

**DEVELOPMENT OF WALKWAY WITH OTHER UTILITIES  
AROUND RANITAL LAKE, JABALPUR**

S.NO	DESCRIPTION	AMOUNT
1	LAKE SIDE WALKWAY	₹ 1,69,12,739.64
2	STORM WATER DRAIN	₹ 96,49,612.80
3	SEWER LINE	₹ 49,68,597.02
4	HOTRICULTURE	₹ 4,45,661.40
5	LIGHTING & ELECTRICAL WORKS	₹ 49,82,605.00
	GRAND TOTAL	₹ 3,19,76,610.86
	SAY RS	₹ 3,20,00,000.00
<i>IN WORDS THREE CRORES TWENTY LACS ONLY</i>		

Development of Walkway with other utilities around Ranital Lake, Jabalpur						
Detail Estimate of Lakeside Walkway						
S.No.	UADD SOR ITEM NO	Descriptions of Item	Rate	Revised Reduced Rates as per Order	Unit	Amount in Rs.
1	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				
		<b>Ranital lake full perimeter Road</b>				
		For Road	98.00	88.20	Cum	₹ 8,53,776.00
2	3.11, Vol III	<b>Sub grade</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, compaction 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>Ranital lake full perimeter Road</b>				
		For Road				
		Total	272.00	244.80	cum	₹ 23,69,664.00
4		<b>Stone Soling</b>				
	UADD SOR Vol iii 4.3/P-31	Providing, laying, spreading and compacting stone aggregates of specific sizes to water bound macadam specification including spreading in uniform thickness, hand packing, rolling with vibratory roller 8-10 tonnes in stages to proper grade and camber, applying and brooming requisite type of screening/ binding materials to fill up the interstices of coarse aggregate, watering and compacting to the required density and as per relevant clauses of section-400.				
	4.3(ii)	<b>Grading- II</b>				
	a)	Using Screening Crushable type				
		Total	857.00	771.30	cum	₹ 27,14,976.00
		<b>Stone Dust</b>				
	UADD SOR Vol iii 9.2/P-75	Supply as per clause 514 including all lead and stacking etc. complete.(Rolling & vibrating compaction up to 90-95%)				
	9.2(i)	Crusher stone dust (clause 507.2.3)	198.00	178.20	cum	₹ 1,56,816.00
		<b>GSB</b>				
	UADD SOR Vol iii 4.1 P-30	Construction of granular sub-base by providing coarse graded material, spreading in uniform layers with on prepared surface, mixing by mix in place method at OMC, and compacting with vibratory roller to achieve the desired density, complete in all respect and as per relevant clauses of section-400.				
	(ii)	for grading- II Material	614.00	552.60	cum	₹ 9,72,576.00
6		<b>Dry Lean Concrete</b>				
	UADD SOR Vol iii 6.1/P-60	Construction of <b>dry lean cement concrete</b> Sub-base over a prepared sub-grade with coarse and fine aggregate conforming to IS: 383, the size of coarse aggregate not exceeding 25mm, aggregate cement ratio not to exceed 15:1, aggregate gradation after blending to be as per table of MORTH Specifications 600-1, cement content not to be less than 200 kg/cum, optimum moisture content to be determined during trial length construction, concrete strength not to be less than 10 Mpa at 7 days, mixed in a batching plant, transported to site, laid with paver with electronic sensor/mechanical paver, compacting with 8-10 tonnes vibratory roller, finishing and curing and as per relevant clauses of section-603.				
		For Road				
		Total quantity	2715.00	2443.50	cum	₹ 32,25,420.00
8		<b>PQC</b>				

	<b>UADD SOR Vol iii 6.5/P-60</b>	Construction of dowel jointed, plain cement concrete pavement in M-30 grade concrete over a prepared sub base with 43 grade cement maximum size of coarse aggregate not exceeding 25 mm, mixed in a batching and mixing plant as per approved mix design, transported to site, laid with a fixed form or slip form paver with spreading the concrete by shovels, rakes compacted using needle, screed and plate vibrator and finished in a continuous operation including provision of contraction, expansion, and longitudinal joints, joint filler, separation membrane, sealant primer, joint sealant, debonding strip, placing of dowel bar, tie rod admixtures as approved, curing compound, finishing to lines and grades as per approved drawings as per IRC-15 2002 and as per relevant clauses of section-602 of specifications complete but excluding cost of steel in dowel bar & tie rod etc.				
		For Road				
		<b>Total quantity</b>	4698.00	4228.20	sqm	₹ 59,19,480.00
	<b>UADD SOR Vol iii 6.12/P-61</b>	Add extra in Item No.- 6.3 & 6.5 above for the cost of steel in dowel bar and tie rod etc. required as per design.				
		Dowels 32mm dia bars 450mm in length@300mm/c	Kg			
	<b>6.12.1</b>	<b>Mild Steel dowel bars</b>	47850.00	43065.00	MT	₹ 5,07,248.28
	<b>6.12.2</b>	<b>Tor steel tie rod</b>				
		Ties For dowel bar 8mm dia bars 2 times of dowels bars				
		Chairs basket for Dowels 4 nos 10 mm dia bars @4.5 m c/c in length				
			Kg			
			52800.00	47520.00	MT	₹ 1,92,783.36
<b>GRAND TOTAL</b>						<b>₹ 1,69,12,739.64</b>

