

ENGINEER'S ESTIMATE

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SINGLE CELL (2.5m x 4m) BOX CULVERT
KM 645-646 (N-25)
ABSTRACT

Bill No. 01 : EARTH WORK

Code	DESCRIPTION	Unit	Qty	Amount	Cost	Remarks
107a	Structural Excavation in Common Material	CM	210.04	387.36	81,359.54	CSR Rate
107d	Granular Backfill	CM	42.90	2,338.46	100,319.93	CSR Rate
107e	Common Backfill	CM	42.90	286.75	12,301.58	CSR Rate
Total (1)					193,981.05	

Bill No. 02 : BASE/ SUB BASE

Code	DESCRIPTION	Unit	Qty	Amount	Cost	Remarks
201	Granular Sub-Base	CM	59.04	1,824.24	107,703.13	CSR Rate
206b	Water Bound Macadam base with Course Aggregate: Class B	CM	59.04	2,320.71	137,014.72	CSR Rate
Total (2)					244,717.85	

Bill No. 03 : SURFACING

Code	DESCRIPTION	Unit	Qty	Amount	Cost	Remarks
302a	Cut-Back Asphalt for Bituminous Prime coat	SM	179.72	139.33	25,040.39	CSR Rate
303a	Cut-Back Asphalt for Bituminous Tack coat	SM	179.72	57.16	10,272.80	CSR Rate
304bii	Double Surface Treatment W/O Prime Coat	SM	50.00	461.64	23,082.00	CSR Rate
307a	Dense Graded Hot Bit-Mac	CM	8.99	17,206.84	154,620.66	CSR Rate
Total (3)					213,015.85	

Bill No. 04 : STRUCTURAL

Code	DESCRIPTION	Unit	Qty	Amount	Cost	Remarks
401a1ii	Concrete Class A1 (On Ground)	CM	36.90	15,825.49	583,897.28	CSR Rate
401a3ii	Concrete Class A3 (On ground)	CM	71.00	17,127.09	1,216,001.98	CSR Rate
401a3iii	Concrete Class A3 (Elevated)	CM	15.41	17,594.33	271,053.85	CSR Rate
401b	Concrete Class B	CM	2.93	11,085.91	32,426.29	CSR Rate
401f	Lean Concrete	CM	14.91	8,295.03	123,662.31	CSR Rate
404b	Reinforcement as per AASHTO M31 Grade 60	Ton	17.26	242,291.70	4,182,456.29	CSR Rate
SP-1	100mm High Density PVC Pipe for drainage complete in all respects	M	2.00	320.13	640.25	Market Rate
Total (4)					6,410,138.24	

Bill No 5) Drainage and erosion works

Code	DESCRIPTION	Unit	Qty	Amount	Cost	Remarks
509c	Riprap Class C	CM	4.50	2,584.93	11,632.19	CSR Rate
510	Dismantling of Structure and Obstructions	CM	11.07	1,807.40	20,007.92	CSR Rate
Total (5)					31,640.10	

Bill No 6) Ancillary works

Code	DESCRIPTION	Unit	Qty	Amount	Cost	Remarks
607ci	Traffic Road sign category 3a sign board in high intensity reflective sheet laminated on 1.8mm thick G.I Sheet with G.I pipe dia 3 inch and thickness 8 guage	Each	2.00	34,195.40	68,390.80	CSR Rate

607dl	Traffic Road sign category 3b sign board in high intensity reflective sheet laminated on 1.8mm thick G.I Sheet with G.I pipe dia 4 inch and thickness 8 guage	Each	2.00	57,013.85	114,027.70	CSR Rate
SP-2	Topographic Survey of the existing causeways area 100x100 as specified in the SP attached. Also the details survey of the damaged culvert showing dimensions and photographs completely as per SP attached.	PS	1.00	150,000.00	150,000.00	Market Rate
SP-3	Geotechnical Investigation report based on 3-meters deep test pits to be carried out by reputable geotechnical firm as approved by the engineer.	PS	1.00	150,000.00	150,000.00	Market Rate
CSR 2022 District Mastung				Total(6)	482,418.50	
				Grand Total	7,575,912	

