

Loop Corridor - Alternative 1A

Interim Section: 2-Lane Arterial, 12-ft Lanes, 6-ft Shld, No C&G

Length of Corridor	5.928	<i>miles</i>	31300 ft
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Typical Section 1 - Standard Section

Length of Section	5.133	<i>miles</i>	27100 ft
PMBS (Aggregate)			4 in
Base Course			16 in

Pavement Width	36 ft
Lane Width	12 ft
Shoulder Width	6 ft
Curb/Gutter/Sidewalk?	NO
Crown (C)	2%
Right-of-Way	120 ft

PMBS (Aggregate) X-Section Area w/ 6H:1V Slopes	12.67 sf
Base Course X-Section Area w/ 6H:1V Slopes	64.00 sf
PCC L-Type Curb & Gutter	0 ft
PCC Sidewalk	0 sf

Typical Section 2 - Guardrail Section

Length of Section	0.795	<i>miles</i>	4200 ft
PMBS (Aggregate)			4 in
Base Course			16 in

Pavement Width	40 ft
Lane Width	12 ft
Shoulder Width	8 ft
Curb/Gutter/Sidewalk?	NO
Crown (C)	2%
Right-of-Way (Assumed)	120 ft

PMBS (Aggregate) X-Section Area w/ 2H:1V Slopes	13.56 sf
Base Course X-Section Area w/ 2H:1V Slopes	58.67 sf
PCC L-Type Curb & Gutter	0 ft
PCC Sidewalk	0 sf

Road Quantities (Based on MDT Standard Estimating Practices)

PMBS (Yellowstone River Aggregate at 4167 lbs / yd ³)	30890.5 Ton
Base Course (Yellowstone River Aggregate at 3855 lbs / yd ³)	141408.1 yds ³
Aggregate Cover	1639.6 Ton
Asphalt Cement (at 6.0% of PMBS)	1853.4 Ton
Dust Palliative	213.1 Ton
Seal (CRS-2P)	215.0 Ton
Tack (Aggregate Treatment and Pavement Tack)	9823.2 gal

Loop Corridor - Alternative 1A

Interim Section: 2-Lane Arterial, 12-ft Lanes, 6-ft Shld, No C&G

Preliminary Cost Opinion

Construction Costs

<u>Item</u>	<u>Units</u>	<u>Quantity</u>	<u>Price</u>	<u>Cost</u>
Mobilization (10%)	LUMP SUM	1	\$ 716,438	\$ 716,438
PMBS (Aggregate)	TON	30,891	\$ 22.00	\$ 679,591
Crushed Base Course (CBC)	CY	141,408	\$ 25.00	\$ 3,535,203
Cover	TON	1,640	\$ 30.00	\$ 49,188
Asphalt Cement	TON	1,853	\$ 292.00	\$ 541,202
Dust Palliative	TON	213	\$ 100.00	\$ 21,315
Seal	TON	215	\$ 313.00	\$ 67,302
Tack	GAL	9,823	\$ 1.30	\$ 12,770
Excavation	CY	335,902	\$ 3.50	\$ 1,175,657
L-Type Curb and Gutter	LF	0	\$ 13.50	-
A-Type Median Curb	LF	0	\$ 10.00	-
Sidewalk	SF	0	\$ 4.25	-
Guardrail	LF	4,200	\$ 17.00	\$ 71,400
Signalized Intersections	EACH	1	\$ 150,000.00	\$ 150,000
Drainage (Assumes rural treatments)	STA	313	\$ 2,750	\$ 860,750

Subtotal **\$ 7,880,815**

<u>Additional Drainage Structures</u>	<u>Length (ft)</u>	<u>Price / FT</u>	
Minor Crossing (Sta 25+00)	120	\$ 400.00	\$48,000
Minor Crossing (Sta 141+62)	120	\$ 400.00	\$48,000
Alkali Creek Crossing, 2X (Sta 283+00)	240	\$ 400.00	\$96,000
Alkali Creek Crossing, 2X (Sta 316+50)	240	\$ 400.00	\$96,000

Miscellaneous Items	@ 15%	\$ 1,182,122
Contingency (% of total construction)	@ 20%	\$ 1,870,187

Subtotal **\$ 11,221,124**

Construction Engineering (Percentage of Subtotal)	@ 10%	\$ 1,122,112
Design Engineering (Percentage of Subtotal)	@ 8%	\$ 897,690

Construction Costs **\$ 13,240,927**

<u>Right-of-Way</u>	<u>Units</u>	<u>Price</u>	
Agricultural - Suburban (Per Acre)	22.865	\$ 15,000	\$ 342,975
Agricultural - Open (Per Acre)	30.338	\$ 3,000	\$ 91,014
Residential - Unoccupied, Unimproved (Per Lot)	0.000	\$ 55,000	-
Residential - Unoccupied, Improved (Per Lot)	0.000	\$ 180,000	-
Public (Per Acre)	25.896	\$ 10,000	\$ 258,960
Construction Permits (Per Mile)	5.928	\$ 30,000	\$ 177,841

Right-of-Way Costs **\$ 870,790**

Utility Relocation **UNKNOWN**

Grand Total **\$ 14,111,717**

Cost per Mile **\$ 2,380,507**

Unit costs are based on 2004 MDT Average Prices
Right-of-Way costs based on typical Billings area 2004 real estate prices

Loop Corridor - Alternative 1B

Interim Section: 2-Lane Arterial, 12-ft Lanes, 6-ft Shld, No C&G

Length of Corridor	5.896	<i>miles</i>	31132 ft
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Typical Section 1 - Standard Section

Length of Section	4.921	<i>miles</i>	25982 ft
PMBS (Aggregate)			4 in
Base Course			16 in
			36 ft
Pavement Width			12 ft
Lane Width			6 ft
Shoulder Width			NO
Curb/Gutter/Sidewalk?			2%
Crown (C)			120 ft
Right-of-Way			12.67 sf
PMBS (Aggregate) X-Section Area w/ 6H:1V Slopes			64.00 sf
Base Course X-Section Area w/ 6H:1V Slopes			0 ft
PCC L-Type Curb & Gutter			0 sf
PCC Sidewalk			

Typical Section 2 - Guardrail Section

Length of Section	0.975	<i>miles</i>	5150 ft
PMBS (Aggregate)			4 in
Base Course			16 in
			40 ft
Pavement Width			12 ft
Lane Width			8 ft
Shoulder Width			NO
Curb/Gutter/Sidewalk?			2%
Crown (C)			120 ft
Right-of-Way (Assumed)			13.56 sf
PMBS (Aggregate) X-Section Area w/ 2H:1V Slopes			58.67 sf
Base Course X-Section Area w/ 2H:1V Slopes			0 ft
PCC L-Type Curb & Gutter			0 sf
PCC Sidewalk			

