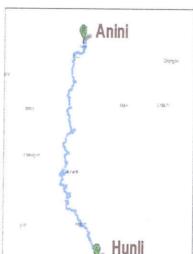


National Highway and Infrastructure Development Corporation Ltd.

Government of India

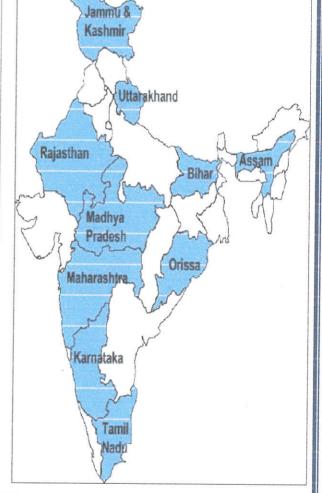
Survey Investigation and Preparation for Detailed Project Report for Improvement of Road HUNLI-ANINI (138.000 KM) To NH Double lane Specification in Arunachal Pradesh













ANINI RE-ALIGNMENT



MC CONSULTING ENGINEERS Pvt. Ltd. WITH TECHNOCRATS INFRASTRUCTURE CONSULTANTS Pvt. Ltd.

2nd Floor, Office No. I & II, Indrapuram, Ghaziabad, UP - 100201



ABSTRACT OF COST :: Hunli-Anini (Design Km 120 to Km 130.300) ANINI Re-alignment

Bill No.	Description	Length in Kms	Amount (in RS)	Amount (ir Crores
	Design Length in Km	10.300		
1	Road Works (Sum of a to c)		758041241	75.80
а	TCS I (2 Lane with Both side Drain in Builtup Areas)	95502475		
b	TCS 3 (2 Lane New Construction over Existing Formation)	557415563		
С	TCS 4 (2 Lane New Construction in New Alignment)	105123203		
2	Bridges		162752081.30	16.28
3	Culverts		190761227.00	19.08
4	Junctions		19985239.00	2.00
5	Bus Bays		4903538.00	0.49
6	Traffic Signs, Marking and Appurtenances		6437327.00	0.64
7	Other Miscellaneous Works		27356900.00	2.74
8	For Plantation		11702375.53	1.17
А		Civil Cost	1181939928	118.19
	Cost/KM	at Civil Cost	114751449	11.48
В	add Contingencies over Civil Cost @	2.80%	33094318	3.31
С	Subtotal	A + B	1215034246	121.50
D	Construction Supervision Charges on 'C' @	3.00%	36451027	3.65
E	Administrative Charges / Agency Charges on 'C' @	3.00%	36451027	3.65
F	add Quality Control on 'C' @	0.25%	3037586	0.30
G	Road Safety Cell Audit Charges on 'C' @	0.25%	3037586	0.30
Н	Total Civil Cost (C+D+E+F+G)	1294011472	129.40
ı	Maintenance Cost for 4 years on 'C' @	5.00%	60751712	6.08
J	Escalation on 'C' @	10.00%	121503425	12.15
К	Total	Cost (H+I+J)	1476266609	147.63



	Iten	nized	Cost	Estimat	e :: Hun	II-Anini (MII 120 L	o Km 131)			
Item	Description	Unit	No	Length (m)	Breadth (m)	Height (m)	Quantity	Rate	Rate with Diesel Transportation	Amount	Remarks
	TCS I (2 Lane with Both side Drain in Builtup			1600.000							
	Areas) Dismantling of						100 700	329.00	342.00	165103.92	
	Flexible Pavement	Cum	1	8046.000	3.000	0.020	482.760 16896.600	547.00	569.00	9614165.40	
b)	Granular Pavement	Cum No	1	8046.000 8046.000	3.000	0.700	6.000	232.00	241.00	1446.00	
1.02	Km Stone Clearing and grubbing road land including uprooting rank vegetation, grass, bushes, shrubs, saplings and trees girth up to 300 mm, removal of stumps of trees out earlier and disposal of unserviceable materials and stacking of serviceable material to be used or auctioned, up to a lead of 1000 metres including removal and disposal of top organic soil not exceeding 150 mm in thickness.	Sqm	1	1600.000	3.000		4800.000	3.71	4.00	19200.00	
1,03	Excavation for roadwork in soil with hydraulic excavator of 0.9 cum bucket capacity including cutting and loading in tippers, trimming bottom and side siopes, in accordance with requirements of lines, grades and cross sections, and transporting to the embankment location within all lifts and lead upto 1000m			1600.000	2.500	0.600	2400.000	207.00	215.00	516000.00	LS Qty
(i)	Ordiniary Soil	Cum	1				2400.000	62.71	65.00	156000.00	
1.04	Compacting original ground supporting sub- grade/embankment	Cum	1	1600.000	10.000	0.150	2400,000	02.71	00.00		
1.05	Construction of embankment with approved materia obtained from borrow pits with all lifts and leads transporting to site, spreading, grading to required slope and compacting to meet requirement of table 300-2.	Cum	1	1600.000	2.000	0.400	1280.000	221.00	230.00	294400.00	
1.06	Construction of embankment with approved materials deposited at site from roadway cutting ansexcavation from drain and foundation of othe structures graded and compacted to mee requirement of table 300-2.	Cum	1	1600.000			0.000	116.00	121.00	0.00	
1.07	Construction of <u>sub-grade</u> with approved material obtained from borrow pits with all lifts & leads transporting to site, spreading, grading to require slope and compacted to meet requirement of table No. 300-2	d Cum	1	1600,000	10.000	0.500	8000.000	264.00	275.00	2200000.00	
1.08	Construction of granular sub-base by providin coarse graded material, spreading in uniform layer with motor grader on prepared surface, mixing by min place method with rotavator at OMC, an compacting with vibratory roller to achieve the compacting with vibratory roller to achieve the	X Cum	1	1600.000	10.000	0.200	3200.000	2321.00	2414.00	7724800.00	
1.00	desired density, complete as per clause 401. Providing Shoulder with local available material	Cum	0	1600.000	1.500	0.325	0.000	264.00	275.00	0.00	+
1.10	Providing Stitulized with rocal avalable machine providing, laying, spreading and compacting grade stone aggregate to weet-mix macadam specification including premixing the Material with water at OMC mechanical mix plant carriage of mixed Material tipper to site, laying in uniform layers with paver sub-base / base course on well prepared surfar and compacting with vibratory roller to achieve the desired density.	on in Dy Curr in		1600.000	10.000	0.250	4000.000	3139.00	3265.00	13060000.00	
1.11	Providing and applying Prime coat with bitume emulsion on prepared surface of granular Bat including clearing of road surface and spraying Prin at the rate of 0.60 kg/sqm using mechanical means.	ne Sqn	n 1	1600.00	10.000		16000.000	38.00	40.00	640000.00	
1.12	Providing and applying <u>tack</u> <u>coat</u> with bitum emulsion using emulsion pressure distributor at trate of 0.20 kg per sqm on the preparabituminous/granular surface cleaned with mechanic broom.	nel ed Sqr	n 2	1600.00	0 10.000		32000.000	14.00	15.00	480000.00	
1.13	rate of 0.20 kg per sqm on the prepared bituminous/granular surface cleaned with mechanical broom. Providing and laying dense graded bituminous macadam with 100-120 TPH batch type HMP producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with bituminous binder @ 4.0 to 4.5 per cent by weight of total mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRTH specification clause No. 507 complete in all respects.		m	1600.00	10.000	0.060	960.000	12457.00	12955.00	12436800.00	
1.14	Providing and laying bituminous concrete with 1 120 TPH batch type hot mix plant producing average output of 75 tonnes per hour using crusing aggregates of specified grading, premixed bituminous binder @ 5.4 to 5.6 per cent of mix filler, transporting the hot mix to work site, laying to a hydrostatic paver finisher with sensor control to required grade, level and alignment, rolling smooth wheeled, wibratory and tandem rollers achieve the desired compaction as per MOF specification clause No. 509 complete in all respect	and with cuthe with to	ım	1 1600.0	10.00	0.040	640.000			9554560.00	
-	And a second sec		m	2 1600.0	000		3200.00	0 11611.0	12075.00	38640000.00	
1.15		esta III	ant I	- 1000.0					The second property and the second		

