

Lowell St
City of Gibraltar, MICHIGAN
Preliminary Cost Estimate
C. E. Raines Company Job No. GR-182
July 12, 2023

Item	Description	Unit	Estimated Quantity	Chip Seal	Mill and Fill	Pulverize and Pave	Remove and Replace
1	Grandview to Davis	SYD	1,233	\$ 9,322.53	\$ 68,966.60	\$ 124,263.10	\$ 190,442.85
2	Davis to Cora	SYD	1,229	\$ 9,295.21	\$ 68,773.03	\$ 123,870.26	\$ 189,813.78
3	Cora to Middle Gibraltar	SYD	1,204	\$ 9,144.92	\$ 67,708.37	\$ 121,709.64	\$ 186,353.87
4	Middle Gibraltar to South End	SYD	1,133	\$ 8,707.73	\$ 64,611.20	\$ 115,424.20	\$ 176,288.70
Total Cost				\$ 36,470.40	\$ 270,059.20	\$ 485,267.20	\$ 742,899.20

Grandview to Davis
City of Gibraltar, MICHIGAN
Preliminary Cost Estimate
C. E. Raines Company Job No. GR-182
July 12, 2023

BASE BID - Chip Seal

Item	Description	Unit	Estimated Quantity	Unit Price	Estimated Total Amount
1	Double Chip Seal	SYD	1,233	\$ 4.25	\$ 5,241.67
2	Fog Seal	SYD	1,233	\$ 0.60	\$ 740.00
5	Pavement Markings	LF	555	\$ 1.00	\$ 555.00
6	Traffic Maintenance and Control	LS	1	\$ 1,000.00	\$ 1,000.00
7	Restoration and Clean-up	LS	1	\$ 500.00	\$ 500.00
Preliminary Estimate					\$ 8,036.67
6% Engineering					\$ 482.20
10% Contingency					\$ 803.67
Total:					\$ 9,322.53

Cora to Middle Gibraltar
City of Gibraltar, MICHIGAN
Preliminary Cost Estimate
C. E. Raines Company Job No. GR-182
July 12, 2023

BASE BID - Mill and Fill

Item	Description	Unit	Estimated Quantity	Unit Price	Estimated Total Amount
1	Pavement Roto-milling 2" deep	SYD	1,233	\$ 3.25	\$ 4,008.33
2	Misc. Subgrade undercutting, Type II	SYD	123	\$ 40.00	\$ 4,933.33
3	Full Depth HMA sectional Repair	SYD	123	\$ 110.00	\$ 13,566.67
4	2" HMA Wearing course, 5EMH Super Pave	SYD	1,233	\$ 17.00	\$ 20,966.67
5	Misc. Structure Adjustments	EA	0	\$ 750.00	\$ -
6	Pavement Markings	LF	555	\$ 1.00	\$ 555.00
7	Traffic Maintenance and Control	EA	1	\$ 12,000.00	\$ 12,000.00
8	Restoration and Clean-up	EA	1	\$ 500.00	\$ 500.00
Preliminary Estimate					\$ 56,530.00
12% Engineering					\$ 6,783.60
10% Contingency					\$ 5,653.00
Total:					\$ 68,966.60

Grandview to Davis
City of Gibraltar, MICHIGAN
Preliminary Cost Estimate
C. E. Raines Company Job No. GR-182
July 12, 2023

BASE BID - Pulverize and Pave

Item	Description	Unit	Estimated Quantity	Unit Price	Estimated Total Amount
1	Pulverize Existing HMA pavement	SYD	1,233	\$ 25.00	\$ 30,833.33
2	Misc. Structure Adjustments	SYD	0	\$ 750.00	\$ -
3	Misc. Subgrade undercutting, Type II	SYD	123	\$ 110.00	\$ 13,566.67
4	2.5" HMA Leaving course, 4EMH Super Pave	SYD	1,233	\$ 21.00	\$ 25,900.00
5	1.5" HMA Wearing course, 5EMH Super Pave	EA	1,233	\$ 15.00	\$ 18,500.00
6	Pavement Markings	LF	555	\$ 1.00	\$ 555.00
7	Traffic Maintenance and Control	EA	1	\$ 12,000.00	\$ 12,000.00
8	Restoration and Clean-up	EA	1	\$ 500.00	\$ 500.00
Preliminary Estimate					\$ 101,855.00
12% Engineering					\$ 12,222.60
10% Contingency					\$ 10,185.50
Total:					\$ 124,263.10