Road Quantities (Based on MDT Standard Estimating Practices)

PMBS (Yellowstone River Aggregate at 4167 lbs / yd ³)	30791.5 Ton
Base Course (Yellowstone River Aggregate at 3855 lbs / yd ³)	140279.1 yds ³
Aggregate Cover	1636.4 Ton
Asphalt Cement (at 6.0% of PMBS)	1847.5 Ton
Dust Palliative	212.7 Ton
Seal (CRS-2P)	214.6 Ton
Tack (Aggregate Treatment and Pavement Tack)	9803.9 gal

Loop Corridor - Alternative 1B

Interim Section: 2-Lane Arterial, 12-ft Lanes, 6-ft Shld, No C&G

Preliminary Cost Opinion

Construction Costs

<u>Item</u>	<u>Units</u>	<u>Quantity</u>	<u>Price</u>	<u>Cost</u>
Mobilization (10%)	LUMP SUM	1	\$ 717,377	\$ 717,377
PMBS (Aggregate)	TON	30,792	\$ 22.00	\$ 677,413
Crushed Base Course (CBC)	CY	140,279	\$ 25.00	\$ 3,506,976
Cover	TON	1,636	\$ 30.00	\$ 49,091
Asphalt Cement	TON	1,847	\$ 292.00	\$ 539,467
Dust Palliative	TON	213	\$ 100.00	\$ 21,273
Seal	TON	215	\$ 313.00	\$ 67,169
Tack	GAL	9,804	\$ 1.30	\$ 12,745
Excavation	CY	344,558	\$ 3.50	\$ 1,205,953
L-Type Curb and Gutter	LF	0	\$ 13.50	-
A-Type Median Curb	LF	0	\$ 10.00	-
Sidewalk	SF	0	\$ 4.25	-
Guardrail	LF	5,150	\$ 17.00	\$ 87,550
Signalized Intersections	EACH	1	\$ 150,000.00	\$ 150,000
Drainage (Assumes rural treatments)	STA	311	\$ 2,750	\$ 856,130

Subtotal **\$ 7,891,144**

<u>Additional Drainage Structures</u>	<u>Length (ft)</u>	<u>Price / FT</u>	<u>Cost</u>
Minor Crossing (Sta 25+00)	120	\$ 400.00	\$48,000
Minor Crossing (Sta 141+62)	120	\$ 400.00	\$48,000
Alkali Creek Crossing, 2X (Sta 276+00)	240	\$ 400.00	\$96,000

Miscellaneous Items	@ 15%	\$ 1,183,672
Contingency (% of total construction)	@ 20%	\$ 1,853,363
Subtotal		\$ 11,120,179

Construction Engineering (Percentage of Subtotal)	@ 10%	\$ 1,112,018
Design Engineering (Percentage of Subtotal)	@ 8%	\$ 889,614

Construction Costs **\$ 13,121,811**

<u>Right-of-Way</u>	<u>Units</u>	<u>Price</u>	<u>Cost</u>
Agricultural - Suburban (Per Acre)	22.865	\$ 15,000	\$ 342,975
Agricultural - Open (Per Acre)	33.146	\$ 3,000	\$ 99,438
Residential - Unoccupied, Unimproved (Per Lot)	0.000	\$ 55,000	-
Residential - Unoccupied, Improved (Per Lot)	0.000	\$ 180,000	-
Public (Per Acre)	29.752	\$ 10,000	\$ 297,520
Construction Permits (Per Mile)	5.896	\$ 30,000	\$ 176,886
Right-of-Way Costs			\$ 916,819

Utility Relocation UNKNOWN

Grand Total **\$ 14,038,630**
Cost per Mile **\$ 2,380,957**

Unit costs are based on 2004 MDT Average Prices
 Right-of-Way costs based on typical Billings area 2004 real estate prices

Loop Corridor - Alternative 2A

Interim Section: 2-Lane Arterial, 12-ft Lanes, 6-ft Shld, No C&G

Length of Corridor	6.723	<i>miles</i>	35500 ft
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Typical Section 1 - Standard Section

Length of Section	6.600	<i>miles</i>	34850 ft
PMBS (Aggregate)			4 in
Base Course			16 in
Pavement Width			36 ft
Lane Width			12 ft
Shoulder Width			6 ft
Curb/Gutter/Sidewalk?			NO
Crown (C)			2%
Right-of-Way			120 ft
PMBS (Aggregate) X-Section Area w/ 6H:1V Slopes			12.67 sf
Base Course X-Section Area w/ 6H:1V Slopes			64.00 sf
PCC L-Type Curb & Gutter			0 ft
PCC Sidewalk			0 sf

Typical Section 2 - Guardrail Section

Length of Section	0.123	<i>miles</i>	650 ft
PMBS (Aggregate)			4 in
Base Course			16 in
Pavement Width			40 ft
Lane Width			12 ft
Shoulder Width			8 ft
Curb/Gutter/Sidewalk?			NO
Crown (C)			2%
Right-of-Way (Assumed)			120 ft
PMBS (Aggregate) X-Section Area w/ 2H:1V Slopes			13.56 sf
Base Course X-Section Area w/ 2H:1V Slopes			58.67 sf
PCC L-Type Curb & Gutter			0 ft
PCC Sidewalk			0 sf

Road Quantities (Based on MDT Standard Estimating Practices)

PMBS (Yellowstone River Aggregate at 4167 lbs / yd ³)	34753.1 Ton
Base Course (Yellowstone River Aggregate at 3855 lbs / yd ³)	161948.2 yds ³
Aggregate Cover	1836.0 Ton
Asphalt Cement (at 6.0% of PMBS)	2085.2 Ton
Dust Palliative	238.7 Ton
Seal (CRS-2P)	240.8 Ton
Tack (Aggregate Treatment and Pavement Tack)	11000.0 gal

Loop Corridor - Alternative 2A

Interim Section: 2-Lane Arterial, 12-ft Lanes, 6-ft Shld, No C&G

Preliminary Cost Opinion

Construction Costs

<u>Item</u>	<u>Units</u>	<u>Quantity</u>	<u>Price</u>	<u>Cost</u>
Mobilization (10%)	LUMP SUM	1	\$ 762,534	\$ 762,534
PMBS (Aggregate)	TON	34,753	\$ 22.00	\$ 764,567
Crushed Base Course (CBC)	CY	161,948	\$ 25.00	\$ 4,048,706
Cover	TON	1,836	\$ 30.00	\$ 55,080
Asphalt Cement	TON	2,085	\$ 292.00	\$ 608,873
Dust Palliative	TON	239	\$ 100.00	\$ 23,868
Seal	TON	241	\$ 313.00	\$ 75,364
Tack	GAL	11,000	\$ 1.30	\$ 14,300
Excavation	CY	256,366	\$ 3.50	\$ 897,281
L-Type Curb and Gutter	LF	0	\$ 13.50	-
A-Type Median Curb	LF	0	\$ 10.00	-
Sidewalk	SF	0	\$ 4.25	-
Guardrail	LF	650	\$ 17.00	\$ 11,050
Signalized Intersections	EACH	1	\$ 150,000.00	\$ 150,000
Drainage (Assumes rural treatments)	STA	355	\$ 2,750	\$ 976,250

