



## **Punjab Municipal Development Fund Company**

**Consultancy Services for Detailed Design of Infrastructure sub-projects (Parking Sheds, Parks, Roads, Chowks, etc.) and Resident Supervision in 16 Cities of Punjab**

# **Improvement of Roads, Chowks and Construction of Storm Water Drainage in MC Khanewal**

## **Rough Cost Estimate**

**August, 2022**



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**PUNJAB CITIES PROGRAM (PCP)  
 DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS  
 SUPERVISION IN 16 CITIES OF PUNJAB**

**ROAD WORKS**

**MC KHANEWAL**

**DETAILED COST ESTIMATE**

**SUMMARY**

Sr. No.	Description	Amount (Rs.)
1	ROAD WORKS	160,691,344
2	DRAINAGE SYSTEM	3,758,195
3	ELECTRICAL WORKS	51,990,219
4	ENVIRONMENTAL HEALTH SAFETY BUDGET	291,925
	<b>Total Amount (Rs.)</b>	<b>216,731,683</b>
	Contingencies @ 2%	4,334,634
	PRA Charges @ 5%	10,836,584
	<b>Total Amount. Rs.</b>	<b>231,902,901</b>

**PUNJAB CITIES PROGRAM (PCP)  
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**INFRASTRUCTURE WORK**

**MC KHANEWAL**

**DETAILED COST ESTIMATE**

**SUMMARY**

Sr. No.	Description	Amount (Rs.)
<b>1</b>	<b>ROAD WORKS</b>	
1.1	P-1 SP CHOWK TO JASWANT NAGAR ROAD	69,098,020
1.2	P-2 SP CHOWK TO RAILWAY CHOWK TO UNDER PASS	50,301,595
1.3	P-3 FOOTBALL CHOWK TO STADIUM ROAD	41,291,729
	<b>1) Total Amount. Rs.</b>	<b>160,691,344</b>
<b>2</b>	<b>DRAINAGE SYSTEM</b>	
2.1	P-1 SP CHOWK TO JASWANT NAGAR ROAD	1,679,240
2.2	P-2 SP CHOWK TO RAILWAY CHOWK TO UNDER PASS	1,234,102
2.3	P-3 FOOTBALL CHOWK TO STADIUM ROAD	844,853
	<b>2) Total Amount. Rs.</b>	<b>3,758,195</b>
<b>3</b>	<b>ELECTRICAL WORKS</b>	
3.1	P-1 SP CHOWK TO JASWANT NAGAR ROAD	11,398,006
3.2	P-2 SP CHOWK TO RAILWAY CHOWK TO UNDER PASS	21,976,524
3.3	P-3 FOOTBALL CHOWK TO STADIUM ROAD	18,615,688
	<b>3) Total Amount. Rs.</b>	<b>51,990,219</b>
<b>4</b>	<b>ENVIRONMENTAL HEALTH SAFETY BUDGET</b>	<b>291,925</b>
	<b>Total Amount (Rs.) "1+2+3+4"</b>	<b>216,731,683</b>
	<b>Say Millions</b>	<b>216.732</b>

# ROAD WORKS

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**DETAILED COST ESTIMATE**

**P-1 SP CHOWK TO JASWANT NAGAR CHOWK**

**ROADS NETWORK**

Sr. No	2nd BI-Annual-2022 (July to Dec) Khanewal	Description	Unit	Quantity	Unit Rate (Rs.)	Amount (Rs.)
		<b>ROAD WORK</b>				
		<b>Dismantling</b>				
1	4/45	Dismantling and removing road metalling.	100Cft	51.67	2,031.75	104,981
2	4/11	Dismantling dry brick masonry.	100Cft	11.63	863.50	10,043
		<b>Compaction of Existing Road Surface</b>				
3	N.S	Ploughing and Compaction of Existing road surface upto 6" depth i/c dressing, leveling, supplying and spreading of stone screening (Khaka) and compaction to achieve to 100% maximum ASSHO dry density complete in all respects.	100Cft	263.50	5,808.29	1,530,484
		<b>Excavation</b>				
4	3/1	Earthwork excavation undressed lead upto a single throw of Kassi, phaorah or shovel:- i) ordinary	1000Cft	99.20	4,571.40	453,483
		<b>Borrow Earth</b>				
5	3/5/i + 3/17	Earthwork in ordinary soil for embankment including ploughing and mixing with blade grade or disc harrow or other suitable equipment and compaction by mechanical means at optimum moisture content and dressing to designed section, complete in all respects:- 90% to 95% maximum modified dry density as determined according to AASHTO T-180 method-D including Transportation of earth.	1000Cft	24.03	15,530.30	373,193
		<b>Sub Base Course</b>				
6	18/3/a/ (ii) + 1/1	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 and grade to achieve 98% maximum dry density determined according to AASHTO T-180 method-D, including carriage of all material to site of work complete in all respect as per specifications and as directed by the engineer incharge. (Crushed stone aggregate from Sakhi Sarwar quarry to site, actual compacted depth shall be considered for payment)	100Cft	539.09	22,254.30	11,997,071

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**DETAILED COST ESTIMATE**

**P-1 SP CHOWK TO JASWANT NAGAR CHOWK**

**ROADS NETWORK**

Sr. No	2nd BI-Annual-2022 (July to Dec) Khanewal	Description	Unit	Quantity	Unit Rate (Rs.)	Amount (Rs.)
		<b>Water Bound Macadam</b>				
7	18/4/a + 1/1	Providing and laying base course of crushed stone ( <b>Water Bound Macadam</b> ) of approved quality and grade including, placing, mixing, spreading and compaction of base course material to required depth, camber and grade to achieve 100% maximum modified AASHTO dry density, including carriage of all material to site of work complete in all respect as per specifications and as directed by the engineer incharge. (Crushed stone aggregate from Sakhi Sarwar quarry to site, actual compacted depth shall be considered for payment)	100Cft	682.00	25,148.52	17,151,291
		<b>Prime Coat</b>				
8	18/6	Providing and laying bituminous priming coat, using 10 lbs. kerosene oil and 10 lbs. binder per 100 Sft. or 0.5 Kg kerosene and 0.5 Kg binder per square metre.	100Sft	1,240.00	2,291.95	2,842,018
9	18/7	Providing and laying bituminous tack coat, using 10 lbs. of bitumen per 100 Sft (0.49 Kg of bitumen per sq.m.)	100Sft	204.08	1,038.15	211,866
		<b>Carpeting</b>				
		<b>AWC</b>				
10	18/10/a + 1/1	Providing and laying plant premixed bituminous carpet, including compaction and finishing to required camber, grade and density. (2 inch thick) (iv) 4.5% Bitumen	Per inch thickness per 100Sft.	1,444.08	16,525.36	23,863,942
		<b>Paint For Traffic Lanes</b>				
11	13/36	Painting Traffic Lane Marking of specified width (1.5mm thick), with Thermoplastic (TP) Paint including Glass Beads, complete in all respect, as approved and directed by Engineer incharge.				
		ii) 6" wide	Rft	12,792.00	56.20	718,910

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**P-1 SP CHOWK TO JASWANT NAGAR CHOWK**

**ROADS NETWORK**

Sr. No	2nd BI-Annual-2022 (July to Dec) Khanewal	Description	Unit	Quantity	Unit Rate (Rs.)	Amount (Rs.)
		<b>Kerb Stone</b>				
12	6/52/b	Providing and fixing precast Edge Kerb Stone (4" to 6" thick), of 3500 PSI Compressive Strength, embedded in PCC 1:2:4 over lean concrete 1:4:8 etc. complete in all respect.				
		b) With Painting				
		(i) 14" high	P.Rft	6,200.00	516.65	3,203,230
		<b>Tuff Paver</b>				
13	10/41	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)				
		c) 80-mm thick (For Shoulder)	Sft	18,600.00	194.65	3,620,490
		b) 60-mm thick (For Median)	Sft	6,200.00	156.15	968,130
		<b>Road Edging</b>				
14	18/5	Providing and laying road edging of 3" (75 mm) wide and 9" (225 mm) deep brick on end, complete in all respects.	Rft	6,200.00	51.05	316,510
		<b>P.C.C (Between Asphalt and Tuff Paver)</b>				
15	6/5	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):				
		(f) Ratio 1: 2: 4	100Cft	20.46	38,126.10	780,060
		<b>Cat Eyes</b>				
16	18/28	Providing & fixing Cat Eyes of size 4"x4"x3/4" duly casted with specified material having plastic strip containing mini retro-reflective glass beads of color white /red/ yellow having specifid reflections, quality & shape i/c the cost of self built in12mm dia x120mm long steel zinc plate dnail, fixing to road with epoxy/ hammering with separate nail complete.				
		b) Aluminium Alloy				
		(B) Uni-Directional				
		(ii) 43 Glass beads a side	Each	1,600.00	543.80	870,080

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**P-1 SP CHOWK TO JASWANT NAGAR CHOWK**

**ROADS NETWORK**

Sr. No	2nd BI- Annual-2022 (July to Dec) Khanewal	Description	Unit	Quantity	Unit Rate (Rs.)	Amount (Rs.)
17	18/25/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				
		<b>CIRCULAR/TRIANGULAR</b>				
		3 ft size	P. Sft	30.00	948.15	28,445
18	18/27/b	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 embedded in PCC 1:2:4 etc, complete in all respect				
		(b) 3 inch diameter	Rft	55.00	1,259.85	69,292
19	13/42/a	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	30.00	1,111.65	33,350
		<b>Deduction</b>				
20	06.004	Brick Bats to be made from dismantling of brick edging. (Input Rate)	100Cft	11.63	4,200.00	(48,846)
		<b>Total Amount Rs.</b>				<b>69,098,020</b>
		<b>DRAINAGE SYSTEM</b>				
		<b>Dismantling</b>				
1	4/19/c	c) Dismantling cement concrete 1:2:4 plain.	100Cft	1.23	11,174.60	13,759



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**P-1 SP CHOWK TO JASWANT NAGAR CHOWK**

**ROADS NETWORK**

Sr. No	2nd BI-Annual-2022 (July to Dec) Khanewal	Description	Unit	Quantity	Unit Rate (Rs.)	Amount (Rs.)
		<b>Excavation</b>				
2	3/7/i	Earthwork excavation in open cutting upto 5'-0" (1.5 m) depth for storm water channels, drains, sullage drains in open areas, roads, streets, lanes, including under pinning of walls and shoring to protect existing works, shuttering and timbering the trenches, dressed to designed level and dimensions, trimming, removal of surface water from trenches, back filling and surplus excavated material disposed of and dressed within 50 ft. (15 m) lead:- i) in ordinary soil.	1000Cft	3.50	9,016.70	31,558
		<b>P.C.C</b>				
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	7.53	38,126.10	287,090
		<b>Brick Work</b>				
4	7/7/i	Pacca brick work other than building upto 10ft. (3 m) Cement, sand mortar:- Ratio 1:3	100Cft	2.46	31,959.10	78,701
5	7/10	Extra for pacca brick work in steining of wells or any other circular masonry.	100Cft	2.46	2,634.00	6,486
		<b>Plaster</b>				
6	11/8/b	Cement plaster 1:3 upto 20' (6.00 m) height:- b) ½" (13 mm) thick	100Sft	6.57	3,420.40	22,461
		<b>R.C.C Work</b>				
7	6/6/a/i/3	Providing and laying reinforced cement concrete (i/c pre-stressed concrete), using coarse sand and screened graded and washed aggregate, in required shape and design, i/c 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, complete				

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**ROADS NETWORK**

Sr. No	2nd BI-Annual-2022 (July to Dec) Khanewal	Description	Unit	Quantity	Unit Rate (Rs.)	Amount (Rs.)
		a).(i) Reinforced cement concrete in roof slab, beams, columns, lintels, girders and other structural members laid in situ or pre-cast laid in position, or pre-stressed members cast in situ, complete in all respect. Type C (nominal mix 1:2:4)	P Cft	35.00	556.50	19,478
		<b>Steel</b>				
8	6/12/c	Fabrication of mild steel reinforcement for cement concrete, i/c cutting, bending, laying in position, making joints and fastening, i/c cost of bending wire and labour charges for bending of steel reinforcement (also includes removal of rust from deformed bars) Gade 60	100Kg	1.07	31,801.40	34,052
		<b>Gully Grating Chamber</b>				
9	21/8	Constructing standard gully grating chamber, 3'x2½' (900x750 mm), with chinaware trap as per PHED Drawing STD/PD No. 3 of 1977, complete in all respects.	Each	28.00	16,370.90	458,385
10	7/30	Supplying and filling sand under floor; or plugging in wells.	100Cft	14.00	2,823.30	39,526
		<b>uPVC Pipe</b>				
11	19/47	Providing, fixing, testing and commissioning of uPVC (Unplasticized polyvinyl Chloride)Nikasi /waste pipe make of dadex / Popular / Beta/ BBJ 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.				
		<b>Type (SDR 41/SN-4)</b>				
		(vii) 8"(200 mm)	Rft	560.00	451.15	252,644

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**P-1 SP CHOWK TO JASWANT NAGAR CHOWK**

**ROADS NETWORK**

Sr. No	2nd BI- Annual-2022 (July to Dec) Khanewal	Description	Unit	Quantity	Unit Rate (Rs.)	Amount (Rs.)
		<b>RPC Manhole Cover</b>				
12	N.S	Providing and fixing RPC Manhole Cover Manufactured with 100% Reinforced Plastic Composite Material, 650 mm dia with clear opening size 600 mm (24" dia) and RPC manhole frame having dia meter 790 mm (Complete) (Certified under ISO 9001-2015)	Each	38.00	10,950.00	416,100
		<b>Manhole Cover</b>				
13	MR	Old/existing Manhole cover and Frame complete set shift to MC store.	Set	38.00	500.00	19,000
		<b>Total Amount (Rs)</b>				<b>1,679,240</b>
		<b>ELECTRICAL WORKS</b>				
		<b>Scheduled Items (A)</b>				
		<b>Excavation</b>				
1	3/21	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling around structure with excavated earth, watering and ramming lead upto one chain (30 m) and lift upto 5 ft. (1.5 m)				
		<b>a) By Manual</b>				
		ii) in ordinary soil.	%oCft	9.76	10,677.75	104,215

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**P-1 SP CHOWK TO JASWANT NAGAR CHOWK**

**ROADS NETWORK**

Sr. No	2nd BI-Annual-2022 (July to Dec) Khanewal	Description	Unit	Quantity	Unit Rate (Rs.)	Amount (Rs.)
		<b>RCC Foundation for Poles</b>				
2	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)(iii) Reinforced cement concrete in 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) (i)&(ii) above not requiring form work (i.e. horizontal shuttering) complete in all respects:-				
		3) Type C (nominal mix 1: 2: 4)	Cft	696.00	457.75	318,594
		<b>Steel Work</b>				
3	6/12/b	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):-				
		(b) Deformed bars (Grade-40)	100Kg	17.40	31,411.60	546,562
4	24/6	Supply and erection PVC pipe for recessed wiring (main and sub-main) purpose, including bends, specials, etc. in floor, wall or trenches:-				
		i) 50 mm i/d	Rft	3,625.00	185.85	673,706
5	24/12	Supply and erection of single core PVC insulated, PVC sheathed copper conductor, 660/1100 volts grade cable, in prelaid G.I. pipe/M.S. conduits /PVC pipe/G.I. wire/ trenches, etc (rate for cable only):-				
		ii) 6 mm sq (7/0.044")	Rft	580.00	117.70	68,266
6	24/13	Supply and erection of copper conductor cables for service connection, in prelaid pipe/G.I. wire / trenches, etc. (rate for cable only):-				

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**P-1 SP CHOWK TO JASWANT NAGAR CHOWK**

**ROADS NETWORK**

Sr. No	2nd BI-Annual-2022 (July to Dec) Khanewal	Description	Unit	Quantity	Unit Rate (Rs.)	Amount (Rs.)
		b) PVC insulated, PVC sheathed 3 core, 660/1100 volt cable:-				
		iii) 7/0.74 mm (7/0.029")	Rft	1,160.00	105.15	121,974
		c) PVC insulated, PVC sheathed 4 core, 660/1100 volt non armoured cable:-				
		vi) 10 mm (7/0.052")	Rft	3,625.00	523.85	1,898,956
		vii) 16 mm (7/0.064")	Rft	100.00	642.90	64,290
7	24/68	Supplying, installation testing and commissioning of Octagonal shape electric street light pole, made of hot dipped 4.5 mm thick (7 SWG) galvanized steel ,tapped from 225 mm at bottom to 100 mm at top,with 1500 mmx60 mm dia. arm for luminaire installation, duly G.I.welded with 470x470x20 mm base plate with the help of 4 no triangular stiffeners 100x350x20 mm of GI sheet,with built in junction box with shutter,i/c the cost of nuts & J-rag bolts, duly fixed in prelaid concrete foundation, foundation will be paid additionally as approved and directed by the Engineer Incharge.				
		b) Double Arm				
		(i) 10 mtr height	Each	29.00	109,878.55	3,186,478
8	24/69/c	Supplying, installation and commissioning of LED Cobra-head Luminaries of specified wattage and lumens conforming to IP 65, Philips/ Osram /Thorn with corrosion resistant die casted aluminum housing, silicon gas kit, thermally hardened glass complete with LED drivers, surge protection i/c the cost of all accessories/components required for proper operation , fully flexible for future upgradation and easy replacements for maintenance purposes,bucket elevator charges as approved and directed by the Engineer Incharge.				
		c) 120 Lm/Watt				
		(v) 90 Watt with 10800 Lumens	Each	58.00	51,675.00	2,997,150
9	24/77	Supply and erection of electric energy meter, including meter testing fee, etc.				
		b) three phase, 4 wires:				

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**P-1 SP CHOWK TO JASWANT NAGAR CHOWK**

