

<b>ABSTRACT OF ROAD</b>		
<b>SUMMARY SHEET</b>		
<b>Sr No.</b>	<b>Item Description</b>	<b>Amount (In Rs.)</b>
1	Road Streach From Golbazar to Malviya chowk(387), Golbazar to Satkar hotel(193), Golbazar to Omti nalla via Sahard jain House(904) & Golbazar to Kachiyana road(125) TOTAL LENGTH 1609 METERS	96412522.77
2	Road Streach From Golbazar to Kotak Bank(161m), Golbazar to ICICI Bank ATM(226m), Golbazar to Dr. Pawan Sthapak(175m), Golbazar to Datt Mandir(88m) & Golbazar to Kachiyana road via National Hospital(288m) TOTAL LENGTH 938 METERS	66102120.69
3	ROAD STRECH FROM Golbazar Circle(723m), Golbazar to Ranital chowk(195m) & Ranital to Gulaua chowk(1471m) LENGTH - 2389 METERS	103765641.47
<b>TOTAL</b>		<b>266280284.93</b>

<b>ABSTRACT ELECTRICAL</b>		
<b>S.No</b>	<b>Description</b>	<b>Cost</b>
1	Under Ground Electrification Work at Smart Road Phase 2	108484103.00
2	SITC of Side Lighting work at Smart Road Phase - 2	17805735.00
<b>TOTAL</b>		<b>126289838.00</b>

<b>GRAND TOTAL</b>		<b>392570122.93</b>
<b>SAY</b>		<b>392570000.00</b>
<i>in words thirty nine crore twenty five lakhs seventy thousand</i>		

Road Streach From Golbazar to Malviya chowk(387), Golbazar to Satkar hotel(193), Golbazar to Omti nalla via Sahard jain House(904) & Golbazar to Kachiyana road(125)

**TOTAL LENGTH 1609 METERS**

**SUMMARY SHEET**

<b>Sr No.</b>	<b>Item Description</b>	<b>Amount (In Rs.)</b>
1	ROAD	10885178.59
2	UTILITY DUCT	56529663.58
3	STORM WATER DRAIN	13067226.90
4	PEDESTRIAN TRACK	13983182.70
5	SIGNAGES, MARKING, LANDSCAPING	1947271.00
	<b>TOTAL</b>	<b>96412522.77</b>

ESTIMATE OF ROAD						
Road Streach From Golbazar to Malviya chowk(387), Golbazar to Satkar hotel(193), Golbazar to Omti nalla via Sahard jain House(904) & Golbazar to Kachiyana road(125)						
TOTAL LENGTH 1609 METERS						
S.No.	UADD SOR Vol II & III, ITEM NO	Descriptions of Item	Quantity	Rate	Unit	Amount in Rs.
			Quantity			
1	2.3, (i) Vol III	<b>Dismantling</b>				
		Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts and lead 1000 meter.				
		Cement Concrete Grade M-15 & M-20	160.90	234.00	cum	37650.60
2	2.40	Dismantling of flexible pavements and disposal of dismantled materials up to a lead of 1000 meter, stacking serviceable and unserviceable materials separately and as per relevant clauses of section-200.				
	a)	Bituminous courses taking 10% of the Total	1689.45			
	a)	Bituminous courses	168.95	358.00	cum	60482.31
5	2.12 vol III	Removal of telephone / Electric poles including excavation and dismantling of foundation concrete and lines under the supervision of concerned department, disposal with all lifts and up to a lead of 1000 meter and stacking the serviceable and unserviceable material separately.				
		<b>Total quantity</b>	<b>30.00</b>	<b>90.00</b>	<b>each</b>	<b>2700.00</b>
11	5.2 (ii) Vol III	<b>Tack Coat</b>				
		Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor on the prepared bituminous / granular surface cleaned with mechanical broom and as per relevant clauses of section 503.				
		@0.25 kg per sqm (normal bituminous surfaces)				
		for bc 50mm	11263.00			
			11263.00	9.00	sqm	101367.00
		@0.30 kg per sqm (dry & hungry bituminous surfaces/granular surfaces treated with primer)				
		on existing road for DBM 100mm	11263.00			
		At Junction	840.00			
		<b>Total quantity</b>	<b>12103.00</b>	<b>11.00</b>	<b>sqm</b>	<b>133133.00</b>
12	5.6 (i) Vol III	<b>Dense Bituminous Macadam</b>				
		Providing and laying dense bituminous macadam (in two layers of 50mm thickness each or as per the instruction of engineer in charge) with hot mix plant batch using crushed aggregates of specified grading, premixed with bituminous binder, transporting the hot mix to work site, laying with mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction complete in all respects and as per relevant clauses of section-507. (Only cement will be used as filler) <b>(for Grading II ( 50-75mm thickness )</b>				
		ch. 0 to 387	788.41			
		<b>At junction</b>				
		ch. 0 to 387	58.80			
		<b>Total quantity</b>	<b>847.21</b>	<b>7178.00</b>	<b>cum</b>	<b>6081273.38</b>

13	5.8 (iv) Vol III	<b>Bituminous Concrete</b>				
		Providing and laying bituminous concrete with hot mix plant using crushed aggregates of specified grading, premixed with bituminous binder, transporting the hot mix to work site, laying with a mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects and as per relevant clauses of section-509. (Only cement will be used as filler). iv) for Grading II ( 30-45 mm thickness ) with 60/70 bitumen				
		ch. 0 to 387	<b>450.52</b>			
		At Junction	<b>33.60</b>			
		<b>Total quantity</b>	<b>484.12</b>	<b>8226.00</b>	<b>cum</b>	<b>3982371.12</b>
14	Volume 3, item no.5.4, page 51	Providing and laying levelling course/profile corrective course with bituminous macadam with hot mix plant using crushed aggregates of grading-1 premixed with bituminous binder @ 3.1%, transported to site, laid over a previously prepared surface with mechanical paver finisher to the required grade, level and alignment and rolled as per clauses 501.6 and 501.7 to achieve the desired compaction complete in all respects and as per relevant clauses of section-500.				
		Taking 20% of the existing road	<b>450.52</b>			
			<b>90.10</b>	<b>5396.00</b>	<b>Cum</b>	<b>486201.18</b>
<b>Total</b>						<b>10885178.59</b>

**ESTIMATE OF ELECTRICAL DUCT**

**Road Streach From Golbazar to Malviya chowk(387), Golbazar to Satkar hotel(193), Golbazar to Omti nalla via Sahard  
jain House(904) & Golbazar to Kachiyana road(125)  
TOTAL LENGTH 1609 METERS**

S No.	UADD SOR ITEM NO	Descriptions of Item	Quantity	Rate	Unit	Amount
<b>1</b>	<b>2.9.1, Vol II</b>	<b>Excavation</b>				
		Excavation work in foundation trenches or drains not exceeding 1.5 m in width or 10 sqm on plan including dressing of sides and ramming of bottoms lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soils as directed, within a lead of 50m.				
		<b>Total quantity</b>	<b>15039.20</b>	<b>202.00</b>	<b>cum</b>	<b>3037918.40</b>
<b>2</b>	<b>2.27.1 Vol II</b>	<b>Filling</b>				
		Supplying and filling in plinth under floors including, watering, ramming consolidating and dressing complete. 2.27.1 Crusher Stone Dust				
		<b>Total quantity</b>	<b>683.60</b>	<b>628.00</b>	<b>cum</b>	<b>429300.80</b>
<b>3</b>	<b>4.1.1 Vol II</b>	<b>Cement Concrete M-15( Duct)</b>				
		Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering All work up to plinth level.				
		<b>M 15 with 20mm maxumum size of aggregate.</b>				
		<b>Total quantity</b>	<b>683.60</b>	<b>4154.00</b>	<b>cum</b>	<b>2839674.40</b>
<b>4</b>	<b>5.1.1 Vol II</b>	Providing and laying in position machine batched, machine mixed and machine vibrated design mix cement concrete of specified grade for reinforced cement concrete work including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement. including Admixtures in recommended proportions as per IS 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge. M-25 grade reinforced cement concrete by using 410 kg. of cement per cum of concrete. All work up to floor 2 level.				
		<b>Total quantity</b>	<b>3314.69</b>	<b>5245.00</b>	<b>cum</b>	<b>17385522.83</b>

5	Vol II 5.10	Providing, hoisting and fixing up to floor two level precast reinforced cement concrete work in string courses, bands, copings, bed plates, anchor blocks, plain window sills and the like including the cost of required centering, shuttering, finishing smooth with 6 mm thick cement plaster 1:3 (1 cement : 3 fine sand) on exposed surfaces complete but excluding cost of reinforcement with Cement concrete grade M-20 (Nominal Mix with 20 mm maximum size of stone aggregate)				
		<b>Total quantity</b>	<b>611.52</b>	<b>6524.00</b>	<b>cum</b>	<b>3989540.17</b>
6	5.20.6 Vol II	<b>Reinforcement for Duct</b>				
		Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete.				
	5.20.6	Thermo-Mechanically Treated bars.				
			<b>246565.52</b>	<b>60.00</b>	<b>Kg</b>	<b>14793931.02</b>
7	20.1.1 Vol II	<b>Form work for Duct</b>				
		Centering and shuttering including strutting, propping etc.and removal of form for : 20.1.1 Foundations, footings, bases of columns, etc. For mass concrete.				
		<b>Total quantity</b>	<b>34531.00</b>	<b>138.00</b>	<b>cum</b>	<b>4765278.00</b>
8	6.1 Vol II	Brick work with well burnt chimney bricks in bulls patent trench kiln manufactured by ghol process,crushing strength not less than 40kg /sqcm and water absorption not more than 15% in foundation and plinth.				
		Cement mortar 1:6 (1 cement : 6 coarse sand)				
		<b>Total quantity</b>	<b>19.32</b>	<b>4232.00</b>	<b>cum</b>	<b>81762.24</b>
9	13.2 Vol II	15mm cement plaster on the rough side of single or half brick wall of mix : 1:5 (1 cement: 5 fine sand)				
		<b>Total quantity</b>	<b>96.60</b>	<b>119.00</b>	<b>cum</b>	<b>11495.40</b>
10	2.27.2 Vol II	<b>Sand Filling</b>				
		Supplying and filling in plinth under floors including, watering, ramming consolidating and dressing complete.				
		Local Sand	<b>7656.32</b>	<b>1201.00</b>	<b>cum</b>	<b>9195240.32</b>
<b>TOTAL</b>						<b>56529663.58</b>

**ESTIMATE OF STORM WATER DRAIN**

**Road Streach From Golbazar to Malviya chowk(387), Golbazar to Satkar hotel(193), Golbazar to Omti nalla via Sahard jain House(904) & Golbazar to Kachiyana road(125)  
TOTAL LENGTH 1609 METERS**

S No.	UADD SOR ITEM NO	Descriptions of Item	Quantity	Rate	Unit	Amount
1	2.9.1, Vol II	Excavation work in foundation trenches or drains not exceeding 1.5 m in width or 10 sqm on plan including dressing of sides and ramming of bottoms lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soils as directed, within a lead of 50m.				
		<b>Total quantity</b>	<b>2734.40</b>	<b>202.00</b>	<b>cum</b>	<b>552348.80</b>
2	2.27.1 Vol II	Supplying and filling in plinth under floors including, watering, ramming consolidating and dressing complete. <b>Crusher Stone Dust</b>				
		<b>Total quantity</b>	<b>273.44</b>	<b>628.00</b>	<b>cum</b>	<b>171720.32</b>
3	4.1.2 Vol II	<b>Cement Concrete M-20 ( Duct)</b>				
		Providing and laying Plain / Reinorced cement concrete (mixed in concrete mixture) ... RCC Grade				
		<b>M 15 with 20mm maxumum size of aggregate.</b>				
		<b>Total quantity</b>	<b>273.44</b>	<b>4154.00</b>	<b>cum</b>	<b>1135869.76</b>
4	5.1.1 Vol II	Providing and laying in position machine batched, machine mixed and machine vibrated design mix cement concrete of specified grade for reinforced cement concrete work including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement. including Admixtures in recommended proportions as per IS 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge. M-25 grade reinforced cement concrete by using 410 kg. of cement per cum of concrete. All work up to floor 2 level.				
		<b>Total quantity</b>	<b>759.78</b>	<b>5245.00</b>	<b>cum</b>	<b>3985046.10</b>
5	5.10	Providing, hoisting and fixing up to floor two level precast reinforced cement concrete work in string courses, bands, copings, bed plates, anchor blocks, plain window sills and the like including the cost of required centering, shuttering, finishing smooth with 6 mm thick cement plaster 1:3 (1 cement : 3 fine sand) on exposed surfaces complete but excluding cost of reinforcement with Cement concrete grade M-20 (Nominal Mix with 20 mm maximum size of stone aggregate)				
		<b>Total quantity</b>	<b>297.44</b>	<b>6524.00</b>	<b>cum</b>	<b>1940498.56</b>