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MEASUREMENT SHEET**

401a3ii	Concrete Class A3 (On ground)	CM						71.00	17,127.09	1,216,001.93	CSR Rate
	Cut off wall on U/s		1	3.200	0.35	1.00	1.12				
	Cut off wall on D/s		1	3.200	0.35	2.00	2.24				
	Apron U/s		1	4.200	1.00	0.20	0.84				
	Apron D/s		1	4.200	1.00	0.20	0.84				
	Culvert Bottom Slab		1	3.200	12.30	0.325	12.79				
	Culvert Outer Walls		2	12.30	0.35	4.00	34.44				
	Fillets Along walls of culvert (Bottom)		2	12.30	Area	0.01	0.28				
	Approach Slab		2	3.00	12.30	0.25	18.45				
401a3iii	Concrete Class A3 (Elevated)	CM						15.41	17,594.33	271,053.85	CSR Rate
	Culvert Top Slab		1	3.200	12.30	0.300	11.81				
	Bracket On Wall		2	12.30	0.30	0.45	3.32				
	Fillets Along walls of culvert (Top)		2	12.30	Area	0.01	0.28				
401b	Concrete Class B Parapet	CM						2.93	11,085.91	32,426.29	CSR Rate
			4	2.50	0.65	0.45	2.93				
401f	Lean Concrete	CM						14.91	8,295.03	123,662.31	CSR Rate
	Culvert base		1	3.200	11.60	0.10	3.71				
	Wing Wall base		4	2.10	3.10	0.10	2.60				
	Cutoff wall base		2	3.200	0.45	0.10	0.29				
	Approach Slab		2	3.00	12.30	0.10	7.38				
	For Apron U/s		1	4.200	1.10	0.10	0.46				
	For Apron D/s		1	4.200	1.10	0.10	0.46				
404b	Reinforcement as per AASHTO M31 Grade 60	Ton						17.26	242,291.70	4,182,456.29	CSR Rate
SP-1	100mm High Density PVC Pipe for drainage complete in all respects	M	2	1.00				2.00	320.13	640.25	Market Rate
Total (4)										6,410,138.24	
Bill No 5) Drainage and erosion works											
Code	DESCRIPTION	Unit	No.	L	B	H	Qty	Rate	Amount	Remarks	
509c	Riprap Class C	CM					4.50	2,584.93	11,632.19	CSR Rate	
	On downstream side		1	4.500	1.00	1.00	4.50				
510	Dismantling of Structure and Obstructions	CM					11.07	1,807.40	20,007.92	CSR Rate	
	For Damaged Culvert						11.07				
Total (5)										31,640.10	
Bill No 6) Ancillary works											
Code	DESCRIPTION	Unit	No.	L	B	H	Qty	Rate	Amount	Remarks	
607ci	Traffic Road sign category 3a sign board in high intensity reflective sheet laminated on 1.8mm thick G.I Sheet with G.I pipe dia 3 inch and thickness 8 gauge	Each	2				2.00	34,195.40	68,390.80	CSR Rate	
607di	Traffic Road sign category 3b sign board in high intensity reflective sheet laminated on 1.8mm thick G.I Sheet with G.I pipe dia 4 inch and thickness 8 gauge	Each	2				2.00	57,013.85	114,027.70	CSR Rate	

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SP-3	Geotechnical Investigation report based on 3-meters deep test pits to be carried out by reputable geotechnical firm as approved by the engineer.	PS	1				1.00	150,000.00	150,000.00	Market Rate
Total (6)								482,418.50		

CSR 2022 District Mastung

Total Amount (1 - 6) In Rs. = **7,575,912**