

Punjab Rural Sustainable Water Supply and Sanitation Project (PRSWSSP), Cluster South-III (Phase-I)
Revenue Villages Muhammad Pura, Shadi wala, Shera Chitra Tehsil Bahawalnagar, District Bahawalnagar,
Sharakwa Tehsil Karor Pacca, District Lodhran, Piro Joya/Dhuddi Tehsil Khairpur Tamewali, District
Bahawalpur Punjab

BILL OF QUANTITIES

GENERAL ABSTRACT OF COST

Sr. No	Description	Bahawalnager Amount (Rs.)	Karor Pacca Amount (Rs.)	Khairpur Tamewali Amount (Rs.)	Amount (Rs.)
1	WATER SUPPLY SYSTEM				
2	SEWERGE SYSTEM				
3	STREET PAVEMENT WORKS				
4	ESMP COST				
5	EMPLOYER FACILITY				
TOTAL					
TOTAL COST					
ADD 5% (PRA charges)					
Grand Total					

Engineering Design and Construction Supervision Punjab Rural Sustainable Water Supply and Sanitation Project, South-III

Tehsil: Bahawalnagar

Name of Villages

Muhammad Pura, Shadiwala

Shera Chitra

BILL OF QUANTITIES

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1	WATER SUPPLY SYSTEM	
2	SEWERGE SYSTEM	
3	STREET PAVEMENT WORKS	
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5	EMPLOYER FACILITIES	
TOTAL		

**Engineering Design and Construction Supervision Punjab Rural Sustainable
Water Supply and Sanitation Project, South-III**

Village: Muhammad Pura, Shadi wala , Shera Chitra Tehsil: BAHAWALNAGAR

Cost Summary

Sr.No	Description	Amount (Rs.)
1	Water Supply Network	
1.1	TW Installation 0.25 Cusec x 01 No.	
1.2	Pump House (Civil) x01	
1.3	Electrical Works x1	
1.4	Stand Post Type I x NO 8	
1.5	Pipe Network	
1.6	Valves Chambers (Civil Work)	
1.7	Boundary Well	
	Sub Total A	
2	Sewerage System	
2.1	Drain Network	
2.2	Septic Tank Type-I x 01 No.	
2.3	Septic Tank Type-II x 02 No.	
2.4	Septic Tank Type-III x 03 No.	
2.5	Septic Tank Type-IV x 02 No.	
2.6	Septic Tank Type-VI x 01 No.	
2.7	Operator Room x 09	
2.8	Operator Room Electrical x 9	
	Sub Total B	
3	Streets Pavement Works	
	Sub Total C	
	Total Cost (A+B+C)	
	GRAND TOTAL AMOUNT	

**Engineering Design and Construction Supervision Punjab Rural Sustainable Water Supply and Sanitation Project,
South-III**

**Village: Muhammad Pura, Shadi wala , Shera Chitra Tehsil: BAHAWALNAGAR
BILL OF QUANTITIES**

Bill No. 1: WATER SUPPLY SYSTEM

Bill No. 1.1: Tubewell Installation

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALNAGAR						
1.1.1	23/2	Direct Rotary/ Reverse Rotary drilling of bore for tubewells, in all types of soil except shingle, gravel and rock:-				
		a) from ground level to 250 ft. (75 m) below ground level:-				
		i) 15" to 18" (375 to 450 mm) i/d	Rft of bore	185.0		
1.1.2	23/12	Providing and installing M.S. blind pipe socketed/welded joint, M.S. reducer (where necessary), in tubewell bore hole, including jointing/welding with strainer, etc. complete:-				
		e) 6" i/d, 3/16" (150 mm i/d 5 mm) thick	Per Rft	75.0		
		Blind Pipe				
1.1.3		c) 4" i/d, 1/8" (100 mm i/d 3 mm) thick	Per Rft	85.0		
		Strainer Pipe				
1.1.4	23/09	Providing and installing Fiberglass Reinforced Polypropelene (FRP) strainer of specifid wall thickness having slot size of 0.9 mm to 1.10 mm in Tubewell borehole i/c the cost of male/female coupling with Nylone Strip, studs complete in all respect as approved and directed by the Engineer Incharge.				
		iii) 4" inch dia (5 mm thickness)	Per Rft	15.0		
		Bail Plug				
1.1.5	23/10	Providing and installing Fiber glass Reinforced Polypropelene (FRP) bail plug of specified wall thickness having slot size of 0.9 mm to 1.10 mm in Tubewell bore hole i/c the cost of male / female coupling with Nylone Strip, studs complete in all respect as approved and directed by the Engineer.				
		iii) 4" dia (5mm thickness)	Per Rft	10.0		
		Delivery Pipe				
1.1.6	23/12	Providing and installing M.S. blind pipe socketed/welded joint, M.S. reducer (where necessary), in tubewell bore hole, including jointing/welding with strainer, etc. complete:- (Delivery Pipe)				
		b) 3" i/d, 1/8" (75 mm i/d 3 mm) thick	Per Rft	20.0		
1.1.7	23/17	Shrouding with graded pea gravel 3/8 to 1/8 inch (10 to 3 mm) around tubewell in bore hole.				
			Per Cft	209.1		
1.1.8	23/5	Furnishing sample of water from borehole.	r set of 2 bott	3.0		

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MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALNAGAR						
1.1.9	23/16	Testing and developing of tubewell of size 6" (150 mm) i/d and above continuously.				
		i) upto 1.5 cs. Discharge	P. Hour	72.0		
1.1.10	23/31	Providing & mixing bentonite clay / powder have swelling factor of 1200% for lining /seal and plug earthen bore holes / ponds in the specified ratio conforming to IS:6186 for stabilization of soil as specified by the designer etc complete in all respect.	Per Kg.	5.0		
1.1.11	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	29.5		
1.1.12	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) (Form Sargodha Quarry)	100 CFT	25.9		
1.1.13	N/S	Geophysical Logging of Borehole, including Data Collection, Interpretation, and Preparation/ Submission of Detailed Report to the Competent Authority/Incharge, Complete in All Respects.	P/Job	1.0		
1.1.14	N/S	Conducting Chemical, Physical, and Arsenic Analysis of Water through an Approved Water Testing Laboratory, including Collection, Testing, and Submission of Test Report to the Competent Authority/Incharge, Complete in All Respects.	P/Job	1.0		
1.1.15	N/S	Supplying, installing, testing and commissioning of submersible water supply pump set of Approved manufacturer of HUD & PHED and should be ISO 9001 Certified, complete in all respects as per specifications and direction of the Engineer Incharge. The pump set shall have the following specifications: Discharge: 0.25 Cusec Total Head: 250 ft Setting Depth: 100 ft Motor rating: 15 HP Speed: 2900 RPM				

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Bill No. 1.1: Tubewell Installation

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MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALNAGAR						
		Submersible Borehole Pump Accessories including Installation: Cable transmission kit, MS Flang Riser pipe 3" Dia 100 Ft, Sluice Valve, NRV, MS Nipple, Bend, Cover Plate, Installation Clamp, Gaskets, Nut Bolts, Cable 3x6 mm ² , with Cable Connector and Clamps.				
		VFD mounted Motor Control Unit (MCU) 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 relay, On/Of Push Buttons, MCU with Dry Running Relay, Circuit breaker, change over switch etc, all contained in lockable cabinet complete in all Respect.	P/Job	1.0		
1.1.16	N/S	Providing, installing, testing, and commissioning of Hypo Dosing Chlorinator unit of European make, having an injection capacity of 8 liters/second and maximum operating pressure of 10 bar, complete in all respects as per specifications, drawings, and as directed by the Engineer Incharge.	P/Job	1.0		
1.1.17	N/S	Providing and fixing Electromagnetic Flow meter of specified dia as per Delivery Size in Pump House complete in all respect. Typically of Following Specification: Line Size: 3", DN80 Flanged, RF ANSI 150# Flow range: 9 ~ 90 m ³ /h Liner Material: PTFE Electrode Material: 316L Stainless Steel Body Material: Carbon Steel Power Supply: 220 VAC Output: 4 ~ 20mA Protection Class: IP68 Accuracy class-III (OIMLR49/ISO4064) ISO 9001 certified Manufacturer	P/Job	1.0		
1.1.18	N/S	Providing / fixing M.S Centralizer of required Size as per drawing and directions of the engineers incharge.	P/Job	5.0		
Total Amount for One (01)						

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BILL OF QUANTITIES

Bill No. 1: WATER SUPPLY SYSTEM

Bill No. 1.2: Pump Room (Civil Work)

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALNAGAR						
1.2.1	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)lift upto 5 ft (1.5m)				
		1) By Manual				
		ii) in ordinary soil.	1000 Cft.	716.75		
1.2.2	6/3	Cement concrete brick or stone ballast 1½ " to 2" (40 mm to 50 mm) gauge, in foundation and plinth:-				
		(d) Ratio 1: 6:12 (with Brick ballast)	100 Cft	128.00		
1.2.3	7/4	Pacca brick work in foundation and plinth in:				
		i) Cement, sand mortar Ratio 1:6	100 cft	344.00		
1.2.4	6/37	Providing and laying damp proof course of cement concrete 1:2:4 (using cement, sand and shingle), including bitumen coating:				
		b) with 2 coats of bitumen:				
		i) 1½" thick (40 mm)	100 Sft	80.00		
1.2.5	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 (20mm)	100 Sft	68.00		
1.2.6	7/5	Pacca brick work in ground floor (super structure)				
		i). Cement, sand mortar Ratio 1:5	100 Cft	579.00		
1.2.7	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, 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 No. 1.2: Pump Room (Civil Work)

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALNAGAR						
		(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:-				
		(3) Type C (nominal mix 1: 2: 4)	Per Cft	193.48		
1.2.8	6/12 B	Providing and fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labor charges for binding of steel reinforcement (also includes removal of rust from bars), Deformed bars (Grade 60)	100 Kg	570.61		
1.2.9	10/3	Supplying and filling sand under floor; or plugging in wells.	100 Cft	269.00		
1.2.10	10/16	Providing and laying topping of cement concrete 1:2:4, including surface finishing and dividing in panels:-				
		(e) 2"(50 mm) thick	100 Sft	219.00		
1.2.11	11/18	Cement pointing struck joints, on walls, upto 20' (6.00 m) height:- b) ratio 1:3	100 Sft	740.60		
1.2.12	11/9	Cement plaster 1:4 upto 20' (6.00 m) height:- b) ½" (13 mm) thick	100 Sft	930.25		
1.2.13	11/12	Cement plaster 3/8" (10 mm) thick under soffit of R.C.C. roof slabs only, upto 20' height b) 1:3	100 Sft	154.75		
1.2.14	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	74.00		

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Bill No. 1.2: Pump Room (Civil Work)

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALNAGAR						
1.2.15	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)				
		a) 50-mm thick	Sft	127.50		
1.2.16	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	191.61		
1.2.17	11/26	White washing a) new surface:- iii) three coats	100 Sft	687.10		
1.2.18	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	43.00		
1.2.19	12/15	Providing and fixing mild steel chowkat of doors, windows, C.window, etc. including holdfast, making and threading holes for hinges, etc. complete:- a) M.S. angle iron 1½"x 1½"x ¼" (40x40x6 mm) welded with M.S. flat 2"x ¼" (50 mm x 6 mm)				
			Per Sft	43.00		

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Bill No. 1.2: Pump Room (Civil Work)

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALNAGAR						
1.2.20	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 ¾"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	54.25		
1.2.21	25/10+ 11	Fabrication & Erection of heavy steel work, with angle, tees, flat iron round iron and sheet iron for making trusses, girders, tanks, etc., including cutting, drilling, reworking, handling, assembling and fixing, including erection in position. (Top Cover & Girder)	100 Kg	128.03		
1.2.22	23-52	Providing and fixing Chain Pulley Block of 5 ton capacity with 5 meter length of chain, as per required specifications complete in all respect and as approved by the Engineer Incharge.	Each	1.00		
1.2.23	13/5 c	Painting new surface:- Preparing surface and painting of doors and windows any type (including edges):- (Chowkath Only) a) Priming coat	100 Sft	53.63		
		b) Two Coats	100 Sft	53.63		
1.2.24	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) (Form Sargodha Quarry)	100 Cft.	230.41		
1.2.25	9/15	Khuras on roof 2'x2'x6" (600 x 600 x 150 mm)	Each	2.00		

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Bill No. 1: WATER SUPPLY SYSTEM

Bill No. 1.2: Pump Room (Civil Work)

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALNAGAR						
1.2.26	9/16	Bottom Khuras of brick masonry in cement mortar 1:6, 4' x 2' x 4.5" over 3" cement concrete 1:4:8	Each	2.00		
		Plumbing Items				
1.2.27	19-16	Providing and fixing, chromium plated soap dish.	Each	1.0		
1.2.28	19-5	Providing and fitting white glazed earthen ware water closet squartrter type, with separate foot rest.	Each	1.0		
1.2.29	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				
		i) white, with pedestal	Each	1.0		
1.2.30	19-30	Providing and fixing, chromium plated mixing valve, for wash hand basin, sink or shower.	Each	1.0		
1.2.31	19-52	Providing and fixing CP bath Room Set made of Sonex/Master/Faisal or approved equivalent manufacturer, comprising of 3-No Tee stop cocks, lever type Basin Mixer, double Bib Cock, open wall shower, Muslim shower,waste coupling and bottle trap etc. complete in all respect as approved and directed by the Engineer incharge.				
		i) 3 No Tee Stop Cock (set)	Each	2.0		
		iii) Double Bib Cock	Each	1.0		
		v) Muslim shower	Each	1.0		
1.2.32	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. (v) 110 mm	Per Rft	25.00		
		(iv) 82mm	Per Rft	50.00		

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BILL OF QUANTITIES

Bill No. 1: WATER SUPPLY SYSTEM

Bill No. 1.2: Pump Room (Civil Work)

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALNAGAR						
1.2.33	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 BS 4514 / BS 5255 including the cost of Solvents complete in all respect as approved and directed by the Engineer Incharge.				
		c) Vent Cowel				
		(ii) 3" dia	Each	1.0		
		d) Clean Out				
		(ii) 3" dia	Each	1.0		
		PIPING & VALVES				
1.2.34	23-33	Providing, laying, testing and commissioning of POLYPROPYLENE 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	100.0		
1.2.35	19/31	Providing and fixing brass peet/gate valve (screwed):-				
		i) 30 mm (1¼" dia	Each	1.0		
		ii) 40 mm(1½" dia	Each	1.0		
1.2.36	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	2.0		
1.2.37	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	100.0		
Total Amount For One (01) Pump Room						

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BILL OF QUANTITIES**

Bill No. 1: WATER SUPPLY SYSTEM

Bill No. 1.3: Pump House (Electrical)

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALNAGAR						
1.3.1	24/3	Supply and erection of PVC pipe for wiring including inspection boxes, pull boxes, hooks, and repairing surface, etc., complete with all specials.				
	a)	Recessed in walls i/c making jharries				
		iii) 25 mm i/d	Rft	107.0		
		vi) 50 mm i/d	Rft	100.0		
1.3.2	24/09	Supply and erection of single core PVC insulated, PVC sheathed copper conductor, 250/440 volts grade cable (BSS-2004), in prelaid PVC pipes/M.S. conduit/G.I. pipe/wooden strip batten/wooden casing and capping/trenches, etc. (rate for cable only):-				
		i) 3/0.74 mm (3/0.029") (P+N+E) for Point Wiring	Rft	144.0		
		iii) 7/0.74 mm (7/0.029") (P+N+E) for Circuit Wiring	Rft	45.0		
		iv) 7/0.91 mm (7/0.036") (P+N+E) for Power Wiring	Rft	51.0		
1.3.3	24/11	Supply and erection of PVC insulated, PVC sheathed copper conductor cables for service connection, in prelaid pipe/G.I. wire/trenches, etc. (rate for cable only):-				
	d)	Four Core, 600/1000 volt armoured cable:-				
		viii) 16 mm sq (7/0.064) for MCC-TW Main Power Cable	Rft	200.0		
1.3.4	24/08	Supply and erection of single core PVC insulated copper conductor cables, in prelaid PVC pipe/M.S. conduit/G.I. pipe/wooden strip batten/wooden casing an capping/G.I. wire/trenches (rate for cables only):-				
	(c)	450/750 volts, PVC insulated:				
		vi) 10 mm sq (7/0.052")	Rft	15.0		
		vii) 16 mm sq (7/0.064")	Rft	200.0		
1.3.5	24/103	Providing and fixing Pakistan Energy Label NEECA approved Copper winded wall bracket Fan i/c the cost of necessary cable and hardware for connection as approved and directed by Engineer Incharge.				
	(i)	18" Sweep dia	Each	2.0		

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Bill No. 1: WATER SUPPLY SYSTEM

Bill No. 1.3: Pump House (Electrical)

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALNAGAR						
1.3.6	24/105	P/F PVC double layer Switch kit Face plate with specified switch holes i/c the cost of switches / sockets / dimmer made of Hi-Life / Bush / Schenider, screws complete as approved and directed by the Engineer Incharge				
		a) One Way Gang Switch (Small)				
		(ii) 02 Gang	Each	1.0		
		(iv) 3-Pin power plug 13A	Each	1.0		
		b) One Way Gang Switch (Large)				
		(ii) 05 Gang	Each	1.0		
1.3.7	24/106	Supply, installation, testing & commissioning of 16 SWG Sheet steel powder coated back boxes with earth terminal, recessed in wall, including accessories, complete in all respect as per specifications and as approved by Engineer				
	i)	Small 3"x3"	Each	3.0		
	ii)	Large 6"x3"	Each	1.0		
1.3.8	24/112	Providing, making & testing/commissioning of Bore type earthing point by drilling 3" dia bore hole up to water table/moist soil by laying 2" dia perforated Gl. pipe (Medium Quality) fixed with 40mm dia and 250 mm long tinned copper spike at bottom , i/c the cost of Tinned earth test link copper plate (300x50x10mm), brass nuts, spacers, bolts washers lugs etc but excluding the cost of copper strand & manhole. as approved and directed by Engineer Incharge (Bore Type Earthing). (2 No. Earthing Bores)	P.Rft	80.0		
1.3.9	24/113	Supply, installation, testing and commissioning of bare copper conductor for Earthing/ Grounding System (2 No. Earthing Bores)				
		50 mm ² CU bare conductor	Per Rft	100		
1.3.8	N.S	Providing & laying 2 core, of following sizes, PVC insulated & PVC sheathed, 600/1000 volts grade with stranded copper conductor, un armored L.T cable in pre-laid pipe/G.I. wire/trenches, etc.				
	(i)	2 Core 10 mm.sq Cu/PVC/PVC for DBLP TW	Rft	15.0		

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Village: Muhammad Pura, Shadi wala , Shera Chitra Tehsil: BAHAWALNAGAR

BILL OF QUANTITIES

Bill No. 1: WATER SUPPLY SYSTEM

Bill No. 1.3: Pump House (Electrical)

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALNAGAR						
1.3.9	N.S	Supply, installation, testing & commissioning of following various types of LED lights along with the accessories required for light fitting including light boxes:				
1.3.10	(i)	12 W Surface Mounted Down Light, (SMD) (90~265VAC), System Lumens: 80~90 lm/W, Power Factor: ≥0.9, LED Driver: Isolated (THD≤20) @ 220 VAC, Housing Material: Die Cast Aluminum, Protection Class: IP-20	Each	5.0		
1.3.11	(ii)	Bulkhead 18 W LED Light, (SMD) (100~265VAC), System Lumens: 80~90 lm/W, Power Factor: ≥0.9, LED Driver: Isolated (THD≤20) @ 220 VAC, Housing Material: Aluminum Alloy + PC, Protection Class: IP-65	Each	1.0		
1.3.12	N.S	Fabrication, supply at site installation and commissioning & connection of wires/cables of distribution boards IP-54 made of 14 SWG M.S sheet degreased , derusted, zinc phosphated, finished with electrostatic powder coating of 100 micron tickness in approved colour with hinged door, flexible earthing strap lockable handle, catcher, earthing bar, neutral strip, internal wiring, designation labels on MCB, earthing bar, numbering beads on control wires, suitable for system 240V, 50HZ, 1 Phase & neutral, bus bars of 99.8% purity electrolytic copper, including cost of cable termination lugs, brass cable glands for incoming & outgoing cables, wiring from breakers, indication lamps, instruments & control all accessories.	Each	1.0		
		Incoming:				
		01 No. 32A DP MCB 10 kA				
		01 No. Digital Volt Meter 0~240V				
		0 No. Control Fuse for Protection				
		01 No. Indication Lamp (R)				
		01 Job. Brass Cable Gland for Incoming cable				
		Outgoing:				
		02 Nos. 10A SP MCB 6 kA				
		01 No. 20A SP MCB 6 kA				
		01 No. 20A SP MCB 6 kA (Spare)				

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BILL OF QUANTITIES**

Bill No. 1: WATER SUPPLY SYSTEM

Bill No. 1.3: Pump House (Electrical)

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALNAGAR						
1.3.13	N.S	Fabrication, supply at site installation and commissioning of 16 SWG mild steel sheet fabricated distribution board for MCC (Motor Control Centre), free standing/ wall mounting, indoor type, front access, insulation class 600 Volts, incoming and outgoing connections from top or bottom as per site requirement, door to body earth with flexible copper cable suitable for 415VAC, 3 Phase 4 wire, 400/230 50Hz TPN&E system, having rated service short circuit breaking capacity as mentioned in the details. Complete in all respects as per the satisfaction of the engineer and single line diagram.	Each	1.0		
		Incoming:				
		01 No: 40 ATP MCCB, RC:16 kA				
		01 No: Digital Ampere Meter 0~100A With Selector Switch				
		01 No: Digital Volt Meter 0~600VAC With Selector Switch				
		03 Nos: Current Transformer 80/5A				
		03 Nos: Control MCB for protection				
		03 Nos: Indication Lamp (R+Y+B)				
		01 Job: Brass Cable Gland for Incoming Cable				
		01 No: 3 Phase, 4-Wire Energy Meter				
		Outgoing:				
		01 No. 32A DP MCB RC:10 kA for DBLP-TR				
		01 No. 32A TP MCCB RC:16 kA for 10 kW Pump				
		01 No. 32A DP MCB RC:10 kA (Spare)				
		01 No. 32A TP MCCB RC:16 kA (Spare)				
Total Amount						

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Bill No. 1: WATER SUPPLY SYSTEM

Bill No. 1.4: Stand Post

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALNAGAR						
1.4.1	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)lift upto 5 ft (1.5m)				
		1) By Manual				
		ii) in ordinary soil.	1000 Cft.	447.3		
1.4.2	6/3	Cement concrete brick or stone ballast 1½ " to 2" (40 mm to 50 mm) gauge, in foundation and plinth:-				
		(d) Ratio 1: 6:12 (with Brick ballast)	100 Cft	146.00		
1.4.3	7/4	Pacca brick work in foundation and plinth in: i) Cement, sand mortar Ratio 1:6	100 cft	451.00		
1.4.4	6/37	Providing and laying damp proof course of cement concrete 1:2:4 (using cement, sand and shingle), including bitumen coating: b) with 2 coats of bitumen:				
		ii) 2" thick	100 Sft	53.0		
1.4.5	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 (20mm)	100 Sft	44.0		
1.4.6	7/5	Pacca brick work in ground floor (super structure) i). Cement, sand mortar Ratio 1:5	100 Cft	330.0		
1.4.7	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, 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 No. 1: WATER SUPPLY SYSTEM

Bill No. 1.4: Stand Post

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALNAGAR						
		(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:-				
		(3) Type C (nominal mix 1: 2: 4)	Per Cft	176.6		
1.4.8	6/12 b	Providing and fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labor charges for binding of steel reinforcement (also includes removal of rust from bars), Deformed bars (Grade 60)	100 Kg	520.9		
1.4.9	10/3	Supplying and filling sand under floor; or plugging in wells.	100 Cft	159.00		
1.4.10	10/16	Providing and laying topping of cement concrete 1:2:4, including surface finishing and dividing in panels:-				
		(e) 2"(50 mm) thick	100 Sft	323.00		
1.4.11	11/18	Cement pointing struck joints, on walls, upto 20' (6.00 m) hieght:- b) ratio 1:3	100 Sft	587.48		
1.4.12	11/9	Cement plaster 1:4 upto 20' (6.00 m) height:- b) ½" (13 mm) thick	100 Sft	592.20		
1.4.13	11/12	Cement plaster 3/8" (10 mm) thick under soffit of R.C.C. roof slabs only, upto 20' height . b) 1:3	100 Sft	243.6		
1.4.14	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	265.0		

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Bill No. 1.4: Stand Post

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALNAGAR						
1.4.15	10/45-17.65	Providing and laying superb quality Porcelain glazed tiles flooring of Master/ Stile brand or deduct approved equivalent manufacturer of specified ion for size in approved design, Color and Shade with matt adhesive/ bond over 3/4" thick (1:3) cement finishes 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 Matt tiles				
		(ii) 300mmx 600mm	Sft	105.7		
1.4.16	10/36-18.90	Providing and laying superb quality Porcelain glazed tiles of Master/ Stile brand or approved deduct equivalent manufacturer, skirting/ dado of ion for specified size, Color and Shade with adhesive/ matt bond over 1/2" thick (1:2) cement plaster i/c the finishes cost of matching sealer for finishing the joints, s cutting grinding complete in all respect as approved and directed by the Engineer Incharge. a) Full body Matt tiles				
		(ii) 300mmx 600mm	Sft	345.5		
1.4.17	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)				
		a) 50-mm thick	Sft	108.7		
1.4.18	11/26	White washing a) new surface:- iii) three coats	100 Sft	835.8		
1.4.19	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 3/4" (20 mm) square bars 4" (100 mm) centre to centre, with locking arrangement.				
			Per Sft	70.0		

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Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALNAGAR						
1.4.20	12/15	Providing and fixing mild steel chowkat of doors, windows, C.window, etc. including holdfast, making and threading holes for hinges, etc. complete:- a) M.S. angle iron 1½"x 1½"x ¼" (40x40x6 mm) welded with M.S. flat 2"x ¼" (50 mm x 6 mm)	Per Sft	70.0		
1.4.21	25/32	Making and fixing grating in opening, including fixing at site with flat iron 2"x3/8" (50x10 mm) and ¾" (19 mm) square bars, at 4" (100 mm) centre to centre.	Per Sft	183.0		
1.4.22	18-23	Providing and fixing M.S Grating comprising of Angle Iron frame size 1.50"x1.50"x3/16" and 1/2" square bars duly welded @ 4" c/c, including painting charges etc complete in all respect.(For Drain)	Per Sft	29.3		
1.4.23	9/15	Khuras on roof 2'x2'x6" (600 x 600 x 150 mm)	Each	1.0		
1.4.24	9/16	Bottom Khuras of brick masonry in cement mortar 1:6, 4' x 2' x 4.5" over 3" cement concrete 1:4:8	Each	1.0		
1.4.25	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) (Form Sargodha Quarry)	100 Cft.	692.2		
Electrical Works						
1.4.26	24/3	Supply and erection of PVC pipe for wiring including inspection boxes, pull boxes, hooks, and repairing surface, etc., complete with all specials.				
	a)	Recessed in walls i/c making jharries				
		iii) 25 mm i/d	Rft	38.0		

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Bill No. 1.4: Stand Post

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALNAGAR						
1.4.27	24/09	Supply and erection of single core PVC insulated, PVC sheathed copper conductor, 250/440 volts grade cable (BSS-2004), in prelaid PVC pipes/M.S. conduit/G.I. pipe/wooden strip batten/wooden casing and capping/trenches, etc. (rate for cable only):-				
		i) 3/0.74 mm (3/0.029") (P+N+E) for Point Wiring	Rft	114.0		
		iii) 7/0.74 mm (7/0.029") (P+N+E) for Circuit Wiring	Rft	110.0		
1.4.28	24/104	Providing and fixing Pakistan Energy Label NEECA approved Copper wined Ceiling Fan i/c the cost of necessary cable and hardware for connection as approved and directed by Engineer Incharge.				
		iii) 56" dia	Each	2.0		
1.4.29	24/105	P/F PVC double layer Switch kit Face plate with specified switch holes i/c the cost of switches / sockets / dimmer made of Hi-Life / Bush / Schenider, screws complete as approved and directed by the Engineer Incharge				
		a) One Way Gang Switch (Small)				
		(ii) 02 Gang	Each	2.0		
1.4.30	24/106	Supply, installation, testing & commissioning of 16 SWG Sheet steel powder coated back boxes with earth terminal, recessed in wall, including accessories, complete in all respect as per specifications and as approved by Engineer				
		i) Small 3"x3"	Each	2.0		
1.4.31	N.S	Supply, installation, testing & commissioning of following various types of LED lights along with the accessories required for light fitting including light boxes:				
		(i) 12 W Surface Mounted Down Light, (SMD) (90~265VAC), System Lumens: 80~90 lm/W, Power Factor: ≥0.9, LED Driver: Isolated (THD≤20) @ 220 VAC, Housing Material: Die Cast Aluminum, Protection Class: IP-20	Each	4.0		
Plumbing Work						
1.4.32	19-16	Providing and fixing, chromium plated soap dish.	Each	1.0		