6	5.20.6 Vol II	Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete.				
	5.20.6	Thermo-Mechanically Treated bars				
			66393.42	60.00	Kg	3983604.96
7	20.1.1 Vol II	<b>Form work for Duct</b>				
		Centering and shuttering including strutting, propping etc.and removal of form for :				
	20.1.1	Foundations, footings, bases of columns, etc. For mass concrete.				
		<b>Total quantity</b>	<b>9407</b>	<b>138.00</b>	<b>Sqm</b>	<b>1298138.40</b>
						<b>13067226.90</b>



**ESTIMATE OF PEDESTRIAN PATH**

**Road Streach From Golbazar to Malviya chowk(387), Golbazar to Satkar hotel(193), Golbazar to Omti nalla via Sahard  
jain House(904) & Golbazar to Kachiyana road(125)**

**TOTAL LENGTH 1609 METERS**

S No.	UADD SOR ITEM NO	Descriptions of Item	Quantity	Rate	Unit	Amount
<b>1</b>	<b>3.1, Vol III</b>	<b>Excavation</b>				
		Excavation for roadway in soil including loading in truck for carrying of cut earth to embankment site with all lifts and lead upto1000 metres and as per relevant clauses of section-300				
		Total	<b>5127.00</b>	<b>98.00</b>	<b>cum</b>	<b>502446.00</b>
<b>2</b>	<b>3.11, Vol III</b>	<b>Earthwork</b>				
		Construction of Embankment/Sub grade/ earth shoulders, as per clause 305 & its sub-clauses, Where required but with approved materials/soil like morrum CBR value not less then 7% i/c all lead & lifts i/c excavation, cost of watering, mpaction and maintenance of surface during construction to ensure shedding & preventing ponding of water (clause 305.3.6) shaping & dressing (clause 305.3.7), finishing etc. complete but excluding scarifying existing granular/bituminous road surface vide clause 305.6.				
		Total	<b>2896.20</b>	<b>272.00</b>	<b>cum</b>	<b>787766.40</b>
<b>3</b>	<b>4.1.5 Vol II</b>	<b>Cement Concrete M - 10</b>				
		Providing and laying in position cement concrete in foundation Up to plinth level. Cement concrete grade M-10 (Nominal Mix) with 40 mm maximum size of stone aggregate				
			<b>1560.60</b>	<b>3528.00</b>	<b>Sqm</b>	<b>5505796.80</b>
<b>4</b>	<b>5.1. Vol II</b>	<b>Reinforcement for R.C.C. work</b>				
		Providing and laying in position specified grade of reinforced cement concrete excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level :				
		Cement concrete grade M-20 (Nominal Mix) with 20 mm maximum size of stone aggregate.				
			<b>96.54</b>	<b>4728.00</b>	<b>Sqm</b>	<b>456441.12</b>
<b>5</b>		<b>Thermo-Mechanically Treated bars</b>				
		Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete.				
		Total Weight of steel KG-	<b>5304.87</b>	<b>60</b>	<b>Kg</b>	<b>318292.38</b>

<b>6</b>	<b>11.29</b>	<b>Flag Stone</b>				
		40 mm thick rubbed local Flag stone flooring over 20 mm (average) thick base of cement mortar 1:5 (1 cement :5 coarse sand) with joints 3mm thick, side buttered with cement mortar 1:2 (1 cement : 2 stone dust) admixed with pigment to match the shade of stone and pointing with same mortar (minimum size of kota stone 0.25 sqm)				
		<b>Along Road</b>				
	<b>11.30.1</b>	Red sand stone	<b>5000.00</b>	<b>513.00</b>	<b>Sqm</b>	<b>2565000.00</b>
	<b>11.30.2</b>	White sand stone	<b>3045.00</b>	<b>532.00</b>	<b>Sqm</b>	<b>1619940.00</b>
		<b>At Junction</b>				
	<b>11.30.1</b>	Red sand stone	<b>500.00</b>	<b>513.00</b>	<b>Sqm</b>	<b>256500.00</b>
	<b>11.30.2</b>	White sand stone	<b>500.00</b>	<b>532.00</b>	<b>Sqm</b>	<b>266000.00</b>
<b>7</b>	<b>11.20 Vol II</b>	Chequerred precast cement concrete tiles 18-20mm thick in footpath & courtyard jointed with neat cement slurry mixed with pigment to match the shade of tiles including rubbing and cleaning etc. complete on 20 mm thick bed of cement mortar 1:4 (1 cement: 4 coarse sand).				
		<b>Along Road</b>				
	11.20.3	<b>Dark shade using ordinary cement.</b>	<b>1609.00</b>	<b>616.00</b>	<b>SqM</b>	<b>991144.00</b>
		<b>At junction</b>				
		<b>Dark shade using ordinary cement.</b>	<b>100.00</b>	<b>616.00</b>	<b>SqM</b>	<b>61600.00</b>
<b>8</b>	<b>8.1, Vol III, pg 69</b>	<b>Kerb Stone</b>				
		Construction of cement concrete kerb with top and bottom width 115 and 165 mm respectively, 250 mm high in M 20 grade PCC on M-10 grade foundation 150 mm thick, foundation having 50 mm projection beyond kerb stone, kerb stone laid with kerb laying machine, foundation concrete laid manually, all complete and as per clause 408 of specifications. A Using Concrete Mixer				
		<b>Total Quantity</b>	<b>3488.00</b>	<b>187.00</b>	<b>meter</b>	<b>652256.00</b>
<b>TOTAL</b>						<b>13983182.70</b>

**ESTIMATE OF ROAD MARKING, STREET FURNITURES & PLANTATION**

**Road Streach From Golbazar to Malviya chowk(387), Golbazar to Satkar hotel(193), Golbazar to Omti nalla via Sahard jain House(904) & Golbazar to Kachiyana road(125)  
TOTAL LENGTH 1609 METERS**

S No.	UADD SOR ITEM NO	Descriptions of Item	Quantity	Rate	Unit	Amount
<b>1</b>	<b>Item 8.10 Vol III</b>	<b>Road Marking</b>				
		<b>Solid Lines in White Colour</b>				
		Road Marking with Hot Applied Thermoplastic Compound with Reflectorising Glass Beads on Bituminous Surface (Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 .The finished surface to be level, uniform and free from streaks and holes and as per relevant clauses of section-800.				
		Solid Lines in White Colour	<b>321.80</b>			
		Brocken Lines in White Colour	<b>160.90</b>			
		Stop Lines in White Colour	<b>64.36</b>			
		Applying Zebra Crossing	<b>400.00</b>			
		<b>Total Quantity</b>	<b>947.06</b>	<b>900.00</b>	<b>Sqm</b>	<b>852354.00</b>
<b>2</b>	<b>Item 8.8 Vol III</b>	<b>Painting lines, dashes, arrows etc</b>				
		Painting lines, dashes, arrows etc on roads in two coats on new work with ready mixed road marking paint conforming to IS:164 on bituminous surface, including cleaning the surface of all dirt, dust and other foreign matter, demarcation at site and traffic control as per relevant clauses of section-800 & I.R.C.-67 including cost of paint etc. complete.	<b>804.50</b>	<b>70.00</b>	<b>Sqm</b>	<b>56315.00</b>
<b>3</b>	<b>Item No 8.3 Vol III</b>	<b>Signages</b>				
		Providing and fixing of retro- reflectorised cautionary, mandatory and inforamatory sign as per IRC :67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminium sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm (height from crown level of the road and bottom of the sign board shall not be less than 1.5 m.) firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing including painting of vertical post as per specification.				
		90 cm equilateral triangle	<b>8.00</b>	<b>3715.00</b>	<b>Nos</b>	<b>29720.00</b>
		80 cm x 60 cm rectangular	<b>16.00</b>	<b>4537.00</b>	<b>Nos</b>	<b>72592.00</b>

4	8.12 Vol III	Road Delineators (Supplying and installation of delineators (road way indicators, hazard markers, object markers), 80-100 cm high above ground level, painted black and white in 15 cm wide stripes, fitted with 80 x 100 mm rectangular or 75mm dia circular reflectorised panels at the top, buried or pressed into the ground and conforming to IRC-79 and the drawings as per relevant clauses of section-800 of specifications.				
			50.00	292.00	each	14600.00
	8.20 Vol III	Road Markers/Road Stud with Lense Reflector (Providing and fixing of road stud 100x 100 mm, dia cast in aluminium, resistant to corrosive effect of salt and grit, fitted with lense reflectors, installed in concrete or asphaltic surface by drilling hole 30 mm upto a depth of 60 mm and bedded in a suitable bituminous grout or epoxy mortar, all as per BS 873 part 4:1973)				
			50.00	292.00	each	14600.00
5	11.1 Vol III	Planting Permanent Hedges including Digging of Trenches (Planting permanent hedges including digging of trenches, 60 cm wide and 45 cm deep, refilling the excavated earth mixed with farmyard manure, supplied at the rate of 4.65 cum per 100 meters and supplying and planting hedge plants at 30 cm apart)	2000.00	230.00	Meter	460000.00
6	11.2 Vol III	Planting of Trees and their Maintenance for one Year (Planting of trees by the road side (Avenue trees) in 0.60 m dia holes, 1 m deep dug in the ground, mixing the soil with decayed farm yard/sludge manure, planting the saplings, backfilling the trench, watering, fixing the tree guard and maintaining the plants for one year)	120.00	488.00	Nos	58560.00
7	23.15 MP PWD SOR	Providing and planting different variety of plants of approved quality and sizes as mentioned including making pits of required size at site, refilled with B.C. Soil mixture manuring and pesticide etc complete (to be paid separately) including watering and 90 days maintenance from the date of final bill as per direction of engineer in charge complete in all respect (B.C Mixture paid separately).				
	23.15.1	Any of one from Plameriya alba, fycus benjameena. Malkikeya champa. Begonia plumaric pudoca Plants (1.8 mtrs to 2.10 mtrs height.	110.00	645	each	70950.00
	23.15.2	Any of one from Lantana VAR Red, Lantana Blue White, Hemelia Mini. lantana varicated, ticoma Redicens, Spi Oala, Golden Dunanta.(height 0.3 m to 0.45m)	1700.00	33	each	56100.00

8	11.5 vol-3	Tree Guard with MS Angle Iron and Steel Wire (Providing and fixing tree guard 0.60 square meter, 2.00 meter high fabricated with MS angle iron 30 x 30 x 3 mm, MS iron 25 x 3 mm and steel wire 3 mm dia welded and fabricated as per design in two halves bolted together)	120	2179	each tree guard	261480.00
		<b>TOTAL</b>				<b>1947271.00</b>

ROAD STRETCH FROM Golbazar to Kotak Bank(161m), Golbazar to ICICI Bank ATM(226m), Golbazar to Dr. Pawan Sthapak(175m), Golbazar to Datt Mandir(88m) & Golbazar to Kachiyana road via National Hospital(288m)

TOTAL LENGTH 938 METERS

SUMMARY SHEET

Sr No.	Item Description	Amount (In Rs.)
1	ROAD	13787419.47
2	UTILITY DUCT	34170525.02
3	STORM WATER DRAIN	8210461.80
4	PEDESTRIAN TRACK	8592591.40
5	SIGNAGES, MARKING, LANDSCAPING	1341123.00
	TOTAL	66102120.69

**ESTIMATE OF ROAD**

**ROAD STRETCH FROM Golbazar to Kotak Bank(161m), Golbazar to ICICI Bank ATM(226m), Golbazar to Dr. Pawan Sthapak(175m),  
Golbazar to Datt Mandir(88m) & Golbazar to Kachiyana road via National Hospital(288m)  
TOTAL LENGTH 938 METERS**