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Bill No. 1		<u>Iter</u>	nized	Cos	Estimat	te :: Hun	<u>li-Anini (</u>	Km 120	to Km 131)		
Command graduation, great bind including sproofing in the vegetation, great better, strates, standard, support of these and strates of management of the standard strates of management of the standard strates of management of the standard strates of discount of the standard strates of discount of the standard strategy of the strate	Item	Description	Unit	No				Quantity	Rate		Amount	Remarks
Command of grant and grant place from including producting part of command of the place of the	Bill No. 1 b	TCS 3 (2 Lane New Construction over Existing			6308,000		2 (= 1					
excesser of 0.9 cm bucket capacity including cutting and leading in those; throming bottom and side stopes, in accordance with requiremental position within all lifes and lead upto 100m 1		Clearing and grubbing road land including uprooting rank vegetation, grass, bushes, shrubs, saplings and trees girth up to 300 mm, removal of stumps of trees cut earlier and disposal of unserviceable materials and stacking of serviceable material to be used or auctioned, up to a lead of 1000 metres including removal and disposal of top organic soil not	Sqm	1		7.000		44156.000	3.71	4.00	176624.00	
Output Communication Com	1.02	excavator of 0.9 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to the embankment location within all lifts and lead upto							007.00	245.00	69563236 24	50% of Qty
Comparison of embandment with approved material oblained from borrow pils with all this and leads, and a compared to the providing to the speciality, grading to required class and compared to meet requirement of table 300-2. 1.04 Comparison of comparison to meet requirement of table 300-2. 1.05 Comparison of comparison to meet requirement of table 300-2. 1.06 Comparison of comparison to meet requirement of table 300-2. 1.07 Comparison of comparison to meet requirement of table 300-2. 1.08 Comparison of comparison to meet requirement of table 300-2. 1.09 Comparison of comparison to meet requirement of table 300-2. 1.09 Comparison of comparison to meet requirement of table 300-2. 2.00 Comparison of comparison to meet requirement of table 300-2. 3.00 Comparison of comparison to meet requirement of table 300-2. 3.00 Comparison of comparison to meet requirement of table 300-2. 3.00 Comparison of comparison to meet requirement of table 300-2. 3.00 Comparison of comparison to meet requirement of table 300-2. 3.00 Comparison of comparison to meet requirement of table 300-2. 3.00 Comparison of comparison to meet requirement of table 300-2. 3.00 Comparison of comparison to meet requirement of table 300-2. 3.00 Comparison of comparison to meet requirement of table 300-2. 3.00 Comparison of comparison to meet requirement of table 300-2. 3.00 Comparison of comparison to meet requirement of table 300-2. 3.00 Comparison of comparison to meet requirement of table 300-2. 3.00 Comparison of comparison to meet requirement of comparison to meet requirement of caption of table 300-2. 3.00 Comparison of capt											39731932.14	20% of Qty
Construction of embarkment with approved material class, transporting to site, spreading, grading to required stope and compacting to site, spreading, grading to required stope and compacting to meet requirement of fable 200.	(11)	Hard Rock without Blasting								755.00	146568121.01	30% of Qty
1.04 Compacting original ground supporting sub-grade Cum 1 6308.000 10.000 0.150 9462.000 63.00 66.00		Construction of embankment with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacting to meet requirement of table	Cum	1	6308.000	0.500	0.400	1261.600	221.00	230.00	290168.00	
Construction of embaniment with approved materials described at site from padatary cutting and scaustion from drain and foundation of other structures graded and compacted to meet requirement of table 300-2. Construction of sub-grade and earthen shoulders with approved material obtained from borrow pits with a proved material obtained from borrow pits with material with robustors and from size material with robustors and compacting provided stone aggregate to week mits maxadam specification including premising the Material with water at OMC, and compacting with vibratory roller to achieve the desired density, complete as per clauses (distensed by tipper to site, laying in uniform sizes with pawer in sub-base / base course on well preparate surface and compacting with vibratory roller to achieve the desired density. Providing and applying Prime coat with bitumen at the fact of 0.00 (bytain before and surface of granular Base including dearing of road surface and spraying Prime at the rate of 0.00 (bytain before prepared surface). Sqm 1 6308.000 7.000 88312.000 14.00 15.00 1	1.04		Cum	1	6308.000	10.000	0.150	9462.000	63.00	66.00	624492.00	
with approved material obtained from borrow pils with a life \$\frac{1}{2}\$ leds the responding to site spreading, grading to required slope and compacted to meet requirement of table No. 300-2 a) For Subgrade One Total of Subgrade Construction of granular sub-base by providing coarse graded material, spreading in uniform layers with motor grader on prepared surface, mixing by mixing in blace prediction of granular sub-base by providing coarse graded material, spreading in uniform layers with motor grader on prepared surface, mixing by mixing in blace prediction of granular sub-base by providing coarse graded material, spreading in uniform layers with motor grader on prepared surface, mixing by mixing in blace prediction of granular sub-base of the providing, laying, spreading and compacting graded stone aggregate to wit mix macadam specification induding premixing the Material with water at OMC. In mechanical mix plant carriage of mixed Material by the prepared surface and compacting unit whorthery roller to achieve the desired density. 1.08 1.08 1.08 1.08 1.09		Construction of embankment with approved materials deposited at site from roadway cutting and excavation from drain and foundation of other structures graded and compacted to meet		1	6308.000			6938.800	116.00	121.00	839594.80	As per MX Road
a) For Earthen 7 Hard Shoulder Total of Subgrade Construction of granular sub-base by providing coarse graded material, spreading in uniform layers with motor grader on prepared surface, mixing by mixing place method with robavator at OMC, and compacting with withoratory and en the desired density, complete as per clause 401. Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material althin water at OMC in mechanical mix plant carriage of mixed Material by the base ourse on well prepared surface and compacting with withoratory roller to achieve the desired density. Providing and applying Prime coat with bitumen emulsion on prepared surface of granular Base including dearing of road surface and spraying Prime at the rate of 0.00 (s)(s)(s) must be seen for the surface and spraying Prime at the rate of 0.00 (s)(s)(s)(s) must be seen for the surface and spraying Prime at the rate of 0.00 (s)(s)(s)(s) must be seen for the surface and spraying Prime at the rate of 0.00 (s)(s)(s)(s) must be seen for the surface and spraying Prime at the rate of 0.00 (s)(s)(s)(s) must be seen for the surface and spraying Prime at the rate of 0.00 (s)(s)(s)(s)(s)(s)(s)(s)(s)(s)(s)(s)(s)(1.05	with approved material obtained from borrow pits with all lifts & leads, transporting to site, spreading, grading to required slope and compacted to meet									40400000000	As nor My Poss
Construction of granular sub-base by providing coarse graded material, spreading in uniform layers with motor grader on prepared surface, mixing by mixing more providing with rolatory roller to achieve the desired density, complete as per clause 401. 1.07 1.07 1.08 1.08 1.08 1.08 1.09	а) For Subgrade					0.350				10408200.00 1821435.00	As per MX Road