## Development of Walkway with other utilities around ]

ESTIMATE OF SEWER WATER DRAIN				
S No.	UADD COP	Descriptions of Item		Rate
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>2240.00</b>	<b>202.00</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>224.00</b>	<b>628.00</b>
3	4.1.2 Vol II	<b>Cement Concrete M-15 ( Duct)</b>		
		Providing and laying <b>Plain / Reinforced cement</b> concrete (mixed in concrete mixture) ... RCC Grade		
		<b>M 15 with 20mm maximum size of aggregate.</b>		
		<b>Total quantity</b>	<b>224.00</b>	<b>4154.00</b>
4	5.1.1 Vol II	Providing and laying in position specified grade of <b>reinforced cement concrete</b> 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>Along Road</b>		
		<b>Total quantity</b>	<b>648.00</b>	<b>4728.00</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>Along Road</b>		
		<b>Total quantity</b>	<b>288.00</b>	<b>6524.00</b>
6	20.6 Vol I	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>58780.80</b>	<b>60.00</b>
7	20.1.1 Vol II	<b>Form work for Drain walls</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>5280</b>	<b>138.00</b>

**Ranital Lake, Jabalpur**

	<b>Unit</b>	<b>Amount</b>
181.80	cum	407232.00
565.20	cum	126604.80
3738.60	cum	837446.40
4255.20	cum	2757369.60

5871.60	cum	1691020.80
54.00	Kg	3174163.20

124.20	Sqm	655776.00
<b>₹ 96,49,612.80</b>		

**Development of Walkway with other utilities around Ranital Lake, Jabalpur**

ESTIMATE FOR SEWER LINE ALONG RANITAL LAKE							
S.No.	UADD SOR ITEM NO	Descriptions of Item	Quantity	Rate	Revised Reduced Rates as per Order	Unit	Amount in Rs.
		<b>Excavation for Drain pipe</b>					
1	UADD SOR Vol (i) 15.1/P-151	Earth work in Excavation for pipe trench in all kinds of soil and WBM in areas including dressing, watering and ramming and disposal of Excavated earth lead upto 50 meters and lift upto 1.5m, disposal earth to be leveled, neatly dressed.					
		For RCC NP2 pipes (for sewer drainage) LEFT SIDE	773.50	129.10	116.19	cum	₹ 89,872.97
		For RCC NP2 pipes (for sewer drainage) RIGHT SIDE	3675.00	129.10	116.19	cum	₹ 4,26,998.25
		<b>REINFORCED CEMENT CONCRETE PIPES</b>					
2	UADD SOR Vol (i) 13.1/P-138	Providing, Laying and jointing non-pressure (NP2) RCC socket & spigot pipes with rubber gasket joint including testing of joints. [Conforming to IS ; 458-1988, ISI marked laying as per IS 783:1985)					
			2450.00	1049.00	944.10	Per m	₹ 23,13,045.00
3	UADD SOR Vol (i) 15.9/P-151	Filling with moorum for pipe bedding or over the pipe including supply of moorum					
			326.00	625.00	562.50	cum	₹ 1,83,375.00
4	UADD SOR Vol (ii) 11.43/P-135	Dry stone pitching 20 to 22.5cm thick including supply of stones and preparing surface complete.					
			2080.00	783.00	704.70	Sq m	₹ 14,65,776.00
5	UADD SOR Vol (i) 11.43/P-135	Construction of circular type of manhole 1500 mm internal dia. at bottom, 560 mm dia at top, total depth of manhole 2650mm in brick masonry with 1:5 cement mortar ( 1 cement : 5 fine sand), 12 mm thick Cement plaster 1:3 (1 cement : 3 coarse sand ) finished with a floating coat of neat cement. 30 cm thick foundation in Cement concrete grade M-7.5 (Nominal Mix) with stone aggregate 40 mm nominal size, RCC Cement Concrete grade M-20 (Nominal Mix) with 20mm Nominal size on top slab and making channel in cement concrete grade M-15 (Nominal Mix) with stone aggregate 20 mm nominal size neatly finished, curing fixing of ISI marked reinforced concrete heavy duty cover (including transportation of cover) complete. as per standard design (Drawing No. 15)					
		RIGHT SIDE	22.00	19683.00	17714.70	EACH	₹ 3,89,723.40
6	UADD SOR Vol (i) 11.43/P-135	Construction of circular type manhole 900 mm internal dia. at bottom, 560 mm dia at top total depth of manhole 900 mm in brick masonry with 1:5 cement mortar (1 cement : 5 fine sand), 12 mm thick Cement plaster 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement. 22.5 cm foundation in cement concrete grade M-10 (Nominal Mix) with stone aggregate 40mm nominal size, RCC top slab cement concrete M-20 (Nominal Mix) with stone aggregate 20mm nominal size and making channel in cement concrete grade M-15 (Nominal Mix) with stone aggregate 20mm nominal size neatly finished, curing fixing of ISI marked heavy duty SFRC cover etc. complete as per standard design.					
		LEFT SIDE	16.00	6931.00	6237.90	EACH	₹ 99,806.40