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Bill No. 1.4: Stand Post

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALNAGAR						
1.4.33	19-5	Providing and fitting white glazed earthen ware water closet squarther type, with separate foot rest.	Each	1.0		
1.4.34	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				
		i) white, with pedestal	Each	1.0		
1.4.35	19-45	Providing and fixing brass stop cock/bib cock:- b)20 mm (¾") dia	Each	12.0		
1.4.36	19-28	Providing and fixing chromium plated tee stop cock 15mm (½").	Each	2.0		
1.4.37	19-52	Providing and fixing CP bath Room Set made of Sonex/Master/Faisal or approved equivilent manufacturer, comprising of 3-No Tee stop cocks, lever type Basin Mixer, double Bib Cock, open wall shower, Muslim shower,waste coupling and bottle trap etc. complete in all respect as approved and directed by the Engineer incharge.				
		v) Muslim shower	Each	1.0		
1.4.38	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. (v) 110 mm	Per Rft	25.00		
		(iv) 82mm	Per Rft	50.00		

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Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALNAGAR						
1.4.39	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 BS 4514 / BS 5255 including the cost of Solvents complete in all respect as approved and directed by the Engineer Incharge.				
		c) Vent Cowel				
		(ii) 3" dia	Each	1.0		
		d) Clean Out				
		(ii) 3" dia	Each	1.0		
		PIPING & VALVES				
1.4.40	23-33	Providing, laying, testing and commissioning of POLYPROPYLENE 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	200.0		
		iv) 40 mm	Rft	50.0		
1.4.41	19/31	Providing and fixing brass peet/gate valve (screwed):-				
		i) 30 mm (1¼" dia	Each	1.0		
		ii) 40 mm(1½" dia	Each	1.0		
1.4.42	23-45	Supply & installation of heavy duty Brass PN-16 air Vents of specified sizeprovided at thehighest points(PipeRisers) to expel air as approved and directed by the Engineer Incharge				
		(a) Automatic				
		(iii) 1" Dia	Each	2.0		
1.4.43	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	2.0		

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Bill No. 1.4: Stand Post

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALNAGAR						
1.4.44	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	1000.0		
Total Amount For One (01)						
Total Amount For Eight (08)						

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Bill No. 1: WATER SUPPLY SYSTEM

Bill No. 1.5: Pipe Network

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALNAGAR						
		Earthwork				
1.5.1	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	293,098.00		
		HDPE Pipe				
1.5.2	23/30	Providing, laying, cutting, jointing, testing and disinfecting High Density Polyethylene Pipe (HDPE-100) working presure pipe, Beta/ Dadex/ Popular/ ILL or equivalent including the cost of specials, in trenches, as approved & directed by the engineer incharge, complete in all respects.				
		Transmission Main				
		Distribution Network				
		a) PN-6 (SDR-26)				
		90 mm Dia	Rft	52,046.00		
		110 mm Dia	Rft	750.00		
		160 mm Dia	Rft	150.00		
1.5.3	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	1,063.00		
1.5.4	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) (Form Sargodha Quarry)	100 CFT	935.00		
	23/29	Making connection for new watersupply lines with the running main, including excavation of trench and refilling, complete, but excluding cost of pipe and specials, etc. Diameter of running main: i) upto 6" i/d (150 mm)	Per Connection	5.00		
		Valves				
		Sluice Valce				
1.5.5	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):-				
		4" i/d (100 mm)	Each	2.00		

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Bill No. 1: WATER SUPPLY SYSTEM

Bill No. 1.5: Pipe Network

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALNAGAR						
		3" i/d (75 mm)	Each	14.00		
		Air Release				
1.5.6	23/37	Providing and fixing, air valve 2½ (65mm) dia of B.S.S. quality and weight (complete with jointing material).				
		b) double	Each	3.00		
1.5.7	23/22	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	45.00		
1.5.8	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)	Each	3.00		
		4" i/d (100 mm)	Each			
		Washout Valve				
1.5.9	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):- 3" i/d (75 mm)	Each	3.00		
		4" i/d (100 mm)	Each	1.00		
1.5.10	N.S.	Providing and installing water supply service connection of approved make for houses, complete in all respects as per drawings, specifications, and instructions of the Engineer In-Charge. The scope of work includes but is not limited to: HDPE pipe 50 mm PN-8 connection from the main water supply line, 25 mm connection pipe for fixtures, 2 reducing sockets (50x25 mm), 4 unions (25 mm), female and male sockets, 2 ball valves (25 mm), 2 water meters (15 mm), 2 brass ferrules, and 2 end caps. The rate shall be inclusive of all materials, carriage, loading/unloading, and installation charges, ensuring a complete and functional connection."	Each	150.00		
Total Amount						

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Bill No. 1: WATER SUPPLY SYSTEM

Bill No. 1.6: Valves and Chambers

Sr. No.	Ref. MRS	Description	Unit	Qty.	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALNAGAR						
1.6.1	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). a) By Manual ii) Ordinary soil	1000 Cft.	3,427.23		
1.6.2	6/5	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate): (i) Ratio 1: 4: 8	100Cft	150.84		
1.6.3	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	290.39		
1.6.4	7/7	Pacca brick work other than building upto 10ft. (3 m) height. i) cement, sand mortar:- (1:4)	100 Cft	1,444.73		
1.6.5	11-8	Cement plaster 1:3 upto 20' (6.00 m) height:- b) ½" (13 mm) thick	100 Sft	74.68		
	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.):-			-	
1.6.6		(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	212.75		
1.6.7	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. (crushed stone aggregate and bajri used in concrete items) (Form Sargodha Quarry)	100 CFT	529.07		

**Engineering Design and Construction Supervision Punjab Rural Sustainable Water Supply and Sanitation
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**Village: Muhammad Pura, ShadiWala , Shera Chitra Tehsil: BAHAWALNAGAR
BILL OF QUANTITIES**

Bill No. 1: WATER SUPPLY SYSTEM

Bill No. 1.6: Valves and Chambers

Sr. No.	Ref. MRS	Description	Unit	Qty.	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALNAGAR						
1.6.8	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	483.43		
1.6.9	N.S.	Providing and 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	23.00		
Total Amount						

**Engineering Design and Construction Supervision Punjab Rural Sustainable Water Supply and Sanitation
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**Village: Muhammad Pura, ShadiWala , Shera Chitra Tehsil: BAHAWALNAGAR
BILL OF QUANTITIES**

Bill No. 1: WATER SUPPLY SYSTEM

Bill No. 1.7: Boundary Wall

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT PAKPATTAN						
1.7.1	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)lift upto 5 ft (1.5m)				
		1) By Manual				
		ii) in ordinary soil.	1000 Cft.	731.3		
1.7.2	6/5	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):				
		(i) Ratio 1: 4: 8	100 Cft	126.0		
		(f) Ratio 1: 2: 4	100 Cft	371.0		
1.7.3	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.	100 Cft	69.0		
1.7.4	7/4	Pacca brick work in foundation and plinth in: i) Cement, sand mortar Ratio 1:5	100 cft	183.0		
1.7.5	7/7	Pacca brick work other than building upto 10ft. (3 m) height. i) cement, sand mortar:- Ratio 1:4	100 Cft	201.0		
1.7.6	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, 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	20.0		

**Engineering Design and Construction Supervision Punjab Rural Sustainable Water Supply and Sanitation
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**Village: Muhammad Pura, ShadiWala , Shera Chitra Tehsil: BAHAWALNAGAR
BILL OF QUANTITIES**

Bill No. 1: WATER SUPPLY SYSTEM

Bill No. 1.7: Boundary Wall

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT PAKPATTAN						
		(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	28.1		
1.7.7	6/12 c	Providing and fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labor charges for binding of steel reinforcement (also includes removal of rust from bars), Deformed bars (Grade 60)	100 Kg	141.9		
1.7.8	11/9	Cement plaster 1:4 upto 20' (6.00 m) height:- b) ½" (13 mm) thick	100 Sft	364.0		
1.7.9	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.	Per Sft	90.0		
1.7.10	13/5 d	Painting new surface:- Preparing surface and painting guard bars, gates of iron bars, gratings, railing (including standards, braces, etc.) and in similar open work:- a) Priming coat	100 Sft	180.0		
		b) Two Coats	100 Sft	180.0		
1.7.11	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) (Form Sargodha Quarry)	100 Cft.	547.8		
1.11.12	3/5	Filling, watering and ramming earth under floors:- i) With surplus earth from foundation, etc.	1000 Cft.	877.5		
		ii) With new earth excavated from outside, lead upto one chain (30 m).	1000 Cft.	7897.5		
1.11.13	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)				
		a) Upto ¼ mile (400 m).	1000 Cft.	7897.5		
		b) For every 330 ft. (100 m) additional lead or part thereof, beyond ¼ mile (400 m) upto one mile. (1.6 Km.)	1000 Cft.	7897.5		
1.7.14	6/2	Dry rammed brick or stone ballast, 1½" to 2" (40 mm to 50 mm) gauge.	100 Cft.	965.3		

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**Village: Muhammad Pura, ShadiWala , Shera Chitra Tehsil: BAHAWALNAGAR
BILL OF QUANTITIES**

Bill No. 1: WATER SUPPLY SYSTEM

Bill No. 1.7: Boundary Wall

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT PAKPATTAN						
1.7.15	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.	100 Cft.	1067.6		
		Precast Wall				
1.7.16	NS	Providing and Fixing in Position Precast boundary wall up to 6 ft high of standard precast component as per drawing and direction of the engineer incharge. The rate of Boundary wall includes wall Pannels of size (2"x1'x8'), columns (6"x6.5"x8') with Cap,transported to site,loading/unloading and fixing in position finished, complete in all respect.	Rft	176.0		
Total Amount						

**Engineering Design and Construction Supervision Punjab Rural Sustainable Water Supply and Sanitation Project,
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Village: Muhammad Pura, ShadiWala , Shera Chitra Tehsil: BAHAWALNAGAR

BILL OF QUANTITIES

Bill No.2. SEWERAGE SYSTEM

Bill No. 2.1: DRAIN NETWORK

Sr. No.	Ref	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALNAGAR						
2.1.1	4/29	Dismantling brick or flagged flooring without concrete foundation.	100 Sft	118,314.00		
2.1.2	21/8	Restoration of brick pavement on edge, over laid service line, with 2" (50 mm) sand cushion under soling.	100 Sft	118,314.00		
2.1.3	4/19 a	Dismantling cement concrete plain 1:4:8.	100Cft.	2,200.00		
2.1.4	4/46	Dismantling and removing road pavement, etc., including screening and stacking of byproducts upto one chain lead (30 metre).	100 Cft	6,225.00		
2.1.5	21/10	Restoration of metalled road, on laid service line, including 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.	100 Sft	7,500.00		
2.1.6	3/9	Earthwork excavation in irrigation channels, drains, etc. to designed section, grades and profiles, excavated material disposed off and dressed within 100 ft. (30 m) lead:- i) Ordinary	1000 Cft.	467,595.86		
2.1.7	21/24	Desilting including disposal of sludge upto one Chain (30 Meters). a) Open Drain	100 Cft	7,394.63		
2.1.8	6/3	Cement concrete brick or stone ballast 1½ " to 2" (40 mm to 50 mm) gauge, in foundation and plinth:- (d) Ratio 1: 6:12	100 Cft.	27,993.84		
2.1.9	6/5	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate): (f) Ratio 1: 2: 4	100 Cft.	3,148.44		
2.1.10	20/6	Constructing Punjab Standard Drains. of cement concrete 1:2 ½ :5, with cement concrete bedding ratio 1:6:12, complete, laid to lines, grades, slopes and shapes, rendering exposed surface of concrete with 1:1 cement, sand mortar, ¼" (6 mm) thick, as per Engineer's drawing (excluding excavation):- a) Type I	Per Rft	73,946.25		
2.1.11	7/4	Pacca brick work in foundation and plinth in:- Ratio 1:5	100 Cft.	97,654.46		

**Engineering Design and Construction Supervision Punjab Rural Sustainable Water Supply and Sanitation Project,
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Village: Muhammad Pura, ShadiWala , Shera Chitra Tehsil: BAHAWALNAGAR

BILL OF QUANTITIES

Bill No.2. SEWERAGE SYSTEM

Bill No. 2.1: DRAIN NETWORK

Sr. No.	Ref	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALNAGAR						
2.1.12	20/1	Tega formed of pacca bricks on end, laid in and over cement sand mortar projecting to a height of not more than 6" (150 mm) top of drain along the property side where required, laid to lines, grades, slopes and shape according to the Engineer's drawing:- a) 3" thick (75 mm) ii) ratio 1:5	100Rft	148,092.50		
2.1.13	20/3	Pacca brick on edge, laid in reimbursement, in cement, sand mortar, on sides of drains and on other works where required. All joints to be completely filled and struck flush:- b) ratio 1:5	100Sft	44,430.47		
		Top Slab (R.C.C. 1:2:4)				
2.1.14	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.);-				
		(d) Precast reinforced cement concrete and prestressed reinforced cement concrete in columns, beams, lintels, stair cases, shelves, etc. (3) Type C (nominal mix 1: 2: 4)	Per Cft	21,778.63		
2.1.15	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. (From Sargodha Quarry)	100 Cft	37,522.90		
2.1.16	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	64,214.60		
2.1.17	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:- ii) 90% maximum modified AASHTO dry density.	1000 Cft.	369,731.00		

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BILL OF QUANTITIES

Bill No.2. SEWERAGE SYSTEM

Bill No. 2.1: DRAIN NETWORK

Sr. No.	Ref	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALNAGAR						
2.1.18	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)				
		a) Upto ¼ mile (400 m)	1000 Cft.	369,731.00		
		b) For every 330 ft. (100 m) additional lead or part thereof, beyond ¼ mile (400 m) upto one mile. (1.6 Km.)	1000 Cft.	369,731.00		
Drain House Connection						
2.1.19	R.A.A.	Construction of house Connection Chamber of specified size, complete in all respects as per drawings, specifications & instructions of the Engineer incharge. The unit rate includes but not limited to excavation, backfilling, compaction, PCC (1:6:12) in bedding, PCC (1:2:4) benching, brick masonry in 1:4, C/S mortar, 1/2" thick 1:4 C/S plaster on both sides, precasted Cover slabs, 4" dia uPVC pipe gor house connection and connection to manhole with 6" dia uPVC pipe (excluding cost of 6" dia pipe) finished etc complete in all respects.				
		Type-1	Job	175.00		
		Type-2	Job	30.00		
		Type-3	Job	15.00		
2.1.20	19/48	Providing, fixing, testing and commissioning of µ-PVC (Unplasticized Polyvinyl Chloride) sewerage pipe make of Dadex /Popular/Beta or approved equivalent manufacturer, plain /socket ended conforming to code EN-1401 of specified SDR (Standard Dimension Ratio) including the cost of specials and Solvents complete in all respect as approved and directed by the Engineer Incharge. Type (SDR 34/SN-8)				
		i) 6" dia 150mm	Per Rft	2,600.00		
		RPC Slab				
2.1.21	N.S.	Providing and Fixing removeable perforated Slab pannel of size 3'x1.5' (55mm thick) made of approved manufacturer at intervals as per drawing and direction of the engineers incharge.	Per Rft	18,340.00		
Total Amount						

**Engineering Design and Construction Supervision Punjab Rural Sustainable Water Supply and Sanitation
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Village: Muhammad Pura, ShadiWala , Shera Chitra Tehsil: BAHAWALNAGAR

BILL OF QUANTITIES

Bill No.2. SEWERAGE SYSTEM

Bill No. 2.2: Septic Tank Type-I

Sr. Nr.	MRS-2025	Description	Unit	Qty	Unit Rate	Amount Rs.
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALNAGAR						
2.2.1	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)lift upto 5 ft (1.5m). 2) a) By Excavator ii) Ordinary soil				
		a) Lift up to 5 ft (1.5 m)	1000 Cft	4088.0		
		b) Lift from 5ft (1.5m) to 15 ft (4.5 m):-	1000 Cft	3336.0		
		Concrete Works				
2.2.2	6/3	Cement concrete brick or stone ballast 1½ " to 2" (40 mm to 50 mm) gauge, in foundation and plinth:- (b) Ratio 1: 4: 8 (with Brick Ballast)	100Cft	93.6		
2.2.3	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) (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:-				
		Type B (nominal mix 1:1.5: 3)	Per Cft	129.9		
		(b) Reinforced cement concrete in retaining/ Shear walls laid in situ or precast laid in position, or prestressed members cast in situ (Formwork on both sides), complete in all respects: (b) Type B (nominal mix 1:1-1/2:3)				
		(i) Upto 9" thick (Avg)	Per Cft	696.5		
		(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:-				
		Type B (nominal mix 1: 1.5: 3)	per cft	215.6		

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Village: Muhammad Pura, ShadiWala , Shera Chitra Tehsil: BAHAWALNAGAR

BILL OF QUANTITIES

Bill No.2. SEWERAGE SYSTEM

Bill No. 2.2: Septic Tank Type-I

Sr. Nr.	MRS-2025	Description	Unit	Qty	Unit Rate	Amount Rs.
2.2.4	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 (Grade-60)	100 Kg	3072.8		
2.2.5	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. (crushed stone aggregate and bajri used in concrete items) (Form Sargodha Querry)	100Cft	875.2		
2.2.6	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. Charge ii) 10" wide 10 mm thick	Rft	78.5		
2.2.7	13/09	Bitumen coating to plastered or cement concrete surface:- i) 20 lbs. per 100 Sft. (9.07 Kg per Sq.m)	100Sft.	1735.9		
2.2.8	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	20.0		
2.2.9	19/48	Providing, fixing, testing and commissioning of µ-PVC (Unplasticized Polyvinyl Chloride) sewerage pipe make of Dadex /Popular/Beta or approved equivalent manufacturer, plain /socket ended conforming to code EN-1401 of specified SDR (Standard Dimension Ratio) including the cost of specials and Solvents complete in all respect as approved and directed by the Engineer Incharge. Type (SDR 34/SN-8) ii) 8" dia 200 mm	Rft	200.0		
2.2.10	23/18	Providing, laying, cutting, jointing, testing and disinfecting cast iron pipe line (BS-2035/4622) in trenches, including cost of materials, such as lead, yarn, etc.complete in all respects:- b) With Flanged and Flanged Joints 4" Dia (Vent Pipe)	Rft	4.0		

**Engineering Design and Construction Supervision Punjab Rural Sustainable Water Supply and Sanitation
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Village: Muhammad Pura, ShadiWala , Shera Chitra Tehsil: BAHAWALNAGAR

BILL OF QUANTITIES

Bill No.2. SEWERAGE SYSTEM

Bill No. 2.2: Septic Tank Type-I

Sr. Nr.	MRS-2025	Description	Unit	Qty	Unit Rate	Amount Rs.
2.2.11	N.S.	P/F 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	3.0		
2.2.12	N.S	Providing, installation, testing and commissioning of non clogging sewerage submersible pump of Approved manufacturer of HUD & PHED and should be ISO 9001 Certified, complete in all respect having following Specification Pump Set: Flow: 35 m3/hr (0.35 Cusecs) Head: 30 ft Pump Efficiency: 73.5% Including 1x Sluice valve and 1x NRV Motor Control Unit (MCU): VFD Motor Control Unit with Dry running protection relay, Circuit Breaker, DC SPD, AC SPD, DC Change Over Switch, Auto Start Stop with Any input, Self-diagnostic and Self Protection, Ground Fault Monitoring, AC Short Circuit Protection, Under / Over Voltage and Over/ Current Protection, Reverse current Blocking, -10 to 40 Degree Celsius. All contained in lockable cabinet complete in all respect.	Job	1.0		
Total Amount for One (01) Septic Tank						

**Engineering Design and Construction Supervision Punjab Rural Sustainable Water Supply and Sanitation
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Village: Muhammad Pura, ShadiWala , Shera Chitra Tehsil: BAHAWALNAGAR

BILL OF QUANTITIES

Bill No.2. SEWERAGE SYSTEM

Bill No. 2.3: Septic Tank Type-II

Sr. Nr.	MRS-2025	Description	Unit	Qty	Unit Rate	Amount Rs.
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALNAGAR						
2.3.1	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)lift upto 5 ft (1.5m). 2) a) By Excavator ii) Ordinary soil				
		a) Lift up to 5 ft (1.5 m)	1000 Cft	4614.0		
		b) Lift from 5ft (1.5m) to 15 ft (4.5 m):-	1000 Cft	4178.0		
		Concrete Works				
2.3.2	6/3	Cement concrete brick or stone ballast 1½ " to 2" (40 mm to 50 mm) gauge, in foundation and plinth:-				
		(b) Ratio 1: 4: 8 (with Brick Ballast)	100Cft	128.3		
2.3.3	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) (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:-				
		Type B (nominal mix 1:1.5: 3)	Per Cft	179.7		
		(b) Reinforced cement concrete in retaining/ Shear walls laid in situ or precast laid in position, or prestressed members cast in situ (Formwork on both sides), complete in all respects: (b) Type B (nominal mix 1:1-1/2:3)				
		(i) Upto 9" thick (Avg)	Per Cft	62.5		
		(ii) More Than 9" thick (Avg)	Per Cft	893.2		

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Village: Muhammad Pura, ShadiWala , Shera Chitra Tehsil: BAHAWALNAGAR

BILL OF QUANTITIES

Bill No.2. SEWERAGE SYSTEM

Bill No. 2.3: Septic Tank Type-II

Sr. Nr.	MRS-2025	Description	Unit	Qty	Unit Rate	Amount Rs.
		(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:-				
		Type B (nominal mix 1: 1.5: 3)	per cft	298.3		
2.3.4	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 (Grade-60)	100 Kg	4228.1		
2.3.5	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. (crushed stone aggregate and bajri used in concrete items) (Form Sargodha Quarry)	100Cft	1204.3		
2.3.6	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. Charge				
		ii) 10" wide 10 mm thick	Rft	84.9		
2.3.7	13/09	Bitumen coating to plastered or cement concrete surface:- i) 20 lbs. per 100 Sft. (9.07 Kg per Sq.m)	100Sft.	2152.2		
2.3.8	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	20.0		

**Engineering Design and Construction Supervision Punjab Rural Sustainable Water Supply and Sanitation
Project, South-III**

Village: Muhammad Pura, ShadiWala , Shera Chitra Tehsil: BAHAWALNAGAR

BILL OF QUANTITIES

Bill No.2. SEWERAGE SYSTEM

Bill No. 2.3: Septic Tank Type-II

Sr. Nr.	MRS-2025	Description	Unit	Qty	Unit Rate	Amount Rs.
2.3.9	19/48	Providing, fixing, testing and commissioning of μ -PVC (Unplasticized Polyvinyl Chloride) sewerage pipe make of Dadex /Popular/Beta or approved equivalent manufacturer, plain /socket ended conforming to code EN-1401 of specified SDR (Standard Dimension Ratio) including the cost of specials and Solvents complete in all respect as approved and directed by the Engineer Incharge. Type (SDR 34/SN-8)				
		ii) 8" dia 200 mm	Rft	200.0		
2.3.10	23/18	Providing, laying, cutting, jointing, testing and disinfecting cast iron pipe line (BS-2035/4622) in trenches, including cost of materials, such as lead, yarn, etc.complete in all respects:- b) With Flanged and Flanged Joints 4" Dia (Vent Pipe)	Rft	6.0		
2.3.11	N.S.	P/F 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	2.0		

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Village: Muhammad Pura, ShadiWala , Shera Chitra Tehsil: BAHAWALNAGAR

BILL OF QUANTITIES

Bill No.2. SEWERAGE SYSTEM

Bill No. 2.3: Septic Tank Type-II

Sr. Nr.	MRS-2025	Description	Unit	Qty	Unit Rate	Amount Rs.
2.3.12	N.S	Providing, installation, testing and commissioning of non clogging sewerage submersible pump of Approved manufacturer of HUD & PHED and should be ISO 9001 Certified, complete in all respect having following Specification Pump Set: Flow: 35 m ³ /hr (0.35 Cusecs) Head: 30 ft Pump Efficiency: 73.5% Including 1x Sluice valve and 1x NRV Motor Control Unit (MCU): VFD Motor Control Unit with Dry running protection relay, Circuit Breaker, DC SPD, AC SPD, DC Change Over Switch, Auto Start Stop with Any input, Self-diagnostic and Self Protection, Ground Fault Monitoring, AC Short Circuit Protection, Under / Over Voltage and Over/ Current Protection, Reverse current Blocking, -10 to 40 Degree Celsius. All contained in lockable cabinet complete in all respect.	Job	1.0		
Total Amount for One (01) Septic Tank						
Total Amount for Two (02) Septic Tank						

**Engineering Design and Construction Supervision Punjab Rural Sustainable Water Supply and Sanitation
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Village: Muhammad Pura, ShadiWala , Shera Chitra Tehsil: BAHAWALNAGAR

BILL OF QUANTITIES

Bill No.2. SEWERAGE SYSTEM

Bill No. 2.4: Septic Tank Type-III

Sr. Nr.	MRS-2025	Description	Unit	Qty	Unit Rate	Amount Rs.
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALNAGAR						
2.4.1	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)lift upto 5 ft (1.5m). 2) a) By Excavator ii) Ordinary soil				
		a) Lift up to 5 ft (1.5 m)	1000 Cft	5387.0		
		b) Lift from 5ft (1.5m) to 15 ft (4.5 m):-	1000 Cft	5019.0		
		Concrete Works				
2.4.2	6/3	Cement concrete brick or stone ballast 1½ " to 2" (40 mm to 50 mm) gauge, in foundation and plinth:-				
		(b) Ratio 1: 4: 8 (with Brick Ballast)	100Cft	157.5		
2.4.3	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) (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:-				
		Type B (nominal mix 1:1.5: 3)	Per Cft	221.6		
		(b) Reinforced cement concrete in retaining/ Shear walls laid in situ or precast laid in position, or prestressed members cast in situ (Formwork on both sides), complete in all respects: (b) Type B (nominal mix 1:1-1/2:3)				
		(i) Upto 9" thick (Avg)	Per Cft	62.5		
		(ii) More Than 9" thick (Avg)	Per Cft	1044.2		

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Village: Muhammad Pura, ShadiWala , Shera Chitra Tehsil: BAHAWALNAGAR

BILL OF QUANTITIES

Bill No.2. SEWERAGE SYSTEM

Bill No. 2.4: Septic Tank Type-III

Sr. Nr.	MRS-2025	Description	Unit	Qty	Unit Rate	Amount Rs.
		(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:-				
		Type B (nominal mix 1: 1.5: 3)	per cft	367.9		
2.4.4	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 (Grade-60)	100 Kg	5002.4		
2.4.5	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. (crushed stone aggregate and bajri used in concrete items) (Form Sargodha Quarry)	100Cft	1424.8		
2.4.6	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. Charge				
		ii) 10" wide 10 mm thick	Rft	99.3		
2.4.7	13/09	Bitumen coating to plastered or cement concrete surface:- i) 20 lbs. per 100 Sft. (9.07 Kg per Sq.m)	100Sft.	2516.2		
2.4.8	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	20.0		

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Village: Muhammad Pura, ShadiWala , Shera Chitra Tehsil: BAHAWALNAGAR

BILL OF QUANTITIES

Bill No.2. SEWERAGE SYSTEM

Bill No. 2.4: Septic Tank Type-III

Sr. Nr.	MRS-2025	Description	Unit	Qty	Unit Rate	Amount Rs.
2.4.9	19/48	Providing, fixing, testing and commissioning of μ -PVC (Unplasticized Polyvinyl Chloride) sewerage pipe make of Dadex /Popular/Beta or approved equivalent manufacturer, plain /socket ended conforming to code EN-1401 of specified SDR (Standard Dimension Ratio) including the cost of specials and Solvents complete in all respect as approved and directed by the Engineer Incharge. Type (SDR 34/SN-8)				
		ii) 8" dia 200 mm	Rft	200.0		
2.4.10	23/18	Providing, laying, cutting, jointing, testing and disinfecting cast iron pipe line (BS-2035/4622) in trenches, including cost of materials, such as lead, yarn, etc.complete in all respects:- b) With Flanged and Flanged Joints 4" Dia (Vent Pipe)	Rft	4.0		
2.4.11	N.S.	P/F 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	3.0		
2.4.12	N.S	Providing, installation, testing and commissioning of non clogging sewerage submersible pump of Approved manufacturer of HUD & PHED and should be ISO 9001 Certified, complete in all respect having following Specification Pump Set: Flow: 35 m ³ /hr (0.35 Cusecs) Head: 30 ft Pump Efficiency: 73.5% Including 1x Sluice valve and 1x NRV Motor Control Unit (MCU): VFD Motor Control Unit with Dry running protection relay, Circuit Breaker, DC SPD, AC SPD, DC Change Over Switch, Auto Start Stop with Any input, Self-diagnostic and Self Protection, Ground Fault Monitoring, AC Short Circuit Protection, Under / Over Voltage and Over/ Current Protection, Reverse current Blocking, -10 to 40 Degree Celsius. All contained in lockable cabinet complete in all respect.	Job	1.0		
Total Amount for One (01) Septic Tank						
Total Amount for Three (03) Septic Tank						

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Village: Muhammad Pura, ShadiWala , Shera Chitra Tehsil: BAHAWALNAGAR