Construction of granular sub-base by providing uniform layers with motor grader on prepared surface, mixing by mix in place method with rotavory roller to achieve the desired density, complete as per clause 401 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 the state of the mixed and compacting with water at OMC in mechanical mix plant carriage of mixed Material by the base of base course on well prepared surface and compacting with vibratory roller to achieve the desired density. 1.08 In the state of 0.00 kg/sgn using mechanical means. Providing and applying Prime coat with bitumen emulsion on prepared surface of granular Base including dearing of road surface and spraying Prime and surface of granular Base including dearing of road surface and spraying Prime and surface of granular Base including dearing of road surface and spraying Prime and surface of granular Base including and applying Lak goat with bitument emulsion using emision pressure distributor at the rate of 0.20 kg per sqm on the prepared brown. Providing and laying dense graded bituminous macadam with 100-120 TPH batch type HMP producing an average output of 75 tomes per hour using runshed aggregates of specification clause No. 507 complete in all respects. Providing and laying dense graded bituminous finisher with senser control to the required grade, level and alignment, foiling with smooth wheeled, vibratory and tranfer motes to achieve the desired compaction as per MoRTH specification clause No. 507 complete in all respects. Providing and laying bituminous concrete with 100-120 TPH batch type hot mix plant producing an average output of 75 tomes per hour using runshed aggregates of specified granular gr	g		THE RESERVE AND PERSONS NO.		0300.000	1.360	0.550	0020.400	201.00			
stone aggregate to wet mix macadam specification including premising 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. Providing and applying Prime coat with bitumen emulsion on prepared surface and spraying Prime at the rate of 0.60 kg/sqm using mechanical means. Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.20 kg per sqm on the prepared surface and spraying Prime at the rate of 0.20 kg per sqm on the prepared surface bituminous/granular surface cleaned with mechanical broom. Providing and laying dense graded bituminous measadam with 100-120 TPH batch type HMP producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with bituminous binder @ 4.0 to 4.5 per cent by weight of total mix and filler transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, eight and an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with 100-120 TPH batch type the desired compaction as per MoRTH specification clause No. 507 complete in all respects. Providing and laying bituminous concrete with 100-120 TPH batch type hot mix plant producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with the producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with the producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with the producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with the producing and average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with the producing an	1.06	Construction of granular sub-base by providing coarse graded material, spreading in uniform layers with motor grader on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with vibratory roller to achieve the	Cum	1	6308,000	10.900	0.200	13751.440	2321.00	2414.00	33195976.16	
emulsion on prepared surface of granular Base including clearing of road surface and spraying Prime at the rate of 0.60 kg/sqm using mechanical means. Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.20 kg per sqm on the prepared bituminous/granular surface cleaned with mechanical broom. Providing and laying dense graded bituminous macadam with 100-120 TPH batch type HMP producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRTH specification clause No. Providing and laying bituminous concrete with 100-120 TPH batch type hot mix plant producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with 100-120 TPH batch type hot mix plant producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with	1.07	Providing, laying, spreading and compacting graded stone aggregate to 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	Cum	1	6308.000	7.500	0.250	11827.500	3139.00	3265.00	38616787.50	
emulsion using emulsion pressure distributor at the rate of 0.20 kg per sqm on the prepared bituminous/granular surface cleaned with mechanical broom. Providing and laying dense graded bituminous macadam with 100-120 TPH batch type HMP producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with bituminous binder @ 4.0 to 4.5 per cent by weight of total mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRTH specification clause No. 507 complete in all respects. Providing and laying bituminous concrete with 100-120 TPH batch type hot mix plant producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with	1.08	emulsion on prepared surface of granular Base including clearing of road surface and spraying Prime	Sam	1	6308.000	7.000		44156.000	38.00	40.00	1766240.00	
Providing and laying dense graded bituminous macadam with 100-120 TPH batch type HMP producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with bituminous binder @ 4.0 to 4.5 per cent by weight of total mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRTH specification clause No. 507 complete in all respects. Providing and laying bituminous concrete with 100-120 TPH batch type hot mix plant producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with	1.09	emulsion using emulsion pressure distributor at the rate of 0.20 kg per sqm on the prepared bituminous/granular surface cleaned with mechanical	Sqm	2	6308.000	7.000		88312.000	14.00	15.00	1324680.00	
120 TPH batch type hot mix plant producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with	1.10	Providing and laying dense graded bituminous macadam with 100-120 TPH batch type HMM producing an average output of 75 tonnes per hou using crushed aggregates of specified grading premixed with bituminous binder @ 4.0 to 4.5 pecent by weight of total mix and filler, transporting the hot mix to work site, laying with a hydrostatic pave finisher with sensor control to the required grade level and alignment, rolling with smooth wheeled vibratory and tandem rollers to achieve the desire compaction as per MoRTH specification clause No	Cum	1	6308,000	7.000	0.060	2649.360	12457.00	12955.00	34322458.80	
1.11 filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 509 compilete in all respects	1.11	120 TPH batch type hot mix plant producing a average output of 75 tonnes per hour using crushe aggregates of specified grading, premixed wit bituminous binder @ 5.4 to 5.6 per cent of mix an filler, transporting the hot mix to work site, laying wit a hydrostatic paver finisher with sensor control to th required grade, level and alignment, rolling wit smooth wheeled, vibratory and tandem rollers tachieve the desired compaction as per MORTI specification clause No. 509 complete in all respects	Cum	1			0.040				26368196.96	
1.12 Providing RR Masonry Open Drain at Hill Side Rm 1 6308.000 6308.000 1682.00 1749.00		Providing RR Masonry Open Drain at Hill Side					-				11032692.00 8724206.00	
1.13 Providing Gabioti Wall as per drawing Rm 1 2208.000 2208.000 27172.00 28259.00					2208.000)		2208.000	27172.00	28259.00	62395872.00	
1.15 Providing Breast Wall as per drawing Rm 1 2650.000 2650.000 25270.00 26281.00 Total of TCS I C		Providing Breast Wall as per drawing						2650.000	25270.00	26281.00	69644650.00 557415562.61	

