the Engineer Incharge				
	100 (i)/24	(i) 4" Wide	Rft.	200		
11.0		<u>EARTHING</u>				
11.1		Providing,making & testing/commissionin of Rod type Earth point comprising of 5/8"dia.(16mmdia)10ft long copper coated M.S.rod driven in ground duly fixed with clamp with Tinned earth test link copper plate (300x50x10mm),i/c the cost of brass nuts,spacers,bolts washers lugs etc but excluding the cost of copper strand & manhole. as approved and directed by Engineer Incharge (Rod Type Earthing).				
	111 /24		Each	8		
TOTAL MRS						

**ENGINEERING DESIGN AND CONSTRUCTION SUPERVISION
CLUSTER NORTH
PUNJAB RURAL SUSTAINABLE WATER SUPPLY AND SANITATION PROJECT**

TEHSIL NOORPUR THAL, DISTRICT KHUSHAB VILLAGES(Lal Hussain, Chandi Balochan, Haveli Chiragh Joiya, Pipli Sydean, Chak No 014-A/MB, Chak No 016/MB, Chak No 041/DB, Chak No 042/DB, Chak No 043/DB, Chak No 044/DB, Chak No 045/DB, Chak No 054/DB, Awanawala, R

BILL OF QUANTITIES

Bill No. 2.9: ELECTRIFICATION OF DISPOSAL STATION

Item No.	Description	Unit	Qty.	Unit Rate (Rs.)	Total Amount (Rs.)
	Design, Supply, transportation at site, storage, installation, testing and commissioning of the following items of work (unless specifically stated otherwise) including all material, labour, tools and accessories etc. required for proper completion of each item as per specification and drawings and/or as directed by the Engineer.				
1.0	<u>LIGHT FITTINGS AND FANS</u>				
	Following LED Luminaries of suitable wattage make suitable for the project requirements. Contractor to submit lighting design calculation to determine the adequacy of the wattage and should adjust the number of LEDs/wattage as per project lighting requirements. The fitting shall be approved by the Engineer.				
1.1	Wall bracket Light Fixture Type LED 12 Watt energy saving lamp with holder and complete in all respect with allied accessories. The fitting shall be approved by the Engineer.	Each	12		
1.2	20W LED Water tight light fixture IP 65 complete in all respect with all allied accessories. The fitting shall be approved by the Engineer.	Each	7		
2.0	<u>POWER FACTOR IMPROVEMENT PANEL (PFI)</u>				
2.1	14 SWG steel sheet clad IP 44/54 colour RAL 7035 powder coated power factor improvement panel (PFI) including Cu busbar, heavy duty incoming and outgoing circuit breaker to capacitor, magnetic contactors, continuous digital p.f controller, on & off pushbuttons etc. complete with all components/ accessories as per specifications and drawings.				
	- <u>PFI - 10 kVAR</u>				
	- <u>MATERIAL</u>	Each	2		
	6 steps with continuous digital power factor and capacitor controller with all accessories etc.				
	01 No.Hand/OFF/Auto selector switch				
	02 Nos. 5 kVAR capacitor				
	02 Nos. 32 A Magnetic contactor (AC-3)				
	02 Nos. 25A MCCB, TP (Adj.) RC= 18 kA Circuit breaker, Icu=100%Ics				
	01 No. 80/5 Amps Current Transformers				
	05 Nos. Indication light - (for magnetic contactor and phase)				
	04 Nos. Push Buttons (ON/OFF)				
	02 Nos. Auxiliary contractor (NO/NC)				
	01 No. Panel light with limit switch				
	02 No. Exhaust fan 6" & Louver 8" sweep with thermostae relay and all accessories etc.				
	14 SWG steel sheet Panel RAL 7032, IP= 54/44 and all other accessories,				
	All other accessories required for completion of the qulaity works including Cable gland and lugs etc				
	Electrolytic copper bus bar with electrical grade PVC mountings 3 for each, nuts, bolts and washers, control MCB etc. (120Amps. R+Y+B N, 50 Hz, 415 V, AC)				
	Contractor shall submit the genuine certificate from the manufacturer/authorized agent clear by indicating the project name make/model/rating of MCCB, MCB, magnetic contactors, terminal blocks and voltmeters/ ammeter alongwith warranties.				