Subtotal **\$ 8,387,874**

<u>Additional Drainage Structures</u>	<u>Length (ft)</u>	<u>Price / FT</u>	
Minor Crossing (Sta 25+00)	120	\$ 400.00	\$48,000
Minor Crossing (Sta 141+62)	120	\$ 400.00	\$48,000
Alkali Creek Crossing, 2X (Sta 179+00)	240	\$ 400.00	\$96,000
Alkali Creek Crossing, 2X (Sta 200+80)	240	\$ 400.00	\$96,000
Alkali Creek Crossing, 2X (Sta 325+00)	240	\$ 400.00	\$96,000
Alkali Creek Crossing, 2X (Sta 357+00)	240	\$ 400.00	\$96,000

Miscellaneous Items	@ 15%	\$ 1,258,181
Contingency (% of total construction)	@ 20%	\$ 2,025,211

Subtotal **\$ 12,151,266**

Construction Engineering (Percentage of Subtotal)	@ 10%	\$ 1,215,127
Design Engineering (Percentage of Subtotal)	@ 8%	\$ 972,101

Construction Costs **\$ 14,338,493**

<u>Right-of-Way</u>	<u>Units</u>	<u>Price</u>	
Agricultural - Suburban (Per Acre)	22.865	\$ 15,000	\$ 342,975
Agricultural - Open (Per Acre)	24.380	\$ 3,000	\$ 73,140
Residential - Unoccupied, Unimproved (Per Lot)	0.000	\$ 55,000	-
Residential - Unoccupied, Improved (Per Lot)	0.000	\$ 180,000	-
Public (Per Acre)	26.171	\$ 10,000	\$ 261,710
Construction Permits (Per Mile)	6.723	\$ 30,000	\$ 201,705

Right-of-Way Costs **\$ 879,530**

Utility Relocation **UNKNOWN**

Grand Total **\$ 15,218,023**

Cost per Mile **\$ 2,263,413**

Unit costs are based on 2004 MDT Average Prices
Right-of-Way costs based on typical Billings area 2004 real estate prices

Loop Corridor - Alternative 2B

Interim Section: 2-Lane Arterial, 12-ft Lanes, 6-ft Shld, No C&G

Length of Corridor	6.504	<i>miles</i>		34340 ft
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Typical Section 1 - Standard Section

Length of Section	6.078	<i>miles</i>		32090 ft
PMBS (Aggregate)				4 in
Base Course				16 in
Pavement Width				36 ft
Lane Width				12 ft
Shoulder Width				6 ft
Curb/Gutter/Sidewalk?				NO
Crown (C)				2%
Right-of-Way				120 ft
PMBS (Aggregate) X-Section Area w/ 6H:1V Slopes				12.67 sf
Base Course X-Section Area w/ 6H:1V Slopes				64.00 sf
PCC L-Type Curb & Gutter				0 ft
PCC Sidewalk				0 sf

Typical Section 2 - Guardrail Section

Length of Section	0.426	<i>miles</i>		2250 ft
PMBS (Aggregate)				4 in
Base Course				16 in
Pavement Width				40 ft
Lane Width				12 ft
Shoulder Width				8 ft
Curb/Gutter/Sidewalk?				NO
Crown (C)				2%
Right-of-Way (Assumed)				120 ft
PMBS (Aggregate) X-Section Area w/ 2H:1V Slopes				13.56 sf
Base Course X-Section Area w/ 2H:1V Slopes				58.67 sf
PCC L-Type Curb & Gutter				0 ft
PCC Sidewalk				0 sf

Road Quantities (Based on MDT Standard Estimating Practices)

PMBS (Yellowstone River Aggregate at 4167 lbs / yd ³)	33728.8 Ton
Base Course (Yellowstone River Aggregate at 3855 lbs / yd ³)	156039.5 yds ³
Aggregate Cover	1785.3 Ton
Asphalt Cement (at 6.0% of PMBS)	2023.7 Ton
Dust Palliative	232.1 Ton
Seal (CRS-2P)	234.1 Ton
Tack (Aggregate Treatment and Pavement Tack)	10696.2 gal

Loop Corridor - Alternative 2B

Interim Section: 2-Lane Arterial, 12-ft Lanes, 6-ft Shld, No C&G

Preliminary Cost Opinion

Construction Costs

<u>Item</u>	<u>Units</u>	<u>Quantity</u>	<u>Price</u>	<u>Cost</u>
Mobilization (10%)	LUMP SUM	1	\$ 743,892	\$ 743,892
PMBS (Aggregate)	TON	33,729	\$ 22.00	\$ 742,034
Crushed Base Course (CBC)	CY	156,040	\$ 25.00	\$ 3,900,988
Cover	TON	1,785	\$ 30.00	\$ 53,560
Asphalt Cement	TON	2,024	\$ 292.00	\$ 590,929
Dust Palliative	TON	232	\$ 100.00	\$ 23,209
Seal	TON	234	\$ 313.00	\$ 73,283
Tack	GAL	10,696	\$ 1.30	\$ 13,905
Excavation	CY	259,546	\$ 3.50	\$ 908,411
L-Type Curb and Gutter	LF	0	\$ 13.50	-
A-Type Median Curb	LF	0	\$ 10.00	-
Sidewalk	SF	0	\$ 4.25	-
Guardrail	LF	2,250	\$ 17.00	\$ 38,250
Signalized Intersections	EACH	1	\$ 150,000.00	\$ 150,000
Drainage (Assumes rural treatments)	STA	343	\$ 2,750	\$ 944,350

Subtotal **\$ 8,182,810**

<u>Additional Drainage Structures</u>	<u>Length (ft)</u>	<u>Price / FT</u>	
Minor Crossing (Sta 25+00)	120	\$ 400.00	\$48,000
Minor Crossing (Sta 141+62)	120	\$ 400.00	\$48,000
Alkali Creek Crossing, 2X (Sta 179+00)	240	\$ 400.00	\$96,000
Alkali Creek Crossing, 2X (Sta 200+80)	240	\$ 400.00	\$96,000
Alkali Creek Crossing, 2X (Sta 311+30)	240	\$ 400.00	\$96,000

Miscellaneous Items	@ 15%	\$ 1,227,422
Contingency (% of total construction)	@ 20%	\$ 1,958,846