**ROADS NETWORK**

Sr. No	2nd BI- Annual-2022 (July to Dec) Khanewal	Description	Unit	Quantity	Unit Rate (Rs.)	Amount (Rs.)
		ii) 3x50 Amp, 400 volts	Each	1.00	14,659.25	14,659
10	24/105/iii	Supply, insatllation, commissioning and testing of oil cooled type, Step down Power Transformer of specified rating,11/0.415 kV, i/c the cost of lifting hooks, thermometers, LT & HT bushing 5-steps, tap changer, imported double float buchholz relay, 2 earthing terminals, roller wheels, connecting terminals for cables M.S box on transformer in order to cover complete L.T side, all necessary materials required for connections on H.T & L.T side, rated voltage 11000/415/240 V impedance 6.25% or as specified by WAPDA/IEC system earth: Delta / Star, neutral solidly earthed, i/c Wapda testing charges,complete in all respects made of PEL, Siemens, as approved and directed by the Engineer Incharge				
		(iii) 25 KVA	Each	1.00	329,487.70	329,488
11	24/70	Earthing of iron clad/aluminum switches, etc. with G.I. wire No. 8 SWG in G.I. pipe 15 mm (½") dia, recessed or on surface of wall and floor, complete with 1.5 metre long G.I. pipe, 50 mm (2") dia with reducing socket 4 to 5 metre below ground level, and 2 metre away from building plinth.	Job	32.00	9,592.45	306,958
<b>Sub Total Scheduled Items: (A)</b>						<b>10,631,296</b>

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**P-1 SP CHOWK TO JASWANT NAGAR CHOWK**

**ROADS NETWORK**

Sr. No	2nd BI- Annual-2022 (July to Dec) Khanewal	Description	Unit	Quantity	Unit Rate (Rs.)	Amount (Rs.)
<b>Non Schedule</b>		<b>Part-B</b>				
12	N.S	Fabrication, Supply, testing and commissioning of following Light control panels (LCP), floor standing weather proof, IP 65 Rated of appropriate size, made of MS Sheet 16 SWG with hinged door, handle, catcher, 2 coats of antirust and powder coated paint of approved colour, AC3 megnetic contactor, photocell for automatic operation of lights, CBs, Hand/Off/Auto switch, push button and all necessary accessories complete in all respects. LCP shall be manufactured as per specifications, single line diagram complete in all respect up to the satisfaction of Engineer incharge.				
	(a)	LCP-3 Phase	No.	1.00	266,710	266,710
13	N.S	Shifting of 3 Nos. Telecommunication Poles	Job			150,000
14	N.S	Electric Connection Charges	Each	1.00	350,000	350,000
		<b>Total Cost (Part B)</b>			<b>Rs.</b>	<b>766,710</b>
		<b>Grand Total (Part A + Part B)</b>			<b>Rs.</b>	<b>11,398,006</b>
		<b>Grand Total Amount Rs.</b>				<b>82,175,267</b>

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**P-1 SP CHOWK TO JASWANT NAGAR CHOWK**  
**CALCULATION OF QUANTITIES**

**ROADS NET WORK**

Sr. No	Description	No.	Length	Width	Height	Qty.	Unit.
	<b>Dismantling</b>						
1	Dismantling and removing road metalling.						
	RD 0+000 to 3+100	1	3,100	20.00	0.08	5,167	Cft
						Total	5,167 Cft
						<b>Total.</b>	<b>51.67 %Cft</b>
2	Dismantling dry brick masonry.						
	RD 0+000 to 3+100	2	3,100	0.25	0.75	1,163	Cft
						Total	1,163 Cft
						<b>Total.</b>	<b>11.63 %Cft</b>
3	Ploughing and Compaction of Existing road surface upto 6" depth i/c dressing, leveling, supplying and spreading of stone screening (Khaka) and compaction to achieve to 100% maximum ASSHO dry density complete in all respects.						
	RD 0+000 to 3+100	1	3,100	17.00	0.50	26,350	Cft
						Total	26,350 Cft
						<b>Total.</b>	<b>263.50 %Cft</b>
4	Earthwork excavation undressed lead upto a single throw of Kassi, phaorah or shovel:- i) ordinary						
	For widening Road						
	RD 0+000 to 3+100	2	3,100	11.50	1.00	71,300	Cft
	For Tuff Paver Shoulders						
	RD 0+000 to 3+100	2	3,100	3.00	0.75	13,950	Cft
						Total	85,250 Cft
						<b>Total.</b>	<b>99.20 %Cft</b>
	<b>Borrow Earth</b>						
5	Earthwork in ordinary soil for embankment including ploughing and mixing with blade grade or disc harrow or other suitable equipment and compaction by mechanical means at optimum moisture content and dressing to designed section, complete in all respects:- 90% to 95% maximum modified dry density as determined according to AASHTO T-180 method-D including Transportation of earth.						



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**DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS**  
**SUPERVISION IN 16 CITIES OF PUNJAB**

**P-1 SP CHOWK TO JASWANT NAGAR CHOWK**  
**CALCULATION OF QUANTITIES**

**ROADS NET WORK**

Sr. No	Description	No.	Length	Width	Height	Qty.	Unit.
	For widening Road						
	RD 0+000 to 3+100	2	3,100	11.50	0.25	17,825	Cft
	For Tuff Paver Shoulders						
	RD 0+000 to 3+100	2	3,100	3.00	0.25	4,650	Cft
	For Median						
	RD 0+000 to 3+100	1	3,100	2.00	0.25	1,550	Cft
					Total	24,025	Cft
					<b>Total.</b>	<b>24.03</b>	<b>%oCft</b>
	<b>Sub Base Course</b>						
6	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 and grade to achieve 98% maximum dry density determined according to AASHTO T-180 method-D, including carriage of all material to site of work complete in all respect as per specifications and as directed by the engineer incharge. (Crushed stone aggregate from Sakhi Sarwar quarry to site, actual compacted depth shall be considered for payment)						
	For widening Road						
	RD 0+000 to 3+100	2	3,100	11.50	0.67	47,771	Cft
	For Tuff Paver Shoulders						
	RD 0+000 to 3+100	2	3,100	3.00	0.33	6,138	Cft
					Total	53,909	Cft
					<b>Total.</b>	<b>539.09</b>	<b>%Cft</b>
	<b>Water Bound Macadam</b>						
7	Providing and laying base course of crushed stone (Water Bound Macadam) of approved quality and grade including, placing, mixing, spreading and compaction of base course material to required depth, camber and grade to achieve 100% maximum modified AASHTO dry density, including carriage of all material to site of work complete in all respect as per specifications and as directed by the engineer incharge. (Crushed stone aggregate from Sakhi Sarwar quarry to site, actual compacted depth shall be considered for payment)						
	Crushed stone aggregate from approved quarry						
	<b>For Road</b>						
	RD 0+000 to 3+100	2	3,100	20.00	0.50	62,000	Cft

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**P-1 SP CHOWK TO JASWANT NAGAR CHOWK**  
**CALCULATION OF QUANTITIES**

**ROADS NET WORK**

Sr. No	Description	No.	Length	Width	Height	Qty.	Unit.
	<b>For Tuff Paver</b>						
	RD 0+000 to 3+100	2	3,100	3.00	0.33	6,200	Cft
					Total	68,200	Cft
					<b>Total.</b>	<b>682.00</b>	<b>%Cft</b>
	<b>Prime Coat</b>						
8	Providing and laying bituminous priming coat, using 10 lbs. kerosene oil and 10 lbs. binder per 100 Sft. or 0.5 Kg kerosene and 0.5 Kg binder per square metre.						
	RD 0+000 to 3+100	2	3,100	20.00		124,000	Sft
					Total	124,000	Sft
					<b>Total.</b>	<b>1,240.00</b>	<b>%Sft</b>
9	Providing and laying bituminous tack coat, using 10 lbs. of bitumen per 100 Sft (0.49 Kg of bitumen per sq.m.)						
	RD 3+100 to 3+198	2	98	23.00		4,508	Sft
	Approach Roads total Area	1	15,900	1.00		15,900	Sft
					Total	20,408	Sft
					<b>Total.</b>	<b>204.08</b>	<b>%Sft</b>
	<b>Carpeting</b>						
	<b>AWC</b>						
10	Providing and laying plant premixed bituminous carpet, including compaction and finishing to required camber, grade and density. (2 inch thick) (iv) 4.5% Bitumen						
	RD 0+000 to 3+100	2	3,100	20.00		124,000	Sft
	RD 3+100 to 3+198	2	98	23.00		4,508	Sft
	Approach Roads total Area	1	15,900	1.00		15,900	Sft
					Total	144,408	Sft
					<b>Total.</b>	<b>1,444.08</b>	<b>%Sft</b>
	<b>Paint For Traffic Lanes</b>						
11	Painting Traffic Lane Marking of specified width (1.5mm thick), with Thermoplastic (TP) Paint including Glass Beads, complete in all respect, as approved and directed by Engineer incharge.						
	RD 0+000 to 3+100	4	3,100			12,400	Rft
		4	98			392	Rft
					<b>Total.</b>	<b>12,792</b>	<b>Rft</b>

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**P-1 SP CHOWK TO JASWANT NAGAR CHOWK**  
**CALCULATION OF QUANTITIES**

**ROADS NET WORK**

Sr. No	Description	No.	Length	Width	Height	Qty.	Unit.
12	Providing and fixing precast Edge Kerb Stone (4" to 6" thick), of 3500 PSI Compressive Strength, embedded in PCC 1:2:4 over lean concrete 1:4:8 etc. complete in all respect.						
	b) With Painting						
	(i) 14" high						
	RD 0+000 to 3+100	2	3,100			6,200	Rft
						<b>Total.</b>	<b>6,200 Rft</b>
	<b>Tuff Paver</b>						
13	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)						
	c) 80-mm thick (For Shoulder)						
	RD 0+000 to 3+100	2	3,100	3.00		18,600	Sft
						<b>Total.</b>	<b>18,600 Sft</b>
	<b>b) 60-mm thick (For Median)</b>						
	RD 0+000 to 3+100	1	3,100	2.00		6,200	Sft
						<b>Total.</b>	<b>6,200 Sft</b>
	<b>Road Edging</b>						
14	Providing and laying road edging of 3" (75 mm) wide and 9" (225 mm) deep brick on end, complete in all respects.						
	RD 0+000 to 3+100	2	3,100			6,200	Rft
						<b>Total.</b>	<b>6,200 Rft</b>
	<b>P.C.C (Between Asphalt and Tuff Paver)</b>						
15	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):						
	(f) Ratio 1: 2: 4						
	RD 0+000 to 3+100	4	3,100	0.33	0.50	2,046	Cft
						<b>Total.</b>	<b>20.46 %Cft</b>
	<b>Cat Eyes</b>						

**PUNJAB CITIES PROGRAM (PCP)**  
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**P-1 SP CHOWK TO JASWANT NAGAR CHOWK**  
**CALCULATION OF QUANTITIES**

**ROADS NET WORK**

Sr. No	Description	No.	Length	Width	Height	Qty.	Unit.
16	Providing & fixing Cat Eyes of size 4"x4"x3/4" duly casted with specified material having plastic strip containing mini retro-reflective glass beads of color white /red/ yellow having specifid reflections, quality & shape i/c the cost of self built in 12mm dia x 120mm long steel zinc plate dnail, fixing to road with epoxy/hammering with separate nail complete.						
	b) Aluminium Alloy						
	(B) Uni-Directional						
	(ii) 43 Glass beads a side	1600				1,600	Each
17	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						
	CIRCULAR/TRIANGULAR						
	3 ft size	5	3.00	2.00		30	Sft
18	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 embedded in PCC 1:2:4 etc, complete in all respect						
	(b) 3 inch diameter	5	11			55	Rft
19	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					30	Sft
	<b>Deduction</b>						
20	Brick Bats to be made from dismantling of brick edging. (Input Rate)						
	Total Qty.					11.63	%Cft
						<b>Total</b>	<b>11.63</b> %Cft
	<b>DRAINAGE SYSTEM</b>						
	<b>Dismantling</b>						
1	c) Dismantling cement concrete 1:2:4 plain.						
	Manhole Neck	38	8.64	0.75	0.50	123	Cft
						<b>Total</b>	<b>1.23</b> %Cft

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**P-1 SP CHOWK TO JASWANT NAGAR CHOWK**  
**CALCULATION OF QUANTITIES**

**ROADS NET WORK**

Sr. No	Description	No.	Length	Width	Height	Qty.	Unit.
	<b>Excavation</b>						
2	Earthwork excavation in open cutting upto 5'-0" (1.5 m) depth for storm water channels, drains, sullage drains in open areas, roads, streets, lanes, including under pinning of walls and shoring to protect existing works, shuttering and timbering the trenches, dressed to designed level and dimensions, trimming, removal of surface water from trenches, back filling and surplus excavated material disposed of and dressed within 50 ft. (15 m) lead:- i) in ordinary soil.						
	Pipe Laying	28	20.00	2.50	2.50	3,500	Cft
					Total	3,500	Cft
					<b>Total</b>	<b>3.50</b>	<b>%oCft</b>
	<b>P.C.C</b>						
3	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate): <b>(f) Ratio 1: 2: 4</b>						
	Pipe Laying	28	10	1.50	1.50	630	Cft
	For manhole neck	38	8.64	0.75	0.50	123	Cft
					Total	753	Cft
					<b>Total</b>	<b>7.53</b>	<b>%Cft</b>
	<b>Brick Work</b>						
4	Pacca brick work other than building upto 10ft. (3 m) Cement, sand mortar:- Ratio 1:3						
	For manhole neck	38	8.64	0.75	1.00	246	Cft
					Total	246	Cft
					<b>Total</b>	<b>2.46</b>	<b>%Cft</b>
5	Extra for pacca brick work in steining of wells or any other circular masonry.						
					<b>Total</b>	<b>2.46</b>	<b>%Cft</b>
6	Cement plaster 1:3 upto 20' (6.00 m) height:- b) ½" (13 mm) thick						
	For manhole neck (38 x 2 = 76)	76	8.64		1.00	657	Sft
					Total	657	Sft
					<b>Total</b>	<b>6.57</b>	<b>%Sft</b>

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**P-1 SP CHOWK TO JASWANT NAGAR CHOWK**  
**CALCULATION OF QUANTITIES**

**ROADS NET WORK**

Sr. No	Description	No.	Length	Width	Height	Qty.	Unit.
<b>R.C.C Work</b>							
7	Providing and laying reinforced cement concrete (i/c pre-stressed concrete), using coarse sand and screened graded and washed aggregate, in required shape and design, i/c 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, complete						
	a).(i) Reinforced cement concrete in roof slab, beams, columns, lintels, girders and other structural members laid in situ or pre-cast laid in position, or pre-stressed members cast in situ, complete in all respect. Type C (nominal mix 1:2:4)						
	Culvert Slab	1	15.00	3.50	0.67	35.00	Cft
						<b>Total</b>	<b>35.00</b> <b>Cft</b>
<b>Steel</b>							
8	Fabrication of mild steel reinforcement for cement concrete, i/c cutting, bending, laying in position, making joints and fastening, i/c cost of bending wire and labour charges for bending of steel reinforcement (also includes removal of rust from deformed bars) Gade 60						
	Concrete Qty		35	Cft @	6.75	236	lbs/cft
						107	kg
						<b>Total</b>	<b>1.07</b> <b>Kg</b>
<b>Gully Grating Chamber</b>							
9	Constructing standard gully grating chamber, 3'x2½' (900x750 mm), with chinaware trap as per PHED Drawing STD/PD No. 3 of 1977, complete in all respects.	28				<b>28.00</b>	<b>Each</b>
10	Supplying and filling sand under floor; or plugging in wells.	28	20.00	2.50	1.00	<b>14.00</b>	<b>%Cft</b>
<b>uPVC Pipe</b>							
11	Providing, fixing, testing and commissioning of u-PVC (Unplasticized polyvinyl Chloride)Nikasi /waste pipe make of dadex / Popular / Beta/ BBJ 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.						
	<b>Type (SDR 41/SN-4)</b>						
	(vii) 8"(200 mm)	28	20.00			<b>560</b>	<b>Rft</b>

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**P-1 SP CHOWK TO JASWANT NAGAR CHOWK**  
**CALCULATION OF QUANTITIES**

**ROADS NET WORK**

Sr. No	Description	No.	Length	Width	Height	Qty.	Unit.
	<b>RPC Manhole Cover</b>						
12	Providing and fixing RPC Manhole Cover Manufactured with 100% Reinforced Plastic Composite Material, 650 mm dia with clear opening size 600 mm (24" dia) and RPC manhole frame having dia meter 790 mm (Complete) (Certified under ISO 9001-2015)	38				38	Each
	<b>ELECTRICAL WORKS</b>						
	<b>Scheduled Items (A)</b>						
	<b>Excavation</b>						
1	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling 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) in ordinary soil.						
	For pipe 50mm dia from TR to LCP and LCP to poles	1	3,625	1.00	2.50	9,063	Cft
	Light Poles	29	2.00	2.00	6.00	696	Cft
					Total	9,759	Cft
					<b>Total</b>	<b>9.76</b>	<b>%oCft</b>
	<b>RCC Foundation for Poles</b>						
2	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)(iii) Reinforced cement concrete in 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) (i)&(ii) above not requiring form work (i.e. horizontal shuttering) complete in all respects:-						
	3) Type C (nominal mix 1: 2: 4)						
	Light Poles	29	2.00	2.00	6.00	696	Cft
					<b>Total</b>	<b>696.00</b>	<b>Cft</b>

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**P-1 SP CHOWK TO JASWANT NAGAR CHOWK**