BILL OF QUANTITIES

Bill No.2. SEWERAGE SYSTEM

Bill No. 2.5: Septic Tank Type-IV

Sr. Nr.	MRS-2025	Description	Unit	Qty	Unit Rate	Amount Rs.
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALNAGAR						
2.5.1	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)lift upto 5 ft (1.5m). 2) a) By Excavator ii) Ordinary soil				
		a) Lift up to 5 ft (1.5 m)	1000 Cft	2666.0		
		b) Lift from 5ft (1.5m) to 15 ft (4.5 m):-	1000 Cft	4086.0		
2.5.2	3/44	Earthwork excavation of trenches in open cutting for sewers and manhole chambers, etc. below sub-soil water level to correct section and dimensions according to templates and levels, including backfilling, shoring, timbering and shuttering of M.S. sheets on both sides of the trenches:				
		i) 0 ft. to 4.0 ft. (0 to 1.20 m) depth below SSWL.	1000 Cft	2013.0		
		ii) 4.01 ft. to 8.0 ft. (1.22 to 2.4 m) depth below SSWL.	1000 Cft	2013.0		
		iii) Exceeding 8 ft. (2.4 m) depth below SSWL.	1000 Cft	252.0		
2.5.3	3/44	Lowering of sub-soil water table, by installation of tubewells along sewer line and pumping out water, for excavation in open cutting below sub-soil water level, concreting, curing, laying and jointing pipes, filling haunches, etc. till the completion of sewer line, including disposal of pumped out water:-				
		3) 0-3 ft. (0 to 910 mm) below SSWL	Rft of laid sewer	12.23		
		4) 0-4 ft. (0 to 1220 mm) below SSWL	Rft of laid sewer	8.16		
		5) 0-5 ft. (0 to 1520 mm) below SSWL	Rft of laid sewer	8.16		
		6) 0-6 ft. (0 to 1830 mm) below SSWL	Rft of laid sewer	4.08		
		7) 0-7 ft. (0 to 2170 mm) below SSWL	Rft of laid sewer	4.08		
		8) 0-8 ft. (0 to 2480 mm) below SSWL	Rft of laid sewer	2.04		
		9) 0-9 ft. (0 to 2790 mm) below SSWL	Rft of laid sewer	2.04		
		Concrete Works				

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BILL OF QUANTITIES

Bill No.2. SEWERAGE SYSTEM

Bill No. 2.5: Septic Tank Type-IV

Sr. Nr.	MRS-2025	Description	Unit	Qty	Unit Rate	Amount Rs.
2.5.4	6/3	Cement concrete brick or stone ballast 1½ " to 2" (40 mm to 50 mm) gauge, in foundation and plinth:-				
		(b) Ratio 1: 4: 8 (with Brick Ballast)	100Cft	166.1		
2.5.5	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) (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:-				
		Type B (nominal mix 1:1.5: 3)	Per Cft	233.9		
		(b) Reinforced cement concrete in retaining/ Shear walls laid in situ or precast laid in position, or prestressed members cast in situ (Formwork on both sides), complete in all respects: (b) Type B (nominal mix 1:1-1/2:3)				
		(i) Upto 9" thick (Avg)	Per Cft	62.5		
		(ii) More Than 9" thick (Avg)	Per Cft	1088.4		
		(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:-				
		Type B (nominal mix 1: 1.5: 3)	per cft	388.2		
2.5.6	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):- (b) Deformed bars (Grade-60)	100 Kg	5228.7		

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BILL OF QUANTITIES

Bill No.2. SEWERAGE SYSTEM

Bill No. 2.5: Septic Tank Type-IV

Sr. Nr.	MRS-2025	Description	Unit	Qty	Unit Rate	Amount Rs.
2.5.7	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. (crushed stone aggregate and bajri used in concrete items) (Form Sargodha Quarry)	100Cft	1489.3		
2.5.8	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. Charge				
		ii) 10" wide 10 mm thick	Rft	103.5		
2.5.9	13/09	Bitumen coating to plastered or cement concrete surface:- i) 20 lbs. per 100 Sft. (9.07 Kg per Sq.m)	100Sft.	2622.6		
2.5.10	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	20.0		
2.5.11	19/48	Providing, fixing, testing and commissioning of µ-PVC (Unplasticized Polyvinyl Chloride) sewerage pipe make of Dadex /Popular/Beta or approved equivalent manufacturer, plain /socket ended conforming to code EN-1401 of specified SDR (Standard Dimension Ratio) including the cost of specials and Solvents complete in all respect as approved and directed by the Engineer Incharge. Type (SDR 34/SN-8)				
		ii) 8" dia 200 mm	Rft	200.0		
2.5.12	23/18	Providing, laying, cutting, jointing, testing and disinfecting cast iron pipe line (BS-2035/4622) in trenches, including cost of materials, such as lead, yarn, etc.complete in all respects:- b) With Flanged and Flanged Joints 4" Dia (Vent Pipe)	Rft	4.0		
2.5.13	N.S.	P/F 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	3.0		

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BILL OF QUANTITIES

Bill No.2. SEWERAGE SYSTEM

Bill No. 2.5: Septic Tank Type-IV

Sr. Nr.	MRS-2025	Description	Unit	Qty	Unit Rate	Amount Rs.
2.5.14	N.S	Providing, installation, testing and commissioning of non clogging sewerage submersible pump of Approved manufacturer of HUD & PHED and should be ISO 9001 Certified, complete in all respect having following Specification Pump Set: Flow: 35 m3/hr (0.35 Cusecs) Head: 30 ft Pump Efficiency: 73.5% Including 1x Sluice valve and 1x NRV Motor Control Unit (MCU): VFD Motor Control Unit with Dry running protection relay, Circuit Breaker, DC SPD, AC SPD, DC Change Over Switch, Auto Start Stop with Any input, Self-diagnostic and Self Protection, Ground Fault Monitoring, AC Short Circuit Protection, Under / Over Voltage and Over/ Current Protection, Reverse current Blocking, -10 to 40 Degree Celsius. All contained in lockable cabinet complete in all respect.	Job	1.0		
Total Amount for One (01) Septic Tank						
Total Amount for Two (02) Septic Tank						

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BILL OF QUANTITIES

Bill No.2. SEWERAGE SYSTEM

Bill No. 2.6: Septic Tank Type-VI

Sr. Nr.	MRS-2025	Description	Unit	Qty	Unit Rate	Amount Rs.
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALNAGAR						
2.6.1	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)lift upto 5 ft (1.5m). 2) a) By Excavator ii) Ordinary soil				
		a) Lift up to 5 ft (1.5 m)	1000 Cft	6297.0		
		b) Lift from 5ft (1.5m) to 15 ft (4.5 m):-	1000 Cft	6476.0		
2.6.2	3/44	Earthwork excavation of trenches in open cutting for sewers and manhole chambers, etc. below sub-soil water level to correct section and dimensions according to templates and levels, including backfilling, shoring, timbering and shuttering of M.S. sheets on both sides of the trenches:				
		i) 0 ft. to 4.0 ft. (0 to 1.20 m) depth below SSWL.	1000 Cft	2638.0		
		ii) 4.01 ft. to 8.0 ft. (1.22 to 2.4 m) depth below SSWL.	1000 Cft	2638.0		
		iii) Exceeding 8 ft. (2.4 m) depth below SSWL.	1000 Cft	330.0		
2.6.3	3/44	Lowering of sub-soil water table, by installation of tubewells along sewer line and pumping out water, for excavation in open cutting below sub-soil water level, concreting, curing, laying and jointing pipes, filling haunches, etc. till the completion of sewer line, including disposal of pumped out water:-				
		3) 0-3 ft. (0 to 910 mm) below SSWL	Rft of laid sewer	13.81		
		4) 0-4 ft. (0 to 1220 mm) below SSWL	Rft of laid sewer	9.20		
		5) 0-5 ft. (0 to 1520 mm) below SSWL	Rft of laid sewer	9.20		
		6) 0-6 ft. (0 to 1830 mm) below SSWL	Rft of laid sewer	4.60		
		7) 0-7 ft. (0 to 2170 mm) below SSWL	Rft of laid sewer	4.60		
		8) 0-8 ft. (0 to 2480 mm) below SSWL	Rft of laid sewer	2.30		

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Bill No.2. SEWERAGE SYSTEM

Bill No. 2.6: Septic Tank Type-VI

Sr. Nr.	MRS-2025	Description	Unit	Qty	Unit Rate	Amount Rs.
		9) 0-9 ft. (0 to 2790 mm) below SSWL	Rft of laid sewer	2.30		
		Concrete Works				
2.6.4	6/3	Cement concrete brick or stone ballast 1½ " to 2" (40 mm to 50 mm) gauge, in foundation and plinth:-				
		(b) Ratio 1: 4: 8 (with Brick Ballast)	100Cft	217.6		
2.6.5	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) (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:-				
		Type B (nominal mix 1:1.5: 3)	Per Cft	309.5		
		(b) Reinforced cement concrete in retaining/ Shear walls laid in situ or precast laid in position, or prestressed members cast in situ (Formwork on both sides), complete in all respects: (b) Type B (nominal mix 1:1-1/2:3)				
		(i) Upto 9" thick (Avg)	Per Cft	62.5		
		(ii) More Than 9" thick (Avg)	Per Cft	1240.4		
		(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:-				
		Type B (nominal mix 1: 1.5: 3)	per cft	513.8		

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Bill No.2. SEWERAGE SYSTEM

Bill No. 2.6: Septic Tank Type-VI

Sr. Nr.	MRS-2025	Description	Unit	Qty	Unit Rate	Amount Rs.
2.6.6	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	6270.8		
2.6.7	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. (crushed stone aggregate and bajri used in concrete items) (Form Sargodha Quarry)	100Cft	1786.1		
2.6.8	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. Charge ii) 10" wide 10 mm thick	Rft	118.0		
2.6.9	13/09	Bitumen coating to plastered or cement concrete surface:- i) 20 lbs. per 100 Sft. (9.07 Kg per Sq.m)	100Sft.	2989.0		
2.6.10	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	20.0		
2.6.11	19/48	Providing, fixing, testing and commissioning of µ-PVC (Unplasticized Polyvinyl Chloride) sewerage pipe make of Dadex /Popular/Beta or approved equivalent manufacturer, plain /socket ended conforming to code EN-1401 of specified SDR (Standard Dimension Ratio) including the cost of specials and Solvents complete in all respect as approved and directed by the Engineer Incharge. Type (SDR 34/SN-8) ii) 8" dia 200 mm	Rft	200.0		

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Bill No.2. SEWERAGE SYSTEM

Bill No. 2.6: Septic Tank Type-VI

Sr. Nr.	MRS-2025	Description	Unit	Qty	Unit Rate	Amount Rs.
2.6.12	23/18	Providing, laying, cutting, jointing, testing and disinfecting cast iron pipe line (BS-2035/4622) in trenches, including cost of materials, such as lead, yarn, etc.complete in all respects:- b) With Flanged and Flanged Joints 4" Dia (Vent Pipe)	Rft	4.0		
2.6.13	N.S.	P/F 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	3.0		
2.6.14	N.S	Providing, installation, testing and commissioning of non clogging sewerage submersible pump of Approved manufacturer of HUD & PHED and should be ISO 9001 Certified, complete in all respect having following Specification Pump Set: Flow: 35 m3/hr (0.35 Cusecs) Head: 30 ft Pump Efficiency: 73.5% Including 1x Sluice valve and 1x NRV Motor Control Unit (MCU): VFD Motor Control Unit with Dry running protection relay, Circuit Breaker, DC SPD, AC SPD, DC Change Over Switch, Auto Start Stop with Any input, Self-diagnostic and Self Protection, Ground Fault Monitoring, AC Short Circuit Protection, Under / Over Voltage and Over/ Current Protection, Reverse current Blocking, -10 to 40 Degree Celsius. All contained in lockable cabinet complete in all respect.	Job	1.0		
Total Amount for One (01) Septic Tank						

**Engineering Design and Construction Supervision Punjab Rural Sustainable Water Supply and Sanitation Project,
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Village: Muhammad Pura, Shadi wala , Shera Chitra Tehsil: BAHAWALNAGAR

BILL OF QUANTITIES

Bill No.2. SEWERAGE SYSTEM

Bill No. 2.7: Operator Room

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALNAGAR						
2.7.1	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)lift upto 5 ft (1.5m)				
		1) By Manual				
		ii) in ordinary soil.	1000 Cft.	6,450.78		
2.7.2	6/3	Cement concrete brick or stone ballast 1½ " to 2" (40 mm to 50 mm) gauge, in foundation and plinth:				
		(d) Ratio 1: 6:12 (with Brick ballast)	100 Cft	1,152.00		
2.7.3	7/4	Pacca brick work in foundation and plinth in: i) Cement, sand mortar Ratio 1:6	100 cft	3,096.00		
2.7.4	6/37	Providing and laying damp proof course of cement concrete 1:2:4 (using cement, sand and shingle), including bitumen coating: b) with 2 coats of bitumen:				
		i) 1½" thick (40 mm)	100 Sft	720.00		
2.7.5	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 (20mm)	100 Sft	612.00		
2.7.6	7/5	Pacca brick work in ground floor (super structure) i). Cement, sand mortar Ratio 1:5	100 Cft	5,211.00		
2.7.7	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, 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:-				
		(3) Type C (nominal mix 1: 2: 4)	Per Cft	1,741.32		

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Village: Muhammad Pura, Shadi wala , Shera Chitra Tehsil: BAHAWALNAGAR

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Bill No.2. SEWERAGE SYSTEM

Bill No. 2.7: Operator Room

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALNAGAR						
2.7.8	6/12 b	Providing and fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labor charges for binding of steel reinforcement (also includes removal of rust from bars), Deformed bars (Grade 60)	100 Kg	5,135.47		
2.7.9	10/3	Supplying and filling sand under floor; or plugging in wells.	100 Cft	2,421.00		
2.7.10	10/16	Providing and laying topping of cement concrete 1:2:4, including surface finishing and dividing in panels:- (e) 2"(50 mm) thick	100 Sft	1,971.00		
2.7.11	11/18	Cement pointing struck joints, on walls, upto 20' (6.00 m) hieght:- b) ratio 1:3	100 Sft	6,665.40		
2.7.12	11/9	Cement plaster 1:4 upto 20' (6.00 m) height:- b) ½" (13 mm) thick	100 Sft	8,372.25		
2.7.13	11/12	Cement plaster 3/8" (10 mm) thick under soffit of R.C.C. roof slabs only, upto 20' height . b) 1:3	100 Sft	1,392.75		
2.7.14	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	666.00		
2.7.15	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) a) 50-mm thick	Sft	1,147.50		
2.7.16	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	1,724.49		

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Village: Muhammad Pura, Shadi wala , Shera Chitra Tehsil: BAHAWALNAGAR

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Bill No.2. SEWERAGE SYSTEM

Bill No. 2.7: Operator Room

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALNAGAR						
2.7.17	11/26	White washing a) new surface:- iii) three coats	100 Sft	6,183.90		
2.7.18	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	387.00		
2.7.19	12/15	Providing and fixing mild steel chowkat of doors, windows, C.window, etc. including holdfast, making and threading holes for hinges, etc. complete:- a) M.S. angle iron 1½"x 1½"x ¼" (40x40x6 mm) welded with M.S. flat 2"x ¼" (50 mm x 6 mm)	Per Sft	387.00		
2.7.20	25/52	Providing and fitting all types of glazed aluminium windows of anodised/ powder coated partly fixed and partly sliding using delux sections of approved manufacturer having frame size of 100 x 30 mm (4"x1-1/4") and leaf frame sections of 50 x 20 mm (2"x¾"), all of 1.6mm thickness including 5 mm thick imported tinted glass with rubber gasket using approved standard latches, hardware etc., as approved by the Engineer in-charge.	Per Sft	488.25		
2.7.21	25/53	Providing and fixing Aluminum Fly screen comprising of Fiber / Aluminum wire guaze (Malasian) fixed in aluminum frame of approved manufacturer / powder coated of size 1-1/2"x1/2" and 1.6mm thick with rubber gasket i/c cost of Hardwares as approved and directed by the engineer incharge. complete in all respect.	Per Sft	244.13		
2.7.22	25/58	Providing and fixing M.S. flat ½"x1/8" (13mm x 3mm) grill including ¾" x 1/8" (20 mmx3 mm) M.S. flat frame, in windows of approved design, including painting three coats, complete in all respects.	Per Sft	488.25		

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Village: Muhammad Pura, Shadi wala , Shera Chitra Tehsil: BAHAWALNAGAR

BILL OF QUANTITIES

Bill No.2. SEWERAGE SYSTEM

Bill No. 2.7: Operator Room

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALNAGAR						
2.7.23	25/10+11	Fabrication & Erection 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, including erection in position. (Top Cover & Girder)	100 Kg	1,152.28		
2.7.24	23-52	Providing and fixing Chain Pulley Block of 5 ton capacity with 5 meter length of chain, as per required specifications complete in all respect and as approved by the Engineer Incharge.	Each	9.00		
2.7.25	13/5 c	Painting new surface:- Preparing surface and painting of doors and windows any type (including edges):- (Chowkath Only) a) Priming coat	100 Sft	482.63		
		b) Two Coats	100 Sft	482.63		
2.7.26	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) (Form Sargodha Quarry)	100 Cft.	2,073.69		
2.7.27	9/15	Khuras on roof 2'x2'x6" (600 x 600 x 150 mm)	Each	18.00		
2.7.28	9/16	Bottom Khuras of brick masonry in cement mortar 1:6, 4' x 2' x 4.5" over 3" cement concrete 1:4:8	Each	18.00		
Plumbing Items						
2.7.29	19-16	Providing and fixing, chromium plated soap dish.	Each	9.00		
2.7.30	19-5	Providing and fitting white glazed earthen ware water closet squarther type, with separate foot rest.	Each	9.00		
2.7.31	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				
		i) white, with pedestal	Each	9.00		
2.7.32	19-30	Providing and fixing, chromium plated mixing valve, for wash hand basin, sink or shower.	Each	9.00		

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Village: Muhammad Pura, Shadi wala , Shera Chitra Tehsil: BAHAWALNAGAR

BILL OF QUANTITIES

Bill No.2. SEWERAGE SYSTEM

Bill No. 2.7: Operator Room

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALNAGAR						
2.7.33	19-52	Providing and fixing CP bath Room Set made of Sonex/Master/Faisal or approved equivalent manufacturer, comprising of 3-No Tee stop cocks, lever type Basin Mixer, double Bib Cock, open wall shower, Muslim shower,waste coupling and bottle trap etc. complete in all respect as approved and directed by the Engineer incharge.				
		i) 3 No Tee Stop Cock (set)	Each	18.00		
		iii) Double Bib Cock	Each	11.00		
		v) Muslim shower	Each	11.00		
2.7.34	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. (v) 110 mm	Per Rft	225.00		
		(iv) 82mm	Per Rft	400.00		
2.7.35	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 BS 4514 / BS 5255 including the cost of Solvents complete in all respect as approved and directed by the Engineer Incharge.				
		c) Vent Cowel				
		(ii) 3" dia	Each	9.00		
		d) Clean Out				
		(ii) 3" dia	Each	9.00		
		PIPING & VALVES		-		
2.7.36	23-33	Providing, laying, testing and commissioning of POLYPROPYLENE 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	900.00		

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Bill No.2. SEWERAGE SYSTEM

Bill No. 2.7: Operator Room

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALNAGAR						
2.7.37	19/31	Providing and fixing brass peet/gate valve (screwed):-				
		i) 30 mm (1¼") dia	Each	9.00		
		ii) 40 mm(1½") dia	Each	9.00		
2.7.38	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	18.00		
2.7.39	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	900.00		
Total Amount For One (01) Pump Room						-

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**Village: Muhammad Pura, Shadi wala , Shera Chitra Tehsil: BAHAWALNAGAR
BILL OF QUANTITIES**

Bill No.2. SEWERAGE SYSTEM

Bill No. 2.8: Operator Room (Electrical)

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALNAGAR						
2.8.1	24/3	Supply and erection of PVC pipe for wiring including inspection boxes, pull boxes, hooks, and repairing surface, etc., complete with all specials.				
	a)	Recessed in walls i/c making jharries				
		iii) 25 mm i/d	Rft	963.00		
		vi) 50 mm i/d	Rft	900.00		
2.8.2	24/09	Supply and erection of single core PVC insulated, PVC sheathed copper conductor, 250/440 volts grade cable (BSS-2004), in prelaid PVC pipes/M.S. conduit/G.I. pipe/wooden strip batten/wooden casing and capping/trenches, etc. (rate for cable only):-				
		i) 3/0.74 mm (3/0.029") (P+N+E) for Point Wiring	Rft	1,296.00		
		iii) 7/0.74 mm (7/0.029") (P+N+E) for Circuit Wiring	Rft	405.00		
		iv) 7/0.91 mm (7/0.036") (P+N+E) for Power Wiring	Rft	459.00		
2.8.3	24/11	Supply and erection of PVC insulated, PVC sheathed copper conductor cables for service connection, in prelaid pipe/G.I. wire/trenches, etc. (rate for cable only):-				
	d)	Four Core, 600/1000 volt armoured cable:-				
		viii) 16 mm sq (7/0.064) for MCC-TW Main Power Cable	Rft	1,800.00		
2.8.4	24/08	Supply and erection of single core PVC insulated copper conductor cables, in prelaid PVC pipe/M.S. conduit/G.I. pipe/wooden strip batten/wooden casing an capping/G.I. wire/trenches (rate for cables only):-				
	(c)	450/750 volts, PVC insulated:				
		vi) 10 mm sq (7/0.052")	Rft	135.00		
		vii) 16 mm sq (7/0.064")	Rft	1,800.00		
2.8.5	24/103	Providing and fixing Pakistan Energy Label NEECA approved Copper winded wall bracket Fan i/c the cost of necessary cable and hardware for connection as approved and directed by Engineer Incharge.				
	(i)	18" Sweep dia	Each	18.00		
2.8.6	24/105	P/F PVC double layer Switch kit Face plate with specified switch holes i/c the cost of switches / sockets / dimmer made of Hi-Life / Bush / Schenider, screws complete as approved and directed by the Engineer Incharge				

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Bill No.2. SEWERAGE SYSTEM

Bill No. 2.8: Operator Room (Electrical)

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALNAGAR						
		a) One Way Gang Switch (Small)				
		(ii) 02 Gang	Each	9.00		
		(iv) 3-Pin power plug 13A	Each	9.00		
		b) One Way Gang Switch (Large)				
		(ii) 05 Gang	Each	9.00		
2.8.7	24/106	Supply, installation, testing & commissioning of 16 SWG Sheet steel powder coated back boxes with earth terminal, recessed in wall, including accessories, complete in all respect as per specifications and as approved by Engineer				
	i)	Small 3"x3"	Each	27.00		
	ii)	Large 6"x3"	Each	9.00		
2.8.8	24/112	Providing, making & testing/commissioning of Bore type earthing point by drilling 3" dia bore hole up to water table/moist soil by laying 2" dia perforated GI. pipe (Medium Quality) fixed with 40mm dia and 250 mm long tinned copper spike at bottom, i/c the cost of Tinned earth test link copper plate (300x50x10mm), brass nuts, spacers, bolts washers lugs etc but excluding the cost of copper strand & manhole. as approved and directed by Engineer Incharge (Bore Type Earthing). (2 No. Earthing Bores)	P.Rft	900.00		
2.8.9	24/113	Supply, installation, testing and commissioning of bare copper conductor for Earthing/ Grounding System (2 No. Earthing Bores)				
		50 mm ² CU bare conductor	Per Rft	720.00		
2.8.10	N.S	Providing & laying 2 core, of following sizes, PVC insulated & PVC sheathed, 600/1000 volts grade with stranded copper conductor, un armored L.T cable in pre-laid pipe/G.I. wire/trenches, etc.				
	(i)	2 Core 10 mm.sq Cu/PVC/PVC for DBLP TW	Rft	135.00		
2.8.11	N.S	Supply, installation, testing & commissioning of following various types of LED lights along with the accessories required for light fitting including light boxes:				

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Bill No.2. SEWERAGE SYSTEM

Bill No. 2.8: Operator Room (Electrical)

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALNAGAR						
2.8.12	(i)	12 W Surface Mounted Down Light, (SMD) (90~265VAC), System Lumens: 80~90 lm/W, Power Factor: ≥0.9, LED Driver: Isolated (THD≤20) @ 220 VAC, Housing Material: Die Cast Aluminum, Protection Class: IP-20	Each	45.00		
2.8.13	(ii)	Bulkhead 18 W LED Light, (SMD) (100~265VAC), System Lumens: 80~90 lm/W, Power Factor: ≥0.9, LED Driver: Isolated (THD≤20) @ 220 VAC, Housing Material: Aluminum Alloy + PC, Protection Class: IP-65	Each	9.00		
2.8.14	N.S	Fabrication, supply at site installation and commissioning & connection of wires/cables of distribution boards IP-54 made of 14 SWG M.S sheet degreased , derusted, zinc phosphated, finished with electrostatic powder coating of 100 micron tickness in approved colour with hinged door, flexible earthing strap lockable handle, catcher, earthing bar, neutral strip, internal wiring, designation labels on MCB, earthing bar, numbering beads on control wires, suitable for system 240V, 50HZ, 1 Phase & neutral, bus bars of 99.8% purity electrolytic copper, including cost of cable termination lugs, brass cable glands for incoming & outgoing cables, wiring from breakers, indication lamps, instruments & control all accessories.	Each	9.00		
		Incoming:				
		01 No. 32A DP MCB 10 kA				
		01 No. Digital Volt Meter 0~240V				
		0 No. Control Fuse for Protection				
		01 No. Indication Lamp (R)				
		01 Job. Brass Cable Gland for Incoming cable				
		Outgoing:				
		02 Nos. 10A SP MCB 6 kA				
		01 No. 20A SP MCB 6 kA				
		01 No. 20A SP MCB 6 kA (Spare)				

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Bill No.2. SEWERAGE SYSTEM

Bill No. 2.8: Operator Room (Electrical)

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALNAGAR						
2.8.15	N.S	Fabrication, supply at site installation and commissioning of 16 SWG mild steel sheet fabricated distribution board for MCC (Motor Control Centre), free standing/ wall mounting, indoor type, front access, insulation class 600 Volts, incoming and outgoing connections from top or bottom as per site requirement, door to body earth with flexible copper cable suitable for 415VAC, 3 Phase 4 wire, 400/230 50Hz TPN&E system, having rated service short circuit breaking capacity as mentioned in the details. Complete in all respects as per the satisfaction of the engineer and single line diagram.	Each	9.00		
		Incoming:				
		01 No: 63 ATP MCCB, RC:16 kA				
		01 No: Digital Ampere Meter 0~100A With Selector Switch				
		01 No: Digital Volt Meter 0~600VAC With Selector Switch				
		03 Nos: Current Transformer 80/5A				
		03 Nos: Control MCB for protection				
		03 Nos: Indication Lamp (R+Y+B)				
		01 Job: Brass Cable Gland for Incoming Cable				
		01 No: 3 Phase, 4-Wire Energy Meter				
		Outgoing:				
		01 No. 32A DP MCB RC:10 kA for DBLP-TR				
		02 Nos. 40A TP MCCB RC:16 kA for Pumps				
		01 No. 32A DP MCB RC:10 kA (Spare)				
		01 No. 40A TP MCCB RC:16 kA (Spare)				
Total Amount For One (01)						

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Village: Muhammad Pura, Shadi wala , Shera Chitra Tehsil: BAHAWALNAGAR

BILL OF QUANTITIES

Bill No. 3: Street Pavement Works

Sr. No.	Ref	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALNAGAR						
3.1	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.	220,932.00		
3.2	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.				
		b) 60-mm thick	Per Sft	15,000.00		
		c) 80-mm thick	Per Sft	15,000.00		
3.3	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.	15,000.00		
		(b) Subsequent carriage of gravel and crushed stone aggregate	100Cft.	18,000.00		
3.4	18/4	a) Providing and laying base course of crushed stone aggregate of approved quality and grade, and supply and spreading of stone screening, including placing, mixing, spreading and compaction of base course material to required depth, camber and grade to achieve 100% maximum modified AASHO dry density, including carriage of all materials to site of work except gravel and aggregate.				
		ii) Crushed stone aggregate.	100Cft.	7,500.00		
		(b) Subsequent carriage of gravel and crushed stone aggregate	100Cft.	9,000.00		
3.5	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:- ii) 90% maximum modified AASHO dry density.	1000 Cft.	907,939.00		
3.6	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)				
		a) Upto ¼ mile (400 m).	1000 Cft.	907,939.00		
		b) For every 330 ft. (100 m) additional lead or part thereof, beyond ¼ mile (400 m) upto one mile. (1.6 Km.)	1000 Cft.	907,939.00		
		Sign Board Works				