Subtotal **\$ 11,753,078**

Construction Engineering (Percentage of Subtotal)	@ 10%	\$ 1,175,308
Design Engineering (Percentage of Subtotal)	@ 8%	\$ 940,246

Construction Costs **\$ 13,868,632**

Right-of-Way	Units	Price	
Agricultural - Suburban (Per Acre)	22.865	\$ 15,000	\$ 342,975
Agricultural - Open (Per Acre)	26.143	\$ 3,000	\$ 78,429
Residential - Unoccupied, Unimproved (Per Lot)	0.000	\$ 55,000	-
Residential - Unoccupied, Improved (Per Lot)	0.000	\$ 180,000	-
Public (Per Acre)	29.752	\$ 10,000	\$ 297,520
Construction Permits (Per Mile)	6.504	\$ 30,000	\$ 195,114

Right-of-Way Costs **\$ 914,038**

Utility Relocation **UNKNOWN**

Grand Total **\$ 14,782,670**

Cost per Mile **\$ 2,272,932**

Unit costs are based on 2004 MDT Average Prices
Right-of-Way costs based on typical Billings area 2004 real estate prices

Loop Corridor - Alternative 3

Interim Section: 2-Lane Arterial, 12-ft Lanes, 6-ft Shld, No C&G

Length of Corridor	7.112	<i>miles</i>		37550 ft
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Typical Section 1 - Standard Section

Length of Section	6.610	<i>miles</i>		34900 ft
PMBS (Aggregate)				4 in
Base Course				16 in
Pavement Width				36 ft
Lane Width				12 ft
Shoulder Width				6 ft
Curb/Gutter/Sidewalk?				NO
Crown (C)				2%
Right-of-Way				120 ft
PMBS (Aggregate) X-Section Area w/ 6H:1V Slopes				12.67 sf
Base Course X-Section Area w/ 6H:1V Slopes				64.00 sf
PCC L-Type Curb & Gutter				0 ft
PCC Sidewalk				0 sf

Typical Section 2 - Guardrail Section

Length of Section	0.502	<i>miles</i>		2650 ft
PMBS (Aggregate)				4 in
Base Course				16 in
Pavement Width				40 ft
Lane Width				12 ft
Shoulder Width				8 ft
Curb/Gutter/Sidewalk?				NO
Crown (C)				2%
Right-of-Way (Assumed)				120 ft
PMBS (Aggregate) X-Section Area w/ 2H:1V Slopes				13.56 sf
Base Course X-Section Area w/ 2H:1V Slopes				58.67 sf
PCC L-Type Curb & Gutter				0 ft
PCC Sidewalk				0 sf

Road Quantities (Based on MDT Standard Estimating Practices)

PMBS (Yellowstone River Aggregate at 4167 lbs / yd ³)	36894.7 Ton
Base Course (Yellowstone River Aggregate at 3855 lbs / yd ³)	170553.4 yds ³
Aggregate Cover	1953.3 Ton
Asphalt Cement (at 6.0% of PMBS)	2213.7 Ton
Dust Palliative	253.9 Ton
Seal (CRS-2P)	256.2 Ton
Tack (Aggregate Treatment and Pavement Tack)	11702.6 gal

Loop Corridor - Alternative 3

Interim Section: 2-Lane Arterial, 12-ft Lanes, 6-ft Shld, No C&G

Preliminary Cost Opinion

Construction Costs

<u>Item</u>	<u>Units</u>	<u>Quantity</u>	<u>Price</u>	<u>Cost</u>
Mobilization (10%)	LUMP SUM	1	\$ 830,519	\$ 830,519
PMBS (Aggregate)	TON	36,895	\$ 22.00	\$ 811,683
Crushed Base Course (CBC)	CY	170,553	\$ 25.00	\$ 4,263,836
Cover	TON	1,953	\$ 30.00	\$ 58,599
Asphalt Cement	TON	2,214	\$ 292.00	\$ 646,395
Dust Palliative	TON	254	\$ 100.00	\$ 25,393
Seal	TON	256	\$ 313.00	\$ 80,178
Tack	GAL	11,703	\$ 1.30	\$ 15,213
Excavation	CY	336,063	\$ 3.50	\$ 1,176,221
L-Type Curb and Gutter	LF	0	\$ 13.50	-
A-Type Median Curb	LF	0	\$ 10.00	-
Sidewalk	SF	0	\$ 4.25	-
Guardrail	LF	2,650	\$ 17.00	\$ 45,050
Signalized Intersections	EACH	1	\$ 150,000.00	\$ 150,000
Drainage (Assumes rural treatments)	STA	376	\$ 2,750	\$ 1,032,625

Subtotal **\$ 9,135,713**

<u>Additional Drainage Structures</u>	<u>Length (ft)</u>	<u>Price / FT</u>	
Minor Crossing (Sta 25+00)	120	\$ 400.00	\$48,000
Minor Crossing (Sta 141+62)	120	\$ 400.00	\$48,000
Alkali Creek Crossing, 2X (Sta 178+60)	240	\$ 400.00	\$96,000
Minor Crossing (Sta 252+00)	120	\$ 400.00	\$48,000
Minor Crossing (Sta 367+00)	120	\$ 400.00	\$48,000

Miscellaneous Items @ 15% \$ 1,370,357
 Contingency (% of total construction) @ 20% \$ 2,158,814

Subtotal **\$ 12,952,884**

Construction Engineering (Percentage of Subtotal) @ 10% \$ 1,295,288
 Design Engineering (Percentage of Subtotal) @ 8% \$ 1,036,231

Construction Costs **\$ 15,284,403**

<u>Right-of-Way</u>	<u>Units</u>	<u>Price</u>	
Agricultural - Suburban (Per Acre)	29.063	\$ 15,000	\$ 435,945
Agricultural - Open (Per Acre)	39.532	\$ 3,000	\$ 118,596
Residential - Unoccupied, Unimproved (Per Lot)	0.000	\$ 55,000	-
Residential - Unoccupied, Improved (Per Lot)	0.000	\$ 180,000	-
Public (Per Acre)	34.711	\$ 10,000	\$ 347,110
Construction Permits (Per Mile)	7.112	\$ 30,000	\$ 213,352

Right-of-Way Costs **\$ 1,115,003**

Utility Relocation **UNKNOWN**

Grand Total **\$ 16,399,406**

Cost per Mile **\$ 2,305,962**

Unit costs are based on 2004 MDT Average Prices
 Right-of-Way costs based on typical Billings area 2004 real estate prices

Loop Corridor - Alternative 1A

Ultimate Section: 4-Lane Arterial w/ Median, 12-ft Lanes, 2-ft Shld, C&G

Length of Corridor	5.928	<i>miles</i>	31300 ft
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Typical Section 1 - Standard Section