**CALCULATION OF QUANTITIES**

**ROADS NET WORK**

Sr. No	Description	No.	Length	Width	Height	Qty.	Unit.
	<b>Steel Work</b>						
3	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-40)		2.50Kg/Cft			1,740	Kg
						<b>Total</b>	<b>17.40</b>
							<b>Kg</b>
4	Supply and erection PVC pipe for recessed wiring (main and sub-main) purpose, including bends, specials, etc. in floor, wall or trenches:-						
	i) 50 mm i/d						
	From LCP to Pole and pole to pole (Up + Down)	29	125.00			3,625	Rft
5	Supply and erection of single core PVC insulated, PVC sheathed copper conductor, 660/1100 volts grade cable, in prelaid G.I. pipe/M.S. conduits/PVC pipe/G.I. wire/trenches, etc (rate for cable only):-						
	ii) 6 mm sq (7/0.044")						
	For two nos. Earthing lead	29	20.00			580	Rft
6	Supply and erection of copper conductor cables for service connection, in prelaid pipe/G.I. wire / trenches, etc. (rate for cable only):-						
	b) PVC insulated, PVC sheathed 3 core, 660/1100 volt cable:-						
	iii) 7/0.74 mm (7/0.029")						
	From Terminal Box to light fixture on pole (P+N+E)	29	40.00			1,160	Rft
	c) PVC insulated, PVC sheathed 4 core, 660/1100 volt non armoured cable:-						
	vi) 10 mm (7/0.052")	29	125.00			3,625	Rft
	vii) 16 mm (7/0.064")	1	100.00			100	Rft



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**CALCULATION OF QUANTITIES**

**ROADS NET WORK**

Sr. No	Description	No.	Length	Width	Height	Qty.	Unit.
7	Supplying, installation testing and commissioning of Octagonal shape electric street light pole, made of hot dipped 4.5 mm thick (7 SWG) galvanized steel ,tapered from 225 mm at bottom to 100 mm at top,with 1500 mmx60 mm dia. arm for luminaire installation, duly G.I.welded with 470x470x20 mm base plate with the help of 4 no triangular stiffeners 100x350x20 mm of GI sheet,with built in junction box with shutter,i/c the cost of nuts & J-rag bolts, duly fixed in prelaid concrete foundation, foundation will be paid additionally as approved and directed by the Engineer Incharge.						
	b) Double Arm						
	(i) 10 mtr height	29				29	Nos
8	Supplying, installation and commissioning of LED Cobra-head Luminaries of specified wattage and lumens conforming to IP 65, Philips/ Osram /Thorn with corrosion resistant die casted aluminum housing, silicon gas kit, thermally hardened glass complete with LED drivers, surge protection i/c the cost of all accessories/components required for proper operation , fully flexible for future upgradation and easy replacements for maintenance purposes,bucket elevator charges as approved and directed by the Engineer Incharge.						
	c) 120 Lm/Watt						
	(v) 90 Watt with 10800 Lumens	58				58	Nos
9	Supply and erection of electric energy meter, including meter testing fee, etc.						
	b) three phase, 4 wires:						
	ii) 3x50 Amp, 400 volts	1				1.00	Nos

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**P-1 SP CHOWK TO JASWANT NAGAR CHOWK**

**CALCULATION OF QUANTITIES**

**ROADS NET WORK**

Sr. No	Description	No.	Length	Width	Height	Qty.	Unit.
10	Supply, insatllation, commissioning and testing of oil cooled type, Step down Power Transformer of specified rating,11/0.415 kV, i/c the cost of lifting hooks, thermometers, LT & HT bushing 5-steps, tap changer, imported double float buchholz relay, 2 earthing terminals, roller wheels, connecting terminals for cables M.S box on transformer in order to cover complete L.T side, all necessary materials required for connections on H.T & L.T side, rated voltage 11000/415/240 V impedance 6.25% or as specified by WAPDA/IEC system earth: Delta / Star, neutral solidly earthed, i/c Wapda testing charges,complete in all respects made of PEL, Siemens, as approved and directed by the Engineer Incharge						
	(iii) 25 KVA	1				<b>1.00</b>	<b>Nos.</b>
11	Earthing of iron clad/aluminum switches, etc. with G.I. wire No. 8 SWG in G.I. pipe 15 mm (½") dia, recessed or on surface of wall and floor, complete with 1.5 metre long G.I. pipe, 50 mm (2") dia with reducing socket 4 to 5 metre below ground level, and 2 metre away from building plinth.	32				<b>32.00</b>	<b>No.</b>
12	Fabrication, Supply, testing and commissioning of following Light control panels (LCP), floor standing weather proof, IP 65 Rated of appropriate size, made of MS Sheet 16 SWG with hinged door, handle, catcher, 2 coats of antirust and powder coated paint of approved colour, AC3 megnatic contactor, photocell for automatic operation of lights, CBs, Hand/Off/Auto switch, push button and all necessary accessories complete in all respects. LCP shall be manufactured as per specifications, single line diagram complete in all respect up to the satisfaction of Engineer incharge.						
	LCP-3 Phase	1				<b>1.00</b>	<b>Nos.</b>
13	Shifting of 3 Nos. Telecommunication Poles						
14	Electric Connection Charges	1				<b>1.00</b>	<b>Each</b>

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**DETAILED COST ESTIMATE**

**P-2 SP CHOWK TO RAILWAY CHOWK TO UNDER PASS**

**ROADS NETWORK**

Sr. No	2nd BI- Annual-2022 (July to Dec) Khanewal	Description	Unit	Quantity	Unit Rate (Rs.)	Amount (Rs.)
		<b>ROAD WORK</b>				
		<b>Scarifying</b>				
1	18/11	Scarifying old road surface including removal of debris within 1 chain (30 m).	100Sft	1,583.38	423.30	670,245
		<b>Dismantling</b>				
2	4/20	Dismantling cement concrete reinforced, separating reinforcement from concrete cleaning and straightening the same.	100Cft	16.60	18,285.70	303,543
3	N.S	Dismantling / Demolishing of existing kerb stone as directed by Engineer's Incharge, Complete in all respect	Rft	340.00	25.40	8,636
4	4/29	Dismantling brick or flagged flooring without concrete foundation.	100Sft	41.88	863.50	36,163
		<b>Compaction of Existing Road Surface</b>				
5	N.S	Ploughing and Compaction of Existing road surface upto 6" depth i/c dressing, leveling, supplying and spreading of stone screening (Khaka) and compaction to achieve to 100% maximum ASSHO dry density complete in all respects.	100Cft	10.00	5,808.29	58,083
		<b>Excavation</b>				
6	3/1	Earthwork excavation undressed lead upto a single throw of Kassi, phaorah or shovel:- i) ordinary	1000Cft	63.35	4,571.40	289,598
		<b>Borrow Earth</b>				
7	3/5/i + 3/17	Earthwork in ordinary soil for embankment including ploughing and mixing with blade grade or disc harrow or other suitable equipment and compaction by mechanical means at optimum moisture content and dressing to designed section, complete in all respects:- 90% to 95% maximum modified dry density as determined according to AASHTO T-180 method-D including Transportation of earth.	1000Cft	7.87	15,530.30	122,223

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**DETAILED COST ESTIMATE**

**P-2 SP CHOWK TO RAILWAY CHOWK TO UNDER PASS**

**ROADS NETWORK**

Sr. No	2nd BI-Annual-2022 (July to Dec) Khanewal	Description	Unit	Quantity	Unit Rate (Rs.)	Amount (Rs.)
<b>Sub Base Course</b>						
8	18/3/a/ (ii) + 1/1	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 and grade to achieve 98% maximum dry density determined according to AASHTO T-180 method-D, including carriage of all material to site of work complete in all respect as per specifications and as directed by the engineer incharge. (Crushed stone aggregate from Sakhi Sarwar quarry to site, actual compacted depth shall be considered for payment)	100Cft	111.83	22,254.30	2,488,698
<b>Water Bound Macadam</b>						
9	18/4/a + 1/1	Providing and laying base course of crushed stone ( <b>Water Bound Macadam</b> ) of approved quality and grade including, placing, mixing, spreading and compaction of base course material to required depth, camber and grade to achieve 100% maximum modified AASHTO dry density, including carriage of all material to site of work complete in all respect as per specifications and as directed by the engineer incharge. (Crushed stone aggregate from Sakhi Sarwar quarry to site, actual compacted depth shall be considered for payment)	100Cft	124.96	25,148.52	3,142,559
<b>Prime Coat</b>						
10	18/6	Providing and laying bituminous priming coat, using 10 lbs. kerosene oil and 10 lbs. binder per 100 Sft. or 0.5 Kg kerosene and 0.5 Kg binder per square metre.	100Sft	1,379.88	2,291.95	3,162,616
11	18/7	Providing and laying bituminous tack coat, using 10 lbs. of bitumen per 100 Sft (0.49 Kg of bitumen per sq.m.)	100Sft	276.75	1,038.15	287,308

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**DETAILED COST ESTIMATE**

**P-2 SP CHOWK TO RAILWAY CHOWK TO UNDER PASS**

**ROADS NETWORK**

Sr. No	2nd BI- Annual-2022 (July to Dec) Khanewal	Description	Unit	Quantity	Unit Rate (Rs.)	Amount (Rs.)
		<b>Carpeting</b>				
		<b>AWC</b>				
12	18/10/a + 1/1	Providing and laying plant premixed bituminous carpet, including compaction and finishing to required camber, grade and density. (2 inch thick) (iv) 4.5% Bitumen	Per inch thickness per 100Sft.	1,656.63	16,525.36	27,376,407
		<b>R.C.C Work</b>				
13	6/6/a/i/3	Providing and laying reinforced cement concrete (i/c pre-stressed concrete), using coarse sand and screened graded and washed aggregate, in required shape and design, i/c 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, complete				
		(a)(iii) Reinforced cement concrete in 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) (i)&(ii) above not requiring form work (i.e. horizontal shuttering) complete in all respects:-				
		(2) Type B (nominal mix 1: 1½: 3)	P Cft	1,660.00	513.65	852,659
		<b>Steel</b>				
14	6/12/c	Fabrication of mild steel reinforcement for cement concrete, i/c cutting, bending, laying in position, making joints and fastening, i/c cost of bending wire and labour charges for bending of steel reinforcement (also includes removal of rust from deformed bars) Gade 60	100Kg	49.80	28,991.05	1,443,754
		<b>Paint For Traffic Lanes</b>				
15	13/36	Painting Traffic Lane Marking of specified width (1.5mm thick), with Thermoplastic (TP) Paint including Glass Beads, complete in all respect, as approved and directed by Engineer incharge.				
		ii) 6" wide	Rft	12,275.00	56.20	689,855

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**P-2 SP CHOWK TO RAILWAY CHOWK TO UNDER PASS**

**ROADS NETWORK**

Sr. No	2nd BI-Annual-2022 (July to Dec) Khanewal	Description	Unit	Quantity	Unit Rate (Rs.)	Amount (Rs.)
		<b>Kerb Stone</b>				
16	6/52/b	Providing and fixing precast Edge Kerb Stone (4" to 6" thick), of 3500 PSI Compressive Strength, embedded in PCC 1:2:4 over lean concrete 1:4:8 etc. complete in all respect.				
		b) With Painting				
		(i) 14" high	P.Rft	340.00	516.65	175,661
		<b>Tuff Paver</b>				
17	10/41	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)				
		c) 80-mm thick	Sft	33,888.00	194.65	6,596,299
		<b>Road Edging</b>				
18	18/5	Providing and laying road edging of 3" (75 mm) wide and 9" (225 mm) deep brick on end, complete in all respects.	Rft	200.00	51.05	10,210
		<b>P.C.C (Between Asphalt and Tuff Paver)</b>				
19	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	38.92	38,126.10	1,483,868
		<b>Cat Eyes</b>				
20	18/28	Providing & fixing Cat Eyes of size 4"x4"x3/4" duly casted with specified material having plastic strip containing mini retro-reflective glass beads of color white /red/ yellow having specifid reflections, quality & shape i/c the cost of self built in12mm dia x120mm long steel zinc plate dnail, fixing to road with epoxy/ hammering with separate nail complete.				
		b) Aluminium Alloy				
		(A) Dual-Directional				
		(ii) 43x2=86 Glass beads a side	Each	1,112.00	693.80	771,506
		(B) Uni-Directional				
		(ii) 43 Glass beads a side	Each	100.00	543.80	54,380

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**ROADS NETWORK**

Sr. No	2nd BI- Annual-2022 (July to Dec) Khanewal	Description	Unit	Quantity	Unit Rate (Rs.)	Amount (Rs.)
21	18/25/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 <b>CIRCULAR/TRIANGULAR</b>				
		3 ft size	P. Sft	66.00	948.15	62,578
22	18/27/b	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 embedded in PCC 1:2:4 etc, complete in all respect				
		(b) 3 inch diameter	Rft	121.00	1,259.85	152,442
23	13/42/a	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	66.00	1,111.65	73,369
		<b>For Green Belt</b>				
24	3/32	Turfing slopes of banks or lawns with grass sods including ploughing, laying, setting and watering (Turf got from within a distance of 5 miles (8 Km.) and maintenance for 15 days).	100Sft	5.10	1,693.10	8,635
		<b>Deduction</b>				
25	6/2	Dry rammed brick or stone ballast, 1½" to 2" (40 mm to 50 mm) gauge.	100Cft	15.71	1,254.00	(19,700)
		<b>Total Amount Rs.</b>				<b>50,301,595</b>
		<b>DRAINAGE SYSTEM</b>				
		<b>Dismantling</b>				
1	4/19/c	c) Dismantling cement concrete 1:2:4 plain.	100Cft	0.26	11,174.60	2,897

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**P-2 SP CHOWK TO RAILWAY CHOWK TO UNDER PASS**

**ROADS NETWORK**

Sr. No	2nd BI- Annual-2022 (July to Dec) Khanewal	Description	Unit	Quantity	Unit Rate (Rs.)	Amount (Rs.)
		<b>Excavation</b>				
2	3/7/i	Earthwork excavation in open cutting upto 5'-0" (1.5 m) depth for storm water channels, drains, sullage drains in open areas, roads, streets, lanes, including under pinning of walls and shoring to protect existing works, shuttering and timbering the trenches, dressed to designed level and dimensions, trimming, removal of surface water from trenches, back filling and surplus excavated material disposed of and dressed within 50 ft. (15 m) lead:- i) in ordinary soil.	1000Cft	1.63	9,016.70	14,652
		<b>P.C.C</b>				
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	3.19	38,126.10	121,622
		<b>Brick Work</b>				
4	7/7/i	Pacca brick work other than building upto 10ft. (3 m) Cement, sand mortar:- Ratio 1:3	100Cft	0.61	31,959.10	19,445
5	7/10	Extra for pacca brick work in steining of wells or any other circular masonry.	100Cft	0.52	2,634.00	1,366
		<b>Plaster</b>				
6	11/8/b	Cement plaster 1:3 upto 20' (6.00 m) height:- b) ½" (13 mm) thick	100Sft	6.90	3,420.40	23,609
		<b>R.C.C Work</b>				
7	6/6/a/i/3	Providing and laying reinforced cement concrete (i/c pre-stressed concrete), using coarse sand and screened graded and washed aggregate, in required shape and design, i/c 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, complete				



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**ROADS NETWORK**

Sr. No	2nd BI-Annual-2022 (July to Dec) Khanewal	Description	Unit	Quantity	Unit Rate (Rs.)	Amount (Rs.)
		a). Reinforced cement concrete in roof slab, beams, columns, lintels, girders and other structural members laid in situ or pre-cast laid in position, or pre-stressed members cast in situ, complete in all respect. Type C (nominal mix 1:2:4)	P Cft	7.00	556.50	3,896
		<b>Steel</b>				
8	6/12/c	Fabrication of mild steel reinforcement for cement concrete, i/c cutting, bending, laying in position, making joints and fastening, i/c cost of bending wire and labour charges for bending of steel reinforcement (also includes removal of rust from deformed bars) Gade 60	100Kg	0.21	31,801.40	6,782
		<b>Gully Grating Chamber</b>				
9	21/8	Constructing standard gully grating chamber, 3'x2½' (900x750 mm), with chinaware trap as per PHED Drawing STD/PD No. 3 of 1977, complete in all respects.	Each	13.00	16,370.90	212,822
10	7/30	Supplying and filling sand under floor; or plugging in wells.	100Cft	6.50	2,823.30	18,351
		<b>uPVC Pipe</b>				
11	19/47	Providing, fixing, testing and commissioning of uPVC (Unplasticized polyvinyl Chloride) Nikasi /waste pipe make of dadex / Popular / Beta/ BBJ 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.				
		<b>Type (SDR 41/SN-4)</b>				
		(v) 4"(110 mm)	Rft	100.00	217.25	21,725
		(vii) 8"(200 mm)	Rft	260.00	451.15	117,299

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**ROADS NETWORK**

Sr. No	2nd BI- Annual-2022 (July to Dec) Khanewal	Description	Unit	Quantity	Unit Rate (Rs.)	Amount (Rs.)
		<b>RPC Manhole Cover</b>				
12	N.S	Providing and fixing RPC Manhole Cover Manufactured with 100% Reinforced Plastic Composite Material, 650 mm dia with clear opening size 600 mm (24" dia) and RPC manhole frame having dia meter 790 mm (Complete) (Certified under ISO 9001-2015)	Each	8.00	10,950.00	87,600
		<b>M.S Grating</b>				
13	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.	P.Sft	312.50	1,663.95	519,984
		<b>G.I Pipe</b>				
14	23/23	Providing, laying, cutting, jointing, testing and disinfecting G.I. pipeline in trenches, with socket joints, using G.I. pipes of B.S.S. 1387-1967 complete in all respects, with specials and valves.				
		<b>iii) Heavy Quality</b>				
		i) 4" i/d (100 mm) 5.4mm thick	Rft	30.00	1,935.10	58,053
		<b>Manhole Cover</b>				
15	MR	Old/existing Manhole cover and Frame complete set shift to MC store.	Set	8.00	500.00	4,000
		<b>Total Amount (Rs)</b>				<b>1,234,102</b>