S.No.	UADD SOR Vol II & III, ITEM NO	Descriptions of Item	Quantity	Rate	Unit	Amount in Rs.
			<b>Quantity</b>			
1	2.3, (i) Vol III	<b>Dismantling</b>				
		Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts and lead 1000 meter.				
		Cement Concrete Grade M-15 & M-20	93.80	234.00	cum	21949.20
2	2.40	Dismantling of flexible pavements and disposal of dismantled materials up to a lead of 1000 meter, stacking serviceable and unserviceable materials separately and as per relevant clauses of section-200.				
	a)	Bituminous courses taking 10% of the Total	984.90			
	a)	Bituminous courses	98.49	358.00	cum	35259.42
3	2.5 vol III	Dismantling of cement concrete pavement i/c breaking to pieces not exceeding 0.02 cum in volume and stock piling at designated locations and disposal of dismantled materials up to a lead upto 1000 meter, stacking serviceable and unserviceable materials separately and as per relevant clauses of section-200.				
		<b>Total quantity</b>	193.46	716.00	cum	138519.15
4	2.7 vol III	Dismantling kerb stone by manual means and disposal of dismantled material with all lifts and up to a lead upto 1000 meter and as per relevant clauses of section-200.				
		<b>Total quantity</b>	210.00	6.00	m	1260.00
5	2.12 vol III	Removal of telephone / Electric poles including excavation and dismantling of foundation concrete and lines under the supervision of concerned department, disposal with all lifts and up to a lead of 1000 meter and stacking the serviceable and unserviceable material separately.				
		<b>Total quantity</b>	33.00	90.00	each	2970.00
6	3.1, Vol III	<b>Excavation</b>				
		Excavation for roadway in soil including loading in truck for carrying of cut earth to embankment site with all lifts and lead upto 1000 metres and as per relevant clauses of section-300				
		For Widening of Carriageway				
		Ch. 0 to 938m, = 938m	4333.56			
		at Junctions	231.00			
		<b>Total quantity</b>	4564.56	98.00	cum	447326.88
7	3.11, Vol III	<b>Earthwork</b>				
		Construction of Embankment/Sub grade/ earth shoulders, as per clause 305 & its sub-clauses, Where required but with approved materials/soil like morrum CBR value not less then 7% i/c all lead & lifts i/c excavation, cost of watering, mpaction and maintenance of surface during construction to ensure shedding & preventing ponding of water (clause 305.3.6) shaping & dressing (clause 305.3.7), finishing etc. complete but excluding scarifying existing granular/bituminous road surface vide clause 305.6.				
		<b>For Widening of Carriageway</b>				
		Ch. 0 to 938m, = 938m	2063.60			

		At Junctions		220.00			
		<b>Total quantity</b>		<b>2283.60</b>	<b>272.00</b>	<b>cum</b>	<b>621139.20</b>
<b>8</b>	<b>4.8(a) I Vol III</b>	<b>Crusher Run Macadam</b>					
		Crusher Run Macadam Base (Providing crushed stone aggregate, depositing on a prepared surface by hauling vehicles, spreading and mixing with a motor grader, watering and compacting with a vibratory roller to clause 410 to form a layer of sub-base/Base)					
		For 53 mm maximum size					
		<b>For Widening of Carriageway</b>					
		Ch. 0 to 938m, = 938m		1238.16			
		<b>At Junctions</b>		<b>132.00</b>			
		<b>Total quantity</b>		<b>1370.16</b>	<b>833.00</b>	<b>cum</b>	<b>1141343.28</b>
<b>9</b>	<b>4.5 Vol III</b>	<b>WMM</b>					
		Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by tipper to site, laying in uniform layers with paver in sub - base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density and as per relevant clauses of section - 400.					
		For Widening of Carriageway					
		Ch. 0 to 938m, = 938m		1031.80			
		at Junctions		110.00			
		<b>Total quantity</b>		<b>1141.80</b>	<b>951.00</b>	<b>cum</b>	<b>1085851.80</b>
<b>10</b>	<b>5.1 Vol III</b>	<b>Primer Coat</b>					
		Providing and applying primer coat with bitumen emulsion on prepared surface of granular Base including clearing of road surface and spraying primer at the rate of 0.75 kg/sqm using mechanical / Manual means and as per relevant clauses of section 502.					
		For Widening of Carriageway					
		Ch. 0 to 938m, = 938m		4127.20			
		At Junction		440.00			
		<b>Total quantity</b>		<b>4567.20</b>	<b>26.00</b>	<b>Sqm</b>	<b>118747.20</b>
<b>11</b>	<b>5.2 (ii) Vol III</b>	<b>Tack Coat</b>					
		Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor on the prepared bituminous / granular surface cleaned with mechanical broom and as per relevant clauses of section 503.					
		@0.25 kg per sqm (normal bituminous surfaces)					
		for bc 50mm		6566.00			
				6566.00	9.00	sqm	59094.00
		@0.30 kg per sqm (dry & hungry bituminous surfaces/granular surfaces treated with primer)					
		on existing road for DBM 100mm		644.00			
		widening part		4127.20			
		At Junction		1800.00			
		<b>Total quantity</b>		<b>6571.20</b>	<b>11.00</b>	<b>sqm</b>	<b>72283.20</b>
	<b>5.1</b>	Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor on the prepared bituminous/granular surface cleaned with mechanical broom and as per relevant clauses of section-503.					
	<b>iv)</b>	@0.35 kg per sqm (Non-bituminous surfaces) cement concrete pavement					
		On OLD CC Road @ 0.35 Kg / sqm					
		on existing cc road for DBM		3108.00			
		<b>Total quantity</b>		<b>3108.00</b>	<b>13.00</b>	<b>sqm</b>	<b>40404.00</b>
<b>12</b>	<b>5.6 (i) Vol III</b>	<b>Dense Bituminous Macadam</b>					



		Providing and laying dense bituminous macadam (in two layers of 50mm thickness each or as per the instruction of engineer in charge) with hot mix plant batch using crushed aggregates of specified grading, premixed with bituminous binder, transporting the hot mix to work site, laying with mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction complete in all respects and as per relevant clauses of section-507. (Only cement will be used as filler) <b>(for Grading II ( 50-75mm thickness )</b>				
		ch. 0 to 938	<b>459.62</b>			
		widening part	<b>288.90</b>			
		<b>At junction</b>				
		ch. 0 to 938	<b>49.00</b>			
		widening part	<b>30.80</b>			
		<b>Total quantity</b>	<b>828.32</b>	<b>7178.00</b>	<b>cum</b>	<b>5945709.67</b>
<b>13</b>	<b>5.8 (iv) Vol III</b>	<b>Bituminous Concrete</b>				
		Providing and laying bituminous concrete with hot mix plant using crushed aggregates of specified grading,premixed with bituminous binder,transporting the hot mix to work site,laying with a mechanical paver finisher to the required grade,level and alignment,rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects and as per relevant clauses of section-509.(Only cement will be used as filler). iv) for Grading II ( 30-45 mm thickness ) with 60/70 bitumen				
		ch. 0 to 938	<b>262.64</b>			
		widening part	<b>165.09</b>			
		At Junction	<b>28.00</b>			
		widening part	<b>17.60</b>			
		<b>Total quantity</b>	<b>473.33</b>	<b>8226.00</b>	<b>cum</b>	<b>3893596.13</b>
<b>14</b>	<b>Volume 3,item no.5.4, page 51</b>	Providing and laying levelling course/profile corrective course with bituminous macadam with hot mix plant using crushed aggregates of grading-1 premixed with bituminous binder @ 3.1%, transported to site, laid over a previously prepared surface with mechanical paver finisher to the required grade, level and alignment and rolled as per clauses 501.6 and 501.7 to achieve the desired compaction complete in all respects and as per relevant clauses of section-500.				
		Taking 20% of the existing road	<b>150.08</b>			
			<b>30.02</b>	<b>5396.00</b>	<b>Cum</b>	<b>161966.34</b>
<b>Total</b>						<b>13787419.47</b>

ESTIMATE OF ELECTRICAL DUCT						
ROAD STRETCH FROM Golbazar to Kotak Bank(161m), Golbazar to ICICI Bank ATM(226m), Golbazar to Dr. Pawan Sthapak(175m), Golbazar to Datt Mandir(88m) & Golbazar to Kachiyana road via National Hospital(288m) TOTAL LENGTH 938 METERS						
S No.	UADD SOR ITEM NO	Descriptions of Item		Rate	Unit	Amount
			Quantity			
1	2.9.1, Vol II	<b>Excavation</b>				
		Excavation work in foundation trenches or drains not exceeding 1.5 m in width or 10 sqm on plan including dressing of sides and ramming of bottoms lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soils as directed, within a lead of 50m.				
		<b>Total quantity</b>	<b>9134.40</b>	<b>202.00</b>	<b>cum</b>	<b>1845148.80</b>
2	2.27.1 Vol II	<b>Filling</b>				
		Supplying and filling in plinth under floors including, watering, ramming consolidating and dressing complete. 2.27.1 Crusher Stone Dust				
		<b>Total quantity</b>	<b>415.20</b>	<b>628.00</b>	<b>cum</b>	<b>260745.60</b>
3	4.1.1 Vol II	<b>Cement Concrete M-15( Duct)</b>				
		Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering All work up to plinth level.				
		<b>M 15 with 20mm maximum size of aggregate.</b>				
		<b>Total quantity</b>	<b>415.20</b>	<b>4154.00</b>	<b>cum</b>	<b>1724740.80</b>
4	5.1.1 Vol II	Providing and laying in position machine batched, machine mixed and machine vibrated design mix cement concrete of specified grade for reinforced cement concrete work including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement. including Admixtures in recommended proportions as per IS 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge. M-25 grade reinforced cement concrete by using 410 kg. of cement per cum of concrete. All work up to floor 2 level.				
		<b>Total quantity</b>	<b>1996.17</b>	<b>5245.00</b>	<b>cum</b>	<b>10469911.65</b>

5	Vol II 5.10	Providing, hoisting and fixing up to floor two level precast reinforced cement concrete work in string courses, bands, copings, bed plates, anchor blocks, plain window sills and the like including the cost of required centering, shuttering, finishing smooth with 6 mm thick cement plaster 1:3 (1 cement : 3 fine sand) on exposed surfaces complete but excluding cost of reinforcement with Cement concrete grade M-20 (Nominal Mix with 20 mm maximum size of stone aggregate)				
		<b>Total quantity</b>	<b>358.62</b>	<b>6524.00</b>	<b>cum</b>	<b>2339653.19</b>
6	5.20.6 Vol II	<b>Reinforcement for Duct</b>				
		Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete.				
	5.20.6	Thermo-Mechanically Treated bars.				
		Taking average weight for estimate ( Payable as actual design & weight calculations) <b>Total quantity</b>	<b>125359.48</b>			
		For Precast Cover	<b>22521.49</b>			
			<b>147880.97</b>	<b>60.00</b>	<b>Kg</b>	<b>8872858.14</b>
7	20.1.1 Vol II	<b>Form work for Duct</b>				
		Centering and shuttering including strutting, propping etc.and removal of form for : 20.1.1 Foundations, footings, bases of columns, etc. For mass concrete.				
		<b>Total quantity</b>	<b>21782.00</b>	<b>138.00</b>	<b>cum</b>	<b>3005916.00</b>
8	6.1 Vol II	Brick work with well burnt chimney bricks in bulls patent trench kiln manufactured by ghol process,crushing strength not less than 40kg /sqcm and water absorption not more than 15% in foundation and plinth.				
		Cement mortar 1:6 (1 cement : 6 coarse sand) <b>Total quantity</b>	<b>13.80</b>	<b>4232.00</b>	<b>cum</b>	<b>58401.60</b>
9	13.2 Vol II	15mm cement plaster on the rough side of single or half brick wall of mix : 1:5 (1 cement: 5 fine sand) <b>Total quantity</b>	<b>69.00</b>	<b>119.00</b>	<b>cum</b>	<b>8211.00</b>
10	2.27.2 Vol II	<b>Sand Filling</b>				
		Supplying and filling in plinth under floors including, watering, ramming consolidating and dressing complete.				
		Local Sand	<b>4650.24</b>	<b>1201.00</b>	<b>cum</b>	<b>5584938.24</b>
<b>TOTAL</b>						<b>34170525.02</b>

**ESTIMATE OF STORM WATER DRAIN**

**ROAD STRETCH FROM Golbazar to Kotak Bank(161m), Golbazar to ICICI Bank ATM(226m), Golbazar to Dr. Pawan Sthapak(175m), Golbazar to Datt Mandir(88m) & Golbazar to Kachiyana road via National Hospital(288m)  
TOTAL LENGTH 938 METERS**