ocrats Infrastructure Consultant Pvt. Ltd

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	iten	nized	Cos	t Estima	e :: Hun	II-Anini (Km 1201	0 Km 131	1		
Item	Description	Unit	No	Length (m)	Breadth (m)	Height (m)	Quantity	Rate	Rate with Diesel Transportation	Amount	Remarks
	TCS 4 (2 Lane New Construction in New Alignment)			2254.000							
1.01	Clearing and grubbing road land including uprooting rank vegetation, grass, bushes, shrubs, saplings and trees girth up to 300 mm, removal of stumps of trees cut earlier and disposal of unserviceable materials and stacking of serviceable material to be used or auctioned, up to a lead of 1000 metres including removal and disposal of top organic soil not exceeding 150 mm in thickness.	Sqm	1	2254.000	12.000		27048.000	3.71	4.00	108192.00	
1.02	Excavation for roadwork in soil with hydraulic excavator of 0.9 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to the embankment location within all lifts and lead upto 1000m									16961350.00	50% of Qty
(i)	Ordiniary Soil	Cum	1	2254.000	10.000	3.500	78890.000	207.00	215.00	6746785.50	20% of Qty
	Ordiniary Rock	Cum	1	2254.000	6.500	1.500	21976.500	295.00	307.00 755.00	2127212.50	30% of Qty
	Hard Rock without Blasting	Cum	1	2254.000	2.500	0.500	2817.500	726.00	/55.00	2121212.50	30 /8 Of Qty
1.03	Construction of embankment with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacting to meet requirement of table 300-2.	Cum	0	2254.000	1.000	0.200	0.000	221.00	230.00	0.00	
1.04	Compacting original ground supporting sub- grade/embankment	Cum	1	2254.000	12.000	0.150	4057.200	63.00	66.00	267775.20	
1,05	Construction of embankment with approved materials deposited at site from roadway cutting and excavation from drain and foundation of other structures graded and compacted to meet requirement of table 300-2.	Cum	1	2254.000	6.000	0.400	5409.600	116.00	121.00	654561.60	
1.06	Construction of sub-grade and earthen shoulders with approved material obtained from borrow pits with all lifts & leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of table No. 300-2									1859550.00	
a) For Subgrade	Cum	1	2254.000		0.500	6762.000	264.00	275.00	650842.50	
g	For Earthen / Hard Shoulder	Cum	2	2254.000	1.500	0.350	2366.700	264.00	275.00	650642.50	
-	Total of Subgrade										-
1.07	Construction of granular sub-base by providing coarse graded material, spreading in uniform layers with motor grader on prepared surface, mixing by <u>mix in place method</u> with rotavator at OMC, and compacting with vibratory roller to achieve the desired density, complete as per clause 401.	Cum	1	2254.000	11.000	0.200	4958.800	2321.00	2414.00	11970543.20	
1.08	Providing, laying, spreading and compacting graded stone aggregate to met mix paedical 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.	Cum	1	2254.000	7,500	0.250	4226.250	3139.00	3265.00	13798706.25	
1.09	Providing and applying Prime coat with bitumer emulsion on prepared surface of granular Base including clearing of road surface and spraying Prime at the rate of 0.60 kg/sqm using mechanical means.	Sam	1	2254.000	7.000		15778.000	38.00	40.00	631120.00	
1.10	Providing and applying tack coat with bitumer emulsion using emulsion pressure distributor at the rate of 0.20 kg per sqm on the prepared bituminous/granular surface cleaned with mechanical	Sqm	2	2254.000	7.000		31556.000	14.00	15.00	473340.00	