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BILL OF QUANTITIES

Bill No. 3: Street Pavement Works

Sr. No.	Ref	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALNAGAR						
3.7	18/19	Providing and erection at site of work:- (The rate is for complete item of work according to Standard design including cement concrete foundation block and painting letters etc. b) Warning/Direction/Informatory.	Each	10.00		
3.8	18/25	Providing, fabrication and fixing pole mounted Direction Board / road delineator of any shape and size, with specified Sheet and thickness, supported with G.I Channel, (excluding the cost of vertical post and painting) etc complete in all respect. A) G.I Sheet 14 SWG ii) RECTANGULAR SHAPE (a) 12 -48 sft	P.Sft	192.00		
3.9	18/27	Providing, fabrication and fixing Vertical Post comprising of medium quality G.I Pipe of specified diameter, including the cost of clamping arrangements, top cover, hold fasts, PCC 1:2:4 footing of specified depth and excavation etc complete in all respect, as approved and directed by the engineer incharge.				
		(a) 2 inch diameter (footing 1.5'x1.5'x4')	P.Rft	240.00		
		(b) 3 inch diameter (footing 1.5'x1.5'x5')	P.Rft	144.00		
3.10	13/42	Lettering and printing of signage / direction boards / road delineators of any colour by machine i/c cost of Digital Lettering, Lamination & pasting etc complete in all respect.				
		a) High Intensity Prismatic (HIP) Tape	P.Sft	192.00		
3.11	13/25	Painting letters with shade.	per letter per inch height	1,000.00		
Total Amount						

PUNJAB RURAL SUSTAIBALE WATER SUPPLY AND SANITATION PROJECT (PRSWSSP) CLSUTER SOUTH-III						
Tehsil Bahawalnagr						
Bill No. 4: ESMP Cost						
Sr. No.	Item Description	ISO / Standard Code / Description	Unit	Unit Rate (Rs)	Quantity (Per Village)	Amount (Rs)
Personal Protective Equipments						
1	Safety Jackets	EN ISO 20471: 360 degree visibility Fluorescent yellow/orange; retro-reflective strips; breathable mesh fabric; secure Velcro or zipper closure, provided in appropriate sizes are required by Staff, PRMSC name and logo printed	Each	30.00		
2	Safety Helmets	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) PRMSC Brading and LOGO PRINTED with sr number mentioned on each helmet for ease of record keeping	Each	30.00		
3	Safety Gloves	EN 388 : Nitrile-coated or leather palm; abrasion and cut-resistant; breathable back; conforms to EN388 safety ratings	Each	50.00		
4	Dust Mask (Dust proof mask)	ISO 16975: Disposable N95 or FFP2 class mask; elastic bands; nose clip for sealing; replace after use	Each	100.00		
5	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	35.00		
6	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 positioning; and chest strap with quick-connect buckle; Renowned Brand	Each	3.00		
7	Protective Goggles	ISO 16321: Anti-fog, scratch-resistant; side shielding for wrap-around protection; adjustable strap	Each	10.00		
8	Ear Plugs	ISO 4869-1: Soft polyurethane foam; noise reduction rating (NRR) of 30 dB or more	Each	20.00		
Health Safety Environment Materials / Testing						
9	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	1.00		
10	Warning / Safety Signs	ISO 7010: Weatherproof PVC or Plastic or aluminum signs; reflective print; standardized colors and pictograms (danger, caution, mandatory)	Each	25.00		
11	Green Mesh	Green safety netting for site periphery; 50% shading; UV-stabilized HDPE material.	S.ft	200.00		
12	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.	1.00		
13	CO ₂ Fire Extinguisher	ISO 7165: 5 kg; frost-free horn; suitable for electrical and liquid fires; discharge time of the agent in 13 second)	No.	1.00		

PUNJAB RURAL SUSTAIBALE WATER SUPPLY AND SANITATION PROJECT (PRSWSSP) CLSUTER SOUTH-III						
Tehsil Bahawalnagr						
Bill No. 4: ESMP Cost						
Sr. No.	Item Description	ISO / Standard Code / Description	Unit	Unit Rate (Rs)	Quantity (Per Village)	Amount (Rs)
14	Fire Alarm	ICS 13.030.10: Proper segregation, PPE for handlers, timely removal, recordkeeping per solid waste rules	No.	2.00		
15	Trapuline	Waterproof tarpaulin sheet made from polyethylene or canva	Sq.ft	30.00		
16	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		12.00		
17	Tree Plantation	5-6 feet height; Native species plantation; soil preparation and watering included	No.	100.00		
18	Barricading / Fencing (Reflective tape, poles, safety mesh/netting)	ISO 13857: Includes poles, reflective tape, plastic mesh netting; minimum 3 feet height; durable and visible	Rft	300.00		
19	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	4.00		
20	Water Sprinkling	Water sprinkling through tank mounted on tractor	Per Trip	30.00		
21	Medical Screening for Workers	CBC, Anti HCV, HBsAG, HIV, RPR, LFTs, RFTs etc.	Persons	30.00		
Environmental Testing and Monitoring						
22	Ambient Air Quality Monitoring	As per the parameters and methodology defined by EPA (Quarterly in every village)	Each	3.00		
23	Groundwater Quality Test	As per the parameters and methodology defined by EPA (Quarterly in every village)	Each	3.00		
24	Surface Water Quality Test	(As per the parameters and methodology defined by EPA (Quarterly in every village)	Each	3.00		
25	waste Water Quality Test	(As per the parameters and methodology defined by EPA (Quarterly in every village)	Each	3.00		
26	Noise Level Monitoring	(As per the parameters and methodology defined by EPA (Quarterly in every village)	Each	3.00		
Site Specific / Contractors Environmental and Social Management Plan						
27	CESMP Formulation	By an individual or firm as approved by PRMSC Environment Wing	per village	1.00		
HSE Staff						
28	HSE Supervisor	Bachelor's degree in Environmental Sciences / Engineering , NEBOSH or IOSH certification will be preffered, 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 per village	12.00		
Waste Management and House Keeping						
29	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	3.00		
30	Handling and dispodal 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	3.00		
Total cost per Village						-
For 03 No. Villages						-

**PUNJAB RURAL SUSTAINABLE WATER SUPPLY & SANITATION PROJECT (PRSWSSP),
CLUSTER SOUTH-III (Bahawalnagar) (PHASE-I)**

BILL NO. 5: EMPLOYER/ENGINEER'S FACILITIES

Sr. No.	Description	Unit	Quantity	Rate (PKR)	Amount (PKR)
<p><i>The following items shall be provided complete in all respects and in accordance with the special provision of the bidding document and up to the satisfaction of The Engineer / The Employer. Rates for below given items are to be filled-in by the Contractor however, payment will be made as per actual bills in accordance with special provisions.</i></p>					
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					0
Required No.s					2
Grand Total					-

**Engineering Design and Construction Supervision Punjab Rural Sustainable Water
Supply and Sanitation Project, Cluster South-III**

Tehsil: Kahroor Pacca

Name of Villages

1. Sharakwah

**BILL OF QUANTITIES
ABSTRACT OF COST**

Sr. No	Description	PC-1 Amount (Rs.)
1	WATER SUPPLY SYSTEM	
2	SEWERGE SYSTEM	
3	STREET PAVEMENT WORKS	
4	ESMP COST	
5	EMPLOYER FACILITIES	
TOTAL COST (Rs.)		

**Engineering Design and Construction Supervision Punjab Rural Sustainable Water Supply
and Sanitation Project,
Cluster South-III**

Village: Sharakwa Tehsil: Karor Pacca

Cost Summary

Sr.No	Description	Amount (Rs.)
1	Water Supply Network	
1.1	TW Installation 0.05 x 2 No.	
1.2	Stand Post with TW Chamber x 2 No.	
1.3	Electrical works x 2 No.	
1.4	Boundary Wall	
	Sub Total A	
2	Sewerage System	
2.1	Drain Network	
2.2	Sewerage Pipe Network (RCC)	
2.3	Manholes and House Connection Chambers	
2.4	Disposal Works	
2.5	ABR Type-II x 01 No.	
2.6	Septic Tank Type-V x 01 No.	
2.7	Soakage Pit Type-V x 01 No.	
2.8	Operator Room x 01 No.	
2.9	Electrical works x 1 No.	
2.10	Boundary Wall	
	Sub Total B	
3	Streets Pavement Works	
	Sub Total C	
	Total Cost (A+B+C)	
	GRAND TOTAL AMOUNT	

**Engineering Design and Construction Supervision Punjab Rural Sustainable Water Supply and Sanitation Project,
Cluster South-III**

Village: Sharakwa Tehsil: Karor Pacca

BILL OF QUANTITIES

Bill No. 1: WATER SUPPLY SYSTEM

Bill No. 1.1: Tubewell Installation (0.05 cusecs)

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT Lodhran						
1.1.1	23/2	Direct Rotary/ Reverse Rotary drilling of bore for tubewells, in all types of soil except shingle, gravel and rock:-				
		a) from ground level to 250 ft. (75 m) below ground level:-				
		i) 15" to 18" (375 to 450 mm) i/d	Rft of bore	230.0		
		Housing Pipe				
1.1.2	23/12	Providing and installing M.S. blind pipe socketed/welded joint, M.S. reducer (where necessary), in tubewell bore hole, including jointing/welding with strainer, etc. complete:- (Housing pipe)	Per Rft	90.0		
		e) 6" i/d, 3/16" (150 mm i/d 5 mm) thick				
		Blind Pipe				
1.1.3		c) 4" i/d, 1/8" (100 mm i/d 3 mm) thick	Per Rft	115.0		
		Strainer Pipe				
1.1.4	23/09	Providing and installing Fiberglass Reinforced Polypropelene (FRP) strainer of specifid wall thickness having slot size of 0.9 mm to 1.10 mm in Tubewell borehole i/c the cost of male/female coupling with Nylone Strip, studs complete in all respect as approved and directed by the Engineer Incharge.	Per Rft	15.0		
		iii) 4" inch dia (5 mm thickness)				
		Bail Plug				
1.1.5	23/10	Providing and installing Fiber glass Reinforced Polypropelene (FRP) bail plug of specified wall thickness having slot size of 0.9 mm to 1.10 mm in Tubewell bore hole i/c the cost of male / female coupling with Nylone Strip, studs complete in all respect as approved and directed by the Engineer.	Per Rft	10.0		
		iii) 4" dia (5mm thickness)				
		Delivery Pipe				
1.1.6	23/12	Providing and installing M.S. blind pipe socketed/welded joint, M.S. reducer (where necessary), in tubewell bore hole, including jointing/welding with strainer, etc.(Delivery Pipe) complete:-				
		b) 3" i/d, 1/8" (75 mm i/d 3 mm) thick	Per Rft	20.0		
1.1.7	23/17	Shrouding with graded pea gravel 3/8 to 1/8 inch (10 to 3 mm) arround tubewell in bore hole.	Per Cft	110.0		
1.1.8	23/5	Furnishing sample of water from borehole.	Per set of 2 bottles	3.0		
1.1.9	23/16	Testing and developing of tubewell of size 6" (150 mm) i/d and above continuously.				
		i) upto 1.5 cs. Discharge	P. Hour	72.0		
1.1.10	23/31	Providing & mixing bentonite clay / powder have swelling factor of 1200% for lining /seal and plug earthen bore holes / ponds in the specified ratio conforming to IS:6186 for stabilization of soil as specified by the designer etc complete in all respect.	Per Kg.	10.0		

**Engineering Design and Construction Supervision Punjab Rural Sustainable Water Supply and Sanitation Project,
Cluster South-III**

Village: Sharakwa Tehsil: Karor Pacca

BILL OF QUANTITIES

Bill No. 1: WATER SUPPLY SYSTEM

Bill No. 1.1: Tubewell Installation (0.05 cusecs)

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT Lodhran						
1.1.11	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	29.5		
1.1.12	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) (Form Sargodha Quarry)	100 CFT	25.9		
1.1.13	N/S	Geophysical Logging of Borehole, including Data Collection, Interpretation, and Preparation/ Submission of Detailed Report to the Competent Authority/Incharge, Complete in All Respects.	P/Job	1.0		
1.1.14	N/S	Conducting Chemical, Physical, and Arsenic Analysis of Water through an Approved Water Testing Laboratory, including Collection, Testing, and Submission of Test Report to the Competent Authority/Incharge, Complete in All Respects.	P/Job	1.0		
1.1.15	N/S	Supplying, installing, testing and commissioning of submersible water supply pump set of Approved manufacturer of HUD & PHED and should be ISO 9001 Certified, complete in all respects as per specifications and direction of the Engineer Incharge. The pump set shall have the following specifications: Discharge: 0.05 Cusec Total Head: 250 ft Setting Depth: 120 ft Speed: 2900 RPM				
		Motor: 3 KW, 2 Pole, IP68 Protection Pump Set to include: Motor Control Unit (MCU), One (01) Sluice Valve, One (01) Air Release Valve, One (01) Reflux Valve, pressure guage, 80 ft Submersible Electric Cable, Required Column Pipe etc. Complete in all respects as per drawing and as directed by the Engineer Incharge.	P/Job	1.0		
1.1.16	N/S	Providing, installing, testing, and commissioning of Hypo Dosing Chlorinator unit of European make, having an injection capacity of 8 liters/second and maximum operating pressure of 10 bar, complete in all respects as per specifications, drawings, and as directed by the Engineer Incharge.	P/Job	1.0		

**Engineering Design and Construction Supervision Punjab Rural Sustainable Water Supply and Sanitation Project,
Cluster South-III**

Village: Sharakwa Tehsil: Karor Pacca

BILL OF QUANTITIES

Bill No. 1: WATER SUPPLY SYSTEM

Bill No. 1.1: Tubewell Installation (0.05 cusecs)

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT Lodhran						
1.1.17	N/S	Providing and fixing Electromagnetic Flow meter of specified dia as per Delivery Size in Pump House complete in all respect. Typically of Following Specification: Line Size: 3", DN80 Flanged, RF ANSI 150# Flow range: 9 ~ 90 m ³ /h Liner Material: PTFE Electrode Material: 316L Stainless Steel Body Material: Carbon Steel Power Supply: 220 VAC Output: 4 ~ 20mA Protection Class: IP68 Accuracy: Class –II (OIML R49/ISO4064) ISO 9001 Certified manufacturer	P/Job	1.0		
1.1.18	N/S	Providing and fixing M.S cap 1/4 "(6mm) thick to cover tubewell casing pipe.	P/Job	1.0		
1.1.19	N/S	Providing / fixing M.S Centralizer of required Size as per drawing and directions of the engineers incharge.	P/Job	5.0		
Total Amount For One (01)						
Total Amount For Two (02)						

**Engineering Design and Construction Supervision Punjab Rural Sustainable Water Supply and Sanitation Project,
Cluster South-III**

**Village: Sharakwa Tehsil: Karor Pacca
BILL OF QUANTITIES**

Bill No. 1: WATER SUPPLY SYSTEM

Bill No. 1.2.: Stand Post with Tubewell Chamber

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT Lodhran						
1.2.1	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)lift upto 5 ft (1.5m)				
		1) By Manual				
		ii) in ordinary soil.	1000 Cft.	1,338.36		
1.2.2	6/3	Cement concrete brick or stone ballast 1½" to 2" (40 mm to 50 mm) gauge, in foundation and plinth:-				
		(d) Ratio 1: 6:12 (with Brick ballast)	100 Cft	240.00		
1.2.3	7/4	Pacca brick work in foundation and plinth in: i) Cement, sand mortar Ratio 1:6	100 cft	671.00		
1.2.4	6/37	Providing and laying damp proof course of cement concrete 1:2:4 (using cement, sand and shingle), including bitumen coating: b) with 2 coats of bitumen:				
		ii) 2" thick	100 Sft	134.00		
1.2.5	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 (20mm)	100 Sft	69.00		
1.2.6	7/5	Pacca brick work in ground floor (super structure) i). Cement, sand mortar Ratio 1:5	100 Cft	610.00		
1.2.7	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, 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:-				
		(3) Type C (nominal mix 1: 2: 4)	Per Cft	348.00		

**Engineering Design and Construction Supervision Punjab Rural Sustainable Water Supply and Sanitation Project,
Cluster South-III**

**Village: Sharakwa Tehsil: Karor Pacca
BILL OF QUANTITIES**

Bill No. 1: WATER SUPPLY SYSTEM

Bill No. 1.2.: Stand Post with Tubewell Chamber

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT Lodhran						
1.2.8	6/12 b	Providing and fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labor charges for binding of steel reinforcement (also includes removal of rust from bars), Deformed bars (Grade 60)	100 Kg	1,026.32		
1.2.9	10/3	Supplying and filling sand under floor; or plugging in wells.	100 Cft	1,154.00		
1.2.10	10/16	Providing and laying topping of cement concrete 1:2:4, including surface finishing and dividing in panels:-				
		(e) 2"(50 mm) thick	100 Sft	449.00		
1.2.11	11/18	Cement pointing struck joints, on walls, upto 20' (6.00 m) hieght:- b) ratio 1:3	100 Sft	670.50		
1.2.12	11/9	Cement plaster 1:4 upto 20' (6.00 m) height:- b) ½" (13 mm) thick	100 Sft	1,068.80		
1.2.13	11/12	Cement plaster 3/8" (10 mm) thick under soffit of R.C.C. roof slabs only, upto 20' height . b) 1:3	100 Sft	546.49		
1.2.14	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	607.22		
1.2.15	10/45-17.65 deduction for matt finishes	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 Matt tiles				
		(ii) 300mmx 600mm	Sft	120.00		

**Engineering Design and Construction Supervision Punjab Rural Sustainable Water Supply and Sanitation Project,
Cluster South-III**

**Village: Sharakwa Tehsil: Karor Pacca
BILL OF QUANTITIES**

Bill No. 1: WATER SUPPLY SYSTEM

Bill No. 1.2.: Stand Post with Tubewell Chamber

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT Lodhran						
1.2.16	10/36-18.90 deduction for matt finishes	Providing and laying superb quality Porcelain glazed tiles of Master/ Stile brand or approved equivalent manufacturer, skirting/ dado of specified size, Color and Shade with adhesive/ bond over 1/2" thick (1:2) cement plaster i/c the cost of matching sealer for finishing the joints, cutting grinding complete in all respect as approved and directed by the Engineer Incharge. a) Full body Matt tiles				
		(ii) 300mmx 600mm	Sft	250.00		
1.2.17	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 1/2"(13 mm) thick cement plaster 1:3, including rubbing and polishing, complete with finishing: (b) using white cement : ii) 1/2"(13 mm) thick	100 Sft	26.78		
1.2.18	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)				
		a) 50-mm thick	Sft	117.60		
1.2.19	11/26	White washing a) new surface:- iii) three coats	100 Sft	1,050.49		
1.2.20	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 3/4" (20 mm) square bars 4" (100 mm) centre to centre, with locking arrangement.				
			Per Sft	70.00		
1.2.21	12/15	Providing and fixing mild steel chowkat of doors, windows, C.window, etc. including holdfast, making and threading holes for hinges, etc. complete:- a) M.S. angle iron 1 1/2"x 1 1/2"x 1/4" (40x40x6 mm) welded with M.S. flat 2"x 1/4" (50 mm x 6 mm)	Per Sft	70.00		

**Engineering Design and Construction Supervision Punjab Rural Sustainable Water Supply and Sanitation Project,
Cluster South-III**

**Village: Sharakwa Tehsil: Karor Pacca
BILL OF QUANTITIES**

Bill No. 1: WATER SUPPLY SYSTEM

Bill No. 1.2.: Stand Post with Tubewell Chamber

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT Lodhran						
1.2.22	25/32	Making and fixing grating in opening, including fixing at site with flat iron 2"x3/8" (50x10 mm) and 3/4" (19 mm) square bars, at 4" (100 mm) centre to centre.	Per Sft	183.00		
1.2.23	18-23	Providing and fixing M.S Grating comprising of Angle Iron frame size 1.50"x1.50"x3/16" and 1/2" square bars duly welded @ 4" c/c, including painting charges etc complete in all respect.(For Drain)	Per Sft	29.26		
1.2.24	9/15	Khuras on roof 2'x2'x6" (600 x 600 x 150 mm)	Each	1.00		
1.2.25	9/16	Bottom Khuras of brick masonry in cement mortar 1:6, 4' x 2' x 4.5" over 3" cement concrete 1:4:8	Each	1.00		
1.2.26	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) (Form Sargodha Quarry)	100 Cft.	655.47		
1.2.27	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.				
		(i) Single Leaf	Per Sft	32.00		
1.2.28	12/15	Providing and fixing mild steel chowkat of doors, windows, C.window, etc. including holdfast, making and threading holes for hinges, etc. complete:- a) M.S. angle iron 1 1/2"x 1 1/2"x 1/4" (40x40x6 mm) welded with M.S. flat 2"x 1/4" (50 mm x 6 mm)	Per Sft	32.00		

**Engineering Design and Construction Supervision Punjab Rural Sustainable Water Supply and Sanitation Project,
Cluster South-III**

**Village: Sharakwa Tehsil: Karor Pacca
BILL OF QUANTITIES**

Bill No. 1: WATER SUPPLY SYSTEM

Bill No. 1.2.: Stand Post with Tubewell Chamber

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT Lodhran						
1.2.29	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	12.00		
1.3.30	25/58	Providing and fixing M.S. flat ½"x1/8" (13mm x 3mm) grill including ¾" x 1/8" (20 mmx3 mm) M.S. flat frame, in windows of approved design, including painting three coats, complete in all respects.	Per Sft	12.00		
1.2.31	25/10+ 11	Fabrication & Erection of heavy steel work, with angle, tees, flat iron round iron and sheet iron for making trusses, girders, tanks, etc., including cutting, drilling, revitting, handling, assembling and fixing, including erection in position. (Top Cover, & Girder)	100 Kg	128.03		
1.2.32	23-52	Providing and fixing Chain Pulley Block of 5 ton capacity with 5 meter length of chain, as per required specifications complete in all respect and as approved by the Engineer Incharge.	Each	1.00		
Plumbing Work						
1.2.33	19-45	Providing and fixing brass stop cock/bib cock:- b)20 mm (¾") dia	Each	8.00		
1.2.34	19-25	Providing and fixing chromium plated tee stop cock 15mm (½").	Each	2.00		

**Engineering Design and Construction Supervision Punjab Rural Sustainable Water Supply and Sanitation Project,
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Bill No. 1: WATER SUPPLY SYSTEM

Bill No. 1.2.: Stand Post with Tubewell Chamber

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT Lodhran						
1.2.35	19-47	Providing, fixing, testing and commissioning of u-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. (v) 110 mm	Per Rft	25.00		
		(iv) 82mm	Per Rft	50.00		
		PIPING & VALVES				
1.2.36	23-33	Providing, laying, testing and commissioning of POLYPROPYLENE 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	100.00		
		iv) 40 mm	Rft	50.00		
1.2.37	19/31	Providing and fixing brass peet/gate valve (screwed):-				
		i) 30 mm (1¼" dia	Each	1.00		
		ii) 40 mm(1½" dia	Each	1.00		
1.2.38	23-45	Supply & installation of heavy duty Brass PN-16 air Vents of specified sizeprovided at thehighest points(PipeRisers) to expel air as approved and directed by the Engineer Incharge				
		(a) Automatic				
		(iii) 1" Dia	Each	2.00		
1.2.39	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	2.00		

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Bill No. 1.2.: Stand Post with Tubewell Chamber

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT Lodhran						
1.2.40	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	1,000.00		
Total Amount For One (01)						
Total Amount For Two (02)						

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Bill No. 1: WATER SUPPLY SYSTEM

Bill No. 1.3: Pump House (Electrical)

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT Lodhran						
1.3.1	24/3	Supply and erection of PVC pipe for wiring including inspection boxes, pull boxes, hooks, and repairing surface, etc., complete with all specials.				
	a)	Recessed in walls i/c making jharries				
		iii) 25 mm i/d	Rft	107.00		
		vi) 50 mm i/d	Rft	100.00		
1.3.2	24/09	Supply and erection of single core PVC insulated, PVC sheathed copper conductor, 250/440 volts grade cable (BSS-2004), in pre-laid PVC pipes/M.S. conduit/G.I. pipe/wooden strip batten/wooden casing and capping/trenches, etc. (rate for cable only):-				
		i) 3/0.74 mm (3/0.029") (P+N+E) for Point Wiring	Rft	144.00		
		iii) 7/0.74 mm (7/0.029") (P+N+E) for Circuit Wiring	Rft	45.00		
		iv) 7/0.91 mm (7/0.036") (P+N+E) for Power Wiring	Rft	51.00		
1.3.3	24/11	Supply and erection of PVC insulated, PVC sheathed copper conductor cables for service connection, in pre-laid pipe/G.I. wire/trenches, etc. (rate for cable only):-				
	(b)	Three core, 600/1000 volt non armoured cable:-				
		vi) 7/1.63 mm (7/0.064") for ASDS Starter	Rft	37.00		
	(c)	Four core, 600/1000 volt non armoured cable:-				
		vii) 16 mm (7/0.064") for DBLP-TR Main Power Cable	Rft	15.00		
		viii) 25 mm (19/0.052") for MCC-TW Main Power Cable	Rft	100.00		
1.3.4	24/08	Supply and erection of single core PVC insulated copper conductor cables, in pre-laid PVC pipe/M.S. conduit/G.I. pipe/wooden strip batten/wooden casing and capping/G.I. wire/trenches (rate for cables only):-				
	(c)	450/750 volts, PVC insulated:				
		vi) 10 mm sq (7/0.052")	Rft	15.00		
		vii) 16 mm sq (7/0.064")	Rft	30.00		
		viii) 25 mm sq (19/0.052")	Rft	100.00		

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Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT Lodhran						
1.3.5	24/103	Providing and fixing Pakistan Energy Label NEECA approved Copper winded wall bracket Fan i/c the cost of necessary cable and hardware for connection as approved and directed by Engineer Incharge.				
	(i)	18" Sweep dia	Each	2.00		
1.3.6	24/105	P/F PVC double layer Switch kit Face plate with specified switch holes i/c the cost of switches / sockets / dimmer made of Hi-Life / Bush / Schenider, screws complete as approved and directed by the Engineer Incharge				
		a) One Way Gang Switch (Small)				
		(ii) 02 Gang	Each	1.00		
		(iv) 3-Pin power plug 13A	Each	1.00		
		b) One Way Gang Switch (Large)				
		(ii) 05 Gang	Each	1.00		
1.3.7	24/106	Supply, installation, testing & commissioning of 16 SWG Sheet steel powder coated back boxes with earth terminal, recessed in wall, including accessories, complete in all respect as per specifications and as approved by Engineer				
	i)	Small 3"x3"	Each	3.00		
	ii)	Large 6"x3"	Each	1.00		
1.3.8	N.S	Supply, installation, testing and commissioning of complete earthing system for MCC-TW. The work shall include 3 meter long copper rod of 20 mm dia size with bare copper conductor 1x50 mm.sq ssc upto earth connecting point, insecton chamber, etc to achieve less than 3 ohm specified earthing results. Complete in all respects as per drawing and specification or as directed by the Engineer	Each	2.00		
1.3.9	N.S	Providing & laying 2 core, of following sizes, PVC insulated & PVC sheathed, 600/1000 volts grade with stranded copper conductor, un armored L.T cable in prelaid pipe/G.I. wire/trenches, etc.				
	(i)	2 Core 10 mm.sq Cu/PVC/PVC for DBLP Main Power Cable	Rft	15.00		

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Bill No. 1.3: Pump House (Electrical)

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT Lodhran						
1.3.10	N.S	Supply, installation, testing & commissioning of following various types of LED lights along with the accessories required for light fitting including light boxes:				
1.3.11	(i)	Ceiling mounted 18 W LED Light, (SMD) (90~265VAC), System Lumens: 80~90 lm/W, Power Factor: ≥0.9, LED Driver: Isolated (THD≤20) @ 220 VAC, Housing Material: Die Cast Aluminum, Protection Class: IP-20	Each	5.00		
1.3.12	(ii)	12 W Surface Mounted Down Light, (SMD) (90~265VAC), System Lumens: 80~90 lm/W, Power Factor: ≥0.9, LED Driver: Isolated (THD≤20) @ 220 VAC, Housing Material: Die Cast Aluminum, Protection Class: IP-20	Each	1.00		
1.3.13	N.S	Fabrication, supply at site installation and commissioning & connection of wires/cables of distribution boards IP-54 made of 14 SWG M.S sheet degreased , derusted, zinc phosphated, finished with electrostatic powder coating of 100 micron tickness in approved colour with hinged door, flexible earthing strap lockable handle, catcher, earthing bar, neutral strip, internal wiring, designation labels on MCB, earthing bar, numbering beads on control wires, suitable for system 240V, 50HZ, 1 Phase & neutral, bus bars of 99.8% purity electrolytic copper, including cost of cable termination lugs, brass cable glands for incoming & outgoing cables, wiring from breakers, indication lamps, instruments & control all accessories.	Each	1.00		
		Incoming:				
		01 No. 32A DP MCB 10 kA				
		01 No. Digital Volt Meter 0~240V				
		0 No. Control Fuse for Protection				
		01 No. Indication Lamp (R)				
		01 Job. Brass Cable Gland for Incoming cable				
		Outgoing:				
		02 Nos. 10A SP MCB 6 kA				
		01 No. 20A SP MCB 6 kA				
		01 No. 20A SP MCB 6 kA (Spare)				

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Bill No. 1.3: Pump House (Electrical)