Length of Section	5.928	<i>miles</i>	31300 ft
PMBS (Aggregate)			4 in
Base Course			16 in

Pavement Width	52 ft
Lane Width	12 ft
Shoulder Width	2 ft
Curb/Gutter/Sidewalk?	YES
Crown @, feet per feet	2%
Right-of-Way	120 ft

PMBS (Aggregate) X-Section Area	17.34 sf
Base Course X-Section Area	76.44 sf
PCC L-Type Curb & Gutter	62600 ft
PCC A-Type Median Curb	56340 ft
PCC Sidewalk	313000 sf

Typical Section 2 - Guardrail Section

Length of Section	0.000	<i>miles</i>	0 ft
PMBS (Aggregate)			4 in
Base Course			16 in

Pavement Width	52 ft
Lane Width	12 ft
Shoulder Width	2 ft
Curb/Gutter/Sidewalk?	YES
Crown (C)	2%
Right-of-Way (Assumed)	120 ft

PMBS (Aggregate) X-Section Area	17.34 sf
Base Course X-Section Area	76.44 sf
PCC L-Type Curb & Gutter	0 ft
PCC A-Type Median Curb	0 ft
PCC Sidewalk	0 sf

Road Quantities (Based on MDT Standard Estimating Practices)

PMBS (Yellowstone River Aggregate at 4167 lbs / yd3)	41881.6 Ton
Base Course (Yellowstone River Aggregate at 3855 lbs / yd3)	170803.1 yds ³
Aggregate Cover	2333.5 Ton
Asphalt Cement (at 6.0% of PMBS)	2512.9 Ton
Dust Palliative	303.4 Ton
Seal (CRS-2P)	306.0 Ton
Tack (Aggregate Treatment and Pavement Tack)	13980.6 gal

Loop Corridor - Alternative 1A

Ultimate Section: 4-Lane Arterial w/ Median, 12-ft Lanes, 2-ft Shld, C&G

Preliminary Cost Opinion

Construction Costs

<u>Item</u>	<u>Units</u>	<u>Quantity</u>	<u>Price</u>	<u>Cost</u>
Mobilization (10%)	LUMP SUM	1	\$ 1,221,594	\$ 1,221,594
PMBS (Aggregate)	TON	41,882	\$ 22.00	\$ 921,395
Crushed Base Course (CBC)	CY	170,803	\$ 25.00	\$ 4,270,076
Cover	TON	2,334	\$ 30.00	\$ 70,005
Asphalt Cement	TON	2,513	\$ 292.00	\$ 733,765
Dust Palliative	TON	303	\$ 100.00	\$ 30,336
Seal	TON	306	\$ 313.00	\$ 95,785
Tack	GAL	13,981	\$ 1.30	\$ 18,175
Excavation	CY	359,900	\$ 3.50	\$ 1,259,649
L-Type Curb and Gutter	LF	62,600	\$ 13.50	\$ 845,100
A-Type Median Curb	LF	56,340	\$ 10.00	\$ 563,400
Sidewalk	SF	313,000	\$ 4.25	\$ 1,330,250
Guardrail	LF	0	\$ 17.00	-
Signalized Intersections	EACH	1	\$ 200,000.00	\$ 200,000
Drainage (Assumes URBAN treatments)	STA	313	\$ 6,000	\$ 1,878,000

Subtotal **\$ 13,437,530**

<u>Additional Drainage Structures</u>	<u>Length (ft)</u>	<u>Price / FT</u>	<u>Cost</u>
Minor Crossing (Sta 25+00)	120	\$ 400.00	\$48,000
Minor Crossing (Sta 141+62)	120	\$ 400.00	\$48,000
Alkali Creek Crossing, 2X (Sta 283+00)	240	\$ 400.00	\$96,000
Alkali Creek Crossing, 2X (Sta 316+50)	240	\$ 400.00	\$96,000

Miscellaneous Items	@ 15%	\$ 2,015,630
Contingency (% of total construction)	@ 20%	\$ 3,148,232

Subtotal **\$ 18,889,392**

Construction Engineering (Percentage of Subtotal)	@ 10%	\$ 1,888,939
Design Engineering (Percentage of Subtotal)	@ 8%	\$ 1,511,151

Construction Costs **\$ 22,289,483**

<u>Right-of-Way</u>	<u>Units</u>	<u>Price</u>	<u>Cost</u>
Agricultural - Suburban (Per Acre)	22.865	\$ 15,000	\$ 342,975
Agricultural - Open (Per Acre)	30.338	\$ 3,000	\$ 91,014
Residential - Unoccupied, Unimproved (Per Lot)	0.000	\$ 55,000	-
Residential - Unoccupied, Improved (Per Lot)	0.000	\$ 180,000	-
Public (Per Acre)	25.896	\$ 10,000	\$ 258,960
Construction Permits (Per Mile)	5.928	\$ 30,000	\$ 177,841

Right-of-Way Costs **\$ 870,790**

Utility Relocation **UNKNOWN**

Grand Total **\$ 23,160,272**

Cost per Mile **\$ 3,906,909**

Unit costs are based on 2004 MDT Average Prices
Right-of-Way costs based on typical Billings area 2004 real estate prices

Loop Corridor - Alternative 1B

Ultimate Section: 4-Lane Arterial w/ Median, 12-ft Lanes, 2-ft Shld, C&G

Length of Corridor	5.896	<i>miles</i>	31132 ft
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Typical Section 1 - Standard Section

Length of Section	5.896	<i>miles</i>	31132 ft
PMBS (Aggregate)			4 in
Base Course			16 in

Pavement Width	52 ft
Lane Width	12 ft
Shoulder Width	2 ft
Curb/Gutter/Sidewalk?	YES
Crown (C)	2%
Right-of-Way	120 ft

PMBS (Aggregate) X-Section Area	17.34 sf
Base Course X-Section Area	76.44 sf
PCC L-Type Curb & Gutter	62264 ft
PCC A-Type Median Curb	56038 ft
PCC Sidewalk	311320 sf

Typical Section 2 - Guardrail Section

Length of Section	0.000	<i>miles</i>	0 ft
PMBS (Aggregate)			4 in
Base Course			16 in

Pavement Width	40 ft
Lane Width	12 ft
Shoulder Width	8 ft
Curb/Gutter/Sidewalk?	YES
Crown (C)	2%
Right-of-Way (Assumed)	120 ft

PMBS (Aggregate) X-Section Area	17.34 sf
Base Course X-Section Area	76.44 sf
PCC L-Type Curb & Gutter	0 ft
PCC A-Type Median Curb	0 ft
PCC Sidewalk	0 sf

Road Quantities (Based on MDT Standard Estimating Practices)