GRAND TOTAL
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₹ 49,68,597.02
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SerioINo	Reff.
2	UADD SOR 2012 19.2 P-204
3	UADD SOR 19.2/P-204
	19.4
4	19.4.3
7	19.8
8	19.9
11	19.13
13	19.14.2
	<b>Reff. No</b>
15	10411 P-49 (S2)
16	10389 P-58 (S3)

17	<b>DSR 2016 ,Hotriculture 5.19/p149 (S4)</b>
21	<b>DSR 2016 ,Hotriculture 5.2/P-319 (S8)</b>
24	<b>DSR 2016 ,Hotriculture 10079/P-19 (S11)</b>

**B.O.Q FOR FOR RANITAL LANDSCAPING ( HOTRICULTURE PART 2 )**

Description of item	Qty	Unit
Supplying and <b>stacking of good earth</b> at site including royalty and carriage up to 1 km (earth measured in stacks will be reduced by 20% for payment).		
	432.00	Cu m
Supplying and stacking at site dump manure from approved source,including carriage up to 1 km (manure measured in stacks will be reduced by 8% for payment)		
Screened through sieve of I.S. designation 4.75mm	288.00	Cu m
Spreading of sludge, dump manure or/and good earth in required thickness (Cost of sludge, dump manure or/ and good earth to be paid separately	288.00	cum
Mixing earth and sludge or manure in proportion specified or as directed by the engineer(SAME QTY AS 19.8)	288.00	cum
<b>HEDGING</b>		
Preparation of beds for hedging and shrubbery by excavating 60cm deep and trenching the excavated base to a further depth of 30cm, refilling the excavated earth after breaking clods and mixing with sludge or manure in the ratio of 8:1(8 parts of stacked volume of earth after reduction by 20% : one part of stacked volume of sludge or manure after reduction by 8%), flooding with water, filling with earth if necessary, watering and finally fine dressing, leveling etc. Including stacking and disposal of materials declared unserviceable and surplus earth by spreading and leveling as directed, within a lead of 50m lift up to 1.5 m complete (cost of sludge, manure or extra earth to be paid for separately).		
	144.00	Cu m
<b>Holes 60 cm dia, and 60 cm deep.</b>	1000.00	Each
<b>Supply and stacking of Shrubs &amp; trees</b>		
<b>Description with botanical name</b>		
Supply and stacking of plant Tecoma gaudichaudi of height 60-75 cm.with 5-6 branches in p.bag of size 25 cmTecoma guadichaudi/Yellow bells	120.00	Each
Supply and stacking of plant Murraya exotica of height 45-60 cm. inpoly bags of size 15 cmMurraya exotica/Jasmine, Kamini	300.00	Each

Providing and Displaying Euphorbia milli hybrid variety plant with multi branch, full bloom, with fresh and healthy well developed having 30 to 45 cm ht. in 35 cm Cement Pots as per direction of the officer-in-charge.Euphorbia milii/Crown of Thorns	<b>400.00</b>	<b>Each</b>
Providing and Displaying Acalypha green well developed, fresh & healthy with good foliage, multi branch 30 to 45 cm ht. in 20 cm size Earthen Pot/ Plastic Pot bushy plant as per direction of the officer-in-charge. Acalypha green	<b>100.00</b>	<b>Each</b>
Providing of Raphis palm plant, having ht. 75 cm to 90 cm with 12 to 15 equal suckers, well developed, full of fresh & healthy leaves from bottom to top in 25 cm size Earthen pot / Plastic pot.Raphis excelsa/Raphis Palm	<b>80.00</b>	<b>Each</b>
<b><i>TOTAL HOTRICULTURE COST</i></b>		