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT Lodhran						
	N.S	Fabrication, supply at site installation and commissioning of 16 SWG mild steel sheet fabricated distribution board for MCC (Motor Control Centre), free standing/ wall mounting, indoor type, front access, insulation class 600 Volts, incoming and outgoing connections from top or bottom as per site requirement, door to body earth with flexible copper cable suitable for 415VAC, 3 Phase 4 wire, 400/230 50Hz TPN&E system, having rated service short circuit breaking capacity as mentioned in the details. Complete in all respects as per the satisfaction of the engineer and single line diagram.	Each	1.00		
		Incoming:				
		01 No: 80 ATP MCCB, RC:16 kA				
		01 No: Digital Ampere Meter 0~100A With Selector Switch				
		01 No: Digital Volt Meter 0~600VAC With Selector Switch				
		03 Nos: Current Transformer 80/5A				
		03 Nos: Control MCB for protection				
		03 Nos: Indication Lamp (R+Y+B)				
		01 Job: Brass Cable Gland for Incoming Cable				
		01 No: 3 Phase, 4-Wire Energy Meter				
		Outgoing:				
		01 No. 32A DP MCB RC:10 kA for DBLP-TR				
		01 No. 50A TP MCCB RC:16 kA				
		01 No. 32A DP MCB RC:10 kA (Spare)				
		01 No. 50A TP MCCB RC:16 kA (Spare)				
Total Amount						
Total Amount For Two (02)						

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BILL OF QUANTITIES

Bill No. 1: WATER SUPPLY SYSTEM

Bill No. 1.4: Boundary Wall

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT Lodhran						
1.4.1	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)lift upto 5 ft (1.5m)				
		1) By Manual				
		ii) in ordinary soil.	1000 Cft.	1,406.25		
1.4.2	6/5	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):				
		(i) Ratio 1: 4: 8	100 Cft	242.00		
		(f) Ratio 1: 2: 4	100 Cft	712.00		
1.4.3	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.	100 Cft	132.00		
1.4.4	7/4	Pacca brick work in foundation and plinth in: i) Cement, sand mortar Ratio 1:5	100 cft	354.00		
1.4.5	7/7	Pacca brick work other than building upto 10ft. (3 m) height. i) cement, sand mortar:- Ratio 1:4	100 Cft	390.00		
1.4.6	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, 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	40.00		

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Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT Lodhran						
		(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	56.25		
1.4.7	6/12 b	Providing and fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labor charges for binding of steel reinforcement (also includes removal of rust from bars), Deformed bars (Grade 60)	100 Kg	283.86		
1.4.8	11/9	Cement plaster 1:4 upto 20' (6.00 m) height:- b) ½" (13 mm) thick	100 Sft	712.00		
1.4.9	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.	Per Sft	180.00		
1.4.10	13/5 d	Painting new surface:- Preparing surface and painting guard bars, gates of iron bars, gratings, railing (including standards, braces, etc.) and in similar open work:- a) Priming coat	100 Sft	360.00		
		b) Two Coats	100 Sft	360.00		
1.4.11	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) (Form Sargodha Quarry)	100 Cft.	1,052.48		
1.4.12	3/15	Filling, watering and ramming earth under floors:-				
		i) With surplus earth from foundation, etc.	1000 Cft.	1,755.00		
		ii) With new earth excavated from outside, lead upto one chain (30 m).	1000 Cft.	15,795.00		
1.4.13	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)				
		a) Upto ¼ mile (400 m).	1000 Cft.	15,795.00		

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Bill No. 1.4: Boundary Wall

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT Lodhran						
		b) For every 330 ft. (100 m) additional lead or part thereof, beyond ¼ mile (400 m) upto one mile. (1.6 Km.)	1000 Cft.	15,795.00		
1.4.14	6/2	Dry rammed brick or stone ballast, 1½" to 2"(40 mm to 50 mm) gauge.	100 Cft.	1,930.50		
1.4.15	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.	100 Cft.	2,135.25		
		Precast Wall				
1.4.16	NS	Providing and Fixing in Position Precast boundary wall of standard size as per drawing and direction of the engineer incharge. The rate of Boundary wall includes wall Pannels of size (2"x1'x8'), columns (6"x6.5"x8') with Cap,transported to site,loading/unloading and fixing in position finished, complete in all respect.	Rft	344.00		
					Total Amount	

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Bill No.2. SEWERAGE SYSTEM

Bill No. 2.1: DRAIN NETWORK

Sr. No.	Ref	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT Lodhran						
2.1.1	4/29	Dismantling brick or flagged flooring without concrete foundation.	100 Sft	6,631.55		
2.1.2	21/8	Restoration of brick pavement on edge, over laid service line, with 2" (50 mm) sand cushion under soling.	100 Sft	6,631.55		
2.1.3	4/19 a	Dismantling cement concrete plain 1:4:8.	100Cft.	1,000.00		
2.1.4	4/46	Dismantling and removing road pavement, etc., including screening and stacking of byproducts upto one chain lead (30 metre).	100 Cft	2,075.00		
2.1.5	21/10	Restoration of metalled road, on laid service line, including 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.	100 Sft	2,500.00		
2.1.6	3/9	Earthwork excavation in irrigation channels, drains, etc. to designed section, grades and profiles, excavated material disposed off and dressed within 100 ft. (30 m) lead:-				
		i) Ordinary	1000 Cft.	53,348.87		
2.1.7	6/3	Cement concrete brick or stone ballast 1½ " to 2" (40 mm to 50 mm) gauge, in foundation and plinth:- (d) Ratio 1: 6:12	100 Cft.	3,240.54		
2.1.8	6/5	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate): (f) Ratio 1: 2: 4	100 Cft.	3,203.96		
2.1.9	20/6	Constructing Punjab Standard Drains. of cement concrete 1:2 ½ :5, with cement concrete bedding ratio 1:6:12, complete, laid to lines, grades, slopes and shapes, rendering exposed surface of concrete with 1:1 cement, sand mortar, ¼" (6 mm) thick, as per Engineer's drawing (excluding excavation):- a) Type I	Per Rft	8,289.44		
2.1.10	7/4	Pacca brick work in foundation and plinth in:- Ratio 1:5	100 Cft.	11,179.89		
2.1.11	20/1	Tega formed of pacca bricks on end, laid in and over cement sand mortar projecting to a height of not more than 6" (150 mm) top of drain along the property side where required, laid to lines, grades, slopes and shape according to the Engineer's drawing:- a) 3" thick (75 mm) ii) ratio 1:5	100Rft	12,534.16		

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Sr. No.	Ref	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT Lodhran						
2.1.12	20/3	Pacca brick on edge, laid in reimbursement, in cement, sand mortar, on sides of drains and on other works where required. All joints to be completely filled and struck flush:- b) ratio 1:5	100Sft	3,221.04		
		Top Slab (R.C.C. 1:2:4)				
2.1.13	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.):-				
		(d) Precast reinforced cement concrete and prestressed reinforced cement concrete in columns, beams, lintels, stair cases, shelves, etc. (3) Type C (nominal mix 1: 2: 4)	Per Cft	1,611.25		
2.1.14	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. (From Sargodha Quarry)	100 Cft	5,998.06		
2.1.15	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	4,750.79		
2.1.16	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:- ii) 90% maximum modified AASHTO dry density.	1000 Cft.	58,026.00		
2.1.17	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)				
		a) Upto ¼ mile (400 m).	1000 Cft.	58,026.00		

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Sr. No.	Ref	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT Lodhran						
		b) For every 330 ft. (100 m) additional lead or part thereof, beyond ¼ mile (400 m) upto one mile. (1.6 Km.)	1000 Cft.	58,026.00		
		Drain House Connection				
2.1.18	R.A.A.	Construction of house Connection Chamber of specified size, complete in all respects as per drawings, specifications & instructions of the Engineer incharge. The unit rate includes but not limited to excavation, backfilling, compaction, PCC (1:6:12) in bedding, PCC (1:2:4) benching, brick masonry in 1:4, C/S mortar, 1/2" thick 1:4 C/S plaster on both sides, precasted Cover slabs, 4" dia uPVC pipe gor house connection and connection to manhole with 6" dia uPVC pipe (excluding cost of 6" dia pipe) finished etc complete in all respects.				
		Type-1	Job	239.00		
		Type-2	Job	20.00		
		Type-3	Job	10.00		
2.1.19	19/48	Providing, fixing, testing and commissioning of µ-PVC (Unplasticized Polyvinyl Chloride) sewerage pipe make of Dadex /Popular/Beta or approved equivalent manufacturer, plain /socket ended conforming to code EN-1401 of specified SDR (Standard Dimension Ratio) including the cost of specials and Solvents complete in all respect as approved and directed by the Engineer Incharge. Type (SDR 34/SN-8)				
		i) 6" dia 150mm	Per Rft	2,690.00		
2.1.20	N.S.	Providing and Fixing RPC removeable perforated Slab pannel of size 3'x1.5' (55mm thick) made of approved manufacturer at intervals as per drawing and direction of the	Per Rft	2,072.00		
Total Amount						

**Engineering Design and Construction Supervision Punjab Rural Sustainable Water Supply and Sanitation
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Cluster South-III**

Village: Sharakwa Tehsil: Karor Pacca

BILL OF QUANTITIES

Bill No.2. SEWERAGE SYSTEM

Bill No. 2.2: SEWER NETWORK

Sr. No.	Ref	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT LODHRAN						
2.2.1	4/29	Dismantling brick or flagged flooring without concrete foundation.	100 Sft	13,733.50		
2.2.2	21/8	Restoration of brick pavement on edge, over laid service line, with 2" (50 mm) sand cushion under soling.	100Sft.	13,733.50		
2.2.3	4/19 a	Dismantling cement concrete plain 1:4:8.	100Cft.	1,000.00		
2.2.4	4/19 c	Dismantling cement concrete 1:2:4 plain.	100Cft.	1,000.00		
2.2.5	4/46	Dismantling and removing road pavement, etc., including screening and stacking of byproducts upto one chain lead (30 metre).	100 Cft	2,279.76		
2.2.6	21/10	Restoration of metalled road, on laid service line, including c) Black Topped Road with two coats of surfacing & 10" (250 mm) depth of stone metal, for sub base & base.	100 Sft	2,747.00		
2.2.7	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.				
		2) By Mechanical Means				
		a) 0 ft. to 7.0 ft. (0 to 2.10 m) depth				
		ii) Ordinary soil,(If wooden planks, beams and struts are not used at site, the Composite Rates may be reduced by 3,442.40 %0Cft)	1000 Cft	53,736.00		
		b) 7-01 ft. to 15.0 ft. (2.15 to 4.5 m) depth				
		ii) Ordinary soil,(If wooden planks, beams and struts are not used at site, the Composite Rates may be reduced by 3,442.40 %0Cft)	1000 Cft	26,368.00		
		c) above 15.0 ft. (4.5 m) depth				
2.2.8	Cost (A	Dry rammed brick or stone ballast, 1½" to 2"(40 mm to 50 mm) gauge.	100Cft	5,388.00		

**Engineering Design and Construction Supervision Punjab Rural Sustainable Water Supply and Sanitation
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Village: Sharakwa Tehsil: Karor Pacca

BILL OF QUANTITIES

Bill No.2. SEWERAGE SYSTEM

Bill No. 2.2: SEWER NETWORK

Sr. No.	Ref	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT LODHRAN						
2.2.9	21/3	Providing and laying R.C.C. pipe sewers, moulded with cement concrete 4000 psi conforming to ASTM Specification C-76-20, specific class. Wall B, including carriage of pipe 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.				
		b) Class-II i) 310 mm (12") i/d	Per Rft.	2,747.00		
2.2.10	21/22	Providing and laying sand under and around the sewer pipe, including leveling, manual compaction, complete in all respect.	100Cft.	10,302.00		
2.2.11	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:- ii) 90% maximum modified AASHTO dry density.	1000 Cft.	57,681.00		
2.2.12	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)				
		a) Upto ¼ mile (400 m).	1000 Cft.	57,681.00		
		b) For every 330 ft. (100 m) additional lead or part thereof, beyond ¼ mile (400 m) upto one mile. (1.6 Km.)	1000 Cft.	57,681.00		
2.2.13	6/3	Cement concrete brick or stone ballast 1½" to 2" (40 mm to 50 mm) gauge, in foundation and plinth:- (d) Ratio 1: 6:12	100Cft	720.00		
2.2.14	7/4	Pacca brick work in foundation and plinth in:- i) Cement, sand mortar:-Ratio 1:3	100 Cft.	803.00		
2.2.15	11/8	Cement plaster 1:3 upto 20' (6.00 m) height:- b) ½" (13 mm) thick	100 Sft.	450.00		

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BILL OF QUANTITIES

Bill No.2. SEWERAGE SYSTEM

Bill No. 2.2: SEWER NETWORK

Sr. No.	Ref	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT LODHRAN						
2.2.16	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, 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	197.00		
2.2.17	6/12	Providing and fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labor charges for binding of steel reinforcement (also includes removal of rust from bars), Deformed bars (Grade 60)	100 Kg	580.83		
2.2.18	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) (Form Sargodha Quarry)	100 Cft.	865.77		
Total Amount						

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Village: Sharakwa Tehsil: Karor Pacca

BILL OF QUANTITIES

Bill No.2. SEWERAGE SYSTEM

Bill No. 2.3: Manholes and Connection Chambers

Sr. No.	Ref	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT LODHRAN						
Manhole Works						
MH.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.				
		2) By Mechanical Means				
		a) 0 ft. to 7.0 ft. (0 to 2.10 m) depth				
		ii) Ordinary soil,(If wooden planks, beams and struts are not used at site, the Composite Rates may be reduced by 3,431.85 %0Cft)	1000 Cft	5,523.80		
		b) 7-01 ft. to 15.0 ft. (2.15 to 4.5 m) depth				
		ii) Ordinary soil,(If wooden planks, beams and struts are not used at site, the Composite Rates may be reduced by 3,431.85 %0Cft)	1000 Cft	-		
		c) above 15.0 ft. (4.5 m) depth				
		ii) Ordinary soil,(If wooden planks, beams and struts are not used at site, the Composite Rates may be reduced by 3,431.85 %0Cft)	1000 Cft	534.77		
MH.2	6/3	Cement concrete brick or stone ballast 1½ " to 2" (40 mm to 50 mm) gauge, in foundation and plinth:- (d) Ratio 1: 6:12 (With Brick ballast)	100Cft	534.77		
MH.3	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	816.23		
MH.4	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 Up to 350 Km	100 Cft	1,238.41		
MH.5	7/7	Pacca brick work other than building upto 10ft. (3 m) height i) cement, sand mortar:- Ratio 1:3	100Cft	1,580.26		
	7/10	Extra for pacca brick work in steining of wells or any other circular masonry.	100Cft	1,580.26		
MH.6	11/8	Cement plaster 1:3 upto 20' (6.00 m) height:- b) ½" (13 mm) thick	100 Sft.	1,920.11		

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BILL OF QUANTITIES

Bill No.2. SEWERAGE SYSTEM

Bill No. 2.3: Manholes and Connection Chambers

Sr. No.	Ref	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT LODHRAN						
MH.7	Cost (A)	Extra for making and finishing benching floor work in manhole chamber, with 1/8" (3 mm) thick cement finish.	100Sft.	333.14		
MH.8	13/9	Bitumen coating to plastered or cement concrete surface:- ii) 14 lbs. per 100 Sft. (6.35 Kg per Sq.m)	100 Sft.	960.05		
MH.9	21/11	Providing and fixing 1 1/4"x1 1/4"x3/16" (31x31x5 mm) angle iron step, in manhole chambers, including carriage and setting the same in work to correct lines and levels.	Each	78.00		
MH.10	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 (Grade 60)	100 Kg	780.00		
MH.11	N.S.	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 diameter 790 mm (31.1") with average breaking load capacity of 10 Ton and weight including frame of 50 kg (Minimum).	Each	34.00		
House Connection Chambers						
HCC.12	R.A.A.	Construction of house Connection Chamber of specified size, complete in all respects as per drawings, specifications & instructions of the Engineer incharge. The unit rate includes but not limited to excavation, backfilling, compaction, PCC (1:6:12) in bedding, PCC (1:2:4) benching, brick masonry in 1:4, C/S mortar, 1/2" thick 1:4 C/S plaster on both sides, precasted Cover slabs, 4" dia uPVC pipe for house connection and connection to manhole with 6" dia uPVC pipe (excluding cost of 6" dia pipe) finished etc complete in all respects.				
		Type-1	Job	65.00		
		Type-2	Job	20.00		
		Type-3	Job	10.00		
HCC.13	19/48	Providing, fixing, testing and commissioning of μ -PVC (Unplasticized Polyvinyl Chloride) sewerage pipe make of Dadex /Popular/Beta or approved equivalent manufacturer, plain /socket ended conforming to code EN-1401 of specified SDR (Standard Dimension Ratio) including the cost of specials and Solvents complete in all respect as approved and directed by the Engineer Incharge. Type (SDR 34/SN-8)				
		i) 6" dia 150mm	Per Rft	1,900.00		

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Bill No.2. SEWERAGE SYSTEM

Bill No. 2.3: Manholes and Connection Chambers

Sr. No.	Ref	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT LODHRAN						
Total Amount						

**Engineering Design and Construction Supervision Punjab Rural Sustainable Water Supply and Sanitation
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BILL OF QUANTITIES

Bill No.2. SEWERAGE SYSTEM

Bill No. 2.4: DISPOSAL WORKS (Screening Chamber)

Sr. No.	Ref	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT LODHRAN						
2.4.1	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.				
		2) By Mechanical Means				
		a) 0 ft. to 7.0 ft. (0 to 2.10 m) depth				
		ii) Ordinary soil,(If wooden planks, beams and struts are not used at site, the Composite Rates may be reduced by 3,431.85 %0Cft)	1000 Cft	2,007.00		
		b) 7-01 ft. to 15.0 ft. (2.15 to 4.5 m) depth				
		ii) Ordinary soil,(If wooden planks, beams and struts are not used at site, the Composite Rates may be reduced by 3,431.85 %0Cft)	1000 Cft	286.65		
		c) above 15.0 ft. (4.5 m) depth				
		ii) Ordinary soil,(If wooden planks, beams and struts are not used at site, the Composite Rates may be reduced by 3,431.85 %0Cft)	1000 Cft	1,170.00		
2.4.2	6/5	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):				
		(i) Ratio 1: 4: 8	100 Cft	276.59		
2.4.3	10/4	Providing, laying, watering and ramming brick or stone ballast 1½" to 2"(40 mm to 50 mm) gauge mixed with 25% sand, for floor foundation, complete in all respects.	100 Cft.	18.81		
2.4.4	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.):-				

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BILL OF QUANTITIES

Bill No.2. SEWERAGE SYSTEM

Bill No. 2.4: DISPOSAL WORKS (Screening Chamber)

Sr. No.	Ref	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT LODHRAN						
		(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:-				
		(2) Type B (nominal mix 1: 1½: 3)	Cft.	16.00		
		(b) Reinforced cement concrete in retaining/ Shear walls laid in situ or precast laid in position, or prestressed members cast in situ (Formwork on both sides) , complete in all respects:				
		(2) Type B (nominal mix 1: 1½: 3)				
	Cost (A+	(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.	263.55		
2.4.5	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 (Grade 60)	100 Kg	5,576.00		
2.4.6	7/5	Pacca brick work in ground floor:- ratio 1:5	100 Cft	6.00		
2.4.7	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.	100 Cft.	1,344.81		
2.4.8	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	20.00		
2.4.9	18-14	Providing and fixing G.I. pipe railing, as per standard drawing.	of 3 rows c	59.00		

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BILL OF QUANTITIES

Bill No.2. SEWERAGE SYSTEM

Bill No. 2.4: DISPOSAL WORKS (Screening Chamber)

Sr. No.	Ref	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT LODHRAN						
2.4.10	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 and in joints i/c finishing to require slope . complete in all respect. (50% Grey / 50% Coloured)				
		b) 60-mm thick	Sft	57.00		
2.4.11	9-46	Providing and applying torch-on plain water proofing bituminous membrane of specified thickness (made of Roof-Grip / Euro Bit) duly lapped /connected by heating with Torch over ps-6 primer i/c preparation /smoothen the surface complete in all respect as approved and directed by the Engineer In charge				
		ii) 4 mm thick	Sft	1,104.27		
2.4.12	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" wide 10 mm thick	Rft	58.01		
2.4.13	23/12	Providing and installing M.S. blind pipe socketed/welded joint, M.S. reducer (where necessary), in tubewell bore hole, including jointing/welding with strainer, etc. complete:- (Chamber to ABR Connection Pipe)				
		e) 6" i/d, 3/16" (150 mm i/d 5 mm) thick	Rft	100.00		
2.4.14	23-52	Providing and fixing Chain Pulley Block of 5 ton capacity with 5 meter length of chain, as per required specifications complete in all respect and as approved by the Engineer Incharge.	Job	1.00		
2.4.15	25/10 + 25/11	Fabrication of heavy steel work, with angle, tees, flat iron round iron and sheet iron for making trusses, girders, tanks, etc., including cutting, drilling, revitting, handling, assembling and fixing, but excluding erection in position.	100 Kg	950.69		
2.4.16	N.S	Providing and fixing, of Penstock Gate size Penstock Gate Clear Opening Size 450 x 450 mm Frame Size 450 x 900 mm complete in all respect as per drawing and direction of the engineers incharge..	Each	1.00		

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BILL OF QUANTITIES

Bill No.2. SEWERAGE SYSTEM

Bill No. 2.4: DISPOSAL WORKS (Screening Chamber)

Sr. No.	Ref	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT LODHRAN						
2.4.17	N.S	Pump Set: Flow: 35 m3/hr Head: 30 ft Model: SL1.50.65 .15.2.50B Pump Efficiency: 73.5% Origin: Hungary / Denmark (EUROPE) Including 1x Sluice valve and 1x NRV Motor Control Unit (MCU): VFD Motor Control Unit with Dry running protection relay, Circuit Breaker, DC SPD, AC SPD, DC Change Over Switch, Auto Start Stop with Any input, Self-diagnostic and Self Protection, Ground Fault Monitoring, AC Short Circuit Protection, Under / Over Voltage and Over/ Current Protection, Reverse current Blocking, -10 to 40 Degree Celsius. All contained in lockable cabinet complete in all respect.	Job	2.00		
Total Amount						

**Engineering Design and Construction Supervision Punjab Rural Sustainable Water Supply and Sanitation
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BILL OF QUANTITIES**

Bill No.2. SEWERAGE SYSTEM

Bill No. 2.5: ABR Type-II

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT Lodhran						
2.5.1	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).				
		Depth upto 5ft (1.5m)				
		b) By Excavator				
		ii) Ordinary soil	1000 Cft.	3,662.00		
2.5.2	6/5	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate): (h) Ratio 1: 4: 8	100 Cft.	304.76		
2.5.3	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) (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:-				
		(2) Type B (nominal mix 1: 1½: 3)	Cft.	305.16		
		(a)(ii) Reinforced cement concrete in retaining/ Shear walls laid in situ or precast laid in position, or prestressed members cast in situ (Formwork on both sides) , complete in all respects:				
		(2) Type B (nominal mix 1: 1½: 3)				
		(i) Upto 9" thick (Avg)	Cft.	283.50		
		(ii) More Than 9" thick (Avg)	Cft.	1,440.08		
		(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.	866.25		

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Bill No.2. SEWERAGE SYSTEM

Bill No. 2.5: ABR Type-II

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT Lodhran						
2.5.4	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	8,537.83		
2.5.5	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. (From Sargodha Quarry)	100 Cft.	2,724.34		
		Cost (A+B+C)				
2.5.6	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	1,231.65		
2.5.7	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	45.00		
2.5.8	23/12	Providing and installing M.S. blind pipe socketed/welded joint, M.S. reducer (where necessary), in tubewell bore hole, including jointing/welding with strainer, etc. complete:- e) 6" i/d, 3/16" (150 mm i/d 5 mm) thick	Rft	100.00		
2.5.9	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" wide 10 mm thick	Rft	107.10		
2.5.10	9/15	Khuras on roof 2'x2'x6" (600 x 600 x 150 mm)	Each	2.00		

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BILL OF QUANTITIES**

Bill No.2. SEWERAGE SYSTEM

Bill No. 2.5: ABR Type-II

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT Lodhran						
2.5.11	23-14	Providing, laying, testing and commissioning μ -PVC (Unplasticized Polyvinyl Chloride) Pressure pipe of nominal diameter, conforming to PS-3051/ BS-3505, Dadex/ Popular/ Beta or approved equivalent manufacturer, i/c the cost of solvent and specials complete as approved and directed by the Engineer Incharge. a) Class-D (v) 4"	Each	50.00		
2.5.12	23/18	Providing, laying, cutting, jointing, testing and disinfecting cast iron pipe line (BS-2035/4622) in trenches, including cost of materials, such as lead, yarn, etc.complete in all respects:- b) With Flanged and Flanged Joints 4" Dia (Vent Pipe)	Rft	6.00		
2.5.13	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.	1,285.20		
		ii) 2nd coat	100 Sft.	1,285.20		
2.5.14	19/48	Providing, fixing, testing and commissioning of μ -PVC (Unplasticized Polyvinyl Chloride) sewerage pipe make of Dadex /Popular/Beta or approved equivalent manufacturer, plain /socket ended conforming to code EN-1401 of specified SDR (Standard Dimension Ratio) including the cost of specials and Solvents complete in all respect as approved and directed by the Engineer Incharge. Type (SDR 34/SN-8) i) 6" dia 150mm	Per Rft	220.00		

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Bill No.2. SEWERAGE SYSTEM

Bill No. 2.5: ABR Type-II

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT Lodhran						
2.5.15	R.A.A.	Construction of Bypass Chamber Chamber of specified size, complete in all respects as per drawings, specifications & instructions of the Engineer incharge. The unit rate includes but not limited to excavation, backfilling, compaction, PCC (1:6:12) in bedding, PCC (1:2:4) benching, brick masonry in 1:4, C/S mortar, 1/2" thick 1:4 C/S plaster on both sides, precasted Cover slabs, 4" dia uPVC pipe gor house connection and connection to manhole with 6" dia uPVC pipe (excluding cost of 6" dia pipe) finished etc complete in all respects.	Job	3.00		
2.5.16	N.S.	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	5.00		
Total Amount						

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Bill No.2. SEWERAGE SYSTEM

Bill No. 2.6: Septic Tank Type-V

Sr. Nr.	MRS-2025	Description	Unit	Qty	Unit Rate	Amount	Rs.
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT Lodhran							
2.6.1	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)lift upto 5 ft (1.5m). 2) a) By Excavator ii) Ordinary soil					
		a) Lift up to 5 ft (1.5 m)	1000 Cft	3,185.00			
		b) Lift from 5ft (1.5m) to 15 ft (4.5 m):-	1000 Cft	4,915.00			
		Concrete Works					
2.6.2	6/3	Cement concrete brick or stone ballast 1½ " to 2" (40 mm to 50 mm) gauge, in foundation and plinth:-					
		(b) Ratio 1: 4: 8 (with Brick Ballast)	100Cft	200.28			
2.6.3	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) (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:-					
		Type B (nominal mix 1:1.5: 3)	Per Cft	282.87			
		(b) Reinforced cement concrete in retaining/ Shear walls laid in situ or precast laid in position, or prestressed members cast in situ (Formwork on both sides), complete in all respects: (b) Type B (nominal mix 1:1-1/2:3)					
		(i) Upto 9" thick (Avg)	Per Cft	62.50			
		(ii) More Than 9" thick (Avg)	Per Cft	1,265.06			

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Sr. Nr.	MRS-2025	Description	Unit	Qty	Unit Rate	Amount	Rs.
		(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:-					
		Type B (nominal mix 1: 1.5: 3)	per cft	469.57			
2.6.4	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 (Grade-60)	100 Kg	6,134.31			
2.6.5	Cost (A)	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) (Form Sargodha Quarry)	100Cft	1,747.20			
2.6.6	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. Charge					
		ii) 10" wide 10 mm thick	Rft	120.30			
2.6.7	13/09	Bitumen coating to plastered or cement concrete surface:- i) 20 lbs. per 100 Sft. (9.07 Kg per Sq.m)	100Sft.	3,048.33			
2.6.8	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	20.00			

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Bill No.2. SEWERAGE SYSTEM

Bill No. 2.6: Septic Tank Type-V

Sr. Nr.	MRS-2025	Description	Unit	Qty	Unit Rate	Amount	Rs.
2.6.9	23/14	Providing, fixing, testing and commissioning of μ -PVC (Unplasticized Polyvinyl Chloride) sewerage pipe make of Dadex /Popular/Beta or approved equivalent manufacturer, plain /socket ended conforming to code EN-1401 of specified SDR (Standard Dimension Ratio) including the cost of specials and Solvents complete in all respect as approved and directed by the Engineer Incharge. Type (SDR 34/SN-8)					
		ii) 8" dia 200 mm	Rft	50.00			
2.6.10	23/18	Providing, laying, cutting, jointing, testing and disinfecting cast iron pipe line (BS-2035/4622) in trenches, including cost of materials, such as lead, yarn, etc.complete in all respects:- b) With Flanged and Flanged Joints 4" Dia (Vent Pipe)	Rft	4.00			
2.6.11	N.S.	P/F 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	2.00			
Total Amount for One (01) Septic Tank							