Item	Description	Unit	No	Length (m)	Breadth (m)	Height (m)	Quantity	Rate	Rate with Diesel Transportation	Amount	Remarks
1.11	Providing and laying dense graded bituminous macadam with 100-120 TPH batch type HMP producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with bituminous binder @ 4.0 to 4.5 per cent by weight of total mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRTH specification clause No 507 complete in all respects.	Cum	1	2254.000	7.000	0.060	946.680	12457.00	12955.00	12264239.40	
1.12	Providing and laying bituminous concrete with 100-120 TPH batch type hot mix plant producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with bituminous binder @ 5.4 to 5.6 per cent of mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 509 complete in all respects	Cum	1	2254.000	7.000	0.040	631.120	14355.00	14929.00	9421990.48	
1.13	Providing RR Masonry Open Drain at Hill Side	Rm	1	2254.000			2254.000	1682.00	1749.00	3942246.00	
1.14	Providing Gabion wall as per drawing	Rm	1	50.000			50.000	13294.00	13826.00	691300.00	
1.15	Providing Retaing Wall as per drawing	Rm	1	200.000			200.000	27172.00	28259.00	5651800.00	
1.16	Providing Breast Wall as per drawing	Rm	1	200,000			200.000	25270.00	26281.00	5256200.00	
1.17	Construction of Parapet wall on M-10 grade foundation 150 mm thick, foundation having 50 mm projection beyond Parapet complete in all respect.		1	2254.000			1916.000	5844.00	6078.00	11645448.00	
	Total of TCS I D									105123202.63	No. 12 April 1982



Item	Description	Unit	No	Length (m)	Breadth (m)	Height (m)	Quantity	Rate	Rate with Diesel Transportation	Amount	Remarks
			1245-1005-20				1				
Bill No. 2:		Sam	4	92.000	Ac	per measure	ment sheet at	tached		116466881.30	
	Bridge at Km 120+900 Bridge at Km 126+650	Sqm	1	46.000	12.900	per measure	593,400	75000.00	78000.00	46285200.00	
ii)	Total of Bridge	Oqiii		40.000	12.000					162752081.30	
		Parameter 1				rae de la companya d					
Bill No. 3:					STAN STAN STAN			Charles Constitute			
3.01	Earth work in excavation of foundation of structures as per drawing and technical specification, including setting out, construction of shoring and bracing, removal of stumps and other deleterious matter, dressing of side						9775.400	70.00	73.00	713604.00	
3,02	Plain/Reinforced Cement Concrete in Open Foundation complete as per Drawing and Technical Specifications. PCC M15 in foundation						673.400	10764.00	11195.00	7538713.00	
3.03	RR Masonry work in wing wall, Return wall	Cum	in our				7857.524	6647.00	6913.00	54319060.00	
3.04	Plain/Reinforced cement concrete in sub-structure complete as per drawing and Technical Specifications RCC M20 in Slab Culvert in Sub Structure	Cum					4459.536	13268.00	13799.00	61537137.00	
3.05	RCC M15 in Slab Culvert in Superstructure	Cum			A second control		1505.547	14319.00	14892.00	22420604.00	
	Tar Paper Bearing	Sqm					310.800	90.00	94.00	29215.00	
	Floor Apron	Cum					999.000	2238.00	2328.00	2325672.00	
	Stone Pitching	Cum					906.182	2238.00	2328.00	2109591.00	
	Filter Media	Cum					4284.600	3533.00	3674.00	15741620.00	
	Weep Holes	Nos					6660.000	164.00	171.00	1138860.00	
	HY5D	Tonne					289.870	76011.00	79051.00	22887151.00	
											-
	TOTAL OF BILL NO 03	V DOMESTICS		STATE OF THE STATE						190761227.00	1000000



-	<u>Iter</u>	nized	Cos	Estima	te :: Hun	li-Anini (Km 120	to Km 131)		
ltem	Description	Unit	No	Length (m)	Breadth (m)	Height (m)	Quantity	Rate	Rate with Diesel Transportation	Amount	Remarks
Dill No. 4 .	Junctions										
4.01	Clearing and grubbing road land including uprooting rank vegetation, grass, bushes, shrubs, saplings and trees girth up to 300 mm, removal of stumps of trees cut earlier and disposal of unserviceable materials and stacking of serviceable material to be used or auctioned, up to a lead of 1000 metres including removal and disposal of top organic soil not exceeding 150 mm in thickness.	Sqm	1	7150.000			4290.000	3.71	4,00	17160.00	60% of Qty
4.02	Excavation for roadwork in soil with hydrautic excavator of 0.9 cum bucket capacity including outling and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to the embankment location within all lifts and lead upto 1000m to match link road profile	Cum	1	7150.000		0.200	715.000	207.00	215.00	153725.00	
4.03	Construction of embankment with approved materials deposited at site from roadway cutting and excavation from drain and foundation of other structures graded and compacted to meet requirement of table 300-2.	Cum	0	7150.000		0.200	0.000	116.00	121.00	0.00	
4.04	Construction of sub-grade and earthen shoulders with approved material obtained from borrow pits with all lifts & leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of table No. 300-2	Cum	1	7150.000		0.200	715.000	264.00	275.00	196625.00	50% of Qty
4.05	Construction of granular sub-base by providing coarse graded material, spreading in uniform layers with motor grader on prepared surface, mixing by <u>mix</u> in <u>place</u> <u>method</u> with rotavator at OMC, and compacting with vibratory roller to achieve the desired density, complete as per clause 401.	Cuiii	1	7150.000		0.200	1430.000	2321.00	2414.00	3452020.00	
4.06	Providing, laying, spreading and compacting graded stone aggregate to weeting-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.	Cum	1	7150.000		0.250	1788.000	3139.00	3265.00	5837820.00	
4.07	Providing and applying Prime coat with bitumen emulsion on prepared surface of granular Base including clearing of road surface and spraying Prime at the rate of 0.60 kg/sqm using mechanical means.		1	7150.000			7150.000	38.00	40.00	286000.00	
4.08	Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.20 kg per sqm on the prepared bituminous/granular surface cleaned with mechanical broom.		2	7150.000			14300.000	14.00	15.00	214500.00	
4.09	Providing and laying dense graded bituminous macadam with 100-120 TPH batch type HMP producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with bituminous binder ② 4.0 to 4.5 per cent by weight of total mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRTH specification clause No. 507 complete in all respects.	Cum	1	7150.000		0.060	429.000	12457.00	12955.00	5557695.00	
4.10	Providing and laying bituminous concrete with 100-120 TPH batch type hot mix plant producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with bituminous binder @ 5.4 to 5.6 per cent of mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 509 complete in all respects	Cum	1	7150.000		0.040	286.000	14355.00	14929.00	4269694.00 19985239.00	