S No.	UADD SOR ITEM NO	Descriptions of Item	Quantity	Rate	Unit	Amount	
1	2.9.1, Vol II	Excavation work in foundation trenches or drains not exceeding 1.5 m in width or 10 sqm on plan including dressing of sides and ramming of bottoms lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soils as directed, within a lead of 50m.					
			2.9.1	Ordinary rock Cum 202.00	1500.80		
				At Junction	160.00		
		<b>Total quantity</b>	<b>1660.80</b>	<b>202.00</b>	<b>cum</b>	<b>335481.60</b>	
2	2.27.1 Vol II	Supplying and filling in plinth under floors including, watering, ramming consolidating and dressing complete. <b>Crusher Stone Dust</b>					
			2.27.1	Crusher Stone Dust	150.08		
				At Junction	16.00		
		<b>Total quantity</b>	<b>166.08</b>	<b>628.00</b>	<b>cum</b>	<b>104298.24</b>	
3	4.1.2 Vol II	<b>Cement Concrete M-20 ( Duct)</b> Providing and laying Plain / Reinforced cement concrete (mixed in concrete mixture) ... RCC Grade <b>M 15 with 20mm maxumum size of aggregate.</b>					
				P.C.C Bed	150.08		
					16.00		
		<b>Total quantity</b>	<b>166.08</b>	<b>4154.00</b>	<b>cum</b>	<b>689896.32</b>	
4	5.1.1 Vol II	Providing and laying in position machine batched, machine mixed and machine vibrated design mix cement concrete of specified grade for reinforced cement concrete work including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement. including Admixtures in recommended proportions as per IS 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge. M-25 grade reinforced cement concrete by using 410 kg. of cement per cum of concrete. All work up to floor 2 level.					
		<b>Total quantity</b>	<b>477.96</b>	<b>5245.00</b>	<b>cum</b>	<b>2506900.20</b>	

5	5.10	Providing, hoisting and fixing up to floor two level precast reinforced cement concrete work in string courses, bands, copings, bed plates, anchor blocks, plain window sills and the like including the cost of required centering, shuttering, finishing smooth with 6 mm thick cement plaster 1:3 (1 cement : 3 fine sand) on exposed surfaces complete but excluding cost of reinforcement with Cement concrete grade M-20 (Nominal Mix with 20 mm maximum size of stone aggregate)				
		<b>Total quantity</b>	<b>190.08</b>	<b>6524.00</b>	<b>cum</b>	<b>1240081.92</b>
6	5.20.6 Vol II	Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete.				
	5.20.6	Thermo-Mechanically Treated bars				
			<b>41952.91</b>	<b>60.00</b>	<b>Kg</b>	<b>2517174.72</b>
7	20.1.1 Vol II	<b>Form work for Duct</b>				
		Centering and shuttering including strutting, propping etc.and removal of form for :				
	20.1.1	Foundations, footings, bases of columns, etc. For mass concrete.				
		<b>Total quantity</b>	<b>5918</b>	<b>138.00</b>	<b>Sqm</b>	<b>816628.80</b>
						<b>8210461.80</b>

**ESTIMATE OF PEDESTRIAN PATH**

**ROAD STRETCH FROM Golbazar to Kotak Bank(161m), Golbazar to ICICI Bank ATM(226m), Golbazar to Dr. Pawan Sthapak(175m), Golbazar to Datt Mandir(88m) & Golbazar to Kachiyana road via National Hospital(288m)  
TOTAL LENGTH 938 METERS**

S No.	UADD SOR ITEM NO	Descriptions of Item	Quantity	Rate	Unit	Amount
<b>1</b>	<b>3.1, Vol III</b>	<b>Excavation</b>				
		Excavation for roadway in soil including loading in truck for carrying of cut earth to embankment site with all lifts and lead upto1000 metres and as per relevant clauses of section-300				
		Total	<b>3114.00</b>	<b>98.00</b>	<b>cum</b>	<b>305172.00</b>
<b>2</b>	<b>3.11, Vol III</b>	<b>Earthwork</b>				
		Construction of Embankment/Sub grade/ earth shoulders, as per clause 305 & its sub-clauses, Where required but with approved materials/soil like morrum CBR value not less then 7% i/c all lead & lifts i/c excavation, cost of watering, mpaction and maintenance of surface during construction to ensure shedding & preventing ponding of water (clause 305.3.6) shaping & dressing (clause 305.3.7), finishing etc. complete but excluding scarifying existing granular/bituminous road surface vide clause 305.6.				
		Total	<b>1688.40</b>	<b>272.00</b>	<b>cum</b>	<b>459244.80</b>
<b>3</b>	<b>4.1.5 Vol II</b>	<b>Cement Concrete M - 10</b>				
		Providing and laying in position cement concrete in foundation Up to plinth level. Cement concrete grade M-10 (Nominal Mix) with 40 mm maximum size of stone aggregate				
		Total	<b>956.70</b>	<b>3528.00</b>	<b>Sqm</b>	<b>3375237.60</b>
<b>4</b>	<b>5.1. Vol II</b>	<b>Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete.</b>				
		Providing and laying in position specified grade of reinforced cement concrete excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level :				
		Cement concrete grade M-20 (Nominal Mix) with 20 mm maximum size of stone aggregate.				
		Total	<b>56.28</b>	<b>4728.00</b>	<b>Sqm</b>	<b>266091.84</b>
<b>5</b>		<b>Thermo-Mechanically Treated bars</b>				
		Total Weight of steel KG-	<b>3092.59</b>	<b>60</b>	<b>Kg</b>	<b>185555.16</b>

<b>6</b>	<b>11.29</b>	<b>Flag Stone</b>				
		40 mm thick rubbed local Flag stone flooring over 20 mm (average) thick base of cement mortar 1:5 (1 cement :5 coarse sand) with joints 3mm thick, side buttered with cement mortar 1:2 (1 cement : 2 stone dust) admixed with pigment to match the shade of stone and pointing with same mortar (minimum size of kota stone 0.25 sqm)				
		<b>Along Road</b>				
	<b>11.30.1</b>	Red sand stone	<b>3000.00</b>	<b>513.00</b>	<b>Sqm</b>	<b>1539000.00</b>
	<b>11.30.2</b>	White sand stone	<b>1690.00</b>	<b>532.00</b>	<b>Sqm</b>	<b>899080.00</b>
		<b>At Junction</b>				
	<b>11.30.1</b>	Red sand stone	<b>500.00</b>	<b>513.00</b>	<b>Sqm</b>	<b>256500.00</b>
	<b>11.30.2</b>	White sand stone	<b>500.00</b>	<b>532.00</b>	<b>Sqm</b>	<b>266000.00</b>
<b>7</b>	<b>11.20 Vol II</b>	Chequerred precast cement concrete tiles 18-20mm thick in footpath & courtyard jointed with neat cement slurry mixed with pigment to match the shade of tiles including rubbing and cleaning etc. complete on 20 mm thick bed of cement mortar 1:4 (1 cement: 4 coarse sand).				
		<b>Along Road</b>				
	11.20.3	<b>Dark shade using ordinary cement.</b>	<b>938.00</b>	<b>616.00</b>	<b>SqM</b>	<b>577808.00</b>
		<b>At junction</b>				
		<b>Dark shade using ordinary cement.</b>	<b>100.00</b>	<b>616.00</b>	<b>SqM</b>	<b>61600.00</b>
<b>8</b>	<b>8.1, Vol III, pg 69</b>	<b>Kerb Stone</b>				
		Construction of cement concrete kerb with top and bottom width 115 and 165 mm respectively, 250 mm high in M 20 grade PCC on M-10 grade foundation 150 mm thick, foundation having 50 mm projection beyond kerb stone, kerb stone laid with kerb laying machine, foundation concrete laid manually, all complete and as per clause 408 of specifications. A Using Concrete Mixer				
		<b>Total Quantity</b>	<b>2146.00</b>	<b>187.00</b>	<b>meter</b>	<b>401302.00</b>
<b>TOTAL</b>						<b>8592591.40</b>

**ESTIMATE OF ROAD MARKING, STREET FURNITURES & PLANTATION**

ROAD STRETCH FROM Golbazar to Kotak Bank(161m), Golbazar to ICICI Bank ATM(226m), Golbazar to Dr. Pawan Sthapak(175m), Golbazar to Datt Mandir(88m) & Golbazar to Kachiyana road via National Hospital(288m)  
TOTAL LENGTH 938 METERS

S No.	UADD SOR ITEM NO	Descriptions of Item		Rate	Unit	Amount
			<b>Quantity</b>			
<b>1</b>	<b>Item 8.10 Vol III</b>	<b>Road Marking</b>				
		<b>Solid Lines in White Colour</b>				
		Road Marking with Hot Applied Thermoplastic Compound with Reflectorising Glass Beads on Bituminous Surface (Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 .The finished surface to be level, uniform and free from streaks and holes and as per relevant clauses of section-800.				
		Solid Lines in White Colour	<b>187.60</b>			
		Brocken Lines in White Colour	<b>93.80</b>			
		Stop Lines in White Colour	<b>37.52</b>			
		Applying Zebra Crossing	<b>400.00</b>			
		<b>Total Quantity</b>	<b>718.92</b>	<b>900.00</b>	<b>Sqm</b>	<b>647028.00</b>
<b>2</b>	<b>Item 8.8 Vol III</b>	<b>Painting lines, dashes, arrows etc</b>				
		Painting lines, dashes, arrows etc on roads in two coats on new work with ready mixed road marking paint conforming to IS:164 on bituminous surface, including cleaning the surface of all dirt, dust and other foreign matter, demarcation at site and traffic control as per relevant clauses of section-800 & I.R.C.-67 including cost of paint etc. complete.	<b>469.00</b>	<b>70.00</b>	<b>Sqm</b>	<b>32830.00</b>
<b>3</b>	<b>Item No 8.3 Vol III</b>	<b>Signages</b>				
		Providing and fixing of retro- reflectorised cautionary, mandatory and inforamatory sign as per IRC :67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminium sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm (height from crown level of the road and bottom of the sign board shall not be less than 1.5 m.) firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing including painting of vertical post as per specification.				
		90 cm equilateral triangle	<b>5.00</b>	<b>3715.00</b>	<b>Nos</b>	<b>18575.00</b>
		80 cm x 60 cm rectangular	<b>10.00</b>	<b>4537.00</b>	<b>Nos</b>	<b>45370.00</b>



4	8.12 Vol III	Road Delineators (Supplying and installation of delineators (road way indicators, hazard markers, object markers), 80-100 cm high above ground level, painted black and white in 15 cm wide stripes, fitted with 80 x 100 mm rectangular or 75mm dia circular reflectorised panels at the top, buried or pressed into the ground and conforming to IRC-79 and the drawings as per relevant clauses of section-800 of specifications.				
			40.00	292.00	each	11680.00
	8.20 Vol III	Road Markers/Road Stud with Lense Reflector (Providing and fixing of road stud 100x 100 mm, dia cast in aluminium, resistant to corrosive effect of salt and grit, fitted with lense reflectors, installed in concrete or asphaltic surface by drilling hole 30 mm upto a depth of 60 mm and bedded in a suitable bituminous grout or epoxy mortar, all as per BS 873 part 4:1973)				
			40.00	292.00	each	11680.00
5	11.1 Vol III	Planting Permanent Hedges including Digging of Trenches (Planting permanent hedges including digging of trenches, 60 cm wide and 45 cm deep, refilling the excavated earth mixed with farmyard manure, supplied at the rate of 4.65 cum per 100 meters and supplying and planting hedge plants at 30 cm apart)	1200.00	230.00	Meter	276000.00
6	11.2 Vol III	Planting of Trees and their Maintenance for one Year (Planting of trees by the road side (Avenue trees) in 0.60 m dia holes, 1 m deep dug in the ground, mixing the soil with decayed farm yard/sludge manure, planting the saplings, backfilling the trench, watering, fixing the tree guard and maintaining the plants for one year)	80.00	488.00	Nos	39040.00
7	23.15 MP PWD SOR	Providing and planting different variety of plants of approved quality and sizes as mentioned including making pits of required size at site, refilled with B.C. Soil mixture manuring and pesticide etc complete (to be paid separately) including watering and 90 days maintenance from the date of final bill as per direction of engineer in charge complete in all respect (B.C Mixture paid separately).				
	23.15.1	Any of one from Plameriya alba, fycus benjameena. Malkikeya champa. Begnonia plumaric pudoca Plants (1.8 mtrs to 2.10 mtrs height.	80.00	645	each	51600.00
	23.15.2	Any of one from Lantana VAR Red, Lantana Blue White, Hemelia Mini. lantana varicated, ticoma Redicens, Spi Oala, Golden Dunanta.(height 0.3 m to 0.45m)	1000.00	33	each	33000.00

8	11.5 vol-3	Tree Guard with MS Angle Iron and Steel Wire (Providing and fixing tree guard 0.60 square meter, 2.00 meter high fabricated with MS angle iron 30 x 30 x 3 mm, MS iron 25 x 3 mm and steel wire 3 mm dia welded and fabricated as per design in two halves bolted together)	80	2179	each	174320.00
		<b>TOTAL</b>				<b>1341123.00</b>