PMBS (Yellowstone River Aggregate at 4167 lbs / yd3)	41656.8 Ton
Base Course (Yellowstone River Aggregate at 3855 lbs / yd3)	169886.3 yds ³
Aggregate Cover	2321.0 Ton
Asphalt Cement (at 6.0% of PMBS)	2499.4 Ton
Dust Palliative	301.7 Ton
Seal (CRS-2P)	304.4 Ton
Tack (Aggregate Treatment and Pavement Tack)	13905.6 gal

Loop Corridor - Alternative 1B

Ultimate Section: 4-Lane Arterial w/ Median, 12-ft Lanes, 2-ft Shld, C&G

Preliminary Cost Opinion

Construction Costs

<u>Item</u>	<u>Units</u>	<u>Quantity</u>	<u>Price</u>	<u>Cost</u>
Mobilization (10%)	LUMP SUM	1	\$ 1,235,439	\$ 1,235,439
PMBS (Aggregate)	TON	41,657	\$ 22.00	\$ 916,449
Crushed Base Course (CBC)	CY	169,886	\$ 25.00	\$ 4,247,157
Cover	TON	2,321	\$ 30.00	\$ 69,630
Asphalt Cement	TON	2,499	\$ 292.00	\$ 729,827
Dust Palliative	TON	302	\$ 100.00	\$ 30,173
Seal	TON	304	\$ 313.00	\$ 95,271
Tack	GAL	13,906	\$ 1.30	\$ 18,077
Excavation	CY	415,954	\$ 3.50	\$ 1,455,839
L-Type Curb and Gutter	LF	62,264	\$ 13.50	\$ 840,564
A-Type Median Curb	LF	56,038	\$ 10.00	\$ 560,376
Sidewalk	SF	311,320	\$ 4.25	\$ 1,323,110
Guardrail	LF	0	\$ 17.00	\$ -
Signalized Intersections	EACH	1	\$ 200,000.00	\$ 200,000
Drainage (Assumes URBAN treatments)	STA	311	\$ 6,000	\$ 1,867,920

Subtotal **\$ 13,589,833**

<u>Additional Drainage Structures</u>	<u>Length (ft)</u>	<u>Price / FT</u>	
Minor Crossing (Sta 25+00)	120	\$ 400.00	\$48,000
Minor Crossing (Sta 141+62)	120	\$ 400.00	\$48,000
Alkali Creek Crossing, 2X (Sta 276+00)	240	\$ 400.00	\$96,000

Miscellaneous Items	@ 15%	\$ 2,038,475
Contingency (% of total construction)	@ 20%	\$ 3,164,061

Subtotal **\$ 18,984,369**

Construction Engineering (Percentage of Subtotal)	@ 10%	\$ 1,898,437
Design Engineering (Percentage of Subtotal)	@ 8%	\$ 1,518,750

Construction Costs **\$ 22,401,555**

<u>Right-of-Way</u>	<u>Units</u>	<u>Price</u>	
Agricultural - Suburban (Per Acre)	22.865	\$ 15,000	\$ 342,975
Agricultural - Open (Per Acre)	33.146	\$ 3,000	\$ 99,438
Residential - Unoccupied, Unimproved (Per Lot)	0.000	\$ 55,000	\$ -
Residential - Unoccupied, Improved (Per Lot)	0.000	\$ 180,000	\$ -
Public (Per Acre)	29.752	\$ 10,000	\$ 297,520
Construction Permits (Per Mile)	5.896	\$ 30,000	\$ 176,886

Right-of-Way Costs **\$ 916,819**

Utility Relocation **UNKNOWN**

Grand Total **\$ 23,318,375**

Cost per Mile **\$ 3,954,806**

Unit costs are based on 2004 MDT Average Prices
Right-of-Way costs based on typical Billings area 2004 real estate prices

Loop Corridor - Alternative 2A

Ultimate Section: 4-Lane Arterial w/ Median, 12-ft Lanes, 2-ft Shld, C&G

Length of Corridor	6.723	<i>miles</i>	35500 ft
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Typical Section 1 - Standard Section

Length of Section	6.723	<i>miles</i>	35500 ft
PMBS (Aggregate)			4 in
Base Course			16 in

Pavement Width	36 ft
Lane Width	12 ft
Shoulder Width	6 ft
Curb/Gutter/Sidewalk?	YES
Crown (C)	2%
Right-of-Way	120 ft

PMBS (Aggregate) X-Section Area	17.34 sf
Base Course X-Section Area	76.44 sf
PCC L-Type Curb & Gutter	71000 ft
PCC A-Type Median Curb	63900 ft
PCC Sidewalk	355000 sf

Typical Section 2 - Guardrail Section

Length of Section	0.000	<i>miles</i>	0 ft
PMBS (Aggregate)			4 in
Base Course			16 in

Pavement Width	40 ft
Lane Width	12 ft
Shoulder Width	8 ft
Curb/Gutter/Sidewalk?	YES
Crown (C)	2%
Right-of-Way (Assumed)	120 ft

PMBS (Aggregate) X-Section Area	17.34 sf
Base Course X-Section Area	76.44 sf
PCC L-Type Curb & Gutter	0 ft
PCC A-Type Median Curb	0 ft
PCC Sidewalk	0 sf

Road Quantities (Based on MDT Standard Estimating Practices)

PMBS (Yellowstone River Aggregate at 4167 lbs / yd3)	47501.5 Ton
Base Course (Yellowstone River Aggregate at 3855 lbs / yd3)	193722.3 yds ³
Aggregate Cover	1832.3 Ton
Asphalt Cement (at 6.0% of PMBS)	2850.1 Ton
Dust Palliative	238.2 Ton
Seal (CRS-2P)	240.3 Ton
Tack (Aggregate Treatment and Pavement Tack)	10977.6 gal

Loop Corridor - Alternative 2A

Ultimate Section: 4-Lane Arterial w/ Median, 12-ft Lanes, 2-ft Shld, C&G

Preliminary Cost Opinion

Construction Costs

<u>Item</u>	<u>Units</u>	<u>Quantity</u>	<u>Price</u>	<u>Cost</u>
Mobilization (10%)	LUMP SUM	1	\$ 1,322,990	\$ 1,322,990
PMBS (Aggregate)	TON	47,501	\$ 22.00	\$ 1,045,033
Crushed Base Course (CBC)	CY	193,722	\$ 25.00	\$ 4,843,058
Cover	TON	1,832	\$ 30.00	\$ 54,969
Asphalt Cement	TON	2,850	\$ 292.00	\$ 832,226
Dust Palliative	TON	238	\$ 100.00	\$ 23,820
Seal	TON	240	\$ 313.00	\$ 75,211
Tack	GAL	10,978	\$ 1.30	\$ 14,271
Excavation	CY	258,590	\$ 3.50	\$ 905,064
L-Type Curb and Gutter	LF	71,000	\$ 13.50	\$ 958,500
A-Type Median Curb	LF	63,900	\$ 10.00	\$ 639,000
Sidewalk	SF	355,000	\$ 4.25	\$ 1,508,750
Guardrail	LF	0	\$ 17.00	\$ -
Signalized Intersections	EACH	1	\$ 200,000.00	\$ 200,000
Drainage (Assumes URBAN treatments)	STA	355	\$ 6,000	\$ 2,130,000