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BILL OF QUANTITIES

Bill No. 2.9: ELECTRIFICATION OF DISPOSAL STATION

Item No.	Description	Unit	Qty.	Unit Rate (Rs.)	Total Amount (Rs.)
2.0	<u>POWER CABLE</u> Copper conductor PVC/PVC 600/1000V cables including sockets and connections at both ends with Cu/Brass glands, lugs ets alongwith all accessories. The cable shall be drawn in cable trench or clipped on the wall or pulled in cable tray/PVC pipes or as required or as shown on drawings. (Imported copper shall be used. Verified documentary evidence for source of copper & PVC shall be furnished prior to manufacturing)				
2.1	2 core 4 mm ² (HP Motor)	Rft	275		
TOTAL NON MRS					
TOTAL MRS + NON MRS					

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Haveli Chiragh Joiya, Pipli Sydean, Chak No 014-A/MB, Chak No 016/MB, Chak No 041/DB,
Chak No 042/DB, Chak No 043/DB, Chak No 044/DB, Chak No 045/DB, Chak No 054/DB,
Awanawala, R
ROAD WORKS
BILL OF QUANTITIES
SUMMARY OF COST**

Bill No.	Description	Cost
3.1	ROAD RESTORATION	
TOTAL AMOUNT		

**ENGINEERING DESIGN AND CONSTRUCTION SUPERVISION
CLUSTER NORTH
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TEHSIL NOORPUR THAL, DISTRICT KHUSHAB VILLAGES(Lal Hussain, Chandi Balochan,
Haveli Chiragh Joiya, Pipli Sydean, Chak No 014-A/MB, Chak No 016/MB, Chak No 041/DB,
Chak No 042/DB, Chak No 043/DB, Chak No 044/DB, Chak No 045/DB, Chak No 054/DB,
Awanawala, Rakh Mahmood Shaheed)**

COST ESTIMATE

BILL NO. 3.1 Road Restoration

SR. NO.	Ref	DESCRIPTION	UNIT	QUANTITY	UNIT RATE	AMOUNT
					(Rs)	(Rs)
MRS, 2nd BI-ANNUAL-2025 (01.07.2025 to 31.12.2025)						
CIVIL WORKS						
1	4/45	Dismantling and removing road metalling.	100Cft.	824.82		
2	4/46	Dismantling and removing road pavement, etc., including screening and stacking of byproducts upto one chain lead (30 metre).	100Cft.	2,749.40		
3	4/29	Dismantling brick or flagged flooring without concrete foundation.	100Sft.	327.90		
4	4/19	c) Dismantling cement concrete 1:2:4 plain.	100Cft.	106.25		
5	6/5	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate): (f) Ratio 1: 2: 4	100Cft	402.17		
6	18/20	Providing and laying dry brick pavement/soling in streets or roads, etc. sand grouted, laid in proper camber, including preparation, watering, compaction of bed to proper camber, and sand cushion.	100Cft	3,517.34		
7	21/8	Restoration of brick pavement on edge, over laid service line, with 2" (50 mm) sand cushion under soling.	100Sft.	327.90		
8	10/43	Providing and laying Tuff Pavers, having 7000 PSI, crushing strength of approved manufacturer, over 2" to 3" sand cushion i/c grouting with sand in joints i/c finishing to require slope . complete in all respect. (50% Grey / 50% Coloured) b) 60-mm thick	Per Sft	203,613.40		

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Haveli Chiragh Joiya, Pipli Sydean, Chak No 014-A/MB, Chak No 016/MB, Chak No 041/DB,
Chak No 042/DB, Chak No 043/DB, Chak No 044/DB, Chak No 045/DB, Chak No 054/DB,
Awanawala, Rakh Mahmood Shaheed)**

COST ESTIMATE

BILL NO. 3.1 Road Restoration

SR. NO.	Ref	DESCRIPTION	UNIT	QUANTITY	UNIT RATE	AMOUNT
					(Rs)	(Rs)
9	18/3	a) Providing and laying sub-base course of stone product of approved quality and grade, including placing, mixing, spreading and compaction of sub-base material to required depth, camber, grade to achieve 100% maximum modified AASHO dry density, including carriage of all material to site of work except gravel and aggregate.				
		ii) Crushed stone aggregate	100Cft.	4,385.90		
10	21/10	Restoration of metalled road, on laid service line, including compaction:- a) Carpetted road, with 2" (50 mm) carpet and 10" (250 mm) depth of stone metal for sub-base and base.	100Sft.	981.15		
		c) Black Topped Road with two coats of surfacing & 10" (250 mm) depth of stone metal, for sub base & base.	100Sft.	1,471.73		
11	3/1	Earthwork excavation undressed lead upto a single throw of Kassi, phaorah or shovel:- ii) In ordinary soil.	1000 Cft.	1,136.88		
12	18/3	Dressing and levelling of earhtwork to designed section, etc. complete:- b) Ordinary or hard soil.	100Sft.	36,159.54		
12	3/17	Transportation of earth all types when the total distance, including the lead covered in the i tem of work, is more than 1000 ft. (300 m) Total Lead 1 KM (Transportation will be paid as per actual lead chart to be approved by the Engineer)	1000Cft	1,136.88		
13	1/1	Carriage of 100 Cft. (2.83 cu.m) of all materials like stone aggregate, spawl , kankar lime (unslaked), surkhi , etc. or 150 Cft. (4.25 cu.m) of timber, by truck or by any other means owned by the contractor (crushed stone aggregate and bajri used in concrete items) Lead From nearest quarry (Sargodha Quarry) (193km)	100 Cft.	353.91		