Grandview to Davis
City of Gibraltar, MICHIGAN
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July 12, 2023

BASE BID - Remove and Replace

Item	Description	Unit	Estimated Quantity	Unit Price	Estimated Total Amount
1	Remove existing HMA pavement	SYD	1,233	\$ 17.00	\$ 20,966.67
2	Misc. Structure Adjustments	SYD	0	\$ 750.00	\$ -
3	Misc. Subgrade undercutting, Type II	SYD	123	\$ 110.00	\$ 13,566.67
4	2" HMA Base Course, 4EMH Super Pave	SYD	1,233	\$ 17.00	\$ 20,966.67
5	2.5" HMA Leaving course, 4EMH Super Pave	SYD	1,233	\$ 21.00	\$ 25,900.00
6	1.5" HMA Wearing course, 5EMH Super Pave	SYD	1,233	\$ 15.00	\$ 18,500.00
7	Install 8" 21AA Crushed limestone	SYD	1,233	\$ 30.00	\$ 37,000.00
8	Pavement Markings	LF	555	\$ 1.00	\$ 555.00
9	Traffic Maintenance and Control	EA	1	\$ 12,000.00	\$ 12,000.00
10	Restoration and Clean-up	EA	1	\$ 500.00	\$ 500.00
Preliminary Estimate					\$ 149,955.00
17% Engineering					\$ 25,492.35
10% Contingency					\$ 14,995.50
Total:					\$ 190,442.85

Davis to Cora
City of Gibraltar, MICHIGAN
Preliminary Cost Estimate
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July 12, 2023

BASE BID - Chip Seal

Item	Description	Unit	Estimated Quantity	Unit Price	Estimated Total Amount
1	Double Chip Seal	SYD	1,229	\$ 4.25	\$ 5,222.78
2	Fog Seal	SYD	1,229	\$ 0.60	\$ 737.33
5	Pavement Markings	LF	553	\$ 1.00	\$ 553.00
6	Traffic Maintenance and Control	LS	1	\$ 1,000.00	\$ 1,000.00
7	Restoration and Clean-up	LS	1	\$ 500.00	\$ 500.00
Preliminary Estimate					\$ 8,013.11
6% Engineering					\$ 480.79
10% Contingency					\$ 801.31
Total:					\$ 9,295.21

Davis to Cora
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BASE BID - Mill and Fill

Item	Description	Unit	Estimated Quantity	Unit Price	Estimated Total Amount
1	Pavement Roto-milling 2" deep	SYD	1,229	\$ 3.25	\$ 3,993.89
2	Misc. Subgrade undercutting, Type II	SYD	123	\$ 40.00	\$ 4,915.56
3	Full Depth HMA sectional Repair	SYD	123	\$ 110.00	\$ 13,517.78
4	2" HMA Wearing course, 5EMH Super Pave	SYD	1,229	\$ 17.00	\$ 20,891.11
5	Misc. Structure Adjustments	EA	0	\$ 750.00	\$ -
6	Pavement Markings	LF	553	\$ 1.00	\$ 553.00
7	Traffic Maintenance and Control	EA	1	\$ 12,000.00	\$ 12,000.00
8	Restoration and Clean-up	EA	1	\$ 500.00	\$ 500.00
Preliminary Estimate					\$ 56,371.33
12% Engineering					\$ 6,764.56
10% Contingency					\$ 5,637.13
Total:					\$ 68,773.03

Davis to Cora
City of Gibraltar, MICHIGAN
Preliminary Cost Estimate
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July 12, 2023

BASE BID - Pulverize and Pave

Item	Description	Unit	Estimated Quantity	Unit Price	Estimated Total Amount
1	Pulverize Existing HMA pavement	SYD	1,229	\$ 25.00	\$ 30,722.22
2	Misc. Structure Adjustments	SYD	0	\$ 750.00	\$ -
3	Misc. Subgrade undercutting, Type II	SYD	123	\$ 110.00	\$ 13,517.78
4	2.5" HMA Leaving course, 4EMH Super Pave	SYD	1,229	\$ 21.00	\$ 25,806.67
5	1.5" HMA Wearing course, 5EMH Super Pave	EA	1,229	\$ 15.00	\$ 18,433.33
6	Pavement Markings	LF	553	\$ 1.00	\$ 553.00
7	Traffic Maintenance and Control	EA	1	\$ 12,000.00	\$ 12,000.00
8	Restoration and Clean-up	EA	1	\$ 500.00	\$ 500.00