**ROAD STRECH FROM Golbazar Circle(723m), Golbazar to Ranital chowk(195m)  
LENGTH - 918 METERS**

**SUMMARY SHEET**

<b>Sr No.</b>	<b>Item Description</b>	<b>Amount (In Rs.)</b>
<b>1</b>	<b>ROAD</b>	<b>49383448.66</b>
<b>2</b>	<b>UTILITY DUCT</b>	<b>34913409.61</b>
<b>3</b>	<b>STORM WATER DRAIN</b>	<b>8405749.80</b>
<b>4</b>	<b>PEDESTRIAN TRACK</b>	<b>8824705.40</b>
<b>5</b>	<b>SIGNAGES, MARKING, LANDSCAPING</b>	<b>2238328.00</b>
	<b>TOTAL</b>	<b>103765641.47</b>

## ESTIMATE OF ROAD

**ROAD STRECH FROM Golbazar Circle(723m), Golbazar to Ranital chowk(195m) & Ranital to Gulaua chowk(1471m)  
LENGTH - 2389 METERS**

S.No.	UADD SOR ITEM NO	Descriptions of Item	Measuremen Quantity	Rate	Unit	Amount in Rs.
<b>1</b>	<b>2.3, (i)</b>	<b>Dismantling</b>				
		Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts and lead 1000 meter.				
		Cement Concrete Grade M-15 & M-20	<b>101.90</b>	<b>234.00</b>	<b>cum</b>	<b>23844.13</b>
<b>2</b>	<b>2.40</b>	Dismantling of flexible pavements and disposal of dismantled materials up to a lead of 1000 meter, stacking serviceable and unserviceable materials separately and as per relevant clauses of section-200.				
		Bituminous courses taking 10% of total	<b>1239.30</b>			
	<b>a)</b>	Bituminous courses	<b>123.93</b>	<b>358.00</b>	<b>cum</b>	<b>44366.94</b>
<b>3</b>	<b>2.5 vol III</b>	Dismantling of cement concrete pavement i/c breaking to pieces not exceeding 0.02 cum in volume and stock piling at designated locations and disposal of dismantled materials up to a lead upto 1000 meter, stacking serviceable and unserviceable materials separately and as per relevant clauses of section-200.	<b>45.44</b>	<b>716.00</b>	<b>cum</b>	<b>32535.76</b>
<b>4</b>	<b>2.7 vol II</b>	Dismantling kerb stone by manual means and disposal of dismantled material with all lifts and up to a lead upto 1000 meter and as per relevant clauses of section-200.	<b>183.60</b>	<b>6.00</b>	<b>m</b>	<b>1101.60</b>
<b>5</b>	<b>2.12 vol II</b>	Removal of telephone / Electric poles including excavation and dismantling of foundation concrete and lines under the supervision of concerned department, disposal with all lifts and up to a lead of 1000 meter and stacking the serviceable and unserviceable material separately.	<b>60.00</b>	<b>90.00</b>	<b>each</b>	<b>5400.00</b>
<b>6</b>	<b>3.1, Vol III</b>	<b>Excavation</b>				
		Excavation for roadway in soil including loading in truck for carrying of cut earth to embankment site with all lifts and lead upto 1000 metres and as per relevant clauses of section-300				
		For Widening of Carriageway				
		Ch. 0 to 918, = 918m	29688.12			
		At Junction	4851.00			
		Total	<b>34539.12</b>	<b>98.00</b>	<b>cum</b>	<b>3384833.76</b>

<b>7</b>	<b>3.11, Vol III</b>	<b>Earthwork</b>				
		Construction of Embankment/Sub grade/ earth shoulders, as per clause 305 & its sub-clauses, Where required but with approved materials/soil like morrum CBR value not less than 7% i/c all lead & lifts i/c excavation, cost of watering, mpaction and maintenance of surface during construction to ensure shedding & preventing ponding of water (clause 305.3.6) shaping & dressing (clause 305.3.7), finishing etc. complete but excluding scarifying existing granular/bituminous road surface vide clause 305.6.				
		<b>For Widening of Carriageway</b>				
		Ch. 0 to 918, = 918m	14137.20			
		at Junctions	2310.00			
		Total	<b>16447.20</b>	<b>272.00</b>	<b>cum</b>	<b>4473638.40</b>
<b>8</b>	<b>4.8(a) I Vol III</b>	<b>Crusher Run Macadam</b>				
		Crusher Run Macadam Base (Providing crushed stone aggregate, depositing on a prepared surface by hauling vehicles, spreading and mixing with a motor grader, watering and compacting with a vibratory roller to clause 410 to form a layer of sub-base/Base)				
		For 53 mm maximum size				
		<b>For Widening of Carriageway</b>				
		Ch. 0 to 918, = 918m	8482.32			
			1386.00			
		Total	<b>9868.32</b>	<b>833.00</b>	<b>cum</b>	<b>8220310.56</b>
<b>9</b>	<b>4.5 Vol III</b>	<b>WMM</b>				
		Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by tipper to site, laying in uniform layers with paver in sub - base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density and as per relevant clauses of section - 400.				
		For Widening of Carriageway				
		Ch. 0 to 918, = 918m	7068.60			
			1155.00			
		Total quantity	<b>8223.60</b>	<b>951.00</b>	<b>cum</b>	<b>7820643.60</b>
<b>10</b>	<b>5.1 Vol III</b>	<b>Primer Coat</b>				
		Providing and applying primer coat with bitumen emulsion on prepared surface of granular Base including clearing of road surface and spraying primer at the rate of 0.75 kg/sqm using mechanical / Manual means and as per relevant clauses of section 502.				
		For Widening of Carriageway				

		Ch. 0 to 918, = 918m	28274.40			
			4620.00			
		Total quantity	<b>32894.40</b>	<b>26.00</b>	<b>Sqm</b>	<b>855254.40</b>
<b>11</b>	<b>5.2 (i) Vol III</b>	<b>Tack Coat</b>				
		Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor on the prepared bituminous / granular surface cleaned with mechanical broom and as per relevant clauses of section 503.				
		@0.25 kg per sqm (normal bituminous surfaces)				
		for bc 50mm	14137.20			
		At Junctions	4620.00			
			<b>18757.20</b>	<b>9.00</b>	<b>Sqm</b>	<b>168814.80</b>
		@0.30 kg per sqm (dry & hungry bituminous surfaces/granular surfaces treated with primer)				
		On Existing road for DBM 100mm	6868.50			
		For widening of carriageway	8531.40			
		<b>At Junctions</b>				
		On Existing road for DBM 100mm	1425.00			
		For widening of carriageway	1770.00			
		<b>Total quantity</b>	<b>18594.90</b>	<b>11.00</b>	<b>sqm</b>	<b>204543.90</b>
	<b>5.1</b>	Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor on the prepared bituminous/granular surface cleaned with mechanical broom and as per relevant clauses of section-503.				
	<b>iv)</b>	@0.35 kg per sqm (Non-bituminous surfaces) cement concrete pavement				
		<i>On OLD CC Road @ 0.35 Kg / sqm</i>				
		<i>on existing cc road for DBM</i>	<b>1852.50</b>			
		<b>Total quantity</b>	<b>1852.50</b>	<b>13.00</b>	<b>sqm</b>	<b>24082.50</b>
<b>12</b>	<b>5.6 (i) Vol III</b>	<b>Dense Bituminous Macadam</b>				
		Providing and laying dense bituminous macadam with hot mix plant batch using crushed aggregates of specified grading, premixed with bituminous binder, transporting the hot mix to work site, laying with mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction complete in all respects and as per relevant clauses of section-507. (Only cement will be used as filler) (for Grading I ( 80-100mm thickness ) cum 7161.00)				
		On Existing road	872.10			
		widening part	1083.24			
		<b>At Junctions</b>				
		On Existing road	99.75			
		widening part	123.90			
		Total quantity	<b>2178.99</b>	<b>7161.00</b>	<b>cum</b>	<b>15603747.39</b>

<b>13</b>	<b>5.8 (iv) Vol III</b>	<b>Bituminous Concrete</b>				
		Providing and laying bituminous concrete with hot mix plant using crushed aggregates of specified grading,premixed with bituminous binder,transporting the hot mix to work site,laying with a mechanical paver finisher to the required grade,level and alignment,rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects and as per relevant clauses of section-509.(Only cement will be used as filler). iv) for Grading II ( 30-45 mm thickness ) with 60/70 bitumen				
		On Existing road	348.84			
		widening part	433.30			
		<b>At Junctions</b>				
		On Existing road	57.00			
		widening part	70.80			
		Total quantity	<b>909.94</b>	<b>8226.00</b>	<b>cum</b>	<b>7485133.54</b>
<b>14</b>	<b>8.1 (A) Vol III</b>	Construction of cement concrete kerb with top and bottom width 115 and 165 mm respectively, 250 mm high in M 20 grade PCC on M-10 grade foundation 150 mm thick, foundation having 50 mm projection beyond kerb stone, kerb stone laid with kerb laying machine, foundation concrete laid manually, all complete and as per clause 408 of specifications.				
			1836.00			
			<b>1836.00</b>	<b>189.00</b>	<b>meter</b>	<b>347004</b>
<b>15</b>	<b>4.1 vol II</b>	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering All work up to plinth level.				
	<b>4.1.4</b>	Cement concrete grade M-10 (Nominal Mix) with 20 mm maximum size of stone aggregate	64.26			
			<b>64.26</b>	<b>3595.00</b>	<b>Cum</b>	<b>231015</b>
<b>16</b>	<b>2.27 voll</b>	Supplying and filling in plinth under floors including,watering, ramming consolidating and dressing complete.				
	<b>2.27.1</b>	Crusher Stone Dust	128.52			
			<b>128.52</b>	<b>628.00</b>	<b>Cum</b>	<b>80711</b>

	<b>5.40</b>	Providing and laying levelling course/profile corrective course with bituminous macadam with hot mix plant using crushed aggregates of grading-1 premixed with bituminous binder @ 3.1%, transported to site, laid over a previously prepared surface with mechanical paver finisher to the required grade, level and alignment and rolled as per clauses 501.6 and 501.7 to achieve the desired compaction complete in all respects and as per relevant clauses of section-500				
		Taking 10% of the existing road	<b>348.84</b>			
			<b>69.77</b>	<b>5396.00</b>	<b>Cum</b>	<b>376468</b>
<b>Total</b>						<b>49383448.66</b>



ESTIMATE OF UTILITY DUCT						
ROAD STRECH FROM Golbazar Circle(723m), Golbazar to Ranital chowk(195m) & Ranital to Gulaua chowk(1471m) LENGTH - 2389 METERS						
S No.	UADD SOR ITEM NO	Descriptions of Item		Rate	Unit	Amount
			Quantity			
1	2.9.1, Vol II	<b>Excavation</b>				
		Excavation work in foundation trenches or drains not exceeding 1.5 m in width or 10 sqm on plan including dressing of sides and ramming of bottoms lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soils as directed, within a lead of 50m.				
		Ordinary rock				
		<b>Total quantity</b>	<b>9398.40</b>	<b>202.00</b>	<b>cum</b>	<b>1898476.80</b>
2	2.27.1 Vol II	<b>Filling</b>				
		Supplying and filling in plinth under floors including, watering, ramming consolidating and dressing complete. 2.27.1 Crusher Stone Dust				
		<b>Total quantity</b>	<b>427.20</b>	<b>628.00</b>	<b>cum</b>	<b>268281.60</b>
3	4.1.1 Vol II	<b>Cement Concrete M-15( Duct)</b>				
		Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering All work up to plinth level.				
		<b>M 15 with 20mm maxumum size of aggregate.</b>				
		<b>Total quantity</b>	<b>427.20</b>	<b>4154.00</b>	<b>cum</b>	<b>1774588.80</b>
4	5.1.1 Vol II	Providing and laying in position machine batched, machine mixed and machine vibrated design mix cement concrete of specified grade for reinforced cement concrete work including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement. including Admixtures in recommended proportions as per IS 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge. M-25 grade reinforced cement concrete by using 410 kg. of cement per cum of concrete. All work up to floor 2 level.				
		<b>Total quantity</b>	<b>2033.37</b>	<b>5245.00</b>	<b>cum</b>	<b>10665025.65</b>