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BILL OF QUANTITIES

Bill No.2. SEWERAGE SYSTEM

Bill No. 2.7: Soakage Pit Type-V

Sr. Nr.	MRS-2025	Description	Unit	Qty	Unit Rate	Amount Rs.
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT Lodhran						
2.7.1	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	1000 Cft	1,537.00		
		ii) from 5.1' to 10' (1.5 to 3.0 metre) depth	1000 Cft	1,012.00		
		iii) from 10.1' to 15' (3.0 to 4.5 metre) depth	1000 Cft	1,012.00		
2.7.2	22/2	Dry sinking of well, including loading, and removing excavated material within one chain (30 m):- a) in ordinary soil :-				
		ii) from 15.1' to 20'(4.5 to 6.0 m) depth	1000 Cft	607.00		
		iii) from 20.1' to 25'(6.0 to 7.5 m) depth	1000 Cft	-		
2.7.3	3/15	Filling, watering and ramming earth under floors:-				
		i) With surplus earth from foundation, etc.	1000 Cft	223.00		
2.7.4	22/8	Providing, making and laying R.C.C. well curb in position, using coarse sand, including all kinds of form, moulds, curing, shuttering, rendering and finishing the exposed surface, (including screening and washing of aggregate :- a) Ratio 1:1½:3	Per Cft.	94.57		
2.7.5	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) (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:-				
		Type b (nominal mix 1:1.5: 3)	Per Cft	82.19		

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Bill No.2. SEWERAGE SYSTEM

Bill No. 2.7: Soakage Pit Type-V

Sr. Nr.	MRS-2025	Description	Unit	Qty	Unit Rate	Amount Rs.
2.7.6	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):- (b) Deformed bars (Grade-60)	100 Kg	521.29		
2.7.7	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. (crushed stone aggregate and bajri used in concrete items) (Form Sargodha Quarry)	100Cft	148.48		
2.7.8	7/7	Pacca brick work other than building upto 10ft. (3 m) height. i) Cement, sand mortar:- Ratio 1:3	100Cft	1,099.81		
2.7.9	7/10	Extra for pacca brick work in steining of wells or any other circular masonry.	100Cft	1,099.81		
2.7.10	6/02	Dry rammed brick or stone ballast, 1½" to 2" (40 mm to 50 mm) gauge.	100Cft.	593.99		
2.7.11	22/9	Providing and fixing structural steel for cutting edge.	100 Kg	305.51		
2.7.12	19/48	Providing, fixing, testing and commissioning of µ-PVC (Unplasticized Polyvinyl Chloride) sewerage pipe make of Dadex /Popular/Beta or approved equivalent manufacturer, plain /socket ended conforming to code EN-1401 of specified SDR (Standard Dimension Ratio) including the cost of specials and Solvents complete in all respect as approved and directed by the Engineer Incharge. Type (SDR 34/SN-8)				
		i) 6" dia 150mm	Rft	150.00		

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Bill No. 2.7: Soakage Pit Type-V

Sr. Nr.	MRS-2025	Description	Unit	Qty	Unit Rate	Amount Rs.
2.7.13	23/18	Providing, laying, cutting, jointing, testing and disinfecting cast iron pipe line (BS-2035/4622) in trenches, including cost of materials, such as lead, yarn, etc.complete in all respects:- b) With Flanged and Flanged Joints 4" Dia (Vent Pipe)	Rft	3.00		
2.7.14	N.S.	P/F 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	1.00		
Total Amount for One (01) Soakage Pit						-

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Bill No.2. SEWERAGE SYSTEM

Bill No. 2.8: Operator Room

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT Lodhran						
2.8.1	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)lift upto 5 ft (1.5m)				
		1) By Manual				
		ii) in ordinary soil.	1000 Cft.	716.75		
2.8.2	6/3	Cement concrete brick or stone ballast 1½ " to 2" (40 mm to 50 mm) gauge, in foundation and plinth:-				
		(d) Ratio 1: 6:12 (with Brick ballast)	100 Cft	128.00		
2.8.3	7/4	Pacca brick work in foundation and plinth in: i) Cement, sand mortar Ratio 1:6	100 cft	344.00		
2.8.4	6/37	Providing and laying damp proof course of cement concrete 1:2:4 (using cement, sand and shingle), including bitumen coating:				
		b) with 2 coats of bitumen:				
		i) 1½" thick (40 mm)	100 Sft	80.00		
2.8.5	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 (20mm)	100 Sft	68.00		
2.8.6	7/5	Pacca brick work in ground floor (super structure) i). Cement, sand mortar Ratio 1:5	100 Cft	579.00		
	Total Cost (A+B+C)	(3) Type C (nominal mix 1: 2: 4)	Per Cft	193.48		
2.8.7	6/12 b	Providing and fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labor charges for binding of steel reinforcement (also includes removal of rust from bars), Deformed bars (Grade 60)	100 Kg	570.61		
2.8.8	10/3	Supplying and filling sand under floor; or plugging in wells.	100 Cft	269.00		

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Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT Lodhran						
2.8.9	10/16	Providing and laying topping of cement concrete 1:2:4, including surface finishing and dividing in panels:- (e) 2"(50 mm) thick	100 Sft	219.00		
2.8.10	11/18	Cement pointing struck joints, on walls, upto 20' (6.00 m) height:- b) ratio 1:3	100 Sft	740.60		
2.8.11	11/9	Cement plaster 1:4 upto 20' (6.00 m) height:- b) ½" (13 mm) thick	100 Sft	930.25		
2.8.12	11/12	Cement plaster 3/8" (10 mm) thick under soffit of R.C.C. roof slabs only, upto 20' height b) 1:3	100 Sft	154.75		
2.8.13	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	74.00		
2.8.14	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) a) 50-mm thick	Sft	127.50		
2.8.15	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	191.61		
2.8.16	11/26	White washing a) new surface:- iii) three coats	100 Sft	687.10		

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Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT Lodhran						
2.8.17	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	43.00		
2.8.18	12/15	Providing and fixing mild steel chowkat of doors, windows, C.window, etc. including holdfast, making and threading holes for hinges, etc. complete:- a) M.S. angle iron 1½"x 1½"x ¼" (40x40x6 mm) welded with M.S. flat 2"x ¼" (50 mm x 6 mm)	Per Sft	43.00		
2.8.19	25/52	Providing and fitting all types of glazed aluminium windows of anodised/ powder coated partly fixed and partly sliding using delux sections of approved manufacturer having frame size of 100 x 30 mm (4"x1-1/4") and leaf frame sections of 50 x 20 mm (2"x¾"), all of 1.6mm thickness including 5 mm thick imported tinted glass with rubber gasket using approved standard latches, hardware etc., as approved by the Engineer in-charge.	Per Sft	54.25		
2.8.20	25/53	Providing and fixing Aluminum Fly screen comprising of Fiber / Aluminum wire guaze (Malasian) fixed in aluminum frame of approved manufacturer / powder coated of size 1-1/2"x1/2" and 1.6mm thick with rubber gasket i/c cost of Hardwares as approved and directed by the engineer incharge. complete in all respect.	Per Sft	27.13		
2.8.21	25/10+ 11	Fabrication & Erection of heavy steel work, with angle, tees, flat iron round iron and sheet iron for making trusses, girders, tanks, etc., including cutting, drilling, revitting, handling, assembling and fixing, including erection in position. (Top Cover & Girder)	100 Kg	128.03		

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Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT Lodhran						
2.8.22	23-52	Providing and fixing Chain Pulley Block of 5 ton capacity with 5 meter length of chain, as per required specifications complete in all respect and as approved by the Engineer Incharge.	Each	1.00		
2.8.23	13/5 c	Painting new surface:- Preparing surface and painting of doors and windows any type (including edges):- (Chowkath Only) a) Priming coat	100 Sft	53.63		
		b) Two Coats	100 Sft	53.63		
2.8.24	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) (Form Sargodha Quarry)	100 Cft.	230.41		
2.8.25	9/15	Khuras on roof 2'x2'x6" (600 x 600 x 150 mm)	Each	2.00		
2.8.26	9/16	Bottom Khuras of brick masonry in cement mortar 1:6, 4' x 2' x 4.5" over 3" cement concrete 1:4:8	Each	2.00		
Plumbing Items						
2.8.27	19-16	Providing and fixing, chromium plated soap dish.	Each	1.00		
2.8.28	19-5	Providing and fitting white glazed earthen ware water closet squaratter type, with separate foot rest.	Each	1.00		
2.8.29	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				
		i) white, with pedestal	Each	1.00		
2.8.30	19-30	Providing and fixing, chromium plated mixing valve, for wash hand basin, sink or shower.	Each	1.00		

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Bill No. 2.8: Operator Room

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT Lodhran						
2.8.31	19-52	Providing and fixing CP bath Room Set made of Sonex/Master/Faisal or approved equivalent manufacturer, comprising of 3-No Tee stop cocks, lever type Basin Mixer, double Bib Cock, open wall shower, Muslim shower, waste coupling and bottle trap etc. complete in all respect as approved and directed by the Engineer incharge.				
		i) 3 No Tee Stop Cock (set)	Each	2.00		
		iii) Double Bib Cock	Each	1.00		
		v) Muslim shower	Each	1.00		
2.8.32	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. (v) 110 mm	Per Rft	25.00		
		(iv) 82mm	Per Rft	50.00		
2.8.33	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 BS 4514 / BS 5255 including the cost of Solvents complete in all respect as approved and directed by the Engineer Incharge.				
		c) Vent Cowel				
		(ii) 3" dia	Each	1.00		
		d) Clean Out				
		(ii) 3" dia	Each	1.00		
		PIPING & VALVES				

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Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT Lodhran						
2.8.34	23-33	Providing, laying, testing and commissioning of POLYPROPYLENE 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	100.00		
2.8.35	19/31	Providing and fixing brass peet/gate valve (screwed):-				
		i) 30 mm (1¼") dia	Each	1.00		
		ii) 40 mm(1½") dia	Each	1.00		
2.8.36	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	2.00		
2.8.37	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	100.00		
Total Amount For One (01) Operator Room						-

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Bill No.2. SEWERAGE SYSTEM

Bill No. 2.9:Electrical Work

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT Lodhran						
2.9.1	24/3	Supply and erection of PVC pipe for wiring including inspection boxes, pull boxes, hooks, and repairing surface, etc., complete with all specials.				
	a)	Recessed in walls i/c making jharries				
		iii) 25 mm i/d	Rft	107.0		
		vi) 50 mm i/d	Rft	100.0		
2.9.2	24/09	Supply and erection of single core PVC insulated, PVC sheathed copper conductor, 250/440 volts grade cable (BSS-2004), in prelaid PVC pipes/M.S. conduit/G.I. pipe/wooden strip batten/wooden casing and capping/trenches, etc. (rate for cable only):-				
		i) 3/0.74 mm (3/0.029") (P+N+E) for Point Wiring	Rft	144.0		
		iii) 7/0.74 mm (7/0.029") (P+N+E) for Circuit Wiring	Rft	45.0		
		iv) 7/0.91 mm (7/0.036") (P+N+E) for Power Wiring	Rft	51.0		
2.9.3	24/11	Supply and erection of PVC insulated, PVC sheathed copper conductor cables for service connection, in prelaid pipe/G.I. wire/trenches, etc. (rate for cable only):-				
	(b)	Three core, 600/1000 volt non armoured cable:-				
		vi) 7/1.63 mm (7/0.064") for ASDS Starter	Rft	37.0		
	(c)	Four core, 600/1000 volt non armoured cable:-				
		vii) 16 mm (7/0.064") for DBLP-TR Main Power Cable	Rft	15.0		
		viii) 25 mm (19/0.052") for MCC-TW Main Power Cable	Rft	100.0		
2.9.4	24/08	Supply and erection of single core PVC insulated copper conductor cables, in prelaid PVC pipe/M.S. conduit/G.I pipe/wooden strip batten/wooden casing an capping/G.I. wire/trenches (rate for cables only):-				
	(c)	450/750 volts, PVC insulated:				
	Cost (A-	viii) 25 mm sq (19/0.052")	Rft	100.0		
2.9.5	24/103	Providing and fixing Pakistan Energy Label NEECA approved Copper winded wall bracket Fan i/c the cost of necessary cable and hardware for connection as approved and directed by Engineer Incharge.				

**Engineering Design and Construction Supervision Punjab Rural Sustainable Water Supply and Sanitation
Project,
Cluster South-III
Village: Sharakwa Tehsil: Karor Pacca
BILL OF QUANTITIES**

Bill No.2. SEWERAGE SYSTEM

Bill No. 2.9:Electrical Work

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT Lodhran						
	(i)	18" Sweep dia	Each	2.0		
2.9.6	24/105	P/F PVC double layer Switch kit Face plate with specified switch holes i/c the cost of switches / sockets / dimmer made of Hi-Life / Bush / Schenider, screws complete as approved and directed by the Engineer Incharge				
		a) One Way Gang Switch (Small)				
		(ii) 02 Gang	Each	1.0		
		(iv) 3-Pin power plug 13A	Each	1.0		
		b) One Way Gang Switch (Large)				
		(ii) 05 Gang	Each	1.0		
2.9.7	24/106	Supply, installation, testing & commissioning of 16 SWG Sheet steel powder coated back boxes with earth terminal, recessed in wall, including accessories, complete in all respect as per specifications and as approved by Engineer				
	i)	Small 3"x3"	Each	3.0		
	ii)	Large 6"x3"	Each	1.0		
2.9.8	N.S	Supply, installation, testing and commissioning of complete earthing system for MCC-TW. The work shall include 3 meter long copper rod of 20 mm dia size with bare copper conductor 1x50 mm.sq ssc upto earth connecting point, insect chamber, etc to achieve less than 3 ohm specified earthing results. Complete in all respects as per drawing and specification or as directed by the Engineer	Each	2.0		
2.9.9	N.S	Providing & laying 2 core, of following sizes, PVC insulated & PVC sheathed, 600/1000 volts grade with stranded copper conductor, un armored L.T cable in prelaid pipe/G.I. wire/trenches, etc.				
	(i)	2 Core 10 mm.sq Cu/PVC/PVC for DBLP Main Power Cable	Rft	15.0		
2.9.10	N.S	Supply, installation, testing & commissioning of following various types of LED lights along with the accessories required for light fitting including light boxes:				

**Engineering Design and Construction Supervision Punjab Rural Sustainable Water Supply and Sanitation
Project,
Cluster South-III
Village: Sharakwa Tehsil: Karor Pacca
BILL OF QUANTITIES**

Bill No.2. SEWERAGE SYSTEM

Bill No. 2.9:Electrical Work

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT Lodhran						
2.9.11	(i)	Ceiling mounted 18 W LED Light, (SMD) (90~265VAC), System Lumens: 80~90 lm/W, Power Factor: ≥0.9, LED Driver: Isolated (THD≤20) @ 220 VAC, Housing Material: Die Cast Aluminum, Protection Class: IP-20	Each	5.0		
2.9.12	(ii)	Bulkhead 18 W LED Light, (SMD) (100~265VAC), System Lumens: 80~90 lm/W, Power Factor: ≥0.9, LED Driver: Isolated (THD≤20) @ 220 VAC, Housing Material: Aluminum Alloy + PC, Protection Class: IP-65	Each	1.0		
2.9.13	N.S	Fabrication, supply at site installation and commissioning & connection of wires/cables of distribution boards IP-54 made of 14 SWG M.S sheet degreased , derusted, zinc phosphated, finished with electrostatic powder coating of 100 micron tickness in approved colour with hinged door, flexible earthing strap lockable handle, catcher, earthing bar, neutral strip, internal wiring, designation labels on MCB, earthing bar, numbering beads on control wires, suitable for system 240V, 50HZ, 1 Phase & neutral, bus bars of 99.8% purity electrolytic copper, including cost of cable termination lugs, brass cable glands for incoming & outgoing cables, wiring from breakers, indication lamps, instruments & control all accessories.	Each	1.0		
		Incoming:				
		01 No. 32A DP MCB 10 kA				
		01 No. Digital Volt Meter 0~240V				
		0 No. Control Fuse for Protection				
		01 No. Indication Lamp (R)				
		01 Job. Brass Cable Gland for Incoming cable				
		Outgoing:				
		02 Nos. 10A SP MCB 6 kA				
		01 No. 20A SP MCB 6 kA				
		01 No. 20A SP MCB 6 kA (Spare)				

**Engineering Design and Construction Supervision Punjab Rural Sustainable Water Supply and Sanitation
Project,
Cluster South-III
Village: Sharakwa Tehsil: Karor Pacca
BILL OF QUANTITIES**

Bill No.2. SEWERAGE SYSTEM

Bill No. 2.9:Electrical Work

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT Lodhran						
	N.S	Fabrication, supply at site installation and commissioning of 16 SWG mild steel sheet fabricated distribution board for MCC (Motor Control Centre), free standing/ wall mounting, indoor type, front access, insulation class 600 Volts, incoming and outgoing connections from top or bottom as per site requirement, door to body earth with flexible copper cable suitable for 415VAC, 3 Phase 4 wire, 400/230 50Hz TPN&E system, having rated service short circuit breaking capacity as mentioned in the details. Complete in all respects as per the satisfaction of the engineer and single line diagram.	Each	1.0		
		Incoming:				
		01 No: 80 ATP MCCB, RC:16 kA				
		01 No: Digital Ampere Meter 0~100A With Selector Switch				
		01 No: Digital Volt Meter 0~600VAC With Selector Switch				
		03 Nos: Current Transformer 80/5A				
		03 Nos: Control MCB for protection				
		03 Nos: Indication Lamp (R+Y+B)				
		01 Job: Brass Cable Gland for Incoming Cable				
		01 No: 3 Phase, 4-Wire Energy Meter				
		Outgoing:				
		01 No. 32A DP MCB RC:10 kA for DBLP-TR				
		01 No. 50A TP MCCB RC:16 kA				
		01 No. 32A DP MCB RC:10 kA (Spare)				
		01 No. 50A TP MCCB RC:16 kA (Spare)				
Total Amount						

**Engineering Design and Construction Supervision Punjab Rural Sustainable Water Supply and Sanitation
Project,
Cluster South-III
Village: Sharakwa Tehsil: Karor Pacca
BILL OF QUANTITIES**

Bill No.2. SEWERAGE SYSTEM

Bill No. 2.10: Boundary Wall

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT Lodhran						
2.10.1	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)lift upto 5 ft (1.5m)				
		1) By Manual				
		ii) in ordinary soil.	1000 Cft.	1,986.33		
2.10.2	6/5	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):				
		(i) Ratio 1: 4: 8	100 Cft	352.00		
		(f) Ratio 1: 2: 4	100 Cft	1,074.00		
2.10.3	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.	100 Cft	203.00		
2.10.4	7/4	Pacca brick work in foundation and plinth in: i) Cement, sand mortar Ratio 1:5	100 cft	451.00		
2.10.5	7/7	Pacca brick work other than building upto 10ft. (3 m) height. i) cement, sand mortar:- Ratio 1:4	100 Cft	469.00		
2.10.6	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, 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	20.00		

**Engineering Design and Construction Supervision Punjab Rural Sustainable Water Supply and Sanitation
Project,
Cluster South-III
Village: Sharakwa Tehsil: Karor Pacca
BILL OF QUANTITIES**

Bill No.2. SEWERAGE SYSTEM

Bill No. 2.10: Boundary Wall

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT Lodhran						
		(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	28.13		
2.10.7	6/12 b	Providing and fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labor charges for binding of steel reinforcement (also includes removal of rust from bars), Deformed bars (Grade 60)	100 Kg	141.94		
	Cost (A)	b) ½" (13 mm) thick	100 Sft	721.00		
2.10.8	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.	Per Sft	90.00		
2.10.9	13/5 d	Painting new surface:- Preparing surface and painting guard bars, gates of iron bars, gratings, railing (including standards, braces, etc.) and in similar open work:- a) Priming coat	100 Sft	180.00		
		b) Two Coats	100 Sft	180.00		
2.10.10	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) (Form Sargodha Quarry)	100 Cft.	1,544.24		
2.10.11	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:- ii) 90% maximum modified AASHTO dry density.	1000 Cft.	8,775.00		
2.10.12	3/15	Filling, watering and ramming earth under floors:-				
		i) With surplus earth from foundation, etc.	1000 Cft.	877.50		

**Engineering Design and Construction Supervision Punjab Rural Sustainable Water Supply and Sanitation
Project,
Cluster South-III
Village: Sharakwa Tehsil: Karor Pacca
BILL OF QUANTITIES**

Bill No.2. SEWERAGE SYSTEM

Bill No. 2.10: Boundary Wall

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT Lodhran						
		ii) With new earth excavated from outside, lead upto one chain (30 m).	1000 Cft.	7,897.50		
2.10.13	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)				
		a) Upto ¼ mile (400 m).	1000 Cft.	7,897.50		
		b) For every 330 ft. (100 m) additional lead or part thereof, beyond ¼ mile (400 m) upto one mile. (1.6 Km.)	1000 Cft.	7,897.50		
2.10.14	6/2	Dry rammed brick or stone ballast, 1½" to 2"(40 mm to 50 mm) gauge.	100 Cft.	965.25		
2.10.15	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.	100 Cft.	1,067.63		
		Precast Wall				
2.10.16	NS	Providing and Fixing in Position Precast boundary wall of standard size as per drawing and direction of the engineer incharge. The rate of Boundary wall includes wall Pannels of size (2"x1'x8'), columns (6"x6.5"x8') with Cap,transported to site,loading/unloading and fixing in position finished, complete in all respect.	Rft	533.00		
Total Amount						

**Engineering Design and Construction Supervision Punjab Rural Sustainable Water Supply and Sanitation
Project,
Cluster South-III**

Village: Sharakwa Tehsil: Karor Pacca

BILL OF QUANTITIES

Bill No. 3: Street Pavement Works

Sr. No.	Ref	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT Lodhran						
3.1	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.	22155.0		
3.2	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.				
		b) 60-mm thick	Per Sft	11250.0		
		c) 80-mm thick	Per Sft	11250.0		
3.3	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.	11250.0		
		(b) Subsequent carriage of gravel and crushed stone aggregate	100Cft.	13500.0		
3.4	18/4	a) Providing and laying base course of crushed stone aggregate of approved quality and grade, and supply and spreading of stone screening, including placing, mixing, spreading and compaction of base course material to required depth, camber and grade to achieve 100% maximum modified AASHO dry density, including carriage of all materials to site of work except gravel and aggregate.				
		ii) Crushed stone aggregate.	100Cft.	5625.0		
		(b) Subsequent carriage of gravel and crushed stone aggregate	100Cft.	6750.0		

**Engineering Design and Construction Supervision Punjab Rural Sustainable Water Supply and Sanitation
Project,
Cluster South-III**

Village: Sharakwa Tehsil: Karor Pacca

BILL OF QUANTITIES

Bill No. 3: Street Pavement Works

Sr. No.	Ref	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT Lodhran						
3.5	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:- ii) 90% maximum modified AASHTO dry density.	1000 Cft.	91048.0		
3.6	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)				
		a) Upto ¼ mile (400 m).	1000 Cft.	91048.0		
		b) For every 330 ft. (100 m) additional lead or part thereof, beyond ¼ mile (400 m) upto one mile. (1.6 Km.)	1000 Cft.	91048.0		
		c) For every ¼ mile (400 m) additional lead or	1000 Cft.	91048.0		
Sign Board Works						
3.7	Cost (A)	Providing, fabrication and fixing pole mounted Direction Board / road delineator of any shape and size, with specified Sheet and thickness, supported with G.I Channel, (excluding the cost of vertical post and painting) etc complete in all respect. A) G.I Sheet 14 SWG ii) RECTANGULAR SHAPE (a) 12 -48 sft	P.Sft	96.0		
3.8	18/27	Providing, fabrication and fixing Vertical Post comprising of medium quality G.I Pipe of specified diameter, including the cost of clamping arrangements, top cover, hold fasts, PCC 1:2:4 footing of specified depth and excavation etc complete in all respect, as approved and directed by the engineer incharge.				
		(a) 2 inch diameter (footing 1.5'x1.5'x4')	P.Rft	120.0		
		(b) 3 inch diameter (footing 1.5'x1.5'x5')	P.Rft	72.0		
3.9	13/42	Lettering and printing of signage / direction boards / road delineators of any colour by machine i/c cost of Digital Lettering, Lamination & pasting etc complete in all respect.				
		a) High Intensity Prismatic (HIP) Tape	P.Sft	96.0		
3.10	13/25	Painting letters with shade.	per letter per inch height	500.0		
Total Amount						

PUNJAB RURAL SUSTAIBALE WATER SUPPLY AND SANITATION PROJECT (PRSWSSP) CLSUTER SOUTH-III						
Tehsil Kahror Pacca						
Bill No. 4: ESMP Cost						
Sr. No.	Item Description	ISO / Standard Code / Description	Unit	Quantity (Per Village)	Unite Rate (Rs.)	Amount (Rs)
Personal Protective Equipments						
1	Safety Jackets	EN ISO 20471: 360 degree visibility Fluorescent yellow/orange; retro-reflective strips; breathable mesh fabric; secure Velcro or zipper closure, provided in appropriate sizes are required by Staff, PRMSC name and logo printed	Each	30.00		
2	Safety Helmets	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) PRMSC Brading and LOGO PRINTED with sr number mentioned on each helmet for ease of record keeping	Each	30.00		
3	Safety Gloves	EN 388 : Nitrile-coated or leather palm; abrasion and cut-resistant; breathable back; conforms to EN388 safety ratings	Each	50.00		
4	Dust Mask (Dust proof mask)	ISO 16975: Disposable N95 or FFP2 class mask; elastic bands; nose clip for sealing; replace after use	Each	100.00		
5	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	35.00		
6	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 positioning; and chest strap with quick-connect buckle; Renowned Brand	Each	3.00		
7	Protective Goggles	ISO 16321: Anti-fog, scratch-resistant; side shielding for wrap-around protection; adjustable strap	Each	10.00		
8	Ear Plugs	ISO 4869-1: Soft polyurethane foam; noise reduction rating (NRR) of 30 dB or more	Each	20.00		
Health Safety Environment Materials / Testing						
9	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	1.00		
10	Warning / Safety Signs	ISO 7010: Weatherproof PVC or Plastic or aluminum signs; reflective print; standardized colors and pictograms (danger, caution, mandatory)	Each	25.00		
11	Green Mesh	Green safety netting for site periphery; 50% shading; UV-stabilized HDPE material.	S.ft	200.00		
12	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.	1.00		
13	CO ₂ Fire Extinguisher	ISO 7165: 5 kg; frost-free horn; suitable for electrical and liquid fires; discharge time of the agent in 13 second)	No.	1.00		
14	Fire Alarm	ICS 13.030.10: Proper segregation, PPE for handlers, timely removal, recordkeeping per solid waste rules	No.	2.00		

PUNJAB RURAL SUSTAIBALE WATER SUPPLY AND SANITATION PROJECT (PRSWSSP) CLSUTER SOUTH-III						
Tehsil Kahror Pacca						
Bill No. 4: ESMP Cost						
Sr. No.	Item Description	ISO / Standard Code / Description	Unit	Quantity (Per Village)	Unite Rate (Rs.)	Amount (Rs)
15	Trapuline	Waterproof tarpaulin sheet made from polyethylene or canva	Sq.ft	30.00		
16	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		12.00		
17	Tree Plantation	5-6 feet height; Native species plantation; soil preparation and watering included	No.	100.00		
18	Barricading / Fencing (Reflective tape, poles, safety mesh/netting)	ISO 13857: Includes poles, reflective tape, plastic mesh netting; minimum 3 feet height; durable and visible	Rft	300.00		
19	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	4.00		
20	Water Sprinkling	Water sprinkling through tank mounted on tractor	Per Trip	30.00		
21	Medical Screening for Workers	CBC, Anti HCV, HBsAG, HIV, RPR, LFTs, RFTs etc.	Persons	30.00		
Environmental Testing and Monitoring						
22	Ambient Air Quality Monitoring	As per the parameters and methodology defined by EPA (Quarterly in every village)	Each	3.00		
23	Groundwater Quality Test	As per the parameters and methodology defined by EPA (Quarterly in every village)	Each	3.00		
24	Surface Water Quality Test	(As per the parameters and methodology defined by EPA (Quarterly in every village)	Each	3.00		
25	waste Water	(As per the parameters and methodology defined	Each	3.00		
26	Noise Level Monitoring	(As per the parameters and methodology defined by EPA (Quarterly in every village)	Each	3.00		
Site Specific / Contractors Environmntal and Social Management Plan						
27	CESMP Formulation	By an individual or firm as approved by PRMSC Environment Wing	per village	1.00		
HSE Staff						
28	HSE Supervisor	Bachelor's degree in Environmental Sciences / Engineering , NEBOSH or IOSH certification will be preffered, 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 per village	12.00		
Waste Management and House Keeping						
29	Handling and	ICS 13.030.30:	3 times per	3.00		
Total cost per Village						

PUNJAB RURAL SUSTAINABLE WATER SUPPLY & SANITATION PROJECT (PRSWSSP), CLUSTER SOUTH-III (Kahrora Pacca) (PHASE-I)					
BILL NO. 5: EMPLOYER/ENGINEER'S FACILITIES					
Sr. No.	Description	Unit	Quantity	Rate (PKR)	Amount (PKR)
<i>The following items shall be provided complete in all respects and in accordance with the special provision of the bidding document and up to the satisfaction of The Engineer / The Employer. Rates for below given items are to be filled-in by the Contractor however, payment will be made as per actual bills in accordance with special provisions.</i>					
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					
Required 2 No.s					
Grand Total					-

**Engineering Design and Construction Supervision Punjab Rural Sustainable Water
Supply and Sanitation Project, Cluster South-III**

Tehsil: Khairpur Tame wali

Name of Villages

1. Piro Joya
- 2 Dhudhi

BILL OF QUANTITIES

ABSTRACT OF COST

Sr. No	Description	Amount (Rs.)
1	WATER SUPPLY SYSTEM	
2	SEWERGE SYSTEM	
3	STREET PAVEMENT WORKS	
4	ESMP COST	
5	EMPLOYER FACILITIES	
TOTAL COST (Rs.)		