RATE	Reduced Rate	AMOUNT
184.00	165.60	30470.40
184.00	165.60	52992.00
15.00	13.50	4320.00
102.00	91.80	29376.00
62.00	55.80	8928.00
24.00	21.60	24000.00
50.00		6000.00
15.00		4500.00

615.00		246000.00
30.75		3075.00
450.00		36000.00
		<b>445661.40</b>

## Development of Walkway with other utilities around

### ESTIMATE FOR LIGHTING AND ELECTRICAL WORKS

S.No	Ref.No. Vol. IV	Description of Items	Unit
1	4.3	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.	
	4.3.1	2.5 Sq mm cable	
	3	3 X 1.5 sq mm	Meter
2	8.5	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 :-	
	8.5.1	SINGLE POLE (SP)	
	1	0.5 Amp to 5 Amp Rating Make : Havells/Legrand/L&T	Each
3	14	Supply of XLPE Insulated power cable (conforming IS-7098) 1100 Volt grade/Heavy duty power cable conforming to IS 1554-1100 Volts grade , 2 core /3½ core/4 core ISI MARKED with Alu. Stranded /solid conductor	
	14.1.8	ARMOURED 4 CORE	
	3	16 Sq.mm.(XLPE) Make: Havells/Polycab/Finolex	Meter
4	14.12	Laying of underground cable armoured./ unarmoured as per specification in air with approved type of iron clamps complete.	
	1	2 / 3 / 4 Core cable upto 16 Sq.mm	Meter
5	17.4	Supplying and installing Double wall corrugated pipes (DWC) of HDPE ( IS 14930 Part II -marked ) for cable laid under ground with necessary connecting sockets/ couplings,tees of same material and at required depth upto 90cm. below road/ground surface,including excavation, back filling with excavated material with ramming and making the surface good.	
	1	50.00mm outside dia.	Meter



6	14.8	LUGS:Supplying and fixing cramping type Alum. lugs as per I.S.S. Specification suitable for following size of cable with Alu. /Copper solid/stranded conductor evenly cramped with high/pressure tool and connected to switch gear/Bus/M.C.C.B./ M.C.B. etc. as required complete. For Conductor Size-	
	1	6mm to 16 Sq.mm Make : Dowells/Hex/Jainsons/Comet	Each
7	11.34	Providing and fixing earthling arrangement with 16mm dia 2.5 meter long galvanized iron or steel rod 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
8	NoN Sor	Supply of 7mtr high hot dip galvanised PU PAINTED Conical poles with 151mm bottom dia & 75 mm top dia made up of 3mm thk. HT sheet alongwith base plate of size 250X250X16mm thk. It's also includes Decorative single arm bracket 1500 mm long Made out of MS pipe as per IS 1239 having shaft cap dia of 101.6 mm and bracket arm made of 48.3 mm dia x 3.2mm thick MS Pipe with nut bolt arrangement for mounting on conical pole top. The height of door should be 1000mm from the bottom of pole and the lenght of door cover should be 500mm. It's also includes 4Nos of M20X700mm high 'J' type EN 8 grade foundation bolts along with template	Nos
9	13.19	Erection of steel tubular or rail pole strut in cement concrete 1:3:6 (1cement:3coarse sand: 6 aggregate 40mm nominal size) foundation including excavation and refilling and secured with holding clamps, nuts and bolts, etc. as required.	Each
10	NoN Sor	Supplying of suspension type decorative street light fitting of 80 watt LED , made of spun aluminium housing, polycarbonate diffuser protector with IP 65 protection for optical compartment , with LED CCT 5700K.	Each
11	NoN Sor	Supply and Installation of outdoor stand mounted feeder pillar with 32A TPN MCB incomer, single dial time switch, 25A TP contactor for the automatic switching of luminaries. Panel Suitable for I/c 3.5x25Sqr mm & O/g 4x16Sqr mm Cable.	Each

## Ranital Lake, Jabalpur

### RANITAL LAKE

Qty	Rate	Reduced Rate as per UADD Orders	Amount
900.00	96.00	86.40	77760.00
90.00	243.00	218.70	19683.00
1760.00	229.00	206.10	362736.00
1760.00	20.00	18.00	31680.00
1760.00	207.00	186.30	327888.00

90.00	5.00	4.50	405.00
90.00	667.00	600.30	54027.00
90.00	24485		2203650.00
90.00	2526	2273.40	204606.00
90.00	18113.00		1630170.00
2	35000.00		70000.00
<b>GRAND TOTAL</b>			<b>4982605.00</b>