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**ROADS NETWORK**

Sr. No	2nd BI- Annual-2022 (July to Dec) Khanewal	Description	Unit	Quantity	Unit Rate (Rs.)	Amount (Rs.)
		<b>ELECTRICAL WORKS</b>				
		<b>Scheduled Items (A)</b>				
		<b>Excavation</b>				
1	3/21	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling around structure with excavated earth, watering and ramming lead upto one chain (30 m) and lift upto 5 ft. (1.5 m)				
		<b>a) By Manual</b>				
		ii) in ordinary soil.	%oCft	23.22	10,677.75	247,937
		<b>RCC Foundation for Poles</b>				
2	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)(iii) Reinforced cement concrete in 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) (i)&(ii) above not requiring form work (i.e. horizontal shuttering) complete in all respects:-				
		3) Type C (nominal mix 1: 2: 4)	Cft	1,656.00	457.75	758,034
		<b>Steel Work</b>				
3	6/12/b	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):-				
		(b) Deformed bars (Grade-40)	100Kg	41.40	31,411.60	1,300,440
4	24/6	Supply and erection PVC pipe for recessed wiring (main and sub-main) purpose, including bends, specials, etc. in floor, wall or trenches:-				
		i) 50 mm i/d	Rft	8,625.00	185.85	1,602,956.5

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**ROADS NETWORK**

<b>Sr. No</b>	<b>2nd BI- Annual-2022 (July to Dec) Khanewal</b>	<b>Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Rate (Rs.)</b>	<b>Amount (Rs.)</b>
5	24/12	Supply and erection of single core PVC insulated, PVC sheathed copper conductor, 660/1100 volts grade cable, in pre-laid G.I. pipe/M.S. conduits /PVC pipe/G.I. wire/ trenches, etc (rate for cable only):-				
		ii) 6 mm sq (7/0.044")	Rft	1,380.00	117.70	162,426
6	24/13/c	Supply and erection of copper conductor cables for service connection, in pre-laid pipe/G.I. wire / trenches, etc. (rate for cable only):-				
		b) PVC insulated, PVC sheathed 3 core, 660/1100 volt cable:-				
		iii) 7/0.74 mm (7/0.029")	Rft	2,760.00	105.15	290,214
		c) PVC insulated, PVC sheathed 4 core, 660/1100 volt non armoured cable:-				
		vi) 10 mm (7/0.052")	Rft	8,625.00	523.85	4,518,206
		vii) 16 mm (7/0.064")	Rft	100.00	642.90	64,290
7	24/68	Supplying, installation testing and commissioning of Octagonal shape electric street light pole, made of hot dipped 4.5 mm thick (7 SWG) galvanized steel ,tapered from 225 mm at bottom to 100 mm at top,with 1500 mmx60 mm dia. arm for luminaire installation, duly G.I.welded with 470x470x20 mm base plate with the help of 4 no triangular stiffeners 100x350x20 mm of GI sheet,with built in junction box with shutter,i/c the cost of nuts & J-rag bolts, duly fixed in pre-laid concrete foundation, foundation will be paid additionally as approved and directed by the Engineer Incharge.				
		a) Single Arm				
		(i) 10 mtr height	Each	64.00	106,236.55	6,799,139
		b) Double Arm				
		(i) 10 mtr height	Each	5.00	109,878.55	549,393

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**ROADS NETWORK**

<b>Sr. No</b>	<b>2nd BI- Annual-2022 (July to Dec) Khanewal</b>	<b>Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Rate (Rs.)</b>	<b>Amount (Rs.)</b>
8	24/69/c	Supplying, installation and commissioning of LED Cobra-head Luminaries of specified wattage and lumens conforming to IP 65, Philips/ Osram /Thorn with corrosion resistant die casted aluminum housing, silicon gas kit, thermally hardened glass complete with LED drivers, surge protection i/c the cost of all accessories/components required for proper operation , fully flexible for future upgradation and easy replacements for maintenance purposes,bucket elevator charges as approved and directed by the Engineer Incharge.				
		c) 120 Lm/Watt				
		(v) 90 Watt with 10800 Lumens	Each	74.00	51,675.00	3,823,950
9	24/77	Supply and erection of electric energy meter, including meter testing fee, etc.				
		b) three phase, 4 wires:				
		ii) 3x50 Amp, 400 volts	Each	1.00	14,659.25	14,659
10	24/105/iii	Supply, insatllation, commissioning and testing of oil cooled type, Step down Power Transformer of specified rating,11/0.415 kV, i/c the cost of lifting hooks, thermometers, LT & HT bushing 5-steps, tap changer, imported double float buchholz relay, 2 earthing terminals, roller wheels, connecting terminals for cables M.S box on transformer in order to cover complete L.T side, all necessary materials required for connections on H.T & L.T side, rated voltage 11000/415/240 V impedance 6.25% or as specified by WAPDA/IEC system earth: Delta / Star, neutral solidly earthed, i/c Wapda testing charges,complete in all respects made of PEL, Siemens, as approved and directed by the Engineer Incharge				
		(iii) 25 KVA	Each	1.00	329,487.70	329,488

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**ROADS NETWORK**

Sr. No	2nd BI- Annual-2022 (July to Dec) Khanewal	Description	Unit	Quantity	Unit Rate (Rs.)	Amount (Rs.)
11	24/70	Earthing of iron clad/aluminum switches, etc. with G.I. wire No. 8 SWG in G.I. pipe 15 mm (½") dia, recessed or on surface of wall and floor, complete with 1.5 metre long G.I. pipe, 50 mm (2") dia with reducing socket 4 to 5 metre below ground level, and 2 metre away from building plinth.	Job	72.00	9,592.45	690,656
<b>Sub Total Scheduled Items: (A)</b>						<b>21,151,789</b>
<b>Non Schedule</b>		<b>Part-B</b>				
12	N.S	Fabrication, Supply, testing and commissioning of following Light control panels (LCP), floor standing weather proof, IP 65 Rated of appropriate size, made of MS Sheet 16 SWG with hinged door, handle, catcher, 2 coats of antirust and powder coated paint of approved colour, AC3 megnatic contactor, photocell for automatic operation of lights, CBs, Hand/Off/Auto switch, push button and all necessary accessories complete in all respects. LCP shall be manufactured as per specifications, single line diagram complete in all respect up to the satisfaction of Engineer incharge.				
	(a)	LCP-3 Phase	No.	1.00	374,735	374,735
13	N.S	Providing, installing and testing submersible pump 4 hp with motor controle unit including wire 7/0.029 150 ft length, foot valve 3 inch dia all necessary accessories complete in all respects.	Set	1.00	100,000	100,000
14	N.S	Electric Connection Charges	Each	1.00	350,000	350,000
<b>Total Cost (Part B)</b>					<b>Rs.</b>	<b>824,735</b>
<b>Grand Total (Part A + Part B)</b>					<b>Rs.</b>	<b>21,976,524</b>
<b>Grand Total Amount Rs.</b>						<b>73,512,222</b>

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**CALCULATION OF QUANTITIES**

**ROADS NET WORK**

Sr. No	Description	No.	Length	Width	Height	Qty.	Unit.
	<b>ROAD WORK</b>						
	<b>Scarifying</b>						
1	Scarifying old road surface including removal of debris within 1 chain (30 m).						
	RD 0+000 to 1+100	1	1,100	24.00		26,400	Sft
	RD 1+350 to 1+550	1	200	34.00		6,800	Sft
	RD 1+550 to 1+950	1	400	24.00		9,600	Sft
	RD 1+950 to 2+250	1	300	24.00		7,200	Sft
	RD 2+250 to 2+600 W-(45+35+24+50+24)/5	1	350	35.60		12,460	Sft
	RD 2+600 to 4+600	1	2,000	24.00		48,000	Sft
	RD 4+600 to 4+700	1	100	24.00		2,400	Sft
	RD 4+700 to 5+100	2	400	20.00		16,000	Sft
	RD 5+100 to 6+247 (100 ft RCC rigid pavement reduced)	1	1,047	24.00		25,128	Sft
	Station More (Additional area in front of Booking Office)	1	150	29.00		4,350	Sft
					Total	158,338	Sft
					<b>Total</b>	<b>1,583</b>	<b>%Sft</b>
	<b>Dismantling</b>						
2	Dismantling cement concrete reinforced, separating reinforcement from concrete cleaning and straightening the same.						
	Underpass	2	100	10.00	0.83	1,660	Cft
					<b>Total.</b>	<b>16.60</b>	<b>%Cft</b>
3	Dismantling / Demolishing of existing kerb stone as directed by Engineer's Incharge, Complete in all respect						
	RD 4+700 to 4+870	2	170			<b>340</b>	<b>Rft</b>
4	Dismantling brick or flagged flooring without concrete foundation.						
	RD 5+100 to 6+247 (100 ft RCC rigid pavement reduced)	2	1,047	2.00		4,188	Sft
					<b>Total</b>	<b>41.88</b>	<b>%Sft</b>

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**CALCULATION OF QUANTITIES**

**ROADS NET WORK**

Sr. No	Description	No.	Length	Width	Height	Qty.	Unit.
5	Ploughing and Compaction of Existing road surface upto 6" depth i/c dressing, leveling, supplying and spreading of stone screening (Khaka) and compaction to achieve to 100% maximum ASSHO dry density complete in all respects.						
	Underpass	2	100	10.00	0.50	1,000	Cft
					Total	1,000	Cft
					<b>Total.</b>	<b>10.00</b>	<b>%Cft</b>
6	Earthwork excavation undressed lead upto a single throw of Kassi, phaorah or shovel:- i) ordinary						
	For Tuff Paver Shoulders						
	RD 0+000 to 1+100	2	1,100	3.00	1.25	8,250	Cft
	RD 1+350 to 1+550	2	200	3.00	1.25	1,500	Cft
	RD 1+550 to 1+950	2	400	3.00	1.25	3,000	Cft
	RD 2+250 to 2+600	2	350	3.00	1.25	2,625	Cft
	RD 2+600 to 4+600	2	2,000	3.00	1.25	15,000	Cft
	RD 4+600 to 4+700	2	100	3.00	1.25	750	Cft
	RD 4+700 to 5+100	2	400	3.00	1.25	3,000	Cft
	RD 5+100 to 6+247 (100 ft RCC rigid pavement reduced)	2	1,047	2.00	1.25	5,235	Cft
					Total	39,360	Cft
					<b>Total.</b>	<b>63.35</b>	<b>%Cft</b>
	<b>Borrow Earth</b>						
7	Earthwork in ordinary soil for embankment including ploughing and mixing with blade grade or disc harrow or other suitable equipment and compaction by mechanical means at optimum moisture content and dressing to designed section, complete in all respects:- 90% to 95% maximum modified dry density as determined according to AASHTO T-180 method-D including Transportation of earth.						
	For Tuff Paver Shoulders						
	RD 0+000 to 1+100	2	1,100	3.00	0.25	1,650	Cft
	RD 1+350 to 1+550	2	200	3.00	0.25	300	Cft
	RD 1+550 to 1+950	2	400	3.00	0.25	600	Cft
	RD 2+250 to 2+600	2	350	3.00	0.25	525	Cft
	RD 2+600 to 4+600	2	2,000	3.00	0.25	3,000	Cft
	RD 4+600 to 4+700	2	100	3.00	0.25	150	Cft
	RD 4+700 to 5+100	2	400	3.00	0.25	600	Cft
	RD 5+100 to 6+247 (100 ft RCC rigid pavement reduced)	2	1,047	2.00	0.25	1,047	Cft



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**P-2 SP CHOWK TO RAILWAY CHOWK TO UNDER PASS**

**CALCULATION OF QUANTITIES**

**ROADS NET WORK**

Sr. No	Description	No.	Length	Width	Height	Qty.	Unit.
					Total	7,872	Cft
					<b>Total.</b>	<b>7.87</b>	<b>%Cft</b>
	<b>Sub Base Course</b>						
8	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 and grade to achieve 98% maximum dry density determined according to AASHTO T-180 method-D, including carriage of all material to site of work complete in all respect as per specifications and as directed by the engineer incharge. (Crushed stone aggregate from Sakhi Sarwar quarry to site, actual compacted depth shall be considered for payment)						
	For Tuff Paver Shoulders						
	RD 0+000 to 1+100	2	1,100	3.00	0.33	2,178	Cft
	RD 1+350 to 1+550	2	200	3.00	0.33	396	Cft
	RD 1+550 to 1+950	2	400	3.00	0.33	792	Cft
	RD 2+250 to 2+600	2	350	3.00	0.33	693	Cft
	RD 2+600 to 4+600	2	2,000	3.00	0.33	3,960	Cft
	RD 4+600 to 4+700	2	100	3.00	0.33	198	Cft
	RD 4+700 to 5+100	2	400	3.00	0.33	792	Cft
	RD 5+100 to 6+247 (100 ft RCC rigid pavement reduced)	2	1,047	2.00	0.33	1,382	Cft
	Underpass Approaches	4	300	2.00	0.33	792	Cft
					Total	11,183	Cft
					<b>Total.</b>	<b>111.83</b>	<b>%Cft</b>
	<b>Water Bound Macadam</b>						
9	Providing and laying base course of crushed stone (Water Bound Macadam) of approved quality and grade including, placing, mixing, spreading and compaction of base course material to required depth, camber and grade to achieve 100% maximum modified AASHTO dry density, including carriage of all material to site of work complete in all respect as per specifications and as directed by the engineer incharge. (Crushed stone aggregate from Sakhi Sarwar quarry to site, actual compacted depth shall be considered for payment)						
	Crushed stone aggregate from approved quarry						
	<b>For Road</b>						

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**CALCULATION OF QUANTITIES**

**ROADS NET WORK**

Sr. No	Description	No.	Length	Width	Height	Qty.	Unit.
	RD 4+600 to 4+700	1	100	24.00	0.50	1,200	Cft
	<b>For Tuff Paver</b>						
	RD 0+000 to 1+100	2	1,100	3.00	0.33	2,200	Cft
	RD 1+350 to 1+550	2	200	3.00	0.33	400	Cft
	RD 1+550 to 1+950	2	400	3.00	0.33	800	Cft
	RD 2+250 to 2+600	2	350	3.00	0.33	700	Cft
	RD 2+600 to 4+600	2	2,000	3.00	0.33	4,000	Cft
	RD 4+600 to 4+700	2	100	3.00	0.33	200	Cft
	RD 4+700 to 5+100	2	400	3.00	0.33	800	Cft
	RD 5+100 to 6+247 (100 ft RCC rigid pavement reduced)	2	1,047	2.00	0.33	1,396	Cft
	Underpass Approaches	4	300	2.00	0.33	800	Cft
					Total	12,496	Cft
					<b>Total.</b>	<b>124.96</b>	<b>%Cft</b>
	<b>Prime Coat</b>						
10	Providing and laying bituminous priming coat, using 10 lbs. kerosene oil and 10 lbs. binder per 100 Sft. or 0.5 Kg kerosene and 0.5 Kg binder per square metre.						
	RD 0+000 to 1+100	1	1,100	24.00		26,400	Sft
	RD 1+350 to 1+550	1	200	34.00		6,800	Sft
	RD 1+550 to 1+950	1	400	24.00		9,600	Sft
	RD 1+950 to 2+250	1	300	24.00		7,200	Sft
	RD 2+250 to 2+600 W-(45+35+24+50+24)/5	1	350	35.60		12,460	Sft
	RD 2+600 to 4+600	1	2,000	24.00		48,000	Sft
	RD 4+600 to 4+700	1	100	24.00		2,400	Sft
	RD 5+100 to 6+247 (100 ft RCC rigid pavement reduced)	1	1,047	24.00		25,128	Sft
					Total	137,988	Sft
					<b>Total.</b>	<b>1,379.88</b>	<b>%Sft</b>
11	Providing and laying bituminous tack coat, using 10 lbs. of bitumen per 100 Sft (0.49 Kg of bitumen per sq.m.)						
	RD 4+700 to 5+100	2	400	20.00		16,000	Sft
	Approach Roads total Area	1	11,675	1.00		11,675	Sft
					<b>Total.</b>	<b>276.75</b>	<b>%Sft</b>
	<b>Carpeting</b>						
	<b>AWC</b>						

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**CALCULATION OF QUANTITIES**

**ROADS NET WORK**

Sr. No	Description	No.	Length	Width	Height	Qty.	Unit.
12	Providing and laying plant premixed bituminous carpet, including compaction and finishing to required camber, grade and density. (2 inch thick) (iv) 4.5% Bitumen						
	RD 0+000 to 1+100	1	1,100	24.00		26,400	Sft
	RD 1+350 to 1+550	1	200	34.00		6,800	Sft
	RD 1+550 to 1+950	1	400	24.00		9,600	Sft
	RD 1+950 to 2+250	1	300	24.00		7,200	Sft
	RD 2+250 to 2+600	1	350	35.60		12,460	Sft
	RD 2+600 to 4+600	1	2,000	24.00		48,000	Sft
	RD 4+600 to 4+700	1	100	24.00		2,400	Sft
	RD 4+700 to 5+100	2	400	20.00		16,000	Sft
	RD 5+100 to 6+247 (100 ft RCC rigid pavement reduced)	1	1,047	24.00		25,128	Sft
	Approach Roads total Area	1	11,675	1.00		11,675	Sft
					Total	165,663	Sft
					<b>Total.</b>	<b>1,656.63</b>	<b>%Sft</b>
	<b>R.C.C Work</b>						
13	Providing and laying reinforced cement concrete (i/c pre-stressed concrete), using coarse sand and screened graded and washed aggregate, in required shape and design, i/c 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, complete						
	(a)(iii) Reinforced cement concrete in 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) (i)&(ii) above not requiring form work (i.e. horizontal shuttering) complete in all respects:-						
	(2) Type B (nominal mix 1: 1½: 3)	2	100	10.00	0.83	1,660.00	Cft
					Total	1,660.00	Cft
	<b>Steel</b>						
14	Fabrication of mild steel reinforcement for cement concrete, i/c cutting, bending, laying in position, making joints and fastening, i/c cost of bending wire and labour charges for bending of steel reinforcement (also includes removal of rust from deformed bars) Gade 60						
					Total	49.80	%Kg