Subtotal **\$ 14,552,891**

<u>Additional Drainage Structures</u>	<u>Length (ft)</u>	<u>Price / FT</u>	
Minor Crossing (Sta 25+00)	120	\$ 400.00	\$48,000
Minor Crossing (Sta 141+62)	120	\$ 400.00	\$48,000
Alkali Creek Crossing, 2X (Sta 179+00)	240	\$ 400.00	\$96,000
Alkali Creek Crossing, 2X (Sta 200+80)	240	\$ 400.00	\$96,000
Alkali Creek Crossing, 2X (Sta 325+00)	240	\$ 400.00	\$96,000
Alkali Creek Crossing, 2X (Sta 357+00)	240	\$ 400.00	\$96,000

Miscellaneous Items @ 15% \$ 2,182,934
 Contingency (% of total construction) @ 20% \$ 3,443,165

Subtotal **\$ 20,658,989**

Construction Engineering (Percentage of Subtotal) @ 10% \$ 2,065,899
 Design Engineering (Percentage of Subtotal) @ 8% \$ 1,652,719

Construction Costs **\$ 24,377,608**

<u>Right-of-Way</u>	<u>Units</u>	<u>Price</u>	
Agricultural - Suburban (Per Acre)	22.865	\$ 15,000	\$ 342,975
Agricultural - Open (Per Acre)	24.380	\$ 3,000	\$ 73,140
Residential - Unoccupied, Unimproved (Per Lot)	0.000	\$ 55,000	\$ -
Residential - Unoccupied, Improved (Per Lot)	0.000	\$ 180,000	\$ -
Public (Per Acre)	26.171	\$ 10,000	\$ 261,710
Construction Permits (Per Mile)	6.723	\$ 30,000	\$ 201,705

Right-of-Way Costs **\$ 879,530**

Utility Relocation **UNKNOWN**

Grand Total **\$ 25,257,137**

Cost per Mile **\$ 3,756,554**

Unit costs are based on 2004 MDT Average Prices
 Right-of-Way costs based on typical Billings area 2004 real estate prices

Loop Corridor - Alternative 2B

Ultimate Section: 4-Lane Arterial w/ Median, 12-ft Lanes, 2-ft Shld, C&G

Length of Corridor	6.504	<i>miles</i>	34340 ft
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Typical Section 1 - Standard Section

Length of Section	6.504	<i>miles</i>	34340 ft
PMBS (Aggregate)			4 in
Base Course			16 in

Pavement Width	36 ft
Lane Width	12 ft
Shoulder Width	6 ft
Curb/Gutter/Sidewalk?	YES
Crown (C)	2%
Right-of-Way	120 ft

PMBS (Aggregate) X-Section Area	17.34 sf
Base Course X-Section Area	76.44 sf
PCC L-Type Curb & Gutter	68680 ft
PCC A-Type Median Curb	61812 ft
PCC Sidewalk	343400 sf

Typical Section 2 - Guardrail Section

Length of Section	0.000	<i>miles</i>	0 ft
PMBS (Aggregate)			4 in
Base Course			16 in

Pavement Width	40 ft
Lane Width	12 ft
Shoulder Width	8 ft
Curb/Gutter/Sidewalk?	YES
Crown (C)	2%
Right-of-Way (Assumed)	120 ft

PMBS (Aggregate) X-Section Area	17.34 sf
Base Course X-Section Area	76.44 sf
PCC L-Type Curb & Gutter	0 ft
PCC A-Type Median Curb	0 ft
PCC Sidewalk	0 sf

Road Quantities (Based on MDT Standard Estimating Practices)

PMBS (Yellowstone River Aggregate at 4167 lbs / yd3)	45949.3 Ton
Base Course (Yellowstone River Aggregate at 3855 lbs / yd3)	187392.2 yds ³
Aggregate Cover	1772.4 Ton
Asphalt Cement (at 6.0% of PMBS)	2757.0 Ton
Dust Palliative	230.4 Ton
Seal (CRS-2P)	232.4 Ton
Tack (Aggregate Treatment and Pavement Tack)	10618.9 gal

Loop Corridor - Alternative 2B

Ultimate Section: 4-Lane Arterial w/ Median, 12-ft Lanes, 2-ft Shld, C&G

Preliminary Cost Opinion

Construction Costs

<u>Item</u>	<u>Units</u>	<u>Quantity</u>	<u>Price</u>	<u>Cost</u>
Mobilization (10%)	LUMP SUM	1	\$ 1,266,411	\$ 1,266,411
PMBS (Aggregate)	TON	45,949	\$ 22.00	\$ 1,010,885
Crushed Base Course (CBC)	CY	187,392	\$ 25.00	\$ 4,684,806
Cover	TON	1,772	\$ 30.00	\$ 53,172
Asphalt Cement	TON	2,757	\$ 292.00	\$ 805,032
Dust Palliative	TON	230	\$ 100.00	\$ 23,041
Seal	TON	232	\$ 313.00	\$ 72,753
Tack	GAL	10,619	\$ 1.30	\$ 13,805
Excavation	CY	210,133	\$ 3.50	\$ 735,466
L-Type Curb and Gutter	LF	68,680	\$ 13.50	\$ 927,180
A-Type Median Curb	LF	61,812	\$ 10.00	\$ 618,120
Sidewalk	SF	343,400	\$ 4.25	\$ 1,459,450
Guardrail	LF	0	\$ 17.00	\$ -
Signalized Intersections	EACH	1	\$ 200,000.00	\$ 200,000
Drainage (Assumes URBAN treatments)	STA	343	\$ 6,000	\$ 2,060,400

Subtotal **\$ 13,930,522**

<u>Additional Drainage Structures</u>	<u>Length (ft)</u>	<u>Price / FT</u>	
Minor Crossing (Sta 25+00)	120	\$ 400.00	\$48,000
Minor Crossing (Sta 141+62)	120	\$ 400.00	\$48,000
Alkali Creek Crossing, 2X (Sta 179+00)	240	\$ 400.00	\$96,000
Alkali Creek Crossing, 2X (Sta 200+80)	240	\$ 400.00	\$96,000
Alkali Creek Crossing, 2X (Sta 311+30)	240	\$ 400.00	\$96,000