Preliminary Estimate	\$ 101,533.00
12% Engineering	\$ 12,183.96
10% Contingency	\$ 10,153.30
Total:	\$ 123,870.26

Davis to Cora
City of Gibraltar, MICHIGAN
Preliminary Cost Estimate
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BASE BID - Remove and Replace

Item	Description	Unit	Estimated Quantity	Unit Price	Estimated Total Amount
1	Remove existing HMA pavement	SYD	1,229	\$ 17.00	\$ 20,891.11
2	Misc. Structure Adjustments	SYD	0	\$ 750.00	\$ -
3	Misc. Subgrade undercutting, Type II	SYD	123	\$ 110.00	\$ 13,517.78
4	2" HMA Base Course, 4EMH Super Pave	SYD	1,229	\$ 17.00	\$ 20,891.11
5	2.5" HMA Leaving course, 4EMH Super Pave	SYD	1,229	\$ 21.00	\$ 25,806.67
6	1.5" HMA Wearing course, 5EMH Super Pave	SYD	1,229	\$ 15.00	\$ 18,433.33
7	Install 8" 21AA Crushed limestone	SYD	1,229	\$ 30.00	\$ 36,866.67
8	Pavement Markings	LF	553	\$ 1.00	\$ 553.00
9	Traffic Maintenance and Control	EA	1	\$ 12,000.00	\$ 12,000.00
10	Restoration and Clean-up	EA	1	\$ 500.00	\$ 500.00

Preliminary Estimate	\$ 149,459.67
17% Engineering	\$ 25,408.14
10% Contingency	\$ 14,945.97
Total:	\$ 189,813.78

Cora to Middle Gibraltar
City of Gibraltar, MICHIGAN
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July 12, 2023

BASE BID - Chip Seal

Item	Description	Unit	Estimated Quantity	Unit Price	Estimated Total Amount
1	Double Chip Seal	SYD	1,204	\$ 4.25	\$ 5,118.89
2	Fog Seal	SYD	1,204	\$ 0.60	\$ 722.67
5	Pavement Markings	LF	542	\$ 1.00	\$ 542.00
6	Traffic Maintenance and Control	LS	1	\$ 1,000.00	\$ 1,000.00
7	Restoration and Clean-up	LS	1	\$ 500.00	\$ 500.00
Preliminary Estimate					\$ 7,883.56
6% Engineering					\$ 473.01
10% Contingency					\$ 788.36
Total:					\$ 9,144.92

Cora to Middle Gibraltar
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July 12, 2023

BASE BID - Mill and Fill

Item	Description	Unit	Estimated Quantity	Unit Price	Estimated Total Amount
1	Pavement Roto-milling 2" deep	SYD	1,204	\$ 3.25	\$ 3,914.44
2	Misc. Subgrade undercutting, Type II	SYD	120	\$ 40.00	\$ 4,817.78
3	Full Depth HMA sectional Repair	SYD	120	\$ 110.00	\$ 13,248.89
4	2" HMA Wearing course, 5EMH Super Pave	SYD	1,204	\$ 17.00	\$ 20,475.56
5	Misc. Structure Adjustments	EA	0	\$ 750.00	\$ -
6	Pavement Markings	LF	542	\$ 1.00	\$ 542.00
7	Traffic Maintenance and Control	EA	1	\$ 12,000.00	\$ 12,000.00
8	Restoration and Clean-up	EA	1	\$ 500.00	\$ 500.00
Preliminary Estimate					\$ 55,498.67
12% Engineering					\$ 6,659.84
10% Contingency					\$ 5,549.87
Total:					\$ 67,708.37

Cora to Middle Gibraltar
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July 12, 2023