5	Vol II 5.10	Providing, hoisting and fixing up to floor two level precast reinforced cement concrete work in string courses, bands, copings, bed plates, anchor blocks, plain window sills and the like including the cost of required centering, shuttering, finishing smooth with 6 mm thick cement plaster 1:3 (1 cement : 3 fine sand) on exposed surfaces complete but excluding cost of reinforcement with Cement concrete grade M-20 (Nominal Mix with 20 mm maximum size of stone aggregate)				
		<b>Total quantity</b>	<b>367.41</b>	<b>6524.00</b>	<b>cum</b>	<b>2396982.84</b>
6	5.20.6 Vol II	<b>Reinforcement for Duct</b>				
		Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete.				
	5.20.6	Thermo-Mechanically Treated bars.				
		Taking average weight for estimate ( Payable as actual design & weight calculations) <b>Total quantity</b>	<b>127695.64</b>			
		For Precast Cover	<b>23073.35</b>			
			<b>150768.98</b>	<b>60.00</b>	<b>Kg</b>	<b>9046139.04</b>
7	20.1.1 Vol II	<b>Form work for Duct</b>				
		Centering and shuttering including strutting, propping etc.and removal of form for : 20.1.1 Foundations, footings, bases of columns, etc. For mass concrete.				
		<b>Total quantity</b>	<b>23382.00</b>	<b>138.00</b>	<b>cum</b>	<b>3226716.00</b>
8	6.1 Vol II	Brick work with well burnt chimney bricks in bulls patent trench kiln manufactured by ghol process,crushing strength not less than 40kg /sqcm and water absorption not more than 15% in foundation and plinth.				
		Cement mortar 1:6 (1 cement : 6 coarse sand) <b>Total quantity</b>	<b>33.12</b>	<b>4232.00</b>	<b>cum</b>	<b>140163.84</b>
9	13.2 Vol II	15mm cement plaster on the rough side of single or half brick wall of mix : 1:5 (1 cement: 5 fine sand) <b>Total quantity</b>	<b>165.60</b>	<b>119.00</b>	<b>cum</b>	<b>19706.40</b>
10	2.27.2 Vol II	<b>Sand Filling</b>				
		Supplying and filling in plinth under floors including, watering, ramming consolidating and dressing complete.				
		Local Sand	<b>4560.64</b>	<b>1201.00</b>	<b>cum</b>	<b>5477328.64</b>
<b>TOTAL</b>						<b>34913409.61</b>

**ESTIMATE OF STORM WATER DRAIN**

**ROAD STRECH FROM Golbazar Circle(723m), Golbazar to Ranital chowk(195m) & Ranital to Gulaua chowk(1471m)  
LENGTH - 2389 METERS**

S No.	UADD SOR ITEM NO	Descriptions of Item	Quantity	Rate	Unit	Amount
1	2.9.1, Vol II	Excavation work in foundation trenches or drains not exceeding 1.5 m in width or 10 sqm on plan including dressing of sides and ramming of bottoms lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soils as directed, within a lead of 50m.				
		<b>Total quantity</b>	<b>1708.80</b>	<b>202.00</b>	<b>cum</b>	<b>345177.60</b>
2	2.27.1 Vol II	Supplying and filling in plinth under floors including, watering, ramming consolidating and dressing complete. <b>Crusher Stone Dust</b>				
		<b>Total quantity</b>	<b>170.88</b>	<b>628.00</b>	<b>cum</b>	<b>107312.64</b>
3	4.1.2 Vol II	<b>Cement Concrete M-20 ( Duct)</b>				
		Providing and laying Plain / Reinorced cement concrete (mixed in concrete mixture) ... RCC Grade				
		<b>M 15 with 20mm maxumum size of aggregate.</b>				
		<b>Total quantity</b>	<b>170.88</b>	<b>4154.00</b>	<b>cum</b>	<b>709835.52</b>
4	5.1.1 Vol II	Providing and laying in position machine batched, machine mixed and machine vibrated design mix cement concrete of specified grade for reinforced cement concrete work including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement. including Admixtures in recommended proportions as per IS 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge. M-25 grade reinforced cement concrete by using 410 kg. of cement per cum of concrete. All work up to floor 2 level.				
		<b>Total quantity</b>	<b>511.56</b>	<b>5245.00</b>	<b>cum</b>	<b>2683132.20</b>
5	5.10	Providing, hoisting and fixing up to floor two level precast reinforced cement concrete work in string courses, bands, copings, bed plates, anchor blocks, plain window sills and the like including the cost of required centering, shuttering, finishing smooth with 6 mm thick cement plaster 1:3 (1 cement : 3 fine sand) on exposed surfaces complete but excluding cost of reinforcement with Cement concrete grade M-20 (Nominal Mix with 20 mm maximum size of stone aggregate)				
		<b>Total quantity</b>	<b>170.88</b>	<b>6524.00</b>	<b>cum</b>	<b>1114821.12</b>

6	5.20.6 Vol II	Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete.				
	5.20.6	Thermo-Mechanically Treated bars				
			42857.23	60.00	Kg	2571433.92
7	20.1.1 Vol II	<b>Form work for Duct</b>				
		Centering and shuttering including strutting, propping etc.and removal of form for :				
	20.1.1	Foundations, footings, bases of columns, etc. For mass concrete.				
		<b>Along Road</b>				
		<b>Total quantity</b>	<b>6334</b>	<b>138.00</b>	<b>Sqm</b>	<b>874036.80</b>
						<b>8405749.80</b>

ESTIMATE OF PEDESTRIAN PATH						
ROAD STRECH FROM Golbazar Circle(723m), Golbazar to Ranital chowk(195m) & Ranital to Gulaua chowk(1471m) LENGTH - 2389 METERS						
S No.	UADD SOR ITEM NO	Descriptions of Item	Quantity	Rate	Unit	Amount
<b>1</b>	<b>3.1, Vol III</b>	<b>Excavation</b>				
		Excavation for roadway in soil including loading in truck for carrying of cut earth to embankment site with all lifts and lead upto1000 metres and as per relevant clauses of section-300				
		Total	<b>3204.00</b>	<b>98.00</b>	<b>cum</b>	<b>313992.00</b>
<b>2</b>	<b>3.11, Vol III</b>	<b>Earthwork</b>				
		Construction of Embankment/Sub grade/ earth shoulders, as per clause 305 & its sub-clauses, Where required but with approved materials/soil like morrum CBR value not less then 7% i/c all lead & lifts i/c excavation, cost of watering, mpaction and maintenance of surface during construction to ensure shedding & preventing ponding of water (clause 305.3.6) shaping & dressing (clause 305.3.7), finishing etc. complete but excluding scarifying existing granular/bituminous road surface vide clause 305.6.				
		Total	<b>1652.40</b>	<b>272.00</b>	<b>cum</b>	<b>449452.80</b>
<b>3</b>	<b>4.1.5 Vol II</b>	<b>Cement Concrete M - 10</b>				
		Providing and laying in position cement concrete in foundation Up to plinth level. Cement concrete grade M-10 (Nominal Mix) with 40 mm maximum size of stone aggregate				
		Total	<b>961.20</b>	<b>3528.00</b>	<b>Sqm</b>	<b>3391113.60</b>
<b>4</b>	<b>5.1. Vol II</b>	<b>Providing and laying in position specified grade of reinforced cement concrete excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level :</b>				
		Cement concrete grade M-20 (Nominal Mix) with 20 mm maximum size of stone aggregate.				
		Total	<b>55.08</b>	<b>4728.00</b>	<b>Sqm</b>	<b>260418.24</b>
<b>5</b>		<b>Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete.</b>				
		Thermo-Mechanically Treated bars				
		Total Weight of steel KG-	<b>3026.65</b>	<b>60</b>	<b>Kg</b>	<b>181598.76</b>

6	11.29	<b>Flag Stone</b>				
		40 mm thick rubbed local Flag stone flooring over 20 mm (average) thick base of cement mortar 1:5 (1 cement :5 coarse sand) with joints 3mm thick, side buttered with cement mortar 1:2 (1 cement : 2 stone dust) admixed with pigment to match the shade of stone and pointing with same mortar (minimum size of kota stone 0.25 sqm)				
		<b>Along Road</b>				
	11.30.1	Red sand stone	2590.00	513.00	Sqm	1328670.00
	11.30.2	White sand stone	2000.00	532.00	Sqm	1064000.00
		<b>At Junction</b>				
	11.30.1	Red sand stone	750.00	513.00	Sqm	384750.00
	11.30.2	White sand stone	750.00	532.00	Sqm	399000.00
7	11.20 Vol II	Chequerred precast cement concrete tiles 18-20mm thick in footpath & courtyard jointed with neat cement slurry mixed with pigment to match the shade of tiles including rubbing and cleaning etc. complete on 20 mm thick bed of cement mortar 1:4 (1 cement: 4 coarse sand).				
		<b>Along Road</b>				
	11.20.3	<b>Dark shade using ordinary cement.</b>	918.00	616.00	SqM	565488.00
		<b>At junction</b>				
		<b>Dark shade using ordinary cement.</b>	150.00	616.00	SqM	92400.00
8	8.1, Vol III, pg 69	<b>Kerb Stone</b>				
		Construction of cement concrete kerb with top and bottom width 115 and 165 mm respectively, 250 mm high in M 20 grade PCC on M-10 grade foundation 150 mm thick, foundation having 50 mm projection beyond kerb stone, kerb stone laid with kerb laying machine, foundation concrete laid manually, all complete and as per clause 408 of specifications. A Using Concrete Mixer				
		<b>Total Quantity</b>	2106.00	187.00	meter	393822.00
<b>TOTAL</b>						<b>8824705.40</b>

## ESTIMATE OF ROAD MARKING, STREET FURNITURES & PLANTATION

**ROAD STRETCH FROM Golbazar to Kotak Bank(161m), Golbazar to ICICI Bank ATM(226m), Golbazar to Dr. Pawan**

S No.	UADD SOR ITEM NO	Descriptions of Item		Rate	Unit	Amount
			<b>Quantity</b>			
<b>1</b>	<b>Item 8.10 Vol III</b>	<b>Road Marking</b>				
		<b>Solid Lines in White Colour</b>				
		Road Marking with Hot Applied Thermoplastic Compound with Reflectorising Glass Beads on Bituminous Surface (Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 .The finished surface to be level, uniform and free from streaks and holes and as per relevant clauses of section-800.				
		Solid Lines in White Colour	<b>183.60</b>			
		Brocken Lines in White Colour	<b>91.80</b>			
		Stop Lines in White Colour	<b>36.72</b>			
		Applying Zebra Crossing	<b>400.00</b>			
		<b>Total Quantity</b>	<b>712.12</b>	<b>900.00</b>	<b>Sqm</b>	<b>640908.00</b>
<b>2</b>	<b>Item 8.8 Vol III</b>	<b>Painting lines, dashes, arrows etc</b>				
		Painting lines, dashes, arrows etc on roads in two coats on new work with ready mixed road marking paint conforming to IS:164 on bituminous surface, including cleaning the surface of all dirt, dust and other foreign matter, demarcation at site and traffic control as per relevant clauses of section-800 & I.R.C.-67 including cost of paint etc. complete.	<b>1101.60</b>	<b>70.00</b>	<b>Sqm</b>	<b>77112.00</b>
<b>3</b>	<b>Item No 8.3 Vol III</b>	<b>Signages</b>				
		Providing and fixing of retro- reflectorised cautionary, mandatory and informatory sign as per IRC :67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminium sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm (height from crown level of the road and bottom of the sign board shall not be less than 1.5 m.) firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing including painting of vertical post as per specification.				
		90 cm equilateral triangle	<b>12.00</b>	<b>3715.00</b>	<b>Nos</b>	<b>44580.00</b>
		80 cm x 60 cm rectangular	<b>24.00</b>	<b>4537.00</b>	<b>Nos</b>	<b>108888.00</b>

4	8.12 Vol III	Road Delineators (Supplying and installation of delineators (road way indicators, hazard markers, object markers), 80-100 cm high above ground level, painted black and white in 15 cm wide stripes, fitted with 80 x 100 mm rectangular or 75mm dia circular reflectorised panels at the top, buried or pressed into the ground and conforming to IRC-79 and the drawings as per relevant clauses of section-800 of specifications.				
			90.00	292.00	each	26280.00
	8.20 Vol III	Road Markers/Road Stud with Lense Reflector (Providing and fixing of road stud 100x 100 mm, dia cast in aluminium, resistant to corrosive effect of salt and grit, fitted with lense reflectors, installed in concrete or asphaltic surface by drilling hole 30 mm upto a depth of 60 mm and bedded in a suitable bituminous grout or epoxy mortar, all as per BS 873 part 4:1973)				
			90.00	292.00	each	26280.00
5	11.1 Vol III	Planting Permanent Hedges including Digging of Trenches (Planting permanent hedges including digging of trenches, 60 cm wide and 45 cm deep, refilling the excavated earth mixed with farmyard manure, supplied at the rate of 4.65 cum per 100 meters and supplying and planting hedge plants at 30 cm apart)	2000.00	230.00	Meter	460000.00
6	11.2 Vol III	Planting of Trees and their Maintenance for one Year (Planting of trees by the road side (Avenue trees) in 0.60 m dia holes, 1 m deep dug in the ground, mixing the soil with decayed farm yard/sludge manure, planting the saplings, backfilling the trench, watering, fixing the tree guard and maintaining the plants for one year)	240.00	488.00	Nos	117120.00
7	23.15 MP PWD SOR	Providing and planting different variety of plants of approved quality and sizes as mentioned including making pits of required size at site, refilled with B.C. Soil mixture manuring and pesticide etc complete (to be paid separately) including watering and 90 days maintenance from the date of final bill as per direction of engineer in charge complete in all respect (B.C Mixture paid separately).				
	23.15.1	Any of one from Plameriya alba, fycus benjameena. Malkikeya champa. Begnonia plumaric pudoca Plants (1.8 mtrs to 2.10 mtrs height.	240.00	645	each	154800.00
	23.15.2	Any of one from Lantana VAR Red, Lantana Blue White, Hemelia Mini. lantana varicated, ticoma Redicens, Spi Oala, Golden Dunanta.(height 0.3 m to 0.45m)	1800.00	33	each	59400.00