Miscellaneous Items @ 15% \$ 2,089,578
 Contingency (% of total construction) @ 20% \$ 3,280,820

Subtotal **\$ 19,684,921**

Construction Engineering (Percentage of Subtotal) @ 10% \$ 1,968,492
 Design Engineering (Percentage of Subtotal) @ 8% \$ 1,574,794

Construction Costs **\$ 23,228,206**

<u>Right-of-Way</u>	<u>Units</u>	<u>Price</u>	
Agricultural - Suburban (Per Acre)	22.865	\$ 15,000	\$ 342,975
Agricultural - Open (Per Acre)	26.143	\$ 3,000	\$ 78,429
Residential - Unoccupied, Unimproved (Per Lot)	0.000	\$ 55,000	\$ -
Residential - Unoccupied, Improved (Per Lot)	0.000	\$ 180,000	\$ -
Public (Per Acre)	29.752	\$ 10,000	\$ 297,520
Construction Permits (Per Mile)	6.504	\$ 30,000	\$ 195,114

Right-of-Way Costs **\$ 914,038**

Utility Relocation UNKNOWN

Grand Total **\$ 24,142,244**

Cost per Mile **\$ 3,712,028**

Unit costs are based on 2004 MDT Average Prices
 Right-of-Way costs based on typical Billings area 2004 real estate prices

Loop Corridor - Alternative 3

Ultimate Section: 4-Lane Arterial w/ Median, 12-ft Lanes, 2-ft Shld, C&G

Length of Corridor	7.112	<i>miles</i>	37550 ft
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Typical Section 1 - Standard Section

Length of Section	7.112	<i>miles</i>	37550 ft
PMBS (Aggregate)			4 in
Base Course			16 in

Pavement Width			36 ft
Lane Width			12 ft
Shoulder Width			6 ft
Curb/Gutter/Sidewalk?			YES
Crown (C)			2%
Right-of-Way			120 ft

PMBS (Aggregate) X-Section Area			17.34 sf
Base Course X-Section Area			76.44 sf
PCC L-Type Curb & Gutter			75100 ft
PCC A-Type Median Curb			67590 ft
PCC Sidewalk			375500 sf

Typical Section 2 - Guardrail Section

Length of Section	0.000	<i>miles</i>	0 ft
PMBS (Aggregate)			4 in
Base Course			16 in

Pavement Width			40 ft
Lane Width			12 ft
Shoulder Width			8 ft
Curb/Gutter/Sidewalk?			YES
Crown (C)			2%
Right-of-Way (Assumed)			120 ft

PMBS (Aggregate) X-Section Area			17.34 sf
Base Course X-Section Area			76.44 sf
PCC L-Type Curb & Gutter			0 ft
PCC A-Type Median Curb			0 ft
PCC Sidewalk			0 sf

Road Quantities (Based on MDT Standard Estimating Practices)

PMBS (Yellowstone River Aggregate at 4167 lbs / yd3)	50244.5 Ton
Base Course (Yellowstone River Aggregate at 3855 lbs / yd3)	204909.1 yds ³
Aggregate Cover	1938.1 Ton
Asphalt Cement (at 6.0% of PMBS)	3014.7 Ton
Dust Palliative	252.0 Ton
Seal (CRS-2P)	254.2 Ton
Tack (Aggregate Treatment and Pavement Tack)	11611.6 gal

Loop Corridor - Alternative 3

Ultimate Section: 4-Lane Arterial w/ Median, 12-ft Lanes, 2-ft Shld, C&G

Preliminary Cost Opinion

Construction Costs

<u>Item</u>	<u>Units</u>	<u>Quantity</u>	<u>Price</u>	<u>Cost</u>
Mobilization (10%)	LUMP SUM	1	\$ 1,422,959	\$ 1,422,959
PMBS (Aggregate)	TON	50,245	\$ 22.00	\$ 1,105,380
Crushed Base Course (CBC)	CY	204,909	\$ 25.00	\$ 5,122,727
Cover	TON	1,938	\$ 30.00	\$ 58,143
Asphalt Cement	TON	3,015	\$ 292.00	\$ 880,284
Dust Palliative	TON	252	\$ 100.00	\$ 25,195
Seal	TON	254	\$ 313.00	\$ 79,554
Tack	GAL	11,612	\$ 1.30	\$ 15,095
Excavation	CY	344,168	\$ 3.50	\$ 1,204,590
L-Type Curb and Gutter	LF	75,100	\$ 13.50	\$ 1,013,850
A-Type Median Curb	LF	67,590	\$ 10.00	\$ 675,900
Sidewalk	SF	375,500	\$ 4.25	\$ 1,595,875
Guardrail	LF	0	\$ 17.00	\$ -
Signalized Intersections	EACH	1	\$ 200,000.00	\$ 200,000
Drainage (Assumes URBAN treatments)	STA	376	\$ 6,000	\$ 2,253,000

Subtotal **\$ 15,652,552**

<u>Additional Drainage Structures</u>	<u>Length (ft)</u>	<u>Price / FT</u>	
Minor Crossing (Sta 25+00)	120	\$ 400.00	\$48,000
Minor Crossing (Sta 141+62)	120	\$ 400.00	\$48,000
Alkali Creek Crossing, 2X (Sta 178+60)	240	\$ 400.00	\$96,000
Minor Crossing (Sta 252+00)	120	\$ 400.00	\$48,000
Minor Crossing (Sta 367+00)	120	\$ 400.00	\$48,000

Miscellaneous Items	@ 15%	\$ 2,347,883
Contingency (% of total construction)	@ 20%	\$ 3,657,687

Subtotal **\$ 21,946,122**

Construction Engineering (Percentage of Subtotal)	@ 10%	\$ 2,194,612
Design Engineering (Percentage of Subtotal)	@ 8%	\$ 1,755,690

Construction Costs **\$ 25,896,424**

<u>Right-of-Way</u>	<u>Units</u>	<u>Price</u>	
Agricultural - Suburban (Per Acre)	29.063	\$ 15,000	\$ 435,945
Agricultural - Open (Per Acre)	39.532	\$ 3,000	\$ 118,596
Residential - Unoccupied, Unimproved (Per Lot)	0.000	\$ 55,000	\$ -
Residential - Unoccupied, Improved (Per Lot)	0.000	\$ 180,000	\$ -
Public (Per Acre)	34.711	\$ 10,000	\$ 347,110
Construction Permits (Per Mile)	7.112	\$ 30,000	\$ 213,352

Right-of-Way Costs **\$ 1,115,003**

Utility Relocation **UNKNOWN**

Grand Total **\$ 27,011,427**

Cost per Mile **\$ 3,798,145**

Unit costs are based on 2004 MDT Average Prices
Right-of-Way costs based on typical Billings area 2004 real estate prices