	<u>Iter</u>	nized	Cos	t Estima	te :: Hun	li-Anini	(Km 120	to Km 131)		
Item	Description	Unit	No	Length (m)	Breadth (m)	Height (m)	Quantity	Rate	Rate with Diesel Transportation	Amount	Remarks
Di0 M. F.	D. David			Service are sold		Maria Maria Maria	Electric Control				
5.01	Clearing and grubbing road land including uprooting rank vegetation, grass, bushes, shrubs, saplings and trees girth up to 300 mm, removal of stumps of trees cut earlier and disposal of unserviceable materials and stacking of serviceable material to be used or auctioned, up to a lead of 1000 metres including removal and disposal of top organic soil not exceeding 150 mm in thickness.	Sqm	4	240.000			960.000	3.71	4.00	3840.00	
5.02	Excavation for roadwork in soil with hydraulic excavator of 0.9 cum bucket capacity including outting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines grades and cross sections, and transporting to the embankment location within all lifts and lead upto 1000m to match link road profile	Cum	4	240.000		0.000	0.000	207.00	215.00	0.00	
5.03	Construction of embankment with approved materials deposited at site from roadway cutting and excavation from drain and foundation of other structures graded and compacted to meet requirement of table 300-2.	Cum	4	240.000		0.200	192.000	116.00	121.00	23232.00	
5.04	Construction of sub-grade and earthen shoulders with approved material obtained from borrow pits with all lifts & leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of table No. 300-2	Cum	4	240.000		0.200	192.000	264.00	275.00	52800.00	
5.05	Construction of granular sub-base by providing coarse graded material, spreading in uniform layers with motor grader on prepared surface, mixing by <u>mix in place method</u> with rotavator at OMC, and compacting with vibratory roller to achieve the desired density, complete as per clause 401.	Cum	4	240.000		0.200	192.000	2321.00	2414.00	463488.00	
	For Ramp	Cum	4	76.000	2.000	0.200	122.000	2321.00	2414.00	294508.00	
5.06	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.	Cum	4	240.000		0.250	240.000	3139.00	3265,00	783600.00	
	For Ramp	Cum	4	76.000	2.000	0.250	152.000	3139.00	3265.00	496280.00	
5.07	Providing and applying Prime coat with bitumen emulsion on prepared surface of granular Base including clearing of road surface and spraying Prime at the rate of 0.60 kg/sqm using mechanical means.	Sqm	4	240.000			960,000	38.00	40.00	38400.00	
5.08	Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.20 kg per sqm on the prepared bituminous/granular surface cleaned with mechanical broom.	Sqm	8	240.000			1920.000	14.00	15.00	28800.00	
5.09	Providing and laying dense graded bituminous macadam with 100-120 TPH batch type HMP producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with bituminous binder @ 4.0 to 4.5 per cent by weight of total mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRTH specification clause No. 507 complete in all respects.	Cum	4	240.000		0.060	57,600	12457.00	12955.00	746208.00	
5.10	Providing and laying bituminous concrete with 100-120 TPH batch type hot mix plant producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with bituminous binder ② 5.4 to 5.6 per cent of mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 509 complete in all respects	Cum	4	240.000		0.040	38.400	14355.00	14929.00	573273.60	
5.11	Bus Shelters	Nos.	4	76.000	1.500		4.000 456.000	100000.00 575.00	104000.00 598.00	416000.00 272688.00	
5.12	Chequered Tiles Construction of cement concrete kerb with top and	Sqm	4	76.000	1.500		400.000	3/3.00	390.00	212000.00	
5.13	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	Rm	8	76.000			608.000	1120.00	1165.00	708320.00	
5.14	Enamel Paint	Sqm					50.000	40.00	42.00	2100.00 4903538.00	
	TOTAL OF BILL NO 5			California (Cal		TOTAL PROPERTY.				40000000	