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**CALCULATION OF QUANTITIES**

**ROADS NET WORK**

Sr. No	Description	No.	Length	Width	Height	Qty.	Unit.
	<b>Paint For Traffic Lanes</b>						
15	Painting Traffic Lane Marking of specified width (1.5mm thick), with Thermoplastic (TP) Paint including Glass Beads, complete in all respect, as approved and directed by Engineer incharge.						
	RD 0+000 to 1+100	2.5	1,100			2,750	Rft
	RD 1+350 to 1+550	2.5	200			500	Rft
	RD 1+550 to 1+950	2.5	400			1,000	Rft
	RD 1+950 to 2+250	2.5	300			750	Rft
	RD 2+250 to 2+600	2.5	350			875	Rft
	RD 2+600 to 4+600	2.5	2,000			5,000	Rft
	RD 4+600 to 4+700	4	100			400	Rft
	RD 4+700 to 5+100	2.5	400			1,000	Rft
						<b>Total.</b>	<b>12,275 Rft</b>
16	Providing and fixing precast Edge Kerb Stone (4" to 6" thick), of 3500 PSI Compressive Strength, embeded in PCC 1:2:4 over lean concrete 1:4:8 etc. complete in all respect.						
	b) With Painting						
	(i) 14" high						
		2	170			340	Rft
						<b>Total.</b>	<b>340 Rft</b>
	<b>Tuff Paver</b>						
17	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)						
	c) 80-mm thick						
	RD 0+000 to 1+100	2	1,100	3.00		6,600	Sft
	RD 1+350 to 1+550	2	200	3.00		1,200	Sft
	RD 1+550 to 1+950	2	400	3.00		2,400	Sft
	RD 2+250 to 2+600	2	350	3.00		2,100	Sft
	RD 2+600 to 4+600	2	2,000	3.00		12,000	Sft
	RD 4+600 to 4+700	2	100	3.00		600	Sft
	RD 4+700 to 5+100	2	400	3.00		2,400	Sft
	RD 5+100 to 6+247 (100 ft RCC rigid pavement reduced)	2	1,047	2.00		4,188	Sft
	Underpass Approaches	4	300	2.00		2,400	Sft

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**CALCULATION OF QUANTITIES**

**ROADS NET WORK**

Sr. No	Description	No.	Length	Width	Height	Qty.	Unit.
					<b>Total.</b>	<b>33,888</b>	<b>Sft</b>
	<b>Road Edging</b>						
18	Providing and laying road edging of 3" (75 mm) wide and 9" (225 mm) deep brick on end, complete in all respects.						
	RD 4+600 to 4+700	2	100			200	Rft
					<b>Total.</b>	<b>200</b>	<b>Rft</b>
	<b>P.C.C (Between Asphalt and Tuff Paver)</b>						
19	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):						
	(f) Ratio 1: 2: 4						
	RD 0+000 to 1+100	4	1,100	0.33	0.50	726	Cft
	RD 1+350 to 1+550	4	200	0.33	0.50	132	Cft
	RD 1+550 to 1+950	4	400	0.33	0.50	264	Cft
	RD 2+250 to 2+600	4	350	0.33	0.50	231	Cft
	RD 2+600 to 4+600	4	2,000	0.33	0.50	1,320	Cft
	RD 4+600 to 4+700	4	100	0.33	0.50	66	Cft
	RD 4+700 to 5+100	4	400	0.33	0.50	264	Cft
	RD 5+100 to 6+247 (100 ft RCC rigid pavement reduced)	4	1,047	0.33	0.50	691	Cft
	Underpass Approaches	4	300	0.33	0.50	198	Cft
					Total	3,892	Cft
					<b>Total.</b>	<b>38.92</b>	<b>%Cft</b>
	<b>Cat Eyes</b>						
20	Providing & fixing Cat Eyes of size 4"x4"x3/4" duly casted with specified material having plastic strip containing mini retro-reflective glass beads of color white /red/ yellow having specifid reflections, quality & shape i/c the cost of self built in12mm dia x120mm long steel zinc plate dnail, fixing to road with epoxy/hammering with separate nail complete.						
	b) Aluminium Alloy						
	(A) Dual-Directional						
	(ii) 43x2=86 Glass beads a side	1112				1,112	Each
	(B) Uni-Directional						
	(ii) 43 Glass beads a side	100				100	Each

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**P-2 SP CHOWK TO RAILWAY CHOWK TO UNDER PASS**

**CALCULATION OF QUANTITIES**

**ROADS NET WORK**

Sr. No	Description	No.	Length	Width	Height	Qty.	Unit.
21	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 CIRCULAR/TRIANGULAR 3 ft size	11	3.00	2.00		66	Sft
22	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 embedded in PCC 1:2:4 etc, complete in all respect						
	(b) 3 inch diameter	11	11			121	Rft
23	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					66	Sft
	<b>For Green Belt</b>						
24	Turfing slopes of banks or lawns with grass sods including ploughing, laying, setting and watering (Turf got from within a distance of 5 miles (8 Km.) and maintenance for 15 days).						
		1	170	3.00		510	Sft
						<b>Total.</b>	<b>5.10 %Sft</b>
	<b>Deduction</b>						
25	Dry rammmed brick or stone ballast, 1½" to 2"( 40 mm to 50 mm) gauge.					1,571	Cft
	Total Qty.					15.71	%Cft
						<b>Total</b>	<b>15.71 %Cft</b>
	<b>DRAINAGE SYSTEM</b>						
	<b>Dismantling</b>						
1	c) Dismantling cement concrete 1:2:4 plain.						
	Manhole Neck	8	8.64	0.75	0.50	25.92	Cft
						<b>Total</b>	<b>0.26 %Cft</b>

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**CALCULATION OF QUANTITIES**

**ROADS NET WORK**

Sr. No	Description	No.	Length	Width	Height	Qty.	Unit.
	<b>Excavation</b>						
2	Earthwork excavation in open cutting upto 5'-0" (1.5 m) depth for storm water channels, drains, sullage drains in open areas, roads, streets, lanes, including under pinning of walls and shoring to protect existing works, shuttering and timbering the trenches, dressed to designed level and dimensions, trimming, removal of surface water from trenches, back filling and surplus excavated material disposed of and dressed within 50 ft. (15 m) lead:- i) in ordinary soil.						
	Pipe Laying	13	20.00	2.50	2.50	1,625	Cft
					Total	1,625	Cft
					<b>Total</b>	<b>1.63</b>	<b>%Cft</b>
3	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate): <b>(f) Ratio 1: 2: 4</b>						
	Pipe Laying	13	10	1.50	1.50	293	Cft
	For manhole neck	8	8.64	0.75	0.50	26	Cft
					Total	319	Cft
					<b>Total</b>	<b>3.19</b>	<b>%Cft</b>
4	Pacca brick work other than building upto 10ft. (3 m) Cement, sand mortar:- Ratio 1:3						
	Culvert Widening	2	3.00	0.75	2.00	9	Cft
	For manhole neck	8	8.64	0.75	1.00	52	Cft
					Total	61	Cft
					<b>Total</b>	<b>0.61</b>	<b>%Cft</b>
5	Extra for pacca brick work in steining of wells or any other circular masonry.						
					<b>Total</b>	<b>0.52</b>	<b>%Cft</b>
6	Cement plaster 1:3 upto 20' (6.00 m) height:- b) ½" (13 mm) thick						
	Underpass drain	2	125.00		2.00	500	Sft
	Collection Chamber	1	10.00		4.00	40	Sft
	Culvert Widening	2	3.00		2.00	12	Sft
	For manhole neck	16	8.64		1.00	138	Sft
					Total	690	Sft
					<b>Total</b>	<b>6.90</b>	<b>%Cft</b>

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**CALCULATION OF QUANTITIES**

**ROADS NET WORK**

Sr. No	Description	No.	Length	Width	Height	Qty.	Unit.
7	Providing and laying reinforced cement concrete (i/c pre-stressed concrete), using coarse sand and screened graded and washed aggregate, in required shape and design, i/c 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, complete						
	a). Reinforced cement concrete in roof slab, beams, columns, lintels, girders and other structural members laid in situ or pre-cast laid in position, or pre-stressed members cast in situ, complete in all respect. Type C (nominal mix 1:2:4)						
	Culvert Widening	1	3.00	3.50	0.67	7.00	Cft
					<b>Total</b>	<b>7.00</b>	<b>Cft</b>
	<b>Steel</b>						
8	Fabrication of mild steel reinforcement for cement concrete, i/c cutting, bending, laying in position, making joints and fastening, i/c cost of bending wire and labour charges for bending of steel reinforcement (also includes removal of rust from deformed bars) Gade 60						
	Concrete Qty		7	Cft @	6.75	47	lbs/cft
						21	kg
					<b>Total</b>	<b>0.21</b>	<b>Kg</b>
	<b>Gully Grating Chamber</b>						
9	Constructing standard gully grating chamber, 3'x2½' (900x750 mm), with chinaware trap as per PHED Drawing STD/PD No. 3 of 1977, complete in all respects.	13				<b>13.00</b>	<b>Each</b>
10	Supplying and filling sand under floor; or plugging in wells.	13	20.00	2.50	1.00	<b>6.50</b>	<b>%Cft</b>



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**CALCULATION OF QUANTITIES**

**ROADS NET WORK**

Sr. No	Description	No.	Length	Width	Height	Qty.	Unit.
	<b>uPVC Pipe</b>						
11	Providing, fixing, testing and commissioning of u-PVC (Unplasticized polyvinyl Chloride) Nikasi /waste pipe make of dadex / Popular / Beta/ BBJ 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.						
	<b>Type (SDR 41/SN-4)</b>						
	(v) 4"(110 mm)	1	100.00			<b>100</b>	<b>Rft</b>
	(vii) 8"(200 mm)	13	20.00			<b>260</b>	<b>Rft</b>
	<b>RPC Manhole Cover</b>						
12	Providing and fixing RPC Manhole Cover Manufactured with 100% Reinforced Plastic Composite Material, 650 mm dia with clear opening size 600 mm (24" dia) and RPC manhole frame having dia meter 790 mm (Complete) (Certified under ISO 9001-2015)	8				<b>8</b>	<b>Each</b>
	<b>M.S Grating</b>						
13	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.						
	Underpass	2	125	1.25		<b>313</b>	<b>Sft</b>
	<b>G.I Pipe</b>						
14	Providing, laying, cutting, jointing, testing and disinfecting G.I. pipeline in trenches, with socket joints, using G.I. pipes of B.S.S. 1387-1967 complete in all respects, with specials and valves.						
	iii) Heavy Quality						
	i) 4" i/d (100 mm) 5.4mm thick	1	30			<b>30</b>	<b>Rft</b>
	<b>ELECTRICAL WORKS</b>						
	<b>Scheduled Items (A)</b>						
	<b>Excavation</b>						
1	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling 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) in ordinary soil.						

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**CALCULATION OF QUANTITIES**

**ROADS NET WORK**

Sr. No	Description	No.	Length	Width	Height	Qty.	Unit.
	For pipe 50mm dia from TR to LCP and LCP to poles	1	8,625	1.00	2.50	21,563	Cft
	Light Poles	69	2.00	2.00	6.00	1,656	Cft
					Total	23,219	Cft
					<b>Total</b>	<b>23.22</b>	<b>%oCft</b>
	<b>RCC Foundation for Poles</b>						
2	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)(iii) Reinforced cement concrete in 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) (i)&(ii) above not requiring form work (i.e. horizontal shuttering) complete in all respects:-						
	3) Type C (nominal mix 1: 2: 4)						
	Light Poles	69	2.00	2.00	6.00	1,656	Cft
					Total	1,656.00	Cft
	<b>Steel Work</b>						
3	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-40)		2.50Kg/Cft			4,140	Kg
					Total	41.40	Kg
4	Supply and erection PVC pipe for recessed wiring (main and sub-main) purpose, including bends, specials, etc. in floor, wall or trenches:-						
	i) 50 mm i/d						
	From LCP to Pole and pole to pole (Up + Down)	69	125.00			8,625	Rft
5	Supply and erection of single core PVC insulated, PVC sheathed copper conductor, 660/1100 volts grade cable, in prelaidd G.I. pipe/M.S. conduits/PVC pipe/G.I. wire/trenches, etc (rate for cable only):-						

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**P-2 SP CHOWK TO RAILWAY CHOWK TO UNDER PASS**

**CALCULATION OF QUANTITIES**

**ROADS NET WORK**

Sr. No	Description	No.	Length	Width	Height	Qty.	Unit.
	ii) 6 mm sq (7/0.044")						
	For two nos. Earthing lead	69	20.00			1,380	Rft
6	Supply and erection of copper conductor cables for service connection, in pre-laid pipe/G.I. wire / trenches, etc. (rate for cable only):-						
	b) PVC insulated, PVC sheathed 3 core, 660/1100 volt cable:-						
	iii) 7/0.74 mm (7/0.029")						
	From Terminal Box to light fixture on pole (P+N+E)	69	40.00			2,760	Rft
	c) PVC insulated, PVC sheathed 4 core, 660/1100 volt non armoured cable:-						
	vi) 10 mm (7/0.052")	69	125.00			8,625	Rft
	vii) 16 mm (7/0.064")	1	100.00			100	Rft
7	Supplying, installation testing and commissioning of Octagonal shape electric street light pole, made of hot dipped 4.5 mm thick (7 SWG) galvanized steel, tapered from 225 mm at bottom to 100 mm at top, with 1500 mm x 60 mm dia. arm for luminaire installation, duly G.I. welded with 470x470x20 mm base plate with the help of 4 no triangular stiffeners 100x350x20 mm of GI sheet, with built in junction box with shutter, i/c the cost of nuts & J-rag bolts, duly fixed in pre-laid concrete foundation, foundation will be paid additionally as approved and directed by the Engineer Incharge.						
	a) Single Arm						
	(i) 10 mtr height	64				64	Nos
	b) Double Arm						
	(i) 10 mtr height	5				5	Nos
8	Supplying, installation and commissioning of LED Cobra-head Luminaries of specified wattage and lumens conforming to IP 65, Philips/ Osram /Thorn with corrosion resistant die casted aluminum housing, silicon gas kit, thermally hardened glass complete with LED drivers, surge protection i/c the cost of all accessories/components required for proper operation, fully flexible for future upgradation and easy replacements for maintenance purposes, bucket elevator charges as approved and directed by the Engineer Incharge.						
	c) 120 Lm/Watt						
	(v) 90 Watt with 10800 Lumens	74				74	Nos

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**P-2 SP CHOWK TO RAILWAY CHOWK TO UNDER PASS**

**CALCULATION OF QUANTITIES**

**ROADS NET WORK**

Sr. No	Description	No.	Length	Width	Height	Qty.	Unit.
9	Supply and erection of electric energy meter, including meter testing fee, etc.						
	b) three phase, 4 wires:						
	ii) 3x50 Amp, 400 volts	1				<b>1.00</b>	<b>Nos</b>
10	Supply, insatllation, commissioning and testing of oil cooled type, Step down Power Transformer of specified rating,11/0.415 kV, i/c the cost of lifting hooks, thermometers, LT & HT bushing 5-steps, tap changer, imported double float buchholz relay, 2 earthing terminals, roller wheels, connecting terminals for cables M.S box on transformer in order to cover complete L.T side, all necessary materials required for connections on H.T & L.T side, rated voltage 11000/415/240 V impedance 6.25% or as specified by WAPDA/IEC system earth: Delta / Star, neutral solidly earthed, i/c Wapda testing charges,complete in all respects made of PEL, Siemens, as approved and directed by the Engineer Incharge						
	(iii) 25 KVA	1				<b>1.00</b>	<b>Nos.</b>
11	Earthing of iron clad/aluminum switches, etc. with G.I. wire No. 8 SWG in G.I. pipe 15 mm (½") dia, recessed or on surface of wall and floor, complete with 1.5 metre long G.I. pipe, 50 mm (2") dia with reducing socket 4 to 5 metre below ground level, and 2 metre away from building plinth.	72				<b>72.00</b>	<b>No.</b>
12	Fabrication, Supply, testing and commissioning of following Light control panels (LCP), floor standing weather proof, IP 65 Rated of appropriate size, made of MS Sheet 16 SWG with hinged door, handle, catcher, 2 coats of antirust and powder coated paint of approved colour, AC3 megnatic contactor, photocell for automatic operation of lights, CBs, Hand/Off/Auto switch, push button and all necessary accessories complete in all respects. LCP shall be manufactured as per specifications, single line diagram complete in all respect up to the satisfaction of Engineer incharge.						
	LCP-3 Phase	1				<b>1.00</b>	<b>Nos.</b>
13	Electric Connection Charges	1				<b>1.00</b>	<b>Each</b>