**Engineering Design and Construction Supervision Punjab Rural Sustainable
Water Supply and Sanitation Project,
Cluster South-III**

Village: Piro Joya/Dhuddi : Khairpur Tame wali

BILL OF QUANTITIES

Sr.No	Description	Amount (Rs.)
1	Water Supply Network	
1.1	TW Installation 0.05 Cusec	
1.2	Pump House (Electrical)	
1.3	Stand Post Type-II	
1.4	Boundary Wall	
	Sub Total A	
2	Sewerage System	
2.1	Drain Type I	
2.2	Spetic Tank Type-I x1	
2.3	Soakage Well Type-I x1	
2.4	Spetic Tank Type-II x2	
2.5	Soakage Well Type-II x2	
2.6	Spetic Tank Type-III	
2.7	Soakage Well Type-III	
	Sub Total B	
3	Streets Pavement Works	
	Sub Total C	
	Total Cost (A+B+C)	

**Engineering Design and Construction Supervision Punjab Rural Sustainable Water Supply and Sanitation Project,
Cluster South-III**

Village: Piro Joya/Dhuddi : Khairpur Tame wali

BILL OF QUANTITIES

Bill No. 1: WATER SUPPLY SYSTEM

Bill No. 1.1: Tubewell Installation (0.05 cusecs)

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALPUR						
1.1.1	23/2	Direct Rotary/ Reverse Rotary drilling of bore for tubewells, in all types of soil except shingle, gravel and rock:-				
		a) from ground level to 250 ft. (75 m) below ground				
		i) 15" to 18" (375 to 450 mm) i/d	Rft of bore	570.0		
		Housing Pipe				
1.1.2	23/12	Providing and installing M.S. blind pipe socketed/welded joint, M.S. reducer (where necessary), in tubewell bore hole, including jointing/welding with strainer, etc. complete:- (Housing Pipe) e) 6" i/d, 3/16" (150 mm i/d 5 mm) thick	Per Rft	300.0		
		Blind Pipe				
1.1.3		c) 4" i/d, 1/8" (100 mm i/d 3 mm) thick	Per Rft	150.0		
		Strainer Pipe				
1.1.4	23/09	Providing and installing Fiberglass Reinforced Polypropelene (FRP) strainer of specifid wall thickness having slot size of 0.9 mm to 1.10 mm in Tubewell borehole i/c the cost of male/female coupling with Nylone Strip, studs complete in all respect as approved and directed by the Engineer Incharge. iii) 4" inch dia (5 mm thickness)	Per Rft	90.0		
		Bail Plug				
1.1.5	23/10	Providing and installing Fiber glass Reinforced Polypropelene (FRP) bail plug of specified wall thickness having slot size of 0.9 mm to 1.10 mm in Tubewell bore hole i/c the cost of male / female coupling with Nylone Strip, studs complete in all respect as approved and directed by the Engineer. iii) 4" dia (5mm thickness)	Per Rft	30.0		
		Delivery Pipe				
1.1.6	23/12	Providing and installing M.S. blind pipe socketed/welded joint, M.S. reducer (where necessary), in tubewell bore hole, including jointing/welding with strainer, etc.(Delivery Pipe) complete:-				
		b) 3" i/d, 1/8" (75 mm i/d 3 mm) thick	Per Rft	60.0		
1.1.7	23/17	Shrouding with graded pea gravel 3/8 to 1/8 inch (10 to 3 mm) arround tubewell in bore hole.	Per Cft	539.4		
1.1.8	23/5	Furnishing sample of water from borehole.	Per set of 2 bottles	9.0		

**Engineering Design and Construction Supervision Punjab Rural Sustainable Water Supply and Sanitation Project,
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Village: Piro Joya/Dhuddi : Khairpur Tame wali

BILL OF QUANTITIES

Bill No. 1: WATER SUPPLY SYSTEM

Bill No. 1.1: Tubewell Installation (0.05 cusecs)

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALPUR						
1.1.9	23/16	Testing and developing of tubewell of size 6" (150 mm) i/d and above continuously.		0.0		
		i) upto 1.5 cs. Discharge	P. Hour	216.0		
1.1.10	23/31	Providing & mixing bentonite clay / powder have swelling factor of 1200% for lining /seal and plug earthen bore holes / ponds in the specified ratio conforming to IS:6186 for stabilization of soil as specified by the designer etc complete in all respect.	Per Kg.	30.0		
1.1.11	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	88.4		
1.1.12	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) (Form Sargodha Quarry)	100 CFT	77.8		
1.1.13	N/S	Geophysical Logging of Borehole, including Data Collection, Interpretation, and Preparation/ Submission of Detailed Report to the Competent Authority/Incharge, Complete in All Respects.	P/Job	3.0		
1.1.14	N/S	Conducting Chemical, Physical, and Arsenic Analysis of Water through an Approved Water Testing Laboratory, including Collection, Testing, and Submission of Test Report to the Competent Authority/Incharge, Complete in All Respects.	P/Job	3.0		
1.1.15	N/S	Supplying, installing, testing and commissioning of submersible water supply pump set of Approved manufacturer of HUD & PHED and should be ISO 9001 Certified, complete in all respects as per specifications and direction of the Engineer Incharge. The pump set shall have the following specifications: Discharge: 0.05 Cusec Total Head: 250 ft Setting Depth: 120 ft Speed: 2900 RPM				
		Motor: 3 KW, 2 Pole, IP68 Protection Pump Set to include: Motor Control Unit (MCU), One (01) Sluice Valve, One (01) Air Release Valve, One (01) Reflux Valve, pressure guage, 80 ft Submersible Electric Cable, Required Column Pipe etc. Complete in all respects as per drawing and as directed by the Engineer Incharge.	P/Job	3.0		

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Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALPUR						
1.1.16	N/S	Providing, installing, testing, and commissioning of Hypo Dosing Chlorinator unit of European make, having an injection capacity of 8 liters/second and maximum operating pressure of 10 bar, complete in all respects as per specifications, drawings, and as directed by the Engineer Incharge.	P/Job	3.0		
1.1.17	N/S	Providing and fixing Electromagnetic Flow meter of specified dia as per Delivery Size in Pump House complete in all respect. Typically of Following Specification: Line Size: 3", DN80 Flanged, RF ANSI 150# Flow range: 9 ~ 90 m ³ /h Liner Material: PTFE Electrode Material: 316L Stainless Steel Body Material: Carbon Steel Power Supply: 220 VAC Output: 4 ~ 20mA Protection Class: IP68 Accuracy: Class -II (OIML R49/ISO4064) ISO 9001 Certified manufacturer	P/Job	3.0		
1.1.19	N/S	Providing / fixing M.S Centralizer of required Size as per drawing and directions of the engineers incharge.	P/Job	15.0		
Total Amount For One (01)						

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**Village: Piro Joya/Dhuddi : Khairpur Tame wali
BILL OF QUANTITIES**

Bill No. 1: WATER SUPPLY SYSTEM

Bill No. 1.2: Pump House (Electrical)

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALPUR						
1.2.1	24/3	Supply and erection of PVC pipe for wiring including inspection boxes, pull boxes, hooks, and repairing surface, etc., complete with all specials.				
	a)	Recessed in walls i/c making jharries				
		iii) 25 mm i/d	Rft	321.0		
		vi) 50 mm i/d	Rft	300.0		
1.2.2	24/09	Supply and erection of single core PVC insulated, PVC sheathed copper conductor, 250/440 volts grade cable (BSS-2004), in prelaid PVC pipes/M.S. conduit/G.I. pipe/wooden strip batten/wooden casing and capping/trenches, etc. (rate for cable only):-				
		i) 3/0.74 mm (3/0.029") (P+N+E) for Point Wiring	Rft	432.0		
		iii) 7/0.74 mm (7/0.029") (P+N+E) for Circuit Wiring	Rft	135.0		
		iv) 7/0.91 mm (7/0.036") (P+N+E) for Power Wiring	Rft	153.0		
1.2.3	24/11	Supply and erection of PVC insulated, PVC sheathed copper conductor cables for service connection, in prelaid pipe/G.I. wire/trenches, etc. (rate for cable only):-				
	d)	Four Core, 600/1000 volt armoured cable:-				
		iii) 10 mm sq (7/0.052) for MCC-TW Main Power Cable	Rft	600.0		
1.2.4	24/08	Supply and erection of single core PVC insulated copper conductor cables, in prelaid PVC pipe/M.S. conduit/G.I. pipe/wooden strip batten/wooden casing an capping/G.I. wire/trenches (rate for cables only):-				
	(c)	450/750 volts, PVC insulated:				
		vi) 10 mm sq (7/0.052")	Rft	645.0		
1.2.5	24/103	Providing and fixing Pakistan Energy Label NEECA approved Copper winded wall bracket Fan i/c the cost of necessary cable and hardware for connection as approved and directed by Engineer Incharge.				
	(i)	18" Sweep dia	Each	6.0		

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Bill No. 1.2: Pump House (Electrical)

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALPUR						
1.2.6	24/105	P/F PVC double layer Switch kit Face plate with specified switch holes i/c the cost of switches / sockets / dimmer made of Hi-Life / Bush / Schenider, screws complete as approved and directed by the Engineer Incharge				
		a) One Way Gang Switch (Small)				
		(ii) 02 Gang	Each	3.0		
		(iv) 3-Pin power plug 13A	Each	3.0		
		b) One Way Gang Switch (Large)				
		(ii) 05 Gang	Each	3.0		
1.2.7	24/106	Supply, installation, testing & commissioning of 16 SWG Sheet steel powder coated back boxes with earth terminal, recessed in wall, including accessories, complete in all respect as per specifications and as approved by Engineer				
	i)	Small 3"x3"	Each	9.0		
	ii)	Large 6"x3"	Each	3.0		
	24/112	Providing, making & testing/commissioning of Bore type earthing point by drilling 3" dia bore hole up to water table/moist soil by laying 2" dia perforated GI. pipe (Medium Quality) fixed with 40mm dia and 250 mm long tinned copper spike at bottom , i/c the cost of Tinned earth test link copper plate (300x50x10mm), brass nuts, spacers, bolts washers lugs etc but excluding the cost of copper strand & manhole. as approved and directed by Engineer Incharge (Bore Type Earthing). (2 No. Earthing Bores)	P.Rft	240.0		
	24/113	Supply, installation, testing and commissioning of bare copper conductor for Earthing/ Grounding System (2 No. Earthing Bores)				
		50 mm ² CU bare conductor	Per Rft	300.0		
1.2.8	N.S	Providing & laying 2 core, of following sizes, PVC insulated & PVC sheathed, 600/1000 volts grade with stranded copper conductor, un armored L.T cable in prelaid pipe/G.I. wire/trenches, etc.				
	(i)	2 Core 10 mm.sq Cu/PVC/PVC for DBLP TW	Rft	45.0		

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Bill No. 1: WATER SUPPLY SYSTEM

Bill No. 1.2: Pump House (Electrical)

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALPUR						
1.2.9	N.S	Supply, installation, testing & commissioning of following various types of LED lights along with the accessories required for light fitting including light boxes:				
1.2.10	(i)	12 W Surface Mounted Down Light, (SMD) (90~265VAC), System Lumens: 80~90 lm/W, Power Factor: ≥0.9, LED Driver: Isolated (THD≤20) @ 220 VAC, Housing Material: Die Cast Aluminum, Protection Class: IP-20	Each	15.0		
1.2.11	(ii)	Bulkhead 18 W LED Light, (SMD) (100~265VAC), System Lumens: 80~90 lm/W, Power Factor: ≥0.9, LED Driver: Isolated (THD≤20) @ 220 VAC, Housing Material: Aluminum Alloy + PC, Protection Class: IP-65	Each	3.0		
1.2.12	N.S	Fabrication, supply at site installation and commissioning & connection of wires/cables of distribution boards IP-54 made of 14 SWG M.S sheet degreased , derusted, zinc phosphated, finished with electrostatic powder coating of 100 micron tickness in approved colour with hinged door, flexible earthing strap lockable handle, catcher, earthing bar, neutral strip, internal wiring, designation labels on MCB, earthing bar, numbering beads on control wires, suitable for system 240V, 50HZ, 1 Phase & neutral, bus bars of 99.8% purity electrolytic copper, including cost of cable termination lugs, brass cable glands for incoming & outgoing cables, wiring from breakers, indication lamps, instruments & control all accessories.	Each	3.0		
		Incoming:				
		01 No. 32A DP MCB 10 kA				
		01 No. Digital Volt Meter 0~240V				
		0 No. Control Fuse for Protection				
		01 No. Indication Lamp (R)				
		01 Job. Brass Cable Gland for Incoming cable				
		Outgoing:				
		02 Nos. 10A SP MCB 6 kA				
		01 No. 20A SP MCB 6 kA				
		01 No. 20A SP MCB 6 kA (Spare)				

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Bill No. 1: WATER SUPPLY SYSTEM

Bill No. 1.2: Pump House (Electrical)

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALPUR						
1.2.13	N.S	Fabrication, supply at site installation and commissioning of 16 SWG mild steel sheet fabricated distribution board for MCC (Motor Control Centre), free standing/ wall mounting, indoor type, front access, insulation class 600 Volts, incoming and outgoing connections from top or bottom as per site requirement, door to body earth with flexible copper cable suitable for 415VAC, 3 Phase 4 wire, 400/230 50Hz TPN&E system, having rated service short circuit breaking capacity as mentioned in the details. Complete in all respects as per the satisfaction of the engineer and single line diagram.	Each	3.0		
		Incoming:				
		01 No: 40 ATP MCCB, RC:16 kA				
		01 No: Digital Ampere Meter 0~100A With Selector Switch				
		01 No: Digital Volt Meter 0~600VAC With Selector Switch				
		03 Nos: Current Transformer 80/5A				
		03 Nos: Control MCB for protection				
		03 Nos: Indication Lamp (R+Y+B)				
		01 Job: Brass Cable Gland for Incoming Cable				
		01 No: 3 Phase, 4-Wire Energy Meter				
		Outgoing:				
		01 No. 32A DP MCB RC:10 kA for DBLP-TR				
		01 No. 32A DP MCB RC:10 kA for Pump 5HP				
		01 No. 32A DP MCB RC:10 kA (Spare)				
		01 No. 50A TP MCCB RC:16 kA (Spare)				
Total Amount						

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BILL OF QUANTITIES**

Bill No. 1: WATER SUPPLY SYSTEM

Bill No. 1.3.: Stand Post with Tubewell Chamber

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALPUR						
1.3.1	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)lift upto 5 ft (1.5m)				
		1) By Manual				
		ii) in ordinary soil.	1000 Cft.	4015.1		
1.3.2	6/3	Cement concrete brick or stone ballast 1½ " to 2" (40 mm to 50 mm) gauge, in foundation and plinth:-				
		(d) Ratio 1: 6:12 (with Brick ballast)	100 Cft	720.0		
1.3.3	7/4	Pacca brick work in foundation and plinth in: i) Cement, sand mortar Ratio 1:6	100 cft	2013.0		
1.3.4	6/37	Providing and laying damp proof course of cement concrete 1:2:4 (using cement, sand and shingle), including bitumen coating: b) with 2 coats of bitumen:				
		ii) 2" thick	100 Sft	402.0		
1.3.5	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 (20mm)	100 Sft	207.0		
1.3.6	7/5	Pacca brick work in ground floor (super structure) i). Cement, sand mortar Ratio 1:5	100 Cft	1830.0		
1.3.7	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, 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:-				
		(3) Type C (nominal mix 1: 2: 4)	Per Cft	1044.0		

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Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALPUR						
1.3.8	6/12 b	Providing and fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labor charges for binding of steel reinforcement (also includes removal of rust from bars), Deformed bars (Grade 60)	100 Kg	3078.9		
1.3.9	10/3	Supplying and filling sand under floor; or plugging in wells.	100 Cft	3462.0		
1.3.10	10/16	Providing and laying topping of cement concrete 1:2:4, including surface finishing and dividing in panels:- (e) 2"(50 mm) thick	100 Sft	1347.0		
1.3.11	11/18	Cement pointing struck joints, on walls, upto 20' (6.00 m) height:- b) ratio 1:3	100 Sft	2011.5		
1.3.12	11/9	Cement plaster 1:4 upto 20' (6.00 m) height:- b) ½" (13 mm) thick	100 Sft	3206.4		
1.3.13	11/12	Cement plaster 3/8" (10 mm) thick under soffit of R.C.C. roof slabs only, upto 20' height . b) 1:3	100 Sft	1639.5		
1.3.14	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	1821.7		
1.3.15	10/45-17.65	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 Matt tiles				
		(ii) 300mmx 600mm	Sft	360.0		

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Bill No. 1: WATER SUPPLY SYSTEM

Bill No. 1.3.: Stand Post with Tubewell Chamber

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALPUR						
1.3.16	10/36-18.90	Providing and laying superb quality Porcelain glazed tiles of Master/ Stile brand or approved equivalent manufacturer, skirting/ dado of specified size, Color and Shade with adhesive/ bond over 1/2" thick (1:2) cement plaster i/c the cost of matching sealer for finishing the joints, cutting grinding complete in all respect as approved and directed by the Engineer Incharge. a) Full body Matt tiles				
		(ii) 300mmx 600mm	Sft	750.0		
1.3.17	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 1/2"(13 mm) thick cement plaster 1:3, including rubbing and polishing, complete with finishing: (b) using white cement : ii) 1/2"(13 mm) thick	100 Sft	80.3		
1.3.18	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)				
		a) 50-mm thick	Sft	352.8		
1.3.19	11/26	White washing a) new surface:- iii) three coats	100 Sft	3151.5		
1.3.20	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 3/4" (20 mm) square bars 4" (100 mm) centre to centre, with locking arrangement.				
			Per Sft	210.0		
1.3.21	12/15	Providing and fixing mild steel chowkat of doors, windows, C.window, etc. including holdfast, making and threading holes for hinges, etc. complete:- a) M.S. angle iron 1 1/2"x 1 1/2"x 1/4" (40x40x6 mm) welded with M.S. flat 2"x 1/4" (50 mm x 6 mm)				
			Per Sft	210.0		
1.3.22	25/32	Making and fixing grating in opening, including fixing at site with flat iron 2"x3/8" (50x10 mm) and 3/4" (19 mm) square bars, at 4" (100 mm) centre to centre.				
			Per Sft	549.0		

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Bill No. 1.3.: Stand Post with Tubewell Chamber

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALPUR						
1.3.23	18-23	Providing and fixing M.S Grating comprising of Angle Iron frame size 1.50"x1.50"x3/16" and 1/2" square bars duly welded @ 4" c/c, including painting charges etc complete in all respect.(For Drain)	Per Sft	87.8		
1.3.24	9/15	Khuras on roof 2'x2'x6" (600 x 600 x 150 mm)	Each	3.0		
1.3.25	9/16	Bottom Khuras of brick masonry in cement mortar 1:6, 4' x 2' x 4.5" over 3" cement concrete 1:4:8	Each	3.0		
1.3.26	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) (Form Sargodha Quarry)	100 Cft.	1966.4		
1.3.27	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.				
		(i) Single Leaf	Per Sft	96.0		
1.3.28	12/15	Providing and fixing mild steel chowkat of doors, windows, C.window, etc. including holdfast, making and threading holes for hinges, etc. complete:- a) M.S. angle iron 1½"x 1½"x ¼" (40x40x6 mm) welded with M.S. flat 2"x ¼" (50 mm x 6 mm)	Per Sft	96.0		

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Bill No. 1.3.: Stand Post with Tubewell Chamber

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALPUR						
1.3.29	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	36.0		
1.3.30	25/58	Providing and fixing M.S. flat ½"x1/8" (13mm x 3mm) grill including ¾" x 1/8" (20 mm x 3 mm) M.S. flat frame, in windows of approved design, including painting three coats, complete in all respects.	Per Sft	36.0		
1.3.31	5/10+1	Fabrication & Erection of heavy steel work, with angle, tees, flat iron round iron and sheet iron for making trusses, girders, tanks, etc., including cutting, drilling, reworking, handling, assembling and fixing, including erection in position. (Top Cover, & Girder)	100 Kg	384.1		
1.3.32	23-52	Providing and fixing Chain Pulley Block of 5 ton capacity with 5 meter length of chain, as per required specifications complete in all respect and as approved by the Engineer Incharge.	Each	3.0		
Plumbing Work						
1.3.33	19-45	Providing and fixing brass stop cock/bib cock:- b) 20 mm (¾") dia	Each	24.0		
1.3.34	19-25	Providing and fixing chromium plated tee stop cock 15mm (½").	Each	6.0		

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Bill No. 1: WATER SUPPLY SYSTEM

Bill No. 1.3.: Stand Post with Tubewell Chamber

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALPUR						
1.3.35	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. (v) 110 mm	Per Rft	75.0		
		(iv) 82mm	Per Rft	150.0		
		PIPING & VALVES				
1.3.36	23-33	Providing, laying, testing and commissioning of POLYPROPYLENE 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	300.0		
		iv) 40 mm	Rft	150.0		
1.3.37	19/31	Providing and fixing brass peet/gate valve (screwed):-				
		i) 30 mm (1¼" dia	Each	3.0		
		ii) 40 mm(1½" dia	Each	3.0		
1.3.38	23-45	Supply & installation of heavy duty Brass PN-16 air Vents of specified sizeprovided at thehighest points(PipeRisers) to expel air as approved and directed by the Engineer Incharge				
		(a) Automatic				
		(iii) 1" Dia	Each	6.0		
1.3.39	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	6.0		

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Bill No. 1: WATER SUPPLY SYSTEM

Bill No. 1.3.: Stand Post with Tubewell Chamber

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALPUR						
1.3.40	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	3000.0		
Total Amount For One (01)						

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Bill No. 1: WATER SUPPLY SYSTEM

Bill No. 1.4: Boundary Wall

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALPUR						
1.4.1	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)lift upto 5 ft (1.5m)				
		1) By Manual				
		ii) in ordinary soil.	1000 Cft.	2137.5		
1.4.2	6/5	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):				
		(i) Ratio 1: 4: 8	100 Cft	368.0		
		(f) Ratio 1: 2: 4	100 Cft	1083.0		
1.4.3	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.	100 Cft	201.0		
1.4.4	7/4	Pacca brick work in foundation and plinth in: i) Cement, sand mortar Ratio 1:5	100 cft	537.0		
1.4.5	7/7	Pacca brick work other than building upto 10ft. (3 m) height. i) cement, sand mortar:- Ratio 1:4	100 Cft	591.0		
1.4.6	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, 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	60.0		

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Bill No. 1: WATER SUPPLY SYSTEM

Bill No. 1.4: Boundary Wall

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALPUR						
		(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	84.4		
1.4.7	6/12 b	Providing and fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labor charges for binding of steel reinforcement (also includes removal of rust from bars), Deformed bars (Grade 60)	100 Kg	425.8		
1.4.8	11/9	Cement plaster 1:4 upto 20' (6.00 m) height:- b) ½" (13 mm) thick	100 Sft	1076.0		
1.4.9	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.	Per Sft	270.0		
1.4.10	13/5 d	Painting new surface:- Preparing surface and painting guard bars, gates of iron bars, gratings, railing (including standards, braces, etc.) and in similar open work:- a) Priming coat	100 Sft	540.0		
		b) Two Coats	100 Sft	540.0		
1.4.11	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) (Form Sargodha Quarry)	100 Cft.	1600.3		
1.4.12	3/15	Filling, watering and ramming earth under floors:-				
		i) With surplus earth from foundation, etc.	1000 Cft.	2505.0		
		ii) With new earth excavated from outside, lead upto one chain (30 m).	1000 Cft.	22545.0		
1.4.13	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)				
		a) Upto ¼ mile (400 m).	1000 Cft.	22545.0		
		b) For every 330 ft. (100 m) additional lead or part thereof, beyond ¼ mile (400 m) upto one mile. (1.6 Km.)	1000 Cft.	22545.0		

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Bill No. 1: WATER SUPPLY SYSTEM

Bill No. 1.4: Boundary Wall

Sr. No.	Ref. MRS	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALPUR						
1.4.14	6/2	Dry rammed brick or stone ballast, 1½" to 2" (40 mm to 50 mm) gauge.	100 Cft.	2755.5		
1.4.15	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.	100 Cft.	3047.8		
		Precast Wall				
1.4.16	NS	Providing and Fixing in Position Precast boundary wall up to 6 ft high of standard precast component as per drawing and direction of the engineer incharge. The rate of Boundary wall includes wall Pannels of size (2"x1'x8'), columns (6"x6.5"x8') with Cap,transported to site,loading/unloading and fixing in position finished, complete in all respect.	Rft	520.0		
Total Amount						

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BILL OF QUANTITIES

Bill No.2. SEWERAGE SYSTEM

Bill No. 2.1: DRAIN NETWORK

Sr. No.	Ref	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALPUR						
2.1.1	4/29	Dismantling brick or flagged flooring without concrete foundation.	100 Sft	16826.1		
2.1.2	21/8	Restoration of brick pavement on edge, over laid service line, with 2" (50 mm) sand cushion under soling.	100 Sft	16826.1		
2.1.3	4/46	Dismantling and removing road pavement, etc., including screening and stacking of byproducts upto one chain lead (30 metre).	100 Cft	1660.0		
2.1.4	21/10	Restoration of metalled road, on laid service line, including 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.	100 Sft	2000.0		
2.1.5	3/9	Earthwork excavation in irrigation channels, drains, etc. to designed section, grades and profiles, excavated material disposed off and dressed within 100 ft. (30 m) lead:- i) Ordinary	1000 Cft.	140716.1		
2.1.6	6/3	Cement concrete brick or stone ballast 1½ " to 2" (40 mm to 50 mm) gauge, in foundation and plinth:- (d) Ratio 1: 6:12	100 Cft.	8811.2		
2.1.7	6/5	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate): (f) Ratio 1: 2: 4	100 Cft.	5426.8		
2.1.8	20/6	Constructing Punjab Standard Drains. of cement concrete 1:2 ½ :5, with cement concrete bedding ratio 1:6:12, complete, laid to lines, grades, slopes and shapes, rendering exposed surface of concrete with 1:1 cement, sand mortar, ¼" (6 mm) thick, as per Engineer's drawing (excluding excavation):- a) Type I	Per Rft	21032.6		

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Bill No.2. SEWERAGE SYSTEM

Bill No. 2.1: DRAIN NETWORK

Sr. No.	Ref	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALPUR						
2.1.9	7/4	Pacca brick work in foundation and plinth in:- Ratio 1:5	100 Cft.	29705.3		
2.1.10	20/1	Tega formed of pacca bricks on end, laid in and over cement sand mortar projecting to a height of not more than 6" (150 mm) top of drain along the property side where required, laid to lines, grades, slopes and shape according to the Engineer's drawing:- a) 3" thick (75 mm) ii) ratio 1:5	100Rft	42765.2		
2.1.11	20/3	Pacca brick on edge, laid in reimbursement, in cement, sand mortar, on sides of drains and on other works where required. All joints to be completely filled and struck flush:- b) ratio 1:5	100Sft	24186.7		
		Top Slab (R.C.C. 1:2:4)				
2.1.12	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.):-				
		(d) Precast reinforced cement concrete and prestressed reinforced cement concrete in columns, beams, lintels, stair cases, shelves, etc. (3) Type C (nominal mix 1: 2: 4)	Per Cft	7210.1		
2.1.13	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. (From Sargodha Quarry)	100 Cft	15488.5		

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Bill No.2. SEWERAGE SYSTEM

Bill No. 2.1: DRAIN NETWORK

Sr. No.	Ref	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALPUR						
2.1.14	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	21259.1		
2.1.15	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:- ii) 90% maximum modified AASHTO dry density.	1000 Cft.	125225.0		
2.1.16	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.				
		a) Upto ¼ mile (400 m).	1000 Cft.	125225.0		
		b) For every 330 ft. (100 m) additional lead or part thereof, beyond ¼ mile (400 m) upto one mile. (1.6 Km.)	1000 Cft.	125225.0		
Drain House Connection						
2.1.17	R.A.A.	Construction of house Connection Chamber of specified size, complete in all respects as per drawings, specifications & instructions of the Engineer incharge. The unit rate includes but not limited to excavation, backfilling, compaction, PCC (1:6:12) in bedding, PCC (1:2:4) benching, brick masonry in 1:4, C/S mortar, 1/2" thick 1:4 C/S plaster on both sides, precasted Cover slabs, 4" dia uPVC pipe gor house connection and connection to manhole with 6" dia uPVC pipe (excluding cost of 6" dia pipe) finished etc complete in all respects.				
		Type-1 (1'x1'x1')	Job	373.0		
		Type-2 (1.5'x1.5'x1')	Job	40.0		
		Type-3 (1.5'x1.5'x2')	Job	20.0		