Item	Description	Unit	No	Length (m)	Breadth (m)	Height (m)	Quantity	Rate	Rate with Diesel Transportation	Amount	Remarks
Bill No -6	Traffic Signages, Road Marking and other appurtenances			10300.000							
6.01	Road Marking: - Lane, Centre Line, Pedestrian crossing										
	Centre line on straight portion	Sqm	0.33	8240.000	0.150	-	407.880				
	Centre line on curve portion	Sqm	0.5	2060.000	0.150	-	154.500				
	Edge Line at Paved Shoulder	Sqm	2	10300.000	0.100	-	2060.000				
	Add 15% for Misc. including Pedestrian X-ings etc						393.357				
	Total						3016.000	842.00	876.00	2642016.00	
6.02	Directional Arrows, letter marking etc.	Nos.					25.000	542.65	564.00	14100.00	
6.03	Advance Direction signs size 1800X1200 mm	Nos.					15.000	17103.00	17787.00	266805.00	
6.04	Village name boards size 600X900 mm	Nos.					18.000	2174.00	2261.00	40698.00	
6.05	Place Identification signs size 1200X900 mm	Nos.		la compressión			20.000	8551.00	8893.00	177860.00	
6.06	90 cm Triangle	Nos.					20.000	3523.00	3664.00	73280.00	
6.07	90 cm Octagon	Nos.					20.000	3586.00	3729.00	74580.00	
6.08	Hazard plate 300X900 mm	Nos.				1	40.000	1087.00	1130.00	45200.00	
6.09	800 x 600 mm Size	Nos.					15.000	3548.00	3690.00	55350.00	
6.10	60 Cm circular	Nos.					15.000	3510.00	3650.00	54750.00	
6.11	Supply and fixing of Micro Prismatic type Retro- Reflective sign plate which is to be fixed on Overhead/ Cantilever structures with the help of G.I. nut bolts	Sqm					74.900	713.00	742.00	55576.00	
6.12	Over Head Sign Truss	MT					8.500	231880.00	241155.00	2049818.00	
6.13	Boundary Stone	Nos.	1	10300.000	0.005		52.000	350.00	364.00	18928.00	
6.14	5th Km Stone -New	Nos.	1	10300.000			1.000	5891.00	6127.00	6127.00	
6.15	Ordinary Km Stone	Nos.	1	10300.000			9.000	3700.00	3848.00	34632.00	
6.16	Hectometer Stone	Nos.	1	10300.000			42.000	903.00	939.00	39438.00	
6.17	Delinator	Nos.					105 000	725 00	754.00	79170.00	
6.18	Bollards	Nos.					105.000	4437.56	4615.00	484149.00	
6.19	RCC Guard Post	Nos.					60.000	3587.00	3730.00	223800.00	
6.20	Enamel Paint	Sqm	la maria				25.000	40.00	42.00	1050.00	
	TOTAL OF BILL NO6									6437327.00	
Bill No. 6 :	Other Miscellaneous Works								PARTO TOUR		
6.01	Catch Pit (2 x 2 mtrs)	Nos.	10				10.000	27165.00	28252.00	282520.00	
6.02	Catch Pit above 2 x 2 mtrs.	Nos.	10				10.000	44842.00	46636.00	466360.00	
6.03	Traffic Aid Post	LS	1				1.000	250000.00	260000.00	260000.00	
6.04	W Type metal Crash Barier	LM	1	6016.000			6016.000	4130.00	4295 00	25838720.00	
	Providing half perforated PVC pipe under drainage layer as per drawing	Lm	1	1100			1100.000	445.00	463.00	509300.00	
many strategy and the	TOTAL OF BILL NO 06	FE 1 642								27356900.00	



SI. No.	HIVE THE WAS A THE PARTY OF THE	IGN GE (Km) TO	Length (m)	Bridge deduction	Length (m)	TCS TYPE	Land use Pattern	Shoulder
1	120000	120350	350		350	TCS II	Widening in Open areas	1.0 m Hard Shoulder on hill side and 2.0 m on Valley side
2	120350	120650	300		300	TCS I	Built-up Area	1.5 m Hard Shoulder with 1.0 m RCC Drain on either side.
3	120650	126700	6050	92	5958	TCS II	Widening in Open areas	1.0 m Hard Shoulder on hill side and 2.0 m on Valley side
4	126700	129000	2300	46	2254	TCS III	New 2 lane in open area	1.0 m Hard Shoulder on hill side and 2.0 m on Valley side
5	129000	130300	1300		1300	TCSI	Built-up Area	1.5 m Hard Shoulder with 1.0 m RCC Drain on either side.
	A		10300	138	10162	-		

1600	TCS I	Built-up Area
6308	TCS II	Widening in Open areas
2254	TCS III	New 2 lane in open area



Title

Bridge No. : steel girder bridge\

Site Clearances

Discription

Bill No. 2 : Bridges

SL. No.

-	Units	No	L (m)	B (m)	H (m)	Area (sqm)	Quantity	Rate (Rs) / Unit	Amount (Rs)
	sqm	1	56.93	14.00		796.95		3.71	2955.41
-									
	Cum								
	Cum	2	13.00	15.00	3.00		1170.00		
	Cum	0	0.00	0.00	0.00		0.00		
	Cum	4	11.00	13.00	3.00		1716.00		
_						Sub Total	2886.00	70.00	202020.00
	Cum								
_		0	13.00	15.00	1.50		0.00		
_		0	0.00	0.00	1.50		0.00		