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**DETAILED COST ESTIMATE**

**P-3 FOOTBALL CHOWK TO STADIUM ROAD**

**ROADS NETWORK**

Sr. No	2nd BI- Annual-2022 (July to Dec) Khanewal	Description	Unit	Quantity	Unit Rate (Rs.)	Amount (Rs.)
		<b>ROAD WORK</b>				
		<b>Dismantling</b>				
1	4/45	Dismantling and removing road metalling.	100Cft	34.67	2,031.75	70,441
2	4/11	Dismantling dry brick masonry.	100Cft	9.75	863.50	8,419
		<b>Compaction of Existing Road Surface</b>				
3	N.S	Ploughing and Compaction of Existing road surface upto 6" depth i/c dressing, leveling, supplying and spreading of stone screening (Khaka) and compaction to achieve to 100% maximum ASSHO dry density complete in all respects.	100Cft	189.00	5,808.29	1,097,767
		<b>Excavation</b>				
4	3/1	Earthwork excavation undressed lead upto a single throw of Kassi, phaorah or shovel:- i) ordinary	1000Cft	56.85	4,571.40	259,884
		<b>Borrow Earth</b>				
5	3/5/i + 3/17	Earthwork in ordinary soil for embankment including ploughing and mixing with blade grade or disc harrow or other suitable equipment and compaction by mechanical means at optimum moisture content and dressing to designed section, complete in all respects:- 90% to 95% maximum modified dry density as determined according to AASHTO T-180 method-D including Transportation of earth.	1000Cft	12.80	15,530.30	198,788
		<b>Sub Base Course</b>				
6	18/3/a/ (ii) + 1/1	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 and grade to achieve 98% maximum dry density determined according to AASHTO T-180 method-D, including carriage of all material to site of work complete in all respect as per specifications and as directed by the engineer incharge. (Crushed stone aggregate from Sakhi Sarwar quarry to site, actual compacted depth shall be considered for payment)	100Cft	247.84	22,254.30	5,515,506

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**DETAILED COST ESTIMATE**

**P-3 FOOTBALL CHOWK TO STADIUM ROAD**

**ROADS NETWORK**

Sr. No	2nd BI- Annual-2022 (July to Dec) Khanewal	Description	Unit	Quantity	Unit Rate (Rs.)	Amount (Rs.)
		<b>Water Bound Macadam</b>				
7	18/4/a + 1/1	Providing and laying base course of crushed stone ( <b>Water Bound Macadam</b> ) of approved quality and grade including, placing, mixing, spreading and compaction of base course material to required depth, camber and grade to achieve 100% maximum modified AASHTO dry density, including carriage of all material to site of work complete in all respect as per specifications and as directed by the engineer incharge. (Crushed stone aggregate from Sakhi Sarwar quarry to site, actual compacted depth shall be considered for payment)	100Cft	437.33	25,148.52	10,998,202
		<b>Prime Coat</b>				
8	18/6	Providing and laying bituminous priming coat, using 10 lbs. kerosene oil and 10 lbs. binder per 100 Sft. or 0.5 Kg kerosene and 0.5 Kg binder per square metre.	100Sft	688.00	2,291.95	1,576,862
9	18/7	Providing and laying bituminous tack coat, using 10 lbs. of bitumen per 100 Sft (0.49 Kg of bitumen per sq.m.)	100Sft	148.72	1,038.15	154,394
		<b>Carpeting</b>				
		<b>AWC</b>				
10	18/10/a + 1/1	Providing and laying plant premixed bituminous carpet, including compaction and finishing to required camber, grade and density. (2 inch thick) (iv) 4.5% Bitumen	Per inch thickness per 100Sft.	836.72	16,525.36	13,827,099
		<b>Paint For Traffic Lanes</b>				
12	13/36	Painting Traffic Lane Marking of specified width (1.5mm thick), with Thermoplastic (TP) Paint including Glass Beads, complete in all respect, as approved and directed by Engineer incharge.				
		ii) 6" wide	Rft	8,034.00	56.20	451,511

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**DETAILED COST ESTIMATE**

**P-3 FOOTBALL CHOWK TO STADIUM ROAD**

**ROADS NETWORK**

Sr. No	2nd BI- Annual-2022 (July to Dec) Khanewal	Description	Unit	Quantity	Unit Rate (Rs.)	Amount (Rs.)
		<b>Tuff Paver</b>				
13	10/41	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)				
		c) 80-mm thick (For Shoulder)	Sft	28,000.00	194.65	5,450,200
		<b>Road Edging</b>				
14	18/5	Providing and laying road edging of 3" (75 mm) wide and 9" (225 mm) deep brick on end, complete in all respects.	Rft	5,600.00	51.05	285,880
		<b>P.C.C (Between Asphalt and Tuff Paver)</b>				
15	6/5	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):				
		(f) Ratio 1: 2: 4	100Cft	18.48	38,126.10	704,570
		<b>Cat Eyes</b>				
16	18/28	Providing & fixing Cat Eyes of size 4"x4"x3/4" duly casted with specified material having plastic strip containing mini retro-reflective glass beads of color white /red/ yellow having specifid reflections, quality & shape i/c the cost of self built in12mm dia x120mm long steel zinc plate dnail, fixing to road with epoxy/ hammering with separate nail complete.				
		b) Aluminium Alloy				
		A) Dual-Directional				
		(ii) 43x2=86 Glass beads a side	Each	830.00	693.80	575,854
17	18/25/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				
		<b>CIRCULAR/TRIANGULAR</b>				
		3 ft size	P. Sft	36.00	948.15	34,133

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**DETAILED COST ESTIMATE**

**P-3 FOOTBALL CHOWK TO STADIUM ROAD**

**ROADS NETWORK**

Sr. No	2nd BI- Annual-2022 (July to Dec) Khanewal	Description	Unit	Quantity	Unit Rate (Rs.)	Amount (Rs.)
18	18/27/b	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 embedded in PCC 1:2:4 etc, complete in all respect				
		(b) 3 inch diameter	Rft	66.00	1,259.85	83,150
19	13/42/a	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	36.00	1,111.65	40,019
		<b>Deduction</b>				
20	06.004	Brick Bats to be made from dismantling of brick edging. (Input Rate)	100Cft	9.75	4,200.00	(40,950)
		<b>Total Amount Rs.</b>				<b>41,291,729</b>
		<b>DRAINAGE SYSTEM</b>				
		<b>Dismantling</b>				
1	4/19/c	c) Dismantling cement concrete 1:2:4 plain.	100Cft	0.52	11,174.60	5,793
		<b>Excavation</b>				
2	3/7/i	Earthwork excavation in open cutting upto 5'-0" (1.5 m) depth for storm water channels, drains, sullage drains in open areas, roads, streets, lanes, including under pinning of walls and shoring to protect existing works, shuttering and timbering the trenches, dressed to designed level and dimensions, trimming, removal of surface water from trenches, back filling and surplus excavated material disposed of and dressed within 50 ft. (15 m) lead:- i) in ordinary soil.	1000Cft	1.88	9,016.70	16,906
		<b>P.C.C</b>				
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	3.90	38,126.10	148,692



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**P-3 FOOTBALL CHOWK TO STADIUM ROAD**

**ROADS NETWORK**

Sr. No	2nd BI- Annual-2022 (July to Dec) Khanewal	Description	Unit	Quantity	Unit Rate (Rs.)	Amount (Rs.)
		<b>Brick Work</b>				
4	7/7/i	Pacca brick work other than building upto 10ft. (3 m) Cement, sand mortar:- Ratio 1:3	100Cft	1.04	31,959.10	33,137
5	7/10	Extra for pacca brick work in steining of wells or any other circular masonry.	100Cft	1.04	2,634.00	2,731
		<b>Plaster</b>				
6	11/8/b	Cement plaster 1:3 upto 20' (6.00 m) height:- b) ½" (13 mm) thick	100Sft	2.76	3,420.40	9,457
		<b>R.C.C Work</b>				
7	6/6/a/i/3	Providing and laying reinforced cement concrete (i/c pre-stressed concrete), using coarse sand and screened graded and washed aggregate, in required shape and design, i/c 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, complete				
		a). Reinforced cement concrete in roof slab, beams, columns, lintels, girders and other structural members laid in situ or pre-cast laid in position, or pre-stressed members cast in situ, complete in all respect. Type C (nominal mix 1:2:4)	P Cft	28.00	556.50	15,582
		<b>Steel</b>				
8	6/12/c	Fabrication of mild steel reinforcement for cement concrete, i/c cutting, bending, laying in position, making joints and fastening, i/c cost of bending wire and labour charges for bending of steel reinforcement (also includes removal of rust from deformed bars) Gade 60	100Kg	0.86	31,801.40	27,271
		<b>Gully Grating Chamber</b>				
9	21/8	Constructing standard gully grating chamber, 3'x2½' (900x750 mm), with chinaware trap as per PHED Drawing STD/PD No. 3 of 1977, complete in all respects.	Each	15.00	16,370.90	245,564
10	7/30	Supplying and filling sand under floor; or plugging in wells.	100Cft	7.50	2,823.30	21,175

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**P-3 FOOTBALL CHOWK TO STADIUM ROAD**

**ROADS NETWORK**

Sr. No	2nd BI- Annual-2022 (July to Dec) Khanewal	Description	Unit	Quantity	Unit Rate (Rs.)	Amount (Rs.)
		<b>uPVC Pipe</b>				
11	19/47	Providing, fixing, testing and commissioning of $\mu$ -PVC (Unplasticized polyvinyl Chloride) Nikasi /waste pipe make of dadex / Popular / Beta/ BBJ 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.				
		<b>Type (SDR 41/SN-4)</b>				
		(vii) 8"(200 mm)	Rft	300.00	451.15	135,345
		<b>RPC Manhole Cover</b>				
12	N.S	Providing and fixing RPC Manhole Cover Manufactured with 100% Reinforced Plastic Composite Material, 650 mm dia with clear opening size 600 mm (24" dia) and RPC manhole frame having dia meter 790 mm (Complete) (Certified under ISO 9001-2015)	Each	16.00	10,950.00	175,200
		<b>Manhole cover</b>				
13	MR	Old/existing Manhole cover and Frame complete set shift to MC store.	Set	16.00	500.00	8,000
		<b>Total Amount (Rs)</b>				<b>844,853</b>
		<b>ELECTRICAL WORKS</b>				
		<b>Scheduled Items (A)</b>				
		<b>Excavation</b>				
1	3/21	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling around structure with excavated earth, watering and ramming lead upto one chain (30 m) and lift upto 5 ft. (1.5 m)				
		<b>a) By Manual</b>				
		ii) in ordinary soil.	%oCft	19.18	10,677.75	204,799

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**P-3 FOOTBALL CHOWK TO STADIUM ROAD**

**ROADS NETWORK**

Sr. No	2nd BI- Annual-2022 (July to Dec) Khanewal	Description	Unit	Quantity	Unit Rate (Rs.)	Amount (Rs.)
		<b>RCC Foundation for Poles</b>				
2	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)(iii) Reinforced cement concrete in 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) (i)&(ii) above not requiring form work (i.e. horizontal shuttering) complete in all respects:-				
		3) Type C (nominal mix 1: 2: 4)	Cft	1,368.00	457.75	626,202
		<b>Steel Work</b>				
3	6/12/b	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):-				
		(b) Deformed bars (Grade-40)	100Kg	34.20	31,411.60	1,074,277
4	24/6	Supply and erection PVC pipe for recessed wiring (main and sub-main) purpose, including bends, specials, etc. in floor, wall or trenches:-				
		i) 50 mm i/d	Rft	7,125.00	185.85	1,324,181
5	24/12	Supply and erection of single core PVC insulated, PVC sheathed copper conductor, 660/1100 volts grade cable, in prelaid G.I. pipe/M.S. conduits/PVC pipe/G.I. wire/trenches, etc (rate for cable only):-				
		ii) 6 mm sq (7/0.044")	Rft	1,140.00	117.70	134,178
6	24/13/c	Supply and erection of copper conductor cables for service connection, in prelaid pipe/G.I. wire / trenches, etc. (rate for cable only):-				

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**P-3 FOOTBALL CHOWK TO STADIUM ROAD**

**ROADS NETWORK**

Sr. No	2nd BI- Annual-2022 (July to Dec) Khanewal	Description	Unit	Quantity	Unit Rate (Rs.)	Amount (Rs.)
		b) PVC insulated, PVC sheathed 3 core, 660/1100 volt cable:-				
		iii) 7/0.74 mm (7/0.029")	Rft	2,280.00	105.15	239,742
		c) PVC insulated, PVC sheathed 4 core, 660/1100 volt non armoured cable:-				
		vi) 10 mm (7/0.052")	Rft	7,125.00	523.85	3,732,431
		vii) 16 mm (7/0.064")	Rft	100.00	642.90	64,290
7	24/68	Supplying, installation testing and commissioning of Octagonal shape electric street light pole, made of hot dipped 4.5 mm thick (7 SWG) galvanized steel, tapered from 225 mm at bottom to 100 mm at top, with 1500 mm x 60 mm dia. arm for luminaire installation, duly G.I. welded with 470x470x20 mm base plate with the help of 4 no triangular stiffeners 100x350x20 mm of GI sheet, with built in junction box with shutter, i/c the cost of nuts & J-rag bolts, duly fixed in pre-laid concrete foundation, foundation will be paid additionally as approved and directed by the Engineer Incharge.				
		Single Arm				
		(i) 10 mtr height	Each	57.00	106,236.55	6,055,483
8	24/69/c	Supplying, installation and commissioning of LED Cobra-head Luminaries of specified wattage and lumens conforming to IP 65, Philips/ Osram /Thorn with corrosion resistant die casted aluminum housing, silicon gas kit, thermally hardened glass complete with LED drivers, surge protection i/c the cost of all accessories/components required for proper operation, fully flexible for future upgradation and easy replacements for maintenance purposes, bucket elevator charges as approved and directed by the Engineer Incharge.				
		c) 120 Lm/Watt				
		(v) 90 Watt with 10800 Lumens	Each	57.00	51,675.00	2,945,475
9	24/77	Supply and erection of electric energy meter, including meter testing fee, etc.				
		b) three phase, 4 wires:				
		ii) 3x50 Amp, 400 volts	Each	1.00	14,659.25	14,659

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**DETAILED COST ESTIMATE**

**P-3 FOOTBALL CHOWK TO STADIUM ROAD**

**ROADS NETWORK**

Sr. No	2nd BI- Annual-2022 (July to Dec) Khanewal	Description	Unit	Quantity	Unit Rate (Rs.)	Amount (Rs.)
10	24/105/iii	Supply, insatllation, commissioning and testing of oil cooled type, Step down Power Transformer of specified rating,11/0.415 kV, i/c the cost of lifting hooks, thermometers, LT & HT bushing 5-steps, tap changer, imported double float buchholz relay, 2 earthing terminals, roller wheels, connecting terminals for cables M.S box on transformer in order to cover complete L.T side, all necessary materials required for connections on H.T & L.T side, rated voltage 11000/415/240 V impedance 6.25% or as specified by WAPDA/IEC system earth: Delta / Star, neutral solidly earthed, i/c Wapda testing charges,complete in all respects made of PEL, Siemens, as approved and directed by the Engineer Incharge				
		(iii) 25 KVA	Each	1.00	329,487.70	329,488
11	24/70	Earthing of iron clad / aluminum switches, etc. with G.I. wire No. 8 SWG in G.I. pipe 15 mm (½") dia, recessed or on surface of wall and floor, complete with 1.5 metre long G.I. pipe, 50 mm (2") dia with reducing socket 4 to 5 metre below ground level, and 2 metre away from building plinth.	Job	60.00	9,592.45	575,547
		<b>Sub Total Scheduled Items: (A)</b>				<b>17,320,753</b>
<b>Non Schedule</b>		<b>Part-B</b>				
12	N.S	Fabrication, Supply, testing and commissioning of following Light control panels (LCP), floor standing weather proof, IP 65 Rated of appropriate size, made of MS Sheet 16 SWG with hinged door, handle, catcher, 2 coats of antirust and powder coated paint of approved colour, AC3 megnatic contactor, photocell for automatic operation of lights, CBs, Hand/Off/Auto switch, push button and all necessary accessories complete in all respects. LCP shall be manufactured as per specifications, single line diagram complete in all respect up to the satisfaction of Engineer incharge.				
	(a)	LCP-3 Phase	No.	1.00	344,935	344,935

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**DETAILED COST ESTIMATE**

**P-3 FOOTBALL CHOWK TO STADIUM ROAD**

**ROADS NETWORK**

<b>Sr. No</b>	<b>2nd BI- Annual-2022 (July to Dec) Khanewal</b>	<b>Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Rate (Rs.)</b>	<b>Amount (Rs.)</b>
13	N.S	Shifting of 4 Nos. Wapda Electric Poles	Job			600,000
14	N.S	Electric Connection Charges from wapda	Each	1.00	350,000	350,000
		<b>Total Cost (Part B)</b>			<b>Rs.</b>	<b>1,294,935</b>
		<b>Grand Total (Part A + Part B)</b>			<b>Rs.</b>	<b>18,615,688</b>
		<b>Grand Total Amount Rs.</b>				<b>60,752,270</b>

**PUNJAB CITIES PROGRAM (PCP)**  
**DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS**  
**SUPERVISION IN 16 CITIES OF PUNJAB**

**P-3 FOOTBALL CHOWK TO STADIUM ROAD**

**CALCULATION OF QUANTITIES**

**ROADS NET WORK**

Sr. No	Description	No.	Length	Width	Height	Qty.	Unit.
	<b>Dismantling</b>						
1	Dismantling and removing road metalling.						
	RD 0+000 to 2+600	1	2,600	16.00	0.08	3,467	Cft
						Total	3,467 Cft
						<b>Total.</b>	<b>34.67 %Cft</b>
2	Dismantling dry brick masonry.						
	RD 0+000 to 2+600	2	2,600	0.25	0.75	975	Cft
						Total	975 Cft
						<b>Total.</b>	<b>9.75 %Cft</b>
3	Ploughing and Compaction of Existing road surface upto 6" depth i/c dressing, leveling, supplying and spreading of stone screening (Khaka) and compaction to achieve to 100% maximum ASSHO dry density complete in all respects.						
	RD 0+000 to 2+600	1	2,600	13.00	0.50	16,900	Cft
	RD 2+600 to 2+800	1	200	20.00	0.50	2,000	Cft
						Total	18,900 Cft
						<b>Total.</b>	<b>189.00 %Cft</b>
4	Earthwork excavation undressed lead upto a single throw of Kassi, phaorah or shovel:- i) ordinary						
	For widening Road						
	RD 0+000 to 2+600	2	2,600	4.00	0.83	17,333	Cft
	RD 2+600 to 2+800	2	200	6.00	0.83	2,000	Cft
	For Tuff Paver Shoulders						
	RD 0+000 to 2+600	2	2,600	5.00	0.67	17,420	Cft
	RD 2+600 to 2+800	2	200	5.00	0.67	1,340	Cft
						Total	38,093 Cft
						<b>Total.</b>	<b>56.85 %Cft</b>