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Bill No.2. SEWERAGE SYSTEM

Bill No. 2.1: DRAIN NETWORK

Sr. No.	Ref	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALPUR						
2.1.18	19/48	Providing, fixing, testing and commissioning of μ -PVC (Unplasticized Polyvinyl Chloride) sewerage pipe make of Dadex /Popular/Beta or approved equivalent manufacturer, plain /socket ended conforming to code EN-1401 of specified SDR (Standard Dimension Ratio) including the cost of specials and Solvents complete in all respect as approved and directed by the Engineer Incharge. Type (SDR 34/SN-8)				
		i) 6" dia 150mm	Per Rft	4330.0		
		RPC Slab				
2.1.19	N.S.	Providing and Fixing removeable perforated Slab pannel of size 3'x1.5' (55mm thick) made of approved manufacturer at intervals as per drawing and direction of the engineers incharge.	Per Rft	5258.0		
Total Amount						

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BILL OF QUANTITIES

Bill No.2. SEWERAGE SYSTEM

Bill No. 2.2: Septic Tank Type-I

Sr. Nr.	MRS-2025	Description	Unit	Qty	Unit Rate	Amount Rs.
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALPUR						
2.2.1	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)lift upto 5 ft (1.5m). 2) a) By Excavator ii) Ordinary soil				
		a) Lift up to 5 ft (1.5 m)	1000 Cft	1253.0		
		b) Lift from 5ft (1.5m) to 15 ft (4.5 m):-	1000 Cft	1824.0		
		Concrete Works				
2.2.2	6/3	Cement concrete brick or stone ballast 1½ " to 2" (40 mm to 50 mm) gauge, in foundation and plinth:-				
		(b) Ratio 1: 4: 8 (with Brick Ballast)	100Cft	72.8		
2.2.3	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) (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:-				
		Type B (nominal mix 1:1.5: 3)	Per Cft	100.1		
		(b) Reinforced cement concrete in retaining/ Shear walls laid in situ or precast laid in position, or prestressed members cast in situ (Formwork on both sides), complete in all respects: (b) Type B (nominal mix 1:1-1/2:3)				
		(i) Upto 9" thick (Avg)	Per Cft	552.4		

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Bill No.2. SEWERAGE SYSTEM

Bill No. 2.2: Septic Tank Type-I

Sr. Nr.	MRS-2025	Description	Unit	Qty	Unit Rate	Amount Rs.
		(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:-				
		Type B (nominal mix 1: 1.5: 3)	per cft	166.2		
2.2.4	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	2414.4		
2.2.5	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. (crushed stone aggregate and bajri used in concrete items) (Form Sargodha Quarry)	100Cft	687.7		
2.2.6	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. Charge				
		ii) 10" wide 10 mm thick	Rft	68.0		
2.2.7	13/09	Bitumen coating to plastered or cement concrete surface:- i) 20 lbs. per 100 Sft. (9.07 Kg per Sq.m)	100Sft.	1469.8		
2.2.8	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	20.0		

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Bill No.2. SEWERAGE SYSTEM

Bill No. 2.2: Septic Tank Type-I

Sr. Nr.	MRS-2025	Description	Unit	Qty	Unit Rate	Amount Rs.
2.2.9	23/14	Providing, fixing, testing and commissioning of μ -PVC (Unplasticized Polyvinyl Chloride) sewerage pipe make of Dadex /Popular/Beta or approved equivalent manufacturer, plain /socket ended conforming to code EN-1401 of specified SDR (Standard Dimension Ratio) including the cost of specials and Solvents complete in all respect as approved and directed by the Engineer Incharge. Type (SDR 34/SN-8)				
		ii) 8" dia 200 mm	Rft	50.0		
2.2.10	23/18	Providing, laying, cutting, jointing, testing and disinfecting cast iron pipe line (BS-2035/4622) in trenches, including cost of materials, such as lead, yarn, etc.complete in all respects:- b) With Flanged and Flanged Joints 4" Dia (Vent Pipe)	Rft	4.0		
2.2.11	N.S.	P/F 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	2.0		
Total Amount for One (01) Septic Tank						-

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Bill No.2. SEWERAGE SYSTEM

Bill No. 2.3: Soakage Pit Type-I

Sr. Nr.	MRS-2025	Description	Unit	Qty	Unit Rate	Amount Rs.
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALPUR						
2.3.1	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	1000 Cft	1086.0		
		ii) from 5.1' to 10' (1.5 to 3.0 metre) depth	1000 Cft	561.0		
		iii) from 10.1' to 15' (3.0 to 4.5 metre) depth	1000 Cft	561.0		
2.3.2	22/2	Dry sinking of well, including loading, and removing excavated material within one chain (30 m):- a) in ordinary soil :-				
		ii) from 15.1' to 20'(4.5 to 6.0 m) depth	1000 Cft	561.0		
		iii) from 20.1' to 25'(6.0 to 7.5 m) depth	1000 Cft	0.0		
2.3.3	3/15	Filling, watering and ramming earth under floors:-				
		i) With surplus earth from foundation, etc.	1000 Cft	181.0		
2.3.4	22/8	Providing, making and laying R.C.C. well curb in position, using coarse sand, including all kinds of form, moulds, curing, shuttering, rendering and finishing the exposed surface, (including screening and washing of aggregate :- a) Ratio 1:1½:3	Per Cft.	70.4		
2.3.5	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) (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:-				
		Type b (nominal mix 1:1.5: 3)	Per Cft	41.8		

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Bill No.2. SEWERAGE SYSTEM

Bill No. 2.3: Soakage Pit Type-I

Sr. Nr.	MRS-2025	Description	Unit	Qty	Unit Rate	Amount Rs.
2.3.6	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	330.8		
2.3.7	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. (crushed stone aggregate and bajri used in concrete items) (Form Sargodha Quarry)	100Cft	94.2		
2.3.8	7/7	Pacca brick work other than building upto 10ft. (3 m) height. i) Cement, sand mortar:- Ratio 1:3	100Cft	466.2		
2.3.9	7/10	Extra for pacca brick work in steining of wells or any other circular masonry.	100Cft	466.2		
2.3.10	6/02	Dry rammed brick or stone ballast, 1½" to 2"(40 mm to 50 mm) gauge.	100Cft.	264.0		
2.3.11	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	10.0		
2.3.12	22/9	Providing and fixing structural steel for cutting edge.	100 Kg	225.2		
2.3.13	19/48	Providing, fixing, testing and commissioning of µ-PVC (Unplasticized Polyvinyl Chloride) sewerage pipe make of Dadex /Popular/Beta or approved equivalent manufacturer, plain /socket ended conforming to code EN-1401 of specified SDR (Standard Dimension Ratio) including the cost of specials and Solvents complete in all respect as approved and directed by the Engineer Incharge. Type (SDR 34/SN-8)				
		i) 6" dia 150mm	Rft	200.0		

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BILL OF QUANTITIES

Bill No.2. SEWERAGE SYSTEM

Bill No. 2.3: Soakage Pit Type-I

Sr. Nr.	MRS-2025	Description	Unit	Qty	Unit Rate	Amount Rs.
2.3.14	23/18	Providing, laying, cutting, jointing, testing and disinfecting cast iron pipe line (BS-2035/4622) in trenches, including cost of materials, such as lead, yarn, etc.complete in all respects:- b) With Flanged and Flanged Joints 4" Dia (Vent Pipe)	Rft	3.0		
2.3.15	N.S.	P/F 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	1.0		
Total Amount for One (01) Soakage Pit						-

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BILL OF QUANTITIES

Bill No.2. SEWERAGE SYSTEM

Bill No. 2.4: Septic Tank Type-II

Sr. Nr.	MRS-2025	Description	Unit	Qty	Unit Rate	Amount Rs.
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALPUR						
2.4.1	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)lift upto 5 ft (1.5m). 2) a) By Excavator ii) Ordinary soil				
		a) Lift up to 5 ft (1.5 m)	1000 Cft	3540.0		
		b) Lift from 5ft (1.5m) to 15 ft (4.5 m):-	1000 Cft	5302.0		
		Concrete Works				
2.4.2	6/3	Cement concrete brick or stone ballast 1½ " to 2" (40 mm to 50 mm) gauge, in foundation and plinth:-				
		(b) Ratio 1: 4: 8 (with Brick Ballast)	100Cft	213.8		
2.4.3	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) (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:-				
		Type B (nominal mix 1:1.5: 3)	Per Cft	298.1		
		(b) Reinforced cement concrete in retaining/ Shear walls laid in situ or precast laid in position, or prestressed members cast in situ (Formwork on both sides), complete in all respects: (b) Type B (nominal mix 1:1-1/2:3)				
		(i) Upto 9" thick (Avg)	Per Cft	125.0		
		(ii) More Than 9" thick (Avg)	Per Cft	1565.5		
		(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:-				
		Type B (nominal mix 1: 1.5: 3)	per cft	494.9		

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Bill No.2. SEWERAGE SYSTEM

Bill No. 2.4: Septic Tank Type-II

Sr. Nr.	MRS-2025	Description	Unit	Qty	Unit Rate	Amount Rs.
2.4.4	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	7324.3		
2.4.5	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. (crushed stone aggregate and bajri used in concrete items) (Form Sargodha Quarry)	100Cft	2086.1		
2.4.6	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. Charge				
		ii) 10" wide 10 mm thick	Rft	148.9		
2.4.7	13/09	Bitumen coating to plastered or cement concrete surface:- i) 20 lbs. per 100 Sft. (9.07 Kg per Sq.m)	100Sft.	3772.3		
2.4.8	21/11	Providing and fixing 1½"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	40.0		
2.4.9	23/14	Providing, fixing, testing and commissioning of µ-PVC (Unplasticized Polyvinyl Chloride) sewerage pipe make of Dadex /Popular/Beta or approved equivalent manufacturer, plain /socket ended conforming to code EN-1401 of specified SDR (Standard Dimension Ratio) including the cost of specials and Solvents complete in all respect as approved and directed by the Engineer Incharge. Type (SDR 34/SN-8)				
		ii) 8" dia 200 mm	Rft	100.0		
2.4.10	23/18	Providing, laying, cutting, jointing, testing and disinfecting cast iron pipe line (BS-2035/4622) in trenches, including cost of materials, such as lead, yarn, etc.complete in all respects:- b) With Flanged and Flanged Joints 4" Dia (Vent Pipe)	Rft	8.0		

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Bill No.2. SEWERAGE SYSTEM

Bill No. 2.4: Septic Tank Type-II

Sr. Nr.	MRS-2025	Description	Unit	Qty	Unit Rate	Amount Rs.
2.4.11	N.S.	P/F 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	4.0		
Total Amount for One (01) Septic Tank						-
Total Amount for Two (02) Septic Tank						-

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BILL OF QUANTITIES

Bill No.2. SEWERAGE SYSTEM

Bill No. 2.5: Soakage Pit Type-II

Sr. Nr.	MRS-2025	Description	Unit	Qty	Unit Rate	Amount Rs.
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALPUR						
2.5.1	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	1000 Cft	2172.0		
		ii) from 5.1' to 10' (1.5 to 3.0 metre) depth	1000 Cft	1122.0		
		iii) from 10.1' to 15' (3.0 to 4.5 metre) depth	1000 Cft	1122.0		
2.5.2	22/2	Dry sinking of well, including loading, and removing excavated material within one chain (30 m):- a) in ordinary soil :-				
		ii) from 15.1' to 20'(4.5 to 6.0 m) depth	1000 Cft	1122.0		
		iii) from 20.1' to 25'(6.0 to 7.5 m) depth	1000 Cft			
2.5.3	3/15	Filling, watering and ramming earth under floors:-				
		i) With surplus earth from foundation, etc.	1000 Cft	362.0		
2.5.4	22/8	Providing, making and laying R.C.C. well curb in position, using coarse sand, including all kinds of form, moulds, curing, shuttering, rendering and finishing the exposed surface, (including screening and washing of aggregate :- a) Ratio 1:1½:3	Per Cft.	140.8		
2.5.5	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) (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:-				
		Type b (nominal mix 1:1.5: 3)	Per Cft	83.5		

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BILL OF QUANTITIES

Bill No.2. SEWERAGE SYSTEM

Bill No. 2.5: Soakage Pit Type-II

Sr. Nr.	MRS-2025	Description	Unit	Qty	Unit Rate	Amount Rs.
2.5.6	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	661.7		
2.5.7	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. (crushed stone aggregate and bajri used in concrete items) (Form Sargodha Querry)	100Cft	188.5		
2.5.8	7/7	Pacca brick work other than building upto 10ft. (3 m) height. i) Cement, sand mortar:- Ratio 1:3	100Cft	1008.5		
2.5.9	7/10	Extra for pacca brick work in steining of wells or any other circular masonry.	100Cft	1008.5		
2.5.10	6/02	Dry rammed brick or stone ballast, 1½" to 2"(40 mm to 50 mm) gauge.	100Cft.	528.0		
2.5.11	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	20.0		
2.5.12	22/9	Providing and fixing structural steel for cutting edge.	100 Kg	450.5		
2.5.13	19/48	Providing, fixing, testing and commissioning of µ-PVC (Unplasticized Polyvinyl Chloride) sewerage pipe make of Dadex /Popular/Beta or approved equivalent manufacturer, plain /socket ended conforming to code EN-1401 of specified SDR (Standard Dimension Ratio) including the cost of specials and Solvents complete in all respect as approved and directed by the Engineer Incharge. Type (SDR 34/SN-8)				
		i) 6" dia 150mm	Rft	400.0		

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Bill No.2. SEWERAGE SYSTEM

Bill No. 2.5: Soakage Pit Type-II

Sr. Nr.	MRS-2025	Description	Unit	Qty	Unit Rate	Amount Rs.
2.5.14	23/18	Providing, laying, cutting, jointing, testing and disinfecting cast iron pipe line (BS-2035/4622) in trenches, including cost of materials, such as lead, yarn, etc.complete in all respects:- b) With Flanged and Flanged Joints 4" Dia (Vent Pipe)	Rft	6.0		
2.5.15	N.S.	P/F 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	2.0		
Total Amount for One (01) Soakage Pit						
Total Amount for Two (02) Soakage Pit						

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BILL OF QUANTITIES

Bill No.2. SEWERAGE SYSTEM

Bill No. 2.6: Septic Tank Type-III

Sr. Nr.	MRS-2025	Description	Unit	Qty	Unit Rate	Amount Rs.
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALPUR						
2.6.1	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)lift upto 5 ft (1.5m). 2) a) By Excavator ii) Ordinary soil				
		a) Lift up to 5 ft (1.5 m)	1000 Cft	4426.0		
		b) Lift from 5ft (1.5m) to 15 ft (4.5 m):-	1000 Cft	6720.0		
		Concrete Works				
2.6.2	6/3	Cement concrete brick or stone ballast 1½ " to 2" (40 mm to 50 mm) gauge, in foundation and plinth:-				
		(b) Ratio 1: 4: 8 (with Brick Ballast)	100Cft	272.3		
2.6.3	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) (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:-				
		Type B (nominal mix 1:1.5: 3)	Per Cft	381.9		
		(b) Reinforced cement concrete in retaining/ Shear walls laid in situ or precast laid in position, or prestressed members cast in situ (Formwork on both sides), complete in all respects: (b) Type B (nominal mix 1:1-1/2:3)				
		(i) Upto 9" thick (Avg)	Per Cft	125.0		
		(ii) More Than 9" thick (Avg)	Per Cft	1867.6		

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Bill No.2. SEWERAGE SYSTEM

Bill No. 2.6: Septic Tank Type-III

Sr. Nr.	MRS-2025	Description	Unit	Qty	Unit Rate	Amount Rs.
		(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:-				
		Type B (nominal mix 1: 1.5: 3)	per cft	634.0		
2.6.4	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	8872.8		
2.6.5	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. (crushed stone aggregate and bajri used in concrete items) (Form Sargodha Quarry)	100Cft	2527.2		
2.6.6	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. Charge ii) 10" wide 10 mm thick	Rft	177.6		
2.6.9	13/09	Bitumen coating to plastered or cement concrete surface:- i) 20 lbs. per 100 Sft. (9.07 Kg per Sq.m)	100Sft.	4500.2		
2.6.9	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	40.0		

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Bill No.2. SEWERAGE SYSTEM

Bill No. 2.6: Septic Tank Type-III

Sr. Nr.	MRS-2025	Description	Unit	Qty	Unit Rate	Amount Rs.
2.6.9	23/14	Providing, fixing, testing and commissioning of μ -PVC (Unplasticized Polyvinyl Chloride) sewerage pipe make of Dadex /Popular/Beta or approved equivalent manufacturer, plain /socket ended conforming to code EN-1401 of specified SDR (Standard Dimension Ratio) including the cost of specials and Solvents complete in all respect as approved and directed by the Engineer Incharge. Type (SDR 34/SN-8)				
		ii) 8" dia 200 mm	Rft	100.0		
2.6.10	23/18	Providing, laying, cutting, jointing, testing and disinfecting cast iron pipe line (BS-2035/4622) in trenches, including cost of materials, such as lead, yarn, etc.complete in all respects:- b) With Flanged and Flanged Joints 4" Dia (Vent Pipe)	Rft	8.0		
2.6.11	N.S.	P/F 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	4.0		
Total Amount for One (01) Septic Tank						-

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BILL OF QUANTITIES

Bill No.2. SEWERAGE SYSTEM

Bill No. 2.7: Soakage Pit Type-II

Sr. Nr.	MRS-2025	Description	Unit	Qty	Unit Rate	Amount Rs.
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALPUR						
2.7.1	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	1000 Cft	2590.0		
		ii) from 5.1' to 10' (1.5 to 3.0 metre) depth	1000 Cft	1540.0		
		iii) from 10.1' to 15' (3.0 to 4.5 metre) depth	1000 Cft	1540.0		
2.7.2	22/2	Dry sinking of well, including loading, and removing excavated material within one chain (30 m):- a) in ordinary soil :-				
		ii) from 15.1' to 20'(4.5 to 6.0 m) depth	1000 Cft	1540.0		
		iii) from 20.1' to 25'(6.0 to 7.5 m) depth	1000 Cft			
2.7.3	3/15	Filling, watering and ramming earth under floors:-				
		i) With surplus earth from foundation, etc.	1000 Cft	428.0		
2.7.4	22/8	Providing, making and laying R.C.C. well curb in position, using coarse sand, including all kinds of form, moulds, curing, shuttering, rendering and finishing the exposed surface, (including screening and washing of aggregate :- a) Ratio 1:1½:3	Per Cft.	165.0		
2.7.5	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) (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:-				
		Type b (nominal mix 1:1.5: 3)	Per Cft	120.7		

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Bill No.2. SEWERAGE SYSTEM

Bill No. 2.7: Soakage Pit Type-II

Sr. Nr.	MRS-2025	Description	Unit	Qty	Unit Rate	Amount Rs.
2.7.6	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):- (b) Deformed bars (Grade-60)	100 Kg	842.4		
2.7.7	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. (crushed stone aggregate and bajri used in concrete items) (Form Sargodha Quarry)	100Cft	239.9		
2.7.8	7/7	Pacca brick work other than building upto 10ft. (3 m) height. i) Cement, sand mortar:- Ratio 1:3	100Cft	1468.9		
2.7.9	7/10	Extra for pacca brick work in steining of wells or any other circular masonry.	100Cft	1468.9		
2.7.10	6/02	Dry rammed brick or stone ballast, 1½" to 2"(40 mm to 50 mm) gauge.	100Cft.	825.0		
2.7.11	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	20.0		
2.7.12	22/9	Providing and fixing structural steel for cutting edge.	100 Kg	530.7		
2.7.13	19/48	Providing, fixing, testing and commissioning of µ-PVC (Unplasticized Polyvinyl Chloride) sewerage pipe make of Dadex /Popular/Beta or approved equivalent manufacturer, plain /socket ended conforming to code EN-1401 of specified SDR (Standard Dimension Ratio) including the cost of specials and Solvents complete in all respect as approved and directed by the Engineer Incharge. Type (SDR 34/SN-8)				
		i) 6" dia 150mm	Rft	400.0		

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Bill No.2. SEWERAGE SYSTEM

Bill No. 2.7: Soakage Pit Type-II

Sr. Nr.	MRS-2025	Description	Unit	Qty	Unit Rate	Amount Rs.
2.7.14	23/18	Providing, laying, cutting, jointing, testing and disinfecting cast iron pipe line (BS-2035/4622) in trenches, including cost of materials, such as lead, yarn, etc.complete in all respects:- b) With Flanged and Flanged Joints 4" Dia (Vent Pipe)	Rft	6.0		
2.7.15	N.S.	P/F 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	2.0		
Total Amount for One (01) Soakage Pit						

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BILL OF QUANTITIES

Bill No. 3: Street Pavement Works

Sr. No.	Ref	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALPUR						
3.1	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.	76769.0		
3.2	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.				
		b) 60-mm thick	Per Sft	7500.0		
		c) 80-mm thick	Per Sft	7500.0		
3.3	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.	7500.0		
		(b) Subsequent carriage of gravel and crushed stone aggregate	100Cft.	9000.0		
3.4	18/4	a) Providing and laying base course of crushed stone aggregate of approved quality and grade, and supply and spreading of stone screening, including placing, mixing, spreading and compaction of base course material to required depth, camber and grade to achieve 100% maximum modified AASHO dry density, including carriage of all materials to site of work except gravel and aggregate.				
		ii) Crushed stone aggregate.	100Cft.	3750.0		
		(b) Subsequent carriage of gravel and crushed stone aggregate	100Cft.	4500.0		
3.5	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:- ii) 90% maximum modified AASHTO dry density.	1000 Cft.	315489.0		
3.6	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.				
		a) Upto ¼ mile (400 m).	1000 Cft.	315489.0		

**Engineering Design and Construction Supervision Punjab Rural Sustainable Water Supply and Sanitation
Project,
Cluster South-III**

Village: Piro Joya/Dhuddi : Khairpur Tame wali

BILL OF QUANTITIES

Bill No. 3: Street Pavement Works

Sr. No.	Ref	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
MARKET RATES SYSTEM (MRS), 2nd BI-ANNUAL-2025 DISTRICT BAHAWALPUR						
		b) For every 330 ft. (100 m) additional lead or part thereof, beyond ¼ mile (400 m) upto one mile. (1.6 Km.)	1000 Cft.	315489.0		
Sign Board Works						
3.7	18/19	Providing and erection at site of work:- (The rate is for complete item of work according to Standard design including cement concrete foundation block and painting letters etc. b) Warning/Direction/Informatory.	Each	10.0		
3.8	18/25	Providing, fabrication and fixing pole mounted Direction Board / road delineator of any shape and size, with specified Sheet and thickness, supported with G.I Channel, (excluding the cost of vertical post and painting) etc complete in all respect. A) G.I Sheet 14 SWG ii) RECTANGULAR SHAPE (a) 12 -48 sft	P.Sft	192.0		
3.9	18/27	Providing, fabrication and fixing Vertical Post comprising of medium quality G.I Pipe of specified diameter, including the cost of clamping arrangements, top cover, hold fasts, PCC 1:2:4 footing of specified depth and excavation etc complete in all respect, as approved and directed by the engineer incharge.				
		(a) 2 inch diameter (footing 1.5'x1.5'x4')	P.Rft	240.0		
		(b) 3 inch diameter (footing 1.5'x1.5'x5')	P.Rft	144.0		
3.10	13/42	Lettering and printing of signage / direction boards / road delineators of any colour by machine i/c cost of Digital Lettering, Lamination & pasting etc complete in all respect.				
		a) High Intensity Prismatic (HIP) Tape	P.Sft	192.0		
3.11	13/25	Painting letters with shade.	per letter per inch height	1000.0		
Total Amount						

PUNJAB RURAL SUSTAIBALE WATER SUPPLY AND SANITATION PROJECT (PRSWSSP) CLSUTER SOUTH-III						
Tehsil Khairpur Tamewali						
Bill No. 4: ESMP Cost						
Sr. No.	Item Description	ISO / Standard Code / Description	Unit	Quantity (Per Village)	Unit Rate (Rs.)	Amount (Rs)
Personal Protective Equipments						
1	Safety Jackets	EN ISO 20471: 360 degree visibility Fluorescent yellow/orange; retro-reflective strips; breathable mesh fabric; secure Velcro or zipper closure, provided in appropriate sizes are required by Staff, PRMSC name and logo printed	Each	30.00		
2	Safety Helmets	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) PRMSC Brading and LOGO PRINTED with sr number mentioned on each helmet for ease of record keeping	Each	30.00		
3	Safety Gloves	EN 388 : Nitrile-coated or leather palm; abrasion and cut-resistant; breathable back; conforms to EN388 safety ratings	Each	50.00		
4	Dust Mask (Dust proof mask)	ISO 16975: Disposable N95 or FFP2 class mask; elastic bands; nose clip for sealing; replace after use	Each	100.00		
5	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	35.00		
6	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 positioning; and chest strap with quick-connect buckle; Renowned Brand	Each	3.00		
7	Protective Goggles	ISO 16321: Anti-fog, scratch-resistant; side shielding for wrap-around protection; adjustable strap	Each	10.00		
8	Ear Plugs	ISO 4869-1: Soft polyurethane foam; noise reduction rating (NRR) of 30 dB or more	Each	20.00		
Health Safety Environment Materials / Testing						
9	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	1.00		
10	Warning / Safety Signs	ISO 7010: Weatherproof PVC or Plastic or aluminum signs; reflective print; standardized colors and pictograms (danger, caution, mandatory)	Each	25.00		
11	Green Mesh	Green safety netting for site periphery; 50% shading; UV-stabilized HDPE material.	S.ft	200.00		
12	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.	1.00		
13	CO ₂ Fire Extinguisher	ISO 7165: 5 kg; frost-free horn; suitable for electrical and liquid fires; discharge time of the agent in 13 second)	No.	1.00		

PUNJAB RURAL SUSTAIBALE WATER SUPPLY AND SANITATION PROJECT (PRSWSSP) CLSUTER SOUTH-III						
Tehsil Khairpur Tamewali						
Bill No. 4: ESMP Cost						
Sr. No.	Item Description	ISO / Standard Code / Description	Unit	Quantity (Per Village)	Unit Rate (Rs.)	Amount (Rs)
14	Fire Alarm	ICS 13.030.10: Proper segregation, PPE for handlers, timely removal, recordkeeping per solid waste rules	No.	2.00		
15	Trapuline	Waterproof tarpaulin sheet made from polyethylene or canva	Sq.ft	30.00		
16	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		12.00		
17	Tree Plantation	5-6 feet height; Native species plantation; soil preparation and watering included	No.	100.00		
18	Barricading / Fencing (Reflective tape, poles, safety mesh/netting)	ISO 13857: Includes poles, reflective tape, plastic mesh netting; minimum 3 feet height; durable and visible	Rft	300.00		
19	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	4.00		
20	Water Sprinkling	Water sprinkling through tank mounted on tractor	Per Trip	30.00		
21	Medical Screening for Workers	CBC, Anti HCV, HBsAG, HIV, RPR, LFTs, RFTs etc.	Persons	30.00		
Environmental Testing and Monitoring						
22	Ambient Air Quality Monitoring	As per the parameters and methodology defined by EPA (Quarterly in every village)	Each	3.00		
23	Groundwater Quality Test	As per the parameters and methodology defined by EPA (Quarterly in every village)	Each	3.00		
24	Surface Water Quality Test	(As per the parameters and methodology defined by EPA (Quarterly in every village)	Each	3.00		
25	waste Water Quality Test	(As per the parameters and methodology defined by EPA (Quarterly in every village)	Each	3.00		
26	Noise Level Monitoring	(As per the parameters and methodology defined by EPA (Quarterly in every village)	Each	3.00		
Site Specific / Contractors Environmntal and Social Management Plan						
27	CESMP Formulation	By an individual or firm as approved by PRMSC Environment Wing	per village	1.00		
HSE Staff						
28	HSE Supervisor	Bachelor's degree in Environmental Sciences / Engineering , NEBOSH or IOSH certification will be preffered, 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 per village	12.00		
Waste Management and House Keeping						
29	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	3.00		
30	Handling and dispodal 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	3.00		
Total cost per Village						
Total cost per for 02 no. VillagesVillage						

**PUNJAB RURAL SUSTAINABLE WATER SUPPLY & SANITATION PROJECT (PRSWSSP),
CLUSTER SOUTH-III (Khairpur Tamewali) (PHASE-I)**

BILL NO. 5: EMPLOYER/ENGINEER'S FACILITIES

Sr. No.	Description	Unit	Quantity	Rate (PKR)	Amount (PKR)
<p><i>The following items shall be provided complete in all respects and in accordance with the special provision of the bidding document and up to the satisfaction of The Engineer / The Employer. Rates for below given items are to be filled-in by the Contractor however, payment will be made as per actual bills in accordance with special provisions.</i></p>					
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					
Required for 02 No.s					
Grand Total					