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Chak No 042/DB, Chak No 043/DB, Chak No 044/DB, Chak No 045/DB, Chak No 054/DB,
Awanawala, Rakh Mahmood Shaheed)**

COST ESTIMATE

BILL NO. 3.1 Road Restoration

SR. NO.	Ref	DESCRIPTION	UNIT	QUANTITY	UNIT RATE	AMOUNT
					(Rs)	(Rs)
		<u>Restoration of structures</u>				
14	3/13	Rehandling of earthwork: a) Lead upto a single throw of Kassi, phaorah or shovel	1000 Cft.	60.00		
15	6/5	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate): (f) Ratio 1: 2: 4 (f) Ratio 1: 3: 6	100Cft 100Cft	300.00 120.00		
16	6/6	Providing and laying reinforced cement concrete (including prestressed concrete), using Ordinary Portland Cement / Sulphate resisting cement / Slag cement as may be required; coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):- (a) Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:- (3) Type C (nominal mix 1: 2: 4)	Cft	1,200.00		
17	7/7	Pacca brick work other than building upto 10ft. (3 m) height. i) cement, sand mortar:- Ratio 1:3	100Cft.	60.00		
Total Amount						

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BILLOF QUANTITIES

Bill 4: ESMP (ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN)

Sr. No.	Ref	Description	Unit	Quantity	Rate (PKR)	Amount (PKR)
	A	Personal Protective Equipments				
1	NS	Safety Jackets EN ISO 201171: 360 degree visibility Fluorescent yellow/orange:retro reflective strips: breathable mesh fabric: secure Velcro or zipper closure. provided in appropriatc sizes are required by Staff.	Each	420		
2	NS	Safely Hehnels EN-397: High-density polyethylene (HDPE) or ABS plastic: adjustable screw harness: Adjustable headbands, chin straps. and non-allergic sweatbands. color-coded (white for engineers. yellow for workers)	Each	420		
3	NS	Safety Gloves EN 388: Nitrilc-coated or leather palm; abrasion and cut- resistant; breathable back; conforms to EN388 safety ratings	Each	700		
4	NS	Dust Mnsk (Dust proofmask) ISO 16975: Disposable N95 or FFP2 class mask: elastic bonds: nose clip for sealing: replace after use	Each	1400		
5	NS	Safety Shoes & Toes EN ISO 20345. requiring a toe cap to withstand a minimum 200-joule impact and 15 kilonewtons (kN) of compression Steel toe cap; anti-slip, oil-resistant sole; leather upper; ankle support for shoes only	Each	490		
6	NS	Safety Harness Belt ISO 10333: High-tenacity polyester webbing, minimum width 45mm; adjustable shoulder and thigh straps with metal buckles; dorsal D-ring for fall arrest. side D-rings for position.fog; ond chest strap with quick-connect buckle; Renowned Brand	Each	42		
7	NS	Protective Goggles ISO 16321: Anti-fog, scratch-resistant: side shielding for wrap-around protection: adjustable strap	Each	140		
8	NS	Ear Plugs ISO 4869-1: Soft polyurethane foam: noise reduction rating (NRR) of 30 dB or more	Each	280		

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CLUSTER NORTH

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TEHSIL NOORPUR THAL, DISTRICT KHUSHAB VILLAGES(Lal Hussain, Chandi Balochan, Haveli Chiragh Joiya, Pipli Sydean, Chak No 014-A/MB, Chak No 016/MB, Chak No 041/DB, Chak No 042/DB, Chak No 043/DB, Chak No 044/DB, Chak No 045/DB, Chak No 054/DB, Awanawala, Rakh Mahmood Shaheed)

BILLOF QUANTITIES

Bill 4: ESMP (ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN)

Sr. No.	Ref	Description	Unit	Quantity	Rate (PKR)	Amount (PKR)
	B	Health Safety Environment Materials / Testing				
9	NS	First Aid Kit ISO 7010-E003: Painkiller, eyewash solution. antibiotic ointment. thermometer, plasters, sterile gauze, dressings. sterile eye dressings, triangular bandages. crepe rolled bandages, safety pins, disposable sterile gloves and tweezers), pain killers, burn creams, pyodine solution (big bottle), other medication as required by tehsil team is adequate size and quantity	Each	14		
10	NS	Warning/ Safety Signs ISO 7010: Weatherproof PVC or Plastic or aluminum signs: reflective print: standardized colors and pictograms (danger, caution, mandatory)	Each	350		
11	NS	Green Mesh Green safety netting for site periphery: 50% shading: UV-stabilized HDPE material.	Sft	2800		
12	NS	DCP Fire Extinguisher (Dry Chemical Powder) ISO 7165: 6.kg; ABC type; The extinguishing agent is mono ammonium phosphate and ammonium sulphate powder and the discharge time of the agent is 13 second	No.	14		
13	NS	CO2 Fire Extinguisher ISO 7165: 5 kg: frost-free horn: suitable for electrical and liquid fires: discharge time of the agent in 13 second	No.	14		
14	NS	Fire Alarm ICS 13.030.10: Proper segregation. PPE for handlers, timely removal, record keeping per solid waste rules	No.	28		
15	NS	Trapuline Water proof trapuline sheet made from polyethylene or canva	Sft	420		