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**CALCULATION OF QUANTITIES**

**ROADS NET WORK**

Sr. No	Description	No.	Length	Width	Height	Qty.	Unit.
<b>Borrow Earth</b>							
5	Earthwork in ordinary soil for embankment including ploughing and mixing with blade grade or disc harrow or other suitable equipment and compaction by mechanical means at optimum moisture content and dressing to designed section, complete in all respects:- 90% to 95% maximum modified dry density as determined according to AASHTO T-180 method-D including Transportation of earth.						
	For widening Road						
	RD 0+000 to 2+600	2	2,600	4.00	0.25	5,200	Cft
	RD 2+600 to 2+800	2	200	6.00	0.25	600	Cft
	For Tuff Paver Shoulders						
	RD 0+000 to 2+600	2	2,600	5.00	0.25	6,500	Cft
	RD 2+600 to 2+800	2	200	5.00	0.25	500	Cft
						Total	12,800 Cft
						<b>Total.</b>	<b>12.80 %oCft</b>
<b>Sub Base Course</b>							
6	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 and grade to achieve 98% maximum dry density determined according to AASHTO T-180 method-D, including carriage of all material to site of work complete in all respect as per specifications and as directed by the engineer incharge. (Crushed stone aggregate from Sakhi Sarwar quarry to site, actual compacted depth shall be considered for payment)						
	For widening Road						
	RD 0+000 to 2+600	2	2,600	4.00	0.67	13,936	Cft
	RD 2+600 to 2+800	2	200	6.00	0.67	1,608	Cft
	For Tuff Paver Shoulders						
	RD 0+000 to 2+600	2	2,600	5.00	0.33	8,580	Cft
	RD 2+600 to 2+800	2	200	5.00	0.33	660	Cft
						Total	24,784 Cft
						<b>Total.</b>	<b>247.84 %Cft</b>



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**P-3 FOOTBALL CHOWK TO STADIUM ROAD**

**CALCULATION OF QUANTITIES**

**ROADS NET WORK**

Sr. No	Description	No.	Length	Width	Height	Qty.	Unit.
<b>Water Bound Macadam</b>							
7	Providing and laying base course of crushed stone (Water Bound Macadam) of approved quality and grade including, placing, mixing, spreading and compaction of base course material to required depth, camber and grade to achieve 100% maximum modified AASHTO dry density, including carriage of all material to site of work complete in all respect as per specifications and as directed by the engineer incharge. (Crushed stone aggregate from Sakhi Sarwar quarry to site, actual compacted depth shall be considered for payment)						
	Crushed stone aggregate from approved quarry						
<b>For Road</b>							
	RD 0+000 to 2+600	1	2,600	24.00	0.50	31,200	Cft
	RD 2+600 to 2+800	1	200	32.00	0.50	3,200	Cft
<b>For Tuff Paver</b>							
	RD 0+000 to 2+600	2	2,600	5.00	0.33	8,667	Cft
	RD 2+600 to 2+800	2	200	5.00	0.33	667	Cft
					Total	43,733	Cft
					<b>Total.</b>	<b>437.33</b>	<b>%Cft</b>
<b>Prime Coat</b>							
8	Providing and laying bituminous priming coat, using 10 lbs. kerosene oil and 10 lbs. binder per 100 Sft. or 0.5 Kg kerosene and 0.5 Kg binder per square metre.						
	RD 0+000 to 2+600	1	2,600	24.00		62,400	Sft
	RD 2+600 to 2+800	1	200	32.00		6,400	Sft
					Total	68,800	Sft
					<b>Total.</b>	<b>688.00</b>	<b>%Sft</b>
9	Providing and laying bituminous tack coat, using 10 lbs. of bitumen per 100 Sft (0.49 Kg of bitumen per sq.m.)						
	RD 2+800 to 3+317	1	517	16.00		8,272	Sft
	Approach Roads total Area	1	6,600	1.00		6,600	Sft
					<b>Total.</b>	<b>148.72</b>	<b>%Sft</b>

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**P-3 FOOTBALL CHOWK TO STADIUM ROAD**

**CALCULATION OF QUANTITIES**

**ROADS NET WORK**

Sr. No	Description	No.	Length	Width	Height	Qty.	Unit.
	<b>Carpeting</b>						
	<b>AWC</b>						
10	Providing and laying plant premixed bituminous carpet, including compaction and finishing to required camber, grade and density. (2 inch thick) (iv) 4.5% Bitumen						
	RD 0+000 to 2+600	1	2,600	24.00		62,400	Sft
	RD 2+600 to 2+800	1	200	32.00		6,400	Sft
	RD 2+800 to 3+317	1	517	16.00		8,272	Sft
	Approach Roads total Area	1	6,600	1.00		6,600	Sft
					Total	83,672	Sft
					<b>Total.</b>	<b>836.72</b>	<b>%Sft</b>
	<b>Paint For Traffic Lanes</b>						
11	Painting Traffic Lane Marking of specified width (1.5mm thick), with Thermoplastic (TP) Paint including Glass Beads, complete in all respect, as approved and directed by Engineer incharge.						
	RD 0+000 to 2+600	2.5	2,600			6,500	Rft
	RD 2+600 to 2+800	2.5	200			500	Rft
	RD 2+800 to 3+317	2	517			1,034	Rft
					Total	8,034	Rft
	<b>Tuff Paver</b>						
12	Providing and laying Tuff pavers, having 7000 PSI, crushing strength of approved manufacturer, over 2" to 3" sand cushion i/c grouting with sand in joints i/c finishing to require slope. complete in all respect. (50% Grey / 50% Coloured)						
	<b>c) 80-mm thick (For Shoulder)</b>						
	RD 0+000 to 2+600	2	2,600	5.00		26,000	Sft
	RD 2+600 to 2+800	2	200	5.00		2,000	Sft
					Total	28,000	Sft
	<b>Road Edging</b>						
13	Providing and laying road edging of 3" (75 mm) wide and 9" (225 mm) deep brick on end, complete in all respects.						
	RD 0+000 to 2+600	2	2,600			5,200	Rft
	RD 2+600 to 2+800	2	200			400	Rft
					Total	5,600	Rft

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**SUPERVISION IN 16 CITIES OF PUNJAB**

**P-3 FOOTBALL CHOWK TO STADIUM ROAD**

**CALCULATION OF QUANTITIES**

**ROADS NET WORK**

Sr. No	Description	No.	Length	Width	Height	Qty.	Unit.
<b>P.C.C (Between Asphalt and Tuff Paver)</b>							
14	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):						
	(f) Ratio 1: 2: 4						
	RD 0+000 to 2+600	4	2,600	0.33	0.50	1,716	Cft
	RD 2+600 to 2+800	4	200	0.33	0.50	132	Cft
						Total	1,848 Cft
						<b>Total.</b>	<b>18.48 %Cft</b>
<b>Cat Eyes</b>							
15	Providing & fixing Cat Eyes of size 4"x4"x3/4" duly casted with specified material having plastic strip containing mini retro-reflective glass beads of color white /red/ yellow having specifid reflections, quality & shape i/c the cost of self built in 12mm dia x 120mm long steel zinc plate dnail, fixing to road with epoxy/hammering with separate nail complete.						
	b) Aluminium Alloy						
	A) Dual-Directional						
	(ii) 43x2=86 Glass beads a side	830				830	Each
16	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						
	CIRCULAR/TRIANGULAR						
	3 ft size	6	3.00	2.00		36	Sft
17	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 embedded in PCC 1:2:4 etc, complete in all respect						
	(b) 3 inch diameter	6	11			66	Rft
18	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					36	Sft

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**P-3 FOOTBALL CHOWK TO STADIUM ROAD**

**CALCULATION OF QUANTITIES**

**ROADS NET WORK**

Sr. No	Description	No.	Length	Width	Height	Qty.	Unit.
	<b>Deduction</b>						
19	Brick Bats to be made from dismantling of brick edging. (Input Rate)						
	Total Qty.					9.75	%Cft
						<b>Total</b>	<b>9.75</b> %Cft
	<b>DRAINAGE SYSTEM</b>						
	<b>Dismantling</b>						
1	c) Dismantling cement concrete 1:2:4 plain.						
	Manhole Neck	16	8.64	0.75	0.50	52	Cft
						<b>Total</b>	<b>0.52</b> %Cft
	<b>Excavation</b>						
2	Earthwork excavation in open cutting upto 5'-0" (1.5 m) depth for storm water channels, drains, sullage drains in open areas, roads, streets, lanes, including under pinning of walls and shoring to protect existing works, shuttering and timbering the trenches, dressed to designed level and dimensions, trimming, removal of surface water from trenches, back filling and surplus excavated material disposed of and dressed within 50 ft. (15 m) lead:- i) in ordinary soil.						
	Pipe Laying	15	20.00	2.50	2.50	1,875	Cft
						Total	1,875 Cft
						<b>Total</b>	<b>1.88</b> %oCft
3	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate): <b>(f) Ratio 1: 2: 4</b>						
	Pipe Laying	15	10	1.50	1.50	338	Cft
	For manhole neck	16	8.64	0.75	0.50	52	Cft
						Total	390 Cft
						<b>Total</b>	<b>3.90</b> %Cft
4	Pacca brick work other than building upto 10ft. (3 m) Cement, sand mortar:- Ratio 1:3						
	For manhole neck	16	8.64	0.75	1.00	104	Cft
						Total	104 Cft
						<b>Total</b>	<b>1.04</b> %Cft

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**CALCULATION OF QUANTITIES**

**ROADS NET WORK**

Sr. No	Description	No.	Length	Width	Height	Qty.	Unit.
5	Extra for pacca brick work in steining of wells or any other circular masonry.					<b>Total</b>	<b>1.04 %Cft</b>
6	Cement plaster 1:3 upto 20' (6.00 m) height:- b) ½" (13 mm) thick For manhole neck	32	8.64		1.00	276	Sft
						<b>Total</b>	<b>276 Sft</b>
						<b>Total</b>	<b>2.76 %Sft</b>
7	Providing and laying reinforced cement concrete (i/c pre-stressed concrete), using coarse sand and screened graded and washed aggregate, in required shape and design, i/c 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, complete a). Reinforced cement concrete in roof slab, beams, columns, lintels, girders and other structural members laid in situ or pre-cast laid in position, or pre-stressed members cast in situ, complete in all respect. Type C (nominal mix 1:2:4) For Culvert Slab	1	12	3.50	0.67	28.00	Cft
						<b>Total</b>	<b>28.00 Cft</b>
8	Fabrication of mild steel reinforcement for cement concrete, i/c cutting, bending, laying in position, making joints and fastening, i/c cost of bending wire and labour charges for bending of steel reinforcement (also includes removal of rust from deformed bars) Gade 60 Concrete Qty		28	Cft @	6.75	189	lbs/cft
						86	kg
						<b>Total</b>	<b>0.86 Kg</b>
<b>Gully Grating Chamber</b>							
9	Constructing standard gully grating chamber, 3'x2½' (900x750 mm), with chinaware trap as per PHED Drawing STD/PD No. 3 of 1977, complete in all respects.	15				<b>15.00</b>	<b>Each</b>

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**P-3 FOOTBALL CHOWK TO STADIUM ROAD**

**CALCULATION OF QUANTITES**

**ROADS NET WORK**

Sr. No	Description	No.	Length	Width	Height	Qty.	Unit.
10	Supplying and filling sand under floor; or plugging in wells.	15	20.00	2.50	1.00	7.50	%Cft
	<b>uPVC Pipe</b>						
11	Providing, fixing, testing and commissioning of u-PVC (Unplasticized polyvinyl Chloride) Nikasi /waste pipe make of dadex / Popular / Beta/ BBJ 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.						
	<b>Type (SDR 41/SN-4)</b>						
	(vii) 8"(200 mm)	15	20.00			300	Rft
	<b>RPC Manhole Cover</b>						
12	Providing and fixing RPC Manhole Cover Manufactured with 100% Reinforced Plastic Composite Material, 650 mm dia with clear opening size 600 mm (24" dia) and RPC manhole frame having dia meter 790 mm (Complete) (Certified under ISO 9001-2015)	16				16	Each
	<b>ELECTRICAL WORKS</b>						
	<b>Scheduled Items (A)</b>						
	<b>Excavation</b>						
1	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling 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) in ordinary soil.						
	For pipe 50mm dia from TR to LCP and LCP to poles	1	7,125	1.00	2.50	17,813	Cft
	Light Poles	57	2.00	2.00	6.00	1,368	Cft
					Total	19,181	Cft
					<b>Total</b>	<b>19.18</b>	<b>%oCft</b>

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**P-3 FOOTBALL CHOWK TO STADIUM ROAD**

**CALCULATION OF QUANTITIES**

**ROADS NET WORK**

Sr. No	Description	No.	Length	Width	Height	Qty.	Unit.
<b>RCC Foundation for Poles</b>							
2	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)(iii) Reinforced cement concrete in 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) (i)&(ii) above not requiring form work (i.e. horizontal shuttering) complete in all respects:-						
	3) Type C (nominal mix 1: 2: 4)						
	Light Poles	57	2.00	2.00	6.00	1,368	Cft
						<b>Total</b>	<b>1,368.00</b> <b>Cft</b>
<b>Steel Work</b>							
3	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-40)		2.50Kg/Cft			3,420	Kg
						<b>Total</b>	<b>34.20</b> <b>Kg</b>
4	Supply and erection PVC pipe for recessed wiring (main and sub-main) purpose, including bends, specials, etc. in floor, wall or trenches:-						
	i) 50 mm i/d						
	From LCP to Pole and pole to pole (Up + Down)	57	125.00			7,125	Rft
5	Supply and erection of single core PVC insulated, PVC sheathed copper conductor, 660/1100 volts grade cable, in prelaid G.I. pipe/M.S. conduits/PVC pipe/G.I. wire/trenches, etc (rate for cable only):-						
	ii) 6 mm sq (7/0.044")						
	For two nos. Earthing lead	57	20.00			1,140	Rft

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**P-3 FOOTBALL CHOWK TO STADIUM ROAD**

**CALCULATION OF QUANTITIES**

**ROADS NET WORK**

Sr. No	Description	No.	Length	Width	Height	Qty.	Unit.
6	Supply and erection of copper conductor cables for service connection, in prelaid pipe/G.I. wire / trenches, etc. (rate for cable only):-						
	b) PVC insulated, PVC sheathed 3 core, 660/1100 volt cable:-						
	iii) 7/0.74 mm (7/0.029")						
	From Terminal Box to light fixture on pole (P+N+E)	57	40.00			2,280	Rft
	c) PVC insulated, PVC sheathed 4 core, 660/1100 volt non armoured cable:-						
	vi) 10 mm (7/0.052")	57	125.00			7,125	Rft
	vii) 16 mm (7/0.064")	1	100.00			100	Rft
7	Supplying, installation testing and commissioning of Octagonal shape electric street light pole, made of hot dipped 4.5 mm thick (7 SWG) galvanized steel ,tapered from 225 mm at bottom to 100 mm at top,with 1500 mmx60 mm dia. arm for luminaire installation, duly G.I.welded with 470x470x20 mm base plate with the help of 4 no triangular stiffeners 100x350x20 mm of GI sheet,with built in junction box with shutter,i/c the cost of nuts & J-rag bolts, duly fixed in prelaid concrete foundation, foundation will be paid additionally as approved and directed by the Engineer Incharge.						
	Single Arm						
	(i) 10 mtr height	57				57	Nos
8	Supplying, installation and commissioning of LED Cobra-head Luminaries of specified wattage and lumens conforming to IP 65, Philips/ Osram /Thorn with corrosion resistant die casted aluminum housing, silicon gas kit, thermally hardened glass complete with LED drivers, surge protection i/c the cost of all accessories/components required for proper operation , fully flexible for future upgradation and easy replacements for maintenance purposes,bucket elevator charges as approved and directed by the Engineer Incharge.						
	c) 120 Lm/Watt						
	(v) 90 Watt with 10800 Lumens	57				57	Nos
9	Supply and erection of electric energy meter, including meter testing fee, etc.						
	b) three phase, 4 wires:						
	ii) 3x50 Amp, 400 volts	1				1.00	Nos



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**P-3 FOOTBALL CHOWK TO STADIUM ROAD**

**CALCULATION OF QUANTITIES**

**ROADS NET WORK**

Sr. No	Description	No.	Length	Width	Height	Qty.	Unit.
10	Supply, insatllation, commissioning and testing of oil cooled type, Step down Power Transformer of specified rating,11/0.415 kV, i/c the cost of lifting hooks, thermometers, LT & HT bushing 5-steps, tap changer, imported double float buchholz relay, 2 earthing terminals, roller wheels, connecting terminals for cables M.S box on transformer in order to cover complete L.T side, all necessary materials required for connections on H.T & L.T side, rated voltage 11000/415/240 V impedance 6.25% or as specified by WAPDA/IEC system earth: Delta / Star, neutral solidly earthed, i/c Wapda testing charges,complete in all respects made of PEL, Siemens, as approved and directed by the Engineer Incharge						
	(iii) 25 KVA	1				1.00	Nos.
11	Earthing of iron clad / aluminum switches, etc. with G.I. wire No. 8 SWG in G.I. pipe 15 mm (½") dia, recessed or on surface of wall and floor, complete with 1.5 metre long G.I. pipe, 50 mm (2") dia with reducing socket 4 to 5 metre below ground level, and 2 metre away from building plinth.	60				60.00	No.
12	Fabrication, Supply, testing and commissioning of following Light control panels (LCP), floor standing weather proof, IP 65 Rated of appropriate size, made of MS Sheet 16 SWG with hinged door, handle, catcher, 2 coats of antirust and powder coated paint of approved colour, AC3 megnatic contactor, photocell for automatic operation of lights, CBs, Hand/Off/Auto switch, push button and all necessary accessories complete in all respects. LCP shall be manufactured as per specifications, single line diagram complete in all respect up to the satisfaction of Engineer incharge.						
	LCP-3 Phase	1				1.00	Nos.
13	Shifting of 4 Nos. Wapda Electric Poles						
14	Electric Connection Charges from wapda	1				1.00	Each