8	11.5 vol-3	Tree Guard with MS Angle Iron and Steel Wire (Providing and fixing tree guard 0.60 square meter, 2.00 meter high fabricated with MS angle iron 30 x 30 x 3 mm, MS iron 25 x 3 mm and steel wire 3 mm dia welded and fabricated as per design in two halves bolted together)	240	2179	each	522960.00
		<b>TOTAL</b>				<b>2238328.00</b>

<b>ABSTRACT ELECTRICAL</b>		
<b>S.No</b>	<b>Description</b>	<b>Cost</b>
<b>1</b>	<b>Under Ground Electrification Work at Smart Road Phase 2</b>	<b>108484103.00</b>
<b>2</b>	<b>SITC of Side Lighting work at Smart Road Phase - 2</b>	<b>17805735.00</b>
<b>TOTAL</b>		<b>126289838.00</b>

## Estimate of Under Ground Electrification Work at Smart Road Phase 2

S.No.	Description of Items	Unit	Rate	Qty	Amount
1	Supply, Installation, Testing and Commissioning of 3C x 300 Sq. mm. Al. conductor, armoured, XLPE insulated, PVC sheathed, 11KV cable in ready made underground trench / duct / pipe etc and refilling of trench with river sand as per site requirement. The cable should conform to IS: 7098 Part-2, 2011 with up to date amendment. The item includes providing of necessary clamps and hardware for cable laying.	Meter	1550.00	8050	12477500.00
2	Supply, installation, testing and commissioning of indoor termination of 11KV cable with heat shrinkable termination kit complete with lugs and other accessories for 3Cx 300 Al conductor armoured, XLPE insulated cable.	Each	9000.00	110	990000.00
3	Supply, installation, testing and commissioning of outdoor termination of 11KV cable with heat shrinkable termination kit complete with lugs and other accessories for 3Cx 300 Al conductor armoured, XLPE insulated cable	Each	8000.00	55	440000.00
4	Supply, installation, testing and commissioning of straight through joint of 11KV cable with heat shrinkable straight through termination kit complete with lugs and other accessories for 3Cx 300 Al conductor armoured, XLPE insulated cable.	Each	11000.00	28	308000.00
5	Supply, Installation, Testing and Commissioning of Al. conductor, armoured, XLPE insulated, PVC sheathed, 1.1KV cable in ready made underground trench / duct / pipe etc and refilling of trench with river sand as per site requirement. The cable should conform to IS: 7098 Part-2, 2011 with up to date amendment. The item includes providing of necessary clamps and hardware for cable laying. The cable size is as mentioned below:				
a	3.5Cx300 Sq.mm cable	Meter	1200.00	4620	5544000.00
b	3.5Cx150 Sq.mm cable	Meter	590.00	3080	1817200.00
c	3.5Cx 35 Sq.mm cable	Meter	210.00	4950	1039500.00
d	4 Cx 25 Sq.mm cable	Meter	180.00	9900	1782000.00
e	4 Cx 16 Sq.mm cable	Meter	135.00	9000	1215000.00
f	4 Cx 10 Sq.mm cable	Meter	113.00	9500	1073500.00
g	4 Cx 6 Sq.mm cable	Meter	96.00	9500	912000.00
h	2 Cx 6 Sq.mm cable	Meter	64.00	8000	512000.00
i	2 Cx 4 Sq.mm cable	Meter	52.00	8500	442000.00
6	Supply, Installation, Testing and Commissioning of termination of Al. conductor, armoured, XLPE insulated, PVC sheathed, 1.1KV cable with double compression chrome plated brass cable gland and heavy duty tubular lugs of following size:				
a	3.5Cx300 Sq.mm cable	Each	2500.00	180	450000.00
b	3.5Cx150 Sq.mm cable	Each	1200.00	125	150000.00
c	3.5Cx 35 Sq.mm cable	Each	400.00	550	220000.00
d	4 Cx 25 Sq.mm cable	Each	260.00	580	150800.00
e	4 Cx 16 Sq.mm cable	Each	210.00	750	157500.00
f	4 Cx 10 Sq.mm cable	Each	150.00	750	112500.00
g	4 Cx 6 Sq.mm cable	Each	125.00	750	93750.00
h	2 Cx 6 Sq.mm cable	Each	85.00	500	42500.00

i	2 Cx 4 Sq.mm cable	Each	60.00	450	27000.00
7	Supplying and erecting earth pit of minimum bore dia 150 mm size, approved make safe earthing electrode consisting pipe in pipe technology as per IS 3043-1987 made of corrosion free GI pipes having outer pipe dia of 50 mm having 80-200 micron galvanising, inner pipe dia of 25 mm having 20-250 micron galvanising, connection terminal dia of 12 mm with content OHMIC value surrounded by highly conductive compound with high charge dissipation suitable for effective and maintenance free earthing.				
I	with 2 mtr. Pipe in normal soil with 25 kg (one bag) back filling compound	Each	8000.00	110	880000.00
II	with 2 mtr. Pipe of 80 mm outer dia, 40 mm inner dia and 14 mm terminal dia, in soft rock/marshy soil with 25 kg (one bag) back filling compound	Each	9500.00	110	1045000.00
8	Supplying and laying 50mm X 6mm G.I. strip at 0.5 metre below ground level / surface as strip earth electrode including jointing etc. as required.	Meter	165.00	1100	181500.00
9	Providing and fixing 6 SWG (5.6mm) G.I. wire on surface or in recessed/concealed for loop earthing as required.	Meter	17.00	1200	20400.00
10	Supply, installation, testing and commissioning of feeder pillar panels suitable for AC 440 V , 50 HZ supply, fabricated with 14 gauge galvanised steel sheet duly pre-treated and pure polyester thick powder coated 80 micron thickness using Siemens grey colour shade no. RAL-7032 / any other colour if required by client. The feeder pillar shall be double door in cubical formation, compartmentalized in form with front open able doors. The door shall be provided with concealed hinges and with brazing wherever required to avoid deformation and shall be earthed. All the door shall have heavy duty door locks, and shall be sealed with neoprene gaskets. The feeder pillar shall be IP 55, outdoor type weather , dust and vermin proof having canopy type tapered roof self-standing type as per approved GA diagram. Panels shall have lifting hooks and base channel of size 50 x 40 x 6 mm				
	The feeder pillar shall be complete with bus bars, wiring, cabling of proper ratings (not less than 1.5 times the rating of respective switchgears, control gear etc.) for inter connection between switch gear, control gear, metering , safety relays, indicators etc. as per the approved single line diagram. The feeder pillar shall have proper arrangement for termination of all incoming and out goings cables. All the bus bars shall be supported on epoxy supports and shall be insulated with colour coded heat shrinkable sleeves. Feeder pillar shall be as per the space available at site. It shall have earthing bolts at both sides inter connected with 50x5 mm Al earthing bus along the width of feeder pillar. Note:-The GA drawing for panel should be approved by consultant / engineer in charge before fabrication. The feeder pillar shall have space and proper arrangements for installation of incoming and outgoing MCCBs with R,Y,B LED type indicating lamps.				

	HRC fuse bases, MCBs etc. complete with interconnection provisions with providing wiring and bus bars with required hardware, sleeves, ferrules, supporters, locks etc. Panel shall have proper space and arrangements for termination of incomer loop in loop out cables, outgoing service cables, with proper offsets in bus bars for cable terminations. Feeder Pillar shall be comprising of following items:				
I	<b>TYPE-A</b>	Each	95000.00	54	5130000.00
	Rating of incomer MCCB TPN 250 A, 35KA (Adjustable thermal O/L with Ics = 100% Icu).				
	Outgoing Bakelite fuse base and holder type HRC fuses, 80KA, of 40A rating.....54 nos. ( 18 sets of 3nos each)				
	The feeder pillar should have anti-theft tamper proof feature to automatically send SMS alert if door opening is attempted by unauthorised person.				
II	<b>TYPE-B</b>	Each	70000.00	36	2520000.00
	Rating of incomer MCCB TPN 125 A, 35KA (Adjustable thermal O/L with Ics = 100% Icu)				
	Outgoing Bakelite fuse base and holder type HRC fuses, 80KA, of 40A rating.....27 nos. ( 9 sets of 3nos each)				
	The feeder pillar should have anti-theft tamper proof feature to automatically send SMS alert if door opening is attempted by unauthorised person				
11	Construction of foundation etc with M20 grade RCC complete with centering, shuttering and reinforcement as per design	Cu. Meter	6800.00	350	2380000.00
12	Supply and installation of MS Hot dip galvanised 14 SWG thick perforated cable trays complete with jointing accessories and hardware in underground cable tranches of following sizes:				
I	width 600 mm x height 100 mm	Meter	750.00	800	600000.00
II	width 450 mm x height 100 mm	Meter	600.00	700	420000.00
III	width 300 mm x height 75 mm	Meter	500.00	800	400000.00
13	Providing, laying and jointing non pressure (NP2) RCC socket and spigot pipes with rubber gasket jointing including testing of joints.				
I	300 mm dia	Meter	598.00	500	299000.00
II	225 mm dia	Meter	390.00	250	97500.00
III	150 mm dia	Meter	339.00	200	67800.00
14	Supplying and installing double wall corrugated pipes (DWC) of HDPE (IS 14930 Part-II marked) for cable laid underground with necessary connecting sockets / couplings, tees below road / ground surface, including excavation, back filling with excavated material with ramming and making the surface good				
I	50 mm outside dia	Meter	207.00	9200	1904400.00
II	63 mm outside dia	Meter	210.00	2700	567000.00
III	110 mm outside dia	Meter	309.00	4200	1297800.00
15	Supply of support for overhead line RS joist / H-beam of I.S. standard including welding, drilling of required hole etc. complete as required.				
	H-Beam 152x152mm , Std weight 37.1 kg per meter	Meter	1977.00	650	1285050.00
16	Erection of steel tubular or steel rail pole or H-Beam of length exceeding 10 meters but not exceeding 13 meters in cement concrete 1:3:6 (1 cement :3 coarse sand: 6 graded stone aggregate 40mm nominal size) foundation , base padding & muffing including excavation and refilling etc. as required.(4.55 bags of cement/cmt.)	Each	2563.00	52	133276.00
17	Supplying and erection of 11kV pin insulator complete with large steel head G.I. pin, nut, washer etc. as required.	Set	375.00	80	30000.00