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BILLOF QUANTITIES

Bill 4: ESMP (ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN)

Sr. No.	Ref	Description	Unit	Quantity	Rate (PKR)	Amount (PKR)
16	NS	Safety Cones UV-resistant PVC or rubber material: at least 28 to 36 inches in height: high-visibility orange color with reflective collars (minimum 4-inch reflective band) for day and night visibility	Each	168		
17	NS	Tree Plantation 5-6 feet height: Native species plantation: soil preparation and watering included	No.	1400		
18	NS	Barricading/ Fencing (Reflective tape, poles, safety mesh/netting) ISO 13857: include poles, reflecting tapes, plastic mesh netting; minimum 3 feet height; durable and visible	Rft	4200		
19	NS	Trainings HSE Training, Rescue Training. Labour Code of Conduct, Environmental Code of Conduct, Defensive Driver Trainings, Labour Laws and Labour Rights, GAP Training, C-ESMP Training. and anyother as required by E&S wing	Quaterly	56		
20	NS	Water Sprinkling Water sprinkling through tank mounted on tractor	Per Trip	420		
21	NS	Medical Screening for Workers CBC, Anti HCV, HBsAG, HIV, RPR, LFTs, RFTs etc.	Persons	420		
		C Environmental Testing and Monitoring				
22	NS	Ambient Air Quality As per the parameters and methodology defined by EPA (Quarterly in every village)	Each	42		
23	NS	Groundwater Quality Test As per the parameters and methodology defined by EPA (Quarterly in every village)	Each	42		
24	NS	Surface Water Quality Test As per the parameters and methodology defined by EPA (Quarterly in every village)	Each	42		
25	NS	Waste Water Quality Test As per the parameters and methodology defined by EPA (Quarterly in every village)	Each	42		

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BILLOF QUANTITIES

Bill 4: ESMP (ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN)

Sr. No.	Ref	Description	Unit	Quantity	Rate (PKR)	Amount (PKR)
26	NS	Noise Level Monitoring As per the parameters and methodology defined by EPA (Quarterly in every village)	Each	42		
	D	Site Specific / Contractors Environmental and Social Management Plan				
27	NS	CESMP Formulation By an individual or firm as approved by PRMSC Environment Wing	Per Village	14		
	E	HSE Staff				
28	NS	HSE Supervisor Bachelor's degree in Environmental Sciences / Engineering. NEBOSH or IOSH certification will be preferred, with over one year of experience in Occupational Health and Safety. one HSE person for 10-15 village, hiring of HSE staff will be approved by E&S prior to contract signing	Per Month Village	168		
	E	Waste Management and House Keeping				
29	NS	Handling and disposal of Hazardous Material ICS 13.030.30: Safe storage, labeling, and transportation. spill kits and secondary containment as per MSDS	3 times per village for duration of contract	42		
30	NS	Handling and disposal of Solid Waste Material ICS 13.030.10: Proper segregation, PPE for handlers, timely removal, recordkeeping per solid waste rules	3 times per village for duration of contract	42		
Total Amount						0

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Sydean, Chak No 014-A/MB, Chak No 016/MB, Chak No 041/DB, Chak No 042/DB, Chak No 043/DB, Chak No 044/DB, Chak
No 045/DB, Chak No 054/DB, Awanawala, Rakh Mahmood Shaheed)
BILL OF QUANTITIES**

6. Employer Facilities

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
1		Providing and maintaining site offices (portable air condition (1,5 ton AC) cabin containers lined with win board size 20'x8'x8.5' with toilet & kitchen, all-time availability of water and electricity) for the entire duration of the project to the Employer and the Engineer. It includes office tables, chairs, water dispenser, electric heater, steel almirah for document storage, etc complete with all respect. After completion of the project these containers and all accessories will be the property of PRMSC	Nos	1.0		
2		Providing 02 Nos office boy in accordance with the special provisions of the bidding document and up to the satisfaction of the Employer/Engineer.	Per month	20.0		
3		Providing and maintaining the Cost of Utility Services (Electricity, Water, Gas, etc.) for the 01 No. office.	Per month	20.0		
Total Amount						-