# ENVIRONMENTAL HEALTH SAFETY BUDGET

**PUNJAB CITIES PROGRAM (PCP)  
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**DETAILED COST ESTIMATE**

**ENVIRONMENTAL HEALTH SAFETY BUDGET**

<b>Sr No</b>	<b>Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Rate (Rs.)</b>	<b>Amount Rs.</b>
	<b>Labor Safety</b>				
1	Face Masks (3 PLY)	Nos	15.00	700.00	10,500
2	Safety Gum Shoes	Nos	15.00	1,350.00	20,250
3	Hand Gloves	Nos	15.00	245.00	3,675
4	First Aid Box (Including essential Medicine)	Nos	3.00	5,000.00	15,000
5	Safety Hard Helmets MSA	Nos	15.00	2,000.00	30,000
6	Safety Goggles	Nos	15.00	550.00	8,250
7	Reflective Safety Vests	Nos	15.00	550.00	8,250
				<b>Sub Total</b>	<b>95,925</b>
	<b>Working Site Safety</b>				
1	Reflective Safety Signs Boards	Nos	6.00	10,000.00	60,000
2	Reflective Safety Barricading Tape	Nos	24.00	1,500.00	36,000
				<b>Sub Total</b>	<b>96,000</b>
	<b>Others</b>				
3	Water Sprinkling (Dust Abatement)	L.S	1.00	100,000	100,000
				<b>Sub Total</b>	<b>100,000</b>
	<b>Total Amount (Rs)</b>				<b>291,925</b>

## RATE ANALYSIS

**PUNJAB CITIES PROGRAM (PCP)**  
**DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS**  
**SUPERVISION IN 16 CITIES OF PUNJAB**

**EARTH WORK LEAD CHART**

**Rate Analysis Road- 1**

Sr. No.	2nd BI-Annual-2022 (July to Dec) Khanewal	Description	Lead	Unit.	Qty	Rate (Rs)	Amount (Rs)
1	3/5/i	Earthwork in ordinary soil for embankments lead upto 100 ft. (30 m), including ploughing and mixing with blade grade or disc harrow or other suitable equipment, and compaction by mechanical means at optimum moisture content and dressing to designed section, complete in all respects:-					
		i) 95% to 100% maximum modified AASHO dry density.	1	1000Cft	1	9,527.90	9,527.90
2	3/17a.b.c	<b>Carriage</b>					
		upto ¼ mile (400 m).	1	1000 Cft	1	4,248.00	4,248.00
		for every 330 ft. (100 m) additional lead or part thereof, beyond ¼ mile (400 m) upto one mile. (1.6 Km.)	12	1000 Cft	1	47.50	570.00
		for every ¼ mile (400 m) additional lead or part thereof, beyond one mile (1.6 Km.) upto 5 mile (8 Km).	3.5	1000 Cft	1	338.40	1,184.40
		for every ½ mile (800 m) additional lead or part thereof, beyond 5 miles (8 Km).	0	1000 Cft	1	320.35	-
		<b>Total Amount 1,000 (Rs.).</b>					<b>15,530.30</b>
		<b>Total Amount Per Cft</b>					<b>15.53</b>

**PUNJAB CITIES PROGRAM (PCP)**  
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**SUPERVISION IN 16 CITIES OF PUNJAB**

**Rate Analysis Road- 2**

<b>Description</b>							
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 and grade to achieve 98% maximum dry density determined according to AASHTO T-180 method-D, including carriage of all material to site of work complete in all respect as per specifications and as directed by the engineer incharge. (Crushed stone aggregate from Sakhi Sarwar quarry to site, actual compacted depth shall be considered for payment)							
<b>Crush Stone</b>							<b>185 KM</b>
<b>Sr. No.</b>	<b>2nd BI-Annual-2022 (July to Dec) Khanewal</b>	<b>Description</b>	<b>Unit</b>	<b>Lead (Km)</b>	<b>Qty</b>	<b>Rate (Rs)</b>	<b>Amount (Rs)</b>
<b>1</b>		<b>Material</b>					
	18-3 a(ii)	Crushed stone aggregate.	100 Cft	1	1	8,925.00	8,925.00
<b>2</b>	1/1	<b>Carriage</b>					
		1st KM	100 Cft	1	1.20	299.40	359.28
		2nd KM	100 Cft	1	1.20	145.25	174.30
		3rd KM	100 Cft	1	1.20	116.85	140.22
		4th KM	100 Cft	1	1.20	85.30	102.36
		5th KM	100 Cft	1	1.20	80.20	96.24
		6th KM	100 Cft	1	1.20	79.00	94.80
		7th KM	100 Cft	1	1.20	74.25	89.10
		8th KM	100 Cft	1	1.20	73.50	88.20
		9th KM	100 Cft	1	1.20	69.55	83.46
		10th KM	100 Cft	1	1.20	65.70	78.84
		From 11 km to 200 km	100 Cft	175.00	1.20	57.25	12,022.50
		<b>Total.</b>					<b>22,254.30</b>
		<b>Total Amount per 100 Cft</b>					<b>22,254.30</b>
		<b>Total cast for Per Cft</b>					<b>222.54</b>

**PUNJAB CITIES PROGRAM (PCP)**  
**DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS**  
**SUPERVISION IN 16 CITIES OF PUNJAB**

**Rate Analysis Road - 3**

Providing and laying base course of crushed stone (Water Bound Macadam) of approved quality and grade including, placing, mixing, spreading and compaction of base course material to required depth, camber and grade to achieve 100% maximum modified AASHTO dry density, including carriage of all material to site of work complete in all respect as per specifications and as directed by the engineer incharge. (Crushed stone aggregate from Sakhi Sarwar quarry to site, actual compacted depth shall be considered for payment)

							<b>185 KM</b>
<b>Sr. No.</b>	<b>2nd BI-Annual-2022 (July to Dec)</b> <b>Khanewal</b>	<b>Description</b>	<b>Unit</b>	<b>Lead (Km)</b>	<b>Qty</b>	<b>Rate (Rs)</b>	<b>Amount (Rs.)</b>
1	18/4(a)	Providing and laying base course of crushed stone (Water Bound Macadam) of approved quality and grade including, placing, mixing, spreading and compaction of base course material to required depth, camber and grade to achieve 100% maximum modified AASHTO dry density, including carriage of all material to site of work complete in all respect as per specifications and as directed by the engineer incharge. (Crushed stone aggregate from sargodha quarry to site, actual compacted depth shall be considered for payment)	100 Cft		1	11,806.60	11,806.60
2	1/1	Carriage of 100 cft of all materials like stone aggregate spawl kanker lime surkhi etc or 150 cft of timber by truck or by any other means owned by the contractor.					
		1st KM	100 Cft	1	1.22	299.40	365.27
		2nd KM	100 Cft	1	1.22	145.25	177.21
		3rd KM	100 Cft	1	1.22	116.85	142.56
		4th KM	100 Cft	1	1.22	85.30	104.07
		5th KM	100 Cft	1	1.22	80.20	97.84
		6th KM	100 Cft	1	1.22	79.00	96.38
		7th KM	100 Cft	1	1.22	74.25	90.59
		8th KM	100 Cft	1	1.22	73.50	89.67
		9th KM	100 Cft	1	1.22	69.55	84.85
		10th KM	100 Cft	1	1.22	65.70	80.15
		From 11 km to 200 km	100 Cft	172.00	1.22	57.25	12,013.34
		<b>Total.</b>					<b>25,148.52</b>
		<b>Total Amount per 100 Cft</b>					<b>25,148.52</b>
		<b>Total cast for Per Cft</b>					<b>251.49</b>

**PUNJAB CITIES PROGRAM (PCP)  
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS  
SUPERVISION IN 16 CITIES OF PUNJAB**

**Rate Analysis Road - 4**

**AWC**

Providing and laying plant premixed bituminous carpet, including compaction and finishing to required camber, grade and density. (2 inch thick)  
(iv) 4.5% Bitumen

							232 Km
Sr. No.	2nd BI-Annual-2022 (July to Dec) Khanewal	Description	Unit	Lead (Km)	Qty	Rate (Rs)	Amount (Rs.)
1	18/10/a	Providing and laying plant premixed bituminous carpet, including compaction and finishing to required camber, grade and density. (2 inch thick) (iv) 4.5% Bitumen	Per inch thickness per 100Sft.		1.00	15,025.00	15,025.00
2	1/1	Carriage of 100 cft of all materials like stone aggregate spawl kanker lime surkhi etc or 150 cft of timber by truck or by any other means owned by the contractor.					
		1st KM	100 Cft	1	0.1243	299.40	37.22
		2nd KM	100 Cft	1	0.1243	145.25	18.05
		3rd KM	100 Cft	1	0.1243	116.85	14.52
		4th KM	100 Cft	1	0.1243	85.30	10.60
		5th KM	100 Cft	1	0.1243	80.20	9.97
		6th KM	100 Cft	1	0.1243	79.00	9.82
		7th KM	100 Cft	1	0.1243	74.25	9.23
		8th KM	100 Cft	1	0.1243	73.50	9.14
		9th KM	100 Cft	1	0.1243	69.55	8.65
		10th KM	100 Cft	1	0.1243	65.70	8.17
		From 11 km to 200 km	100 Cft	190	0.1243	57.25	1,352.07
		From 201 km to 250 km	100 Cft	32	0.1243	3.25	12.93
		<b>Total.</b>					
	<b>Total Amount per 100 Sft</b>						<b>16,525.36</b>
	<b>Total cast for Per Sft</b>						<b>165.25</b>



**PUNJAB CITIES PROGRAM (PCP)**  
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**Rate Analysis Road - 5**

Ploughing and Compaction of Existing road surface upto 6" depth i/c dressing, leveling, supplying and spreading of stone screening (Khaka) and compaction to achieve to 100% maximum ASSHO dry density complete in all respects.

**MRS 2nd Bi-Annual July 2022 to Dec 2022**

**Taking = 100CFT**

**Unit rate =Per 100 CFT**

Sr. No.	Details	Qty	Unit	Rate (Rs)	Amount (Rs)
A	<b>Material</b>				
1	Ploughing with tractor up to 6" depth for 100 Cft (Input Rate EQ-18)	1	P.Hour	1,608.00	1,608.00
2	Cost of Stone Screening (Khaka) at quarry for 100 Cft = (Input Rate 18.005)	17	%CFT	4,836.00	822.12
3	Labour charges for spreading of Khaka dressing and levelling etc skilled 2 No's for 1.5 Hours (Input Rate lb-024)		P.Day	1,250.00	468.75
4	Compaction of existing road surface with 12 to roller and watering etc. for 100Cft (Input Rate EQ-05)	0.75	P.Hour	3,660.00	2,745.00
<b>Total</b>					<b>5,643.87</b>
<b>Add 20% Contractor Profit on Item No.2</b>					<b>164.42</b>
<b>Composite Rate Per 100Cft</b>					<b>5,808.29</b>

**PUNJAB CITIES PROGRAM (PCP)  
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**Rate Analysis Road - 6**

Description									
Dismantling / Demolishing of existing kerb stone as directed by Engineer's Incharge, Complete in all respect									
<b>Dismantling Kerb stone</b>								<b>Unit.</b>	<b>100 Rft</b>
Sr. No.	Ref Input Rate	Detail	Unit Rate (British System) per 100 Rft						
			Qty		Rate Per Unit		Amount (Rs.)		
		<b><u>LABOUR</u></b>							
2	LB-015	Cooly un-skilled	2.00	Nos.	962.00	per day		1,924.00	
							<b>Total.</b>	<b>1,924.00</b>	
		Sundries	10	%				192.40	
							<b>Total Rs.</b>	<b>2,116.40</b>	
		Contractor's Profit	20	%				423.28	
		<b>Total</b>						<b>2,539.68</b>	
		<b><u>ITEM RATES</u></b>							
		Composite rate per 100 Rft					Rs.	<b>2,539.68</b>	
		Composite rate per Rft					Rs.	<b>25.40</b>	

**PUNJAB CITIES PROGRAM (PCP)  
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**Rate Analysis Road - 7**

**Description**

Providing and fixing RPC Manhole Cover Manufactured with 100% Reinforced Plastic Composite Material, 650 mm dia with clear opening size 600 mm (24" dia) and RPC manhole frame having dia meter 790 mm (Complete) (Certified under ISO 9001-2015)

**Manhole Cover**

Sr. No.	Ref Input Rate	Detail	Unit Rate (British System) per 100 Rft		
			Qty	Rate Per Unit	Amount (Rs.)
	Page No112				
1	A	RPC Manhole Cover	1.00	No	7000
		Carriage			No
					7,000.00
					1,163
					Total
					8,162.50
		<b><u>LABOUR</u></b>			
2	LB-024	Skilled Cooly	0.70	Nos.	1,250.00
					per day
					875.00
					<b>Total.</b>
					<b>875.00</b>
		Sundries	10	%	
					87.50
					<b>Total Rs.</b>
					<b>962.50</b>
					<b>Total (1+2)</b>
					<b>9,125.00</b>
		Contractor's Profit	20	%	
					1,825.00
		Total			<b>10,950</b>
		<b><u>ITEM RATES</u></b>			
		Composite rate Set			Rs.
					<b>10,950</b>

**PUNJAB CITIES PROGRAM (PCP)  
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**Rate Analysis Road - 8**

**Description**

Fabrication, Supply, testing and commissioning of following Light control panels (LCP), floor standing weather proof, IP 65 Rated of appropriate size, made of MS Sheet 16 SWG with hinged door, handle, catcher, 2 coats of antirust and powder coated paint of approved colour, AC3 magnetic contactor, photocell for automatic operation of lights, CBs, Hand/Off/Auto switch, push button and all necessary accessories complete in all respects. LCP shall be manufactured as per specifications, single line diagram complete in all respect up to the satisfaction of Engineer incharge.

LCP								Unit.	Each
Sr. No.	Ref Input Rate	Detail	Unit Rate (British System) per Each						
			Qty	Rate Per Unit		Amount (Rs.)			
1	MR	LCP			1.00	No	179,000	No.	179,000.00
2		Loading, Unloading & Installation Charges	10	%					17,900
								<b>Total</b>	<b>196,900.00</b>
		GST on item No.2	17	%					30,430.00
		Contractor's Profit on Item No. 1 & 2	20	%					39,380.00
		<b>Total</b>							<b>266,710</b>
		<b><u>ITEM RATES</u></b>							
		Composite rate Set						Rs.	<b>266,710</b>

**PUNJAB CITIES PROGRAM (PCP)  
 DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS  
 SUPERVISION IN 16 CITIES OF PUNJAB**

**Rate Analysis Road - 9**

**Description**

Fabrication, Supply, testing and commissioning of following Light control panels (LCP), floor standing weather proof, IP 65 Rated of appropriate size, made of MS Sheet 16 SWG with hinged door, handle, catcher, 2 coats of antirust and powder coated paint of approved colour, AC3 magnetic contactor, photocell for automatic operation of lights, CBs, Hand/Off/Auto switch, push button and all necessary accessories complete in all respects. LCP shall be manufactured as per specifications, single line diagram complete in all respect up to the satisfaction of Engineer incharge.

<b>LCP</b>								<b>Unit.</b>	<b>Each</b>
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Sr. No.	Ref Input Rate	Detail	Unit Rate (British System) per Each						
			Qty	Rate Per Unit			Amount (Rs.)		
1	MR	LCP	1.00	No	251,500	No.		251,500	
2		Loading, Unloading & Installation Charges	10	%				25,150	
							<b>Total</b>	<b>276,650</b>	
		GST on item No.2	17	%				42,755	
		Contractor's Profit on Item No. 1 & 2	20	%				55,330	
		<b>Total</b>						<b>374,735</b>	
		<b><u>ITEM RATES</u></b>							
		Composite rate Set					Rs.	<b>374,735</b>	

**PUNJAB CITIES PROGRAM (PCP)  
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SUPERVISION IN 16 CITIES OF PUNJAB**

**Rate Analysis Road - 10**

**Description**

Fabrication, Supply, testing and commissioning of following Light control panels (LCP), floor standing weather proof, IP 65 Rated of appropriate size, made of MS Sheet 16 SWG with hinged door, handle, catcher, 2 coats of antirust and powder coated paint of approved colour, AC3 magnetic contactor, photocell for automatic operation of lights, CBs, Hand/Off/Auto switch, push button and all necessary accessories complete in all respects. LCP shall be manufactured as per specifications, single line diagram complete in all respect up to the satisfaction of Engineer incharge.

LCP								Unit.	Each
Sr. No.	Ref Input Rate	Detail	Unit Rate (British System) per Each						
			Qty	Rate Per Unit		Amount (Rs.)			
1	MR	LCP			1.00	No	231,500	No.	231,500
2		Loading, Unloading & Installation Charges	10	%					23,150
								<b>Total</b>	<b>254,650</b>
		GST on item No.2	17	%					39,355
		Contractor's Profit on Item No. 1 & 2	20	%					50,930
		<b>Total</b>							<b>344,935</b>
		<b><u>ITEM RATES</u></b>							
		Composite rate Set						Rs.	<b>344,935</b>