18	Supplying and erection of 11kV disc insulator for 11kV overhead lines with galvanised insulator fittings, ball and socket type, and complete with galvanised strain clamp, bolts, nuts washer etc. as required.	Set	1089.00	80	87120.00
19	Painting of Pole Bracket cable Protecting Pipe and its clamps in two coatings of All enamel based Primer as directed by Engineer-Charge.				
	Primer Cost over new Steel and other metallic surface with red oxide/zinc chromide paint complete with supply of material labour etc. Including preparation of Surface.	Sqm	21.00	200	4200.00
20	Primer cost with aluminium paint, brushing complete with material and labour including preparation of surface.	Sqm	28.00	200	5600.00
21	Supplying installing and testing of AB isolating switch assembly set gang operated suitable for 11/0.4 KV, DP structure with brass part contacts, operating rod with required GI pipe, handle locking arrangement on On-Off position conforming to IS complete with required material and installing on existing structure to complete the job as required as per specification.				
a	11 kV	Set	7099.00	10	70990.00
22	Supplying and erection of three piece nonlinear resistor type lighting arrester suitable for 3 wire, 11kV overhead lines with rated voltage of 9kV (rms) with a nominal discharge current rating of 5 KA and complete with galvanised clamping arrangement, G.I. bolts, nuts, washer etc. as required.	Set	4284.00	25	107100.00
23	Supplying and drawing All Aluminium Alloy conductor (AAAC) of approved make confirming to IS 398-1979 Pt. IV, including binding at existing insulator, jointing, jumpering, tearing off, connecting etc. as required including clearing of obstacles (if any)				
a	0.075 sq.inch / 48 sq.mm Alloy Aluminium Conductor	KM	59138.00	0.5	29569.00
24	Supplying and erection of stay set complete (Galvanized) with 19mm.dia 1.8 meter long stay rod, anchor plate of size 300mm x 300 mm x 6.4mm thimble stay clamps, bow tightener, 7/3.15 dia G.I. stay wire and strain insulator etc. in cement concrete 1:3:6 (1 Cement : 3 Coarse and : 6 graded stone aggregate 40mm nominal size) foundation including excavation and refilling etc. as required.	Each	2634.00	42	110628.00
25	Supplying of angle/channel flat iron fitting for overhead lines such as cross arms, clamps, brackets, welding and other necessary materials as per specifications.	KG	54.00	2500	135000.00
27	Dismantling of existing HT/ LT overhead power system lines complete with all associated items like poles, conductors, insulators, overhead cables, wires, stay, studs, MS structure, transformers, AB sw, DO fuse, LA, LT box, street lights, switching box etc and depositing the same in MPPKVCL / IMC stores	KM	250000.00	4.0	1000000.00
28	Supply and installation of approved type precast RCC cable cover class HV / LV of size 300x180x40 mm	Each	31.00	1000	31000.00
29	Supply, installation, testing and commissioning of SF6 insulated 11KV T type Ring Main Unit having Three nos. load break isolators with Earth switch suitable for termination of 11KV cable on each isolator.	Each	300000.00	3	900000.00

30	Supply, installation, testing and commissioning of SF6 insulated 11KV T type Ring Main Unit having one no vacuum circuit breaker 630 amp rating and Three nos. load break isolators with Earth switch suitable for termination of 11KV cable on each isolator.	Each	498000.00	10	4980000.00
31	Supply, installation, testing and commissioning of SF6 insulated 11KV T type Ring Main Unit having Two nos. vacuum circuit breaker 630 amp rating and Two nos. load break isolators with Earth switch suitable for termination of 11KV cable on each isolator.	Each	619000.00	3	1857000.00
32	MS fabrication work complete with primer and two coats of final paint in MS sheet, angle, channel, strip inclusive of supply of all material, hardware and installation at site.	KG	65.00	2050	133250.00
33	Soil excavation for laying of HT/LT cable at the depth of 0.9 to 1.2 mtrs and refilling the same after cable laying.	Meter	100.00	4400	440000.00
34	Supply & Fixing of 11KV Danger Plates as per Specification of Discom on the exiting Poles in all respect as per discom specification.	Each	41.00	120	4920.00
35	Yad fencing (5X5 Meter) with chain link mesh conform ISI 2721/1989 size (75X75)mm & 8mm gauge of chain link wire with 4mm thick GI wire on top & bottom of mash, on main bracket of Angel (65X65X5)mm & Bracing with angel (50X50X6)mm of 2.5 Meter long 3 Meter with bracket gate & murrom gravel filling all on A class civil work construction with accessories, hardwares etc. required for completeness, as per attached Specification drawing JSCL Standards and direction of DISCOM.	Rmt	2600.00	800	2080000.00
36	Horizontal Drilling : Horizontal directional drilling along roads for laying XLPE HT/LT UG Cable for Communication Cable along with Suitable HDPE Duct at various locations as pointed out by departmental officers, includes survey of site information collection regarding underground utilities, sensing of utilities by sensing equipment, pit making, pilot drilling, pre reaming pulling HDPE duct of suitable size in single roll, pulling HT/LT UG Cable though installed HDPE duct, providing barricades and necessary signal lights, closing of pits with excavated earth including cost of HDPE pipe, consolidating pit are, including road restoration/Supervision departments, cost of all materials, labour, conveyance, hire charges etc. complete preparation of pit by excavated soil/ hard mourm & refilling compacting surface as it is position/horizontal drilling across road for cable laying propose with disturbing present installation as per instruction, guide line detail technical specifications as per direction of engineer in charge	Rmt	2000.00	500	1000000.00
37	Supply, Installation, Testing and Commissioning 11kV, 630KVA, Outdoor Package / compact Sub-Station (in compliance IEC 62271-202) shall be consisting of following	Each	3086150.00	15	46292250.00
A	<b>HT SWITCHGEAR</b>				
	11kV 630Amps 21KA/3 sec. Non-Extensible Ring Main Unit Compact switchgear with Copper busbar (Type CCV) consisting of Two Nos. Fixed Motorized Load Break switches and One No. Fixed Motorized Vacuum Circuit Breaker in robotically welded having IP67 in SF6 encapsulated stainless steel enclosure of thickness 2.5mm . with series trip, self powered microprocessor based numerical over current and earth fault relay protection.	1 No.			

	Relay shall be of Ashida make of Model No: ADR241S	1 No.			
	Protection CT shall be 40/1A 2.5VA 5P10.	3 Nos.			
	Fault Passage Indicator for LBS with Short Circuit and Earth Fault Indication	2 No.			
	Manometer and signal (1NO) from pressure indicator	1 No.			
	Voltage Presence Indicator (L1, L2, L3) for each Module	3 Nos.			
	Operating Handle	1 No.			
	24V DC battery & Charger 12Ah Capacity	1 No.			
	FRTU for SCADA ( Make: Chemtrol/ABB )				
	Digital Inputs 32 Nos. , DI card 16 Channels- 2 Nos.	1 Set			
	Digital Outputs 13 Nos. , DO card 8 Channels- 2 Nos.	1 Set			
	Datapoints - 15 Nos. approx.	1 Set			
	Modem	1 No.			
	Pls refer the attached BOM of FRTU	1 No.			
	Space Heater in HT compartment	<b>1 No.</b>			
<b>B</b>	<b>TRANSFORMER</b>				
	630 KVA 11KV/433V DYn11 dry type transformer with off circuit tap links of rating +5% to -5% @2.5%. class of Insulation H, Temp Rise shall be 115 Deg cel. Losses: No Load Losses - 1750Watts (IS Tol), Load Losses - 6600 Watts, Impedance 5% (IS Tol) along with WTI scanner	1 No.			
<b>C</b>	<b>LVS PANEL - 1000AMPS ALUMINUM BUSBAR ( 100% FOR PHASE &amp; 50% FOR NEUTRAL, CURRENT DENSITY- 0.8AMP/SQMM )</b>				
	INCOMER FROM TRANSFORMER				
	1000Amps 433V 50KA 4P <b>Electrical Draw Out ( EDO ) Air Circuit breaker(ACB)</b> with microprocessor based release for over current ,short circuit and earth fault protection.- PR 121 .	1 No.			
	Digital Multifunction Meter with Class 1.0 Accuracy with RS 485 port (Make: Rishabh/Secure/Elmeasure)	1 No.			
	R,Y,B,ON/OFF/TRIP Indications.	1 set			
	<b>Outgoing</b>				
	200Amps 433V 36KA 3P+ N Fixed manual Molded Case Circuit breaker (MCCB) with microprocessor based release for over current ,short circuit and earth fault protection.Digital Multifunction Meter with Class 1.0 Accuracy with RS 485 port (Make: Rishabh/Secure/Elmeasure)	4 No			
	125Amps 433V 36KA 3P+ N Fixed manual Molded Case Circuit breaker (MCCB) with thermal Magnetic based release for over current & short circuit fault protectionDigital Multifunction Meter with Class 1.0 Accuracy with RS 485 port (Make: Rishabh/Secure/Elmeasure).	2 No			
<b>D</b>	<b>OUTDOOR ENCLOSURE</b>				
	Outdoor type enclosure having construction of Galvanised Sheet Steel with combination of 2mm thickness for load bearing member and 1.5mm with Non Load bearing member with 4mm HRCA base frame. The Enclosure shall have IP54 degree of protection for HT & LT switchgear compartment & IP23 degree of protection for Transformer compartment. The enclosure shall be Powder Coated (Colour Light Gray & D.A.Gray ). Each compartment will be provided with the door and pad locking arrangement. The Compartment illumination lamp with door operated switch shall be provided for MV & LV compartment.	1 Set			
<b>E</b>	<b>INTERCONNECTION AND EARTHING</b>				



	Interconnection Between HT switchgear & Transformer using 1Cx3x95 Sq.mm XLPE Single core Aluminium cable & Interconnection between Transformer & LT switchgear using AL. Busbars. Internal earthing connections by using 50 x 6mm GI strips including Transformer neutral.	1 Set			
<b>Total</b>					<b>108484103.00</b>

## Estimate

### Name of work :- SITC of Side Lighting work at Smart Road Phase - 2

S.No.	Description of Items	Unit	Rate	Qty	Amount
1	CIRCUIT WIRING IN EXISTING CONDUIT / PVC CASING CAPPING Supplying and drawing single core PVC insulated cable FR with copper multi strand conductor ISI marked in existing rigid conduit in surface or concealed as per specification.				
a	1.5 Sq mm cable Make: Havells/Polycab/Finolex				
	3 X 1.5 sq mm	Meter	72.00	3500	252000.00
2	Supplying of ISI Marked and accepted standard of Miniature Circuit Breaker (MCB) of 'C' series suitable for 240/415 Volts, 50 Cycle , 10 kA Value AC supply confirming to IS : 8828 : 1996, IEC : 60898:2002 but without enclosures :-				
a	SINGLE POLE (SP)				
	0.5 Amp to 5 Amp Rating Make : Havells/Legrand/L&T	Each	243.00	390	94770.00
3	Supplying of angle/channel flat iron fitting for overhead lines such as cross arms, clamps, brackets, welding and other necessary materials as per specifications.	KG	54.00	200	10800.00
4	Supplying & installing G.I. Pipe for protection of underground cable fixed on wall/support/in trench/fixed between two rigid existing support of wall/beam for erection of ceiling Fan/down rod for stiff pendent for light luminaries /fan/protective for earthing, lightennng conductor down strip/everhead service line/for submer cable or centrifugal pump for water supply with necessary iron clamp coupler, bend, te, elbow, nuts and bolts etc. complete in an approved manner as required to complete the job excluding cost of excavation/dismateling & other finished masonry Item complete.				
	For 'B' Class G.I.pipe ISI Marked (IS-1161-68)				
	50.00mm Make : Tata/Swastik/Jindal	Meter	285.00	500	142500.00
5	Providing and fixing earthing arrangement with 38.1mm dia 2.5 meter long galvanized iron pipe electrode including packing of charcoal powder and salt as per specification watering pipe 19mm dia G.I. Connection etc. complete with refilling the pit as required, but excluding the excavation of earth pit.	Each	1002.00	195	195390.00
6	Providing and erecting of 10m height hot dip galvanized conical PU painted poles. Major dimensions are as follows bottom dia 165-185mm sheet. Top dia 75mm sheet. Thickness 3mm along with HT sheet with base plate of size 275X275X16mm 4 no's of M24X750mm long J type EN 8 grade foundation anchor bolts along with template for 10 meter pole with foundation & compatible with PCD Plat 270mm thik having 500mm door opening Hing type (Reinforced & Weather proof) with bakelite sheet with 16 sqmm stud type connector. Including up-to 1.5 meter Differential Double arm galvanized decorative PU painted Differential type for 8 & 10 Meter bracket for 10 meter pole with the specification 100 angle with Differential Double arm top of arm with 3.2 mm thickness having 10mm pinch bolt 3 nos. as per directed by Engineer in charge. Make : valmont/ bajaj/Transrail	Each	34355.00	195	6699225.00
7	Designing & casting with M-20 cement concrete foundation suitable for 10 mtrs. Conical poles considering the safe soil bearing capacity at site as 10 T/sqm at 2 mtrs. Depth including excavation, foundation nut bolts in an approved manner.	Each	13500.00	195	2632500.00

8	Supply,installation,testing& Commissioning, of system which includes LED street light luminaire having an IP66 optic compartment and IP 66 control gear compartment, efficacy of the luminaire should be more than 100 lm/W, a die cast extruded aluminium painted housing, roboticaaly dispence silicon sealed removable control gear plate , a toughened glass protector having impact resistance of IK08, universal electronic dimmable driver having operating voltage of 110-300V lifetime residual flux @ Tq 35o @ 50,000 hours = 70%, Ta = 50o, surge protection of 10 KV, Power Factor > 0.95, Colour Rendering Index >70 and neural white (4000-4200K), Fitting should be installed propely as per directed by Engineer- Incharge. Guarantee of the LED Street light luminaire will be Five year.As per specification				
a	150 Watt	Each	27495.00	195	5361525.00
b	60 watt	Each	12395.00	195	2417025.00
	<b>Total</b>				<b>17805735.00</b>