SPAN: 45.925 exp/exp

2	Excavation for structures									
	A) Ordinary soil (Mechanical means)	Cum								
	1)Abutments	Cum	2	13.00	15.00	3.00		1170.00		
	2) Piers	Cum	0	0.00	0.00	0.00		0.00		
	3) Return wall & Median wall	Cum	4	11.00	13.00	3.00		1716.00		
							Sub Total	2886.00	70.00	202020.0
	B) Ordinary rock (Not requiring blassting) Mechanical means	Cum								
	1)Abutments		0	13.00	15.00	1.50		0.00		
.,	2) Piers		0	0.00	0.00	1.50		0.00		
	3) Return wall/Wing wall/retaining Walls		0	11.00	13.00	1.50		0.00		
							Sub Total	0.00		
							TOTAL	2886.00	89.00	256854.0
		0	2	8.00	9.80	12.00		1881.60		
3	Providing Back filling behind abutments, wing walls and return walls	Cum	2	0.00	9.00	12.00		1001.00		
	with selected imported granular material of approved quality including									
	all leads and lifts complete as per Technical Specification Clause	1 1							000000	2000000
	305.								2055.00	3866688.0
4	Providing and laying of filter media	Cum			l		-			
	a) Behined Abutment	- Cuin	2	0.60	11.20	7.00		94.08		
	b) Behined Return wall		4	8.00	0.60	7.00		134.40		
	b) bolimod (totalii wali			1 0.00	0.00	1100	Sub Total	228.48	3533.00	807219.8
5	Plain cement concrete (PCC) M15 leveling course	Cum								
	a) Below Approach Slab		2	13.50	12.00	0.10		32.40	10351.00	335372.4
	b) Below Abutment base		2	3.50	12.00	0.15		12.60	10764.00	135626.4
-	c) Below Pier base		0	0.00	0.00	0.10	1	0.00	10764.00	0.00
	d) Below retaining / wing wall base		2	8.00	3.50	0.10		5.60	10764.00	60278.4
	d) Bolow retaining / Wing wan baco			0.00	0.00	0.10	Sub Total	50,60	1010110	
6	Providing Reinforced Cement Concrete M 30 grade in approach									
	slabs									
III See a see		Cum	2	3.50	12.00	0.30	42.00	25.20	17790.00	448308.0
7	Structural Cement concrete for Reinforced Cement Concrete M35									
	Grade in Open foundations						-	144.00		
	a) Abut . Foundation	Cum	2					441.00		
							Sub Total	441.00	15862.00	6995142.
					-	-	Sub Total	441.00	10002.00	0993142.
8	Structural Cement Concrete for Reinforced Cement Concrete M35									
O.	Grade Conc for Sub structure	Cum								l
	a) Abutment Bracket	Cum		-	-			3.24		
	b) Abutment Cap			-				48.00		
	c) Dirt wall	-		 		-	 	23.51		
	d) Abutment Stem				-		-	334.99		
	e) Counterfort Walls						 	0.00		
	f) Front counterfort				-	-		0.00		
	g) Chamfer (300 x 300) b/w abt & Ret wall					-	1	0.00		-
	h) Pedestals (Piers and Abut)			 	-	-	1	3.24		
	i) Pier cap						 	0.00		
	i) Pier Wall flared portion			 			 	0.00		
	k) Pier wall/pier			 	-	-	1	0.00		
	IN I TO THAIN PICE			-	-		Sub Total	412.98	15862.00	6550688
							lenn ingi	412.30	10002.00	0000000



Title

Bridge No. : steel girder bridge\

SPAN:	45.925	exp/exp					
					 -		
 1		1	 	 		 	

L. No.	Discription	Units	I No	L (m)	B (m)	H (m)	Area (sqm)	Quantity	Rate (Rs) / Unit	Amount (Rs
9	Return wall RCC M 30 Grade Conc.			- 3.17	- ()	- ()	1 (-4)			
9		-	!	0.00	1.00	0.00	-	212.22	-	
	a) Wall	Cum	4	6.00	1.00	9.00		216.00	1510100	0000744
10	C. J.	-	-	-	-		Sub Total	216.00	15434.00	3333744.
10	Bearings	0	-	0.00	10.00		0.40	0.00	050.00	0.100.00
	a) Providing and fixing in position Tar Paper Bearing for slabs	Sqm	4	0.20	12.00		2.40	9.60	250.00	2400.00
	c) Supplying, fitting and fixing in position true to line and level Pot PTFE bearings confirming to IRC : 83 ([part-III)	Nos	8					8.00	89750.00	718000.0
11	Structural Cement Concrete of Super Structurere	Cum	1				-			
	a) Deck Slab M 35 Grade Conc	Cum	1					126.75	16704.00	2117282.
	a) Book olds in ce olde oons		<u> </u>				Sub total	126.75	10104.00	2117202.
12	Construction of Deinforced assessed Creat having 155 40	0	2	52.93			0.00	00.07	0400.00	
12	Construction of Reinforced cement concrete Crash barrier of M 40 grade	Cum	2	52.93			0.32	33.87	6193.00	209769.3
	Footpath Slab of M 35 grade in situ.	Cum	1	45.93	1.25	0.30		17.22	16158.00	278271.0
	Kerb of M 20 grade in situ.	-	2	52.93	1	0.00	0.12	12.70	14162.85	179896.5
			 				1			170000.0
13	Expansion Joints		1							
	b) Providing and laying of Strip seal Expantion Joint	Rm	2	12.00				24.00	18536.00	444864.0
										13.100.110
14	Bituminous Concrete Wearing Course of total 65 mm thick comprising two layers of 40 mm thick Bituminous Concrete laid over a coat of 25 mm thick Mastic asphalt as per Technical Specification Clauses 509, 515, 521, & 2702.	Sqm	2.00	52.93	9.50		502.79	1005.58	1513.89	1522329.
	366666666666666666666666666666666666666	-					-			1522329.
15	Providing AC Weep holes in Abutments and Return walls / Wing walls with 100mm dia pipes	Rm								
	a) For Abutment (@ 3 Nos per sqm)		100					80		
	b) For Return / Retaining / wing walls		100				0.4.7.4.1	40	101.00	40000 0
							Sub Total	120	164.00	19680.00
16	Providing and fixing drainage spouts	Nos	12					12.00	1221.00	14652.0
17	IIVOD I- 6									
17	HYSD reinforcement									
	a) Superstructure @ 100kg/cum b) Substructure @ 110kg/cum	tons	13					12.68	77416.00	981271.0
	c) Return wall @ 120kg/cum	tons	45 26	-	-			45,43	76011.00	3453012.5
	d) Footing @ 120kg/cum	tons	53					25.92 52.92	76011.00 75855.00	1970205. 4014246.
	d) I couling the Tzongrouni	LOTIS	33					52,92	73055.00	4014246.
18	High tensile steel	tons	139.00					139.00	134459.00	18689801
19	Filter material underneath stone pitching on slopes	C		11.708	47.040	0.40	200.70	E0.04	0500	477050.0
10	i met material underneau stone pitoling on slopes	Cum	2	11.708	17.916	0.12	209.76	50.34	3533	177858.9
20	a) Stone Pitching 300 mm thick on slopes	Cum	2	11.708	17.916	0.3	209.76	125.86	3533	444647.3
21	Painting of Bridge marking	Nos	4					4.00	89.00	356.00
						Amount per Bridge				58233440.
	Single Span	0					Total	Amount	0.00	
	Double Span	2								116466881
	Total Span									116466881



Major Jur	ctions					
S.No.	Junction Type	Nos	Per Junction Area (Sqm)	Total Area	Remarks	
	Y Junctions	26	275	7150		
	Total			7150	1	