BASE BID - Pulverize and Pave

Item	Description	Unit	Estimated Quantity	Unit Price	Estimated Total Amount
1	Pulverize Existing HMA pavement	SYD	1,204	\$ 25.00	\$ 30,111.11
2	Misc. Structure Adjustments	SYD	0	\$ 750.00	\$ -
3	Misc. Subgrade undercutting, Type II	SYD	120	\$ 110.00	\$ 13,248.89
4	2.5" HMA Leaving course, 4EMH Super Pave	SYD	1,204	\$ 21.00	\$ 25,293.33
5	1.5" HMA Wearing course, 5EMH Super Pave	EA	1,204	\$ 15.00	\$ 18,066.67
6	Pavement Markings	LF	542	\$ 1.00	\$ 542.00
7	Traffic Maintenance and Control	EA	1	\$ 12,000.00	\$ 12,000.00
8	Restoration and Clean-up	EA	1	\$ 500.00	\$ 500.00
Preliminary Estimate					\$ 99,762.00
12% Engineering					\$ 11,971.44
10% Contingency					\$ 9,976.20
Total:					\$ 121,709.64

Cora to Middle Gibraltar
City of Gibraltar, MICHIGAN
Preliminary Cost Estimate
C. E. Raines Company Job No. GR-182
July 12, 2023

BASE BID - Remove and Replace

Item	Description	Unit	Estimated Quantity	Unit Price	Estimated Total Amount
1	Remove existing HMA pavement	SYD	1,204	\$ 17.00	\$ 20,475.56
2	Misc. Structure Adjustments	SYD	0	\$ 750.00	\$ -
3	Misc. Subgrade undercutting, Type II	SYD	120	\$ 110.00	\$ 13,248.89
	2" HMA Base Course, 4EMH Super Pave	SYD	1,204	\$ 17.00	\$ 20,475.56
4	2.5" HMA Leaving course, 4EMH Super Pave	SYD	1,204	\$ 21.00	\$ 25,293.33
	1.5" HMA Wearing course, 5EMH Super Pave	SYD	1,204	\$ 15.00	\$ 18,066.67
5	Install 8" 21AA Crushed limestone	SYD	1,204	\$ 30.00	\$ 36,133.33
6	Pavement Markings	LF	542	\$ 1.00	\$ 542.00
7	Traffic Maintenance and Control	EA	1	\$ 12,000.00	\$ 12,000.00
8	Restoration and Clean-up	EA	1	\$ 500.00	\$ 500.00
Preliminary Estimate					\$ 146,735.33
17% Engineering					\$ 24,945.01
10% Contingency					\$ 14,673.53
Total:					\$ 186,353.87

Middle Gibraltar to South End

City of Gibraltar, MICHIGAN

Preliminary Cost Estimate

C. E. Raines Company Job No. GR-182

July 12, 2023

BASE BID - Chip Seal

Item	Description	Unit	Estimated Quantity	Unit Price	Estimated Total Amount
1	Double Chip Seal	SYD	1,133	\$ 4.25	\$ 4,816.67
2	Fog Seal	SYD	1,133	\$ 0.60	\$ 680.00
5	Pavement Markings	LF	510	\$ 1.00	\$ 510.00
6	Traffic Maintenance and Control	LS	1	\$ 1,000.00	\$ 1,000.00
7	Restoration and Clean-up	LS	1	\$ 500.00	\$ 500.00
Preliminary Estimate					\$ 7,506.67
6% Engineering					\$ 450.40
10% Contingency					\$ 750.67
Total:					\$ 8,707.73

Middle Gibraltar to South End

City of Gibraltar, MICHIGAN

Preliminary Cost Estimate

C. E. Raines Company Job No. GR-182

July 12, 2023

BASE BID - Mill and Fill

Item	Description	Unit	Estimated Quantity	Unit Price	Estimated Total Amount
1	Pavement Roto-milling 2" deep	SYD	1,133	\$ 3.25	\$ 3,683.33
2	Misc. Subgrade undercutting, Type II	SYD	113	\$ 40.00	\$ 4,533.33
3	Full Depth HMA sectional Repair	SYD	113	\$ 110.00	\$ 12,466.67
4	2" HMA Wearing course, SEMH Super Pave	SYD	1,133	\$ 17.00	\$ 19,266.67
5	Misc. Structure Adjustments	EA	0	\$ 750.00	\$ -
6	Pavement Markings	LF	510	\$ 1.00	\$ 510.00
7	Traffic Maintenance and Control	EA	1	\$ 12,000.00	\$ 12,000.00
8	Restoration and Clean-up	EA	1	\$ 500.00	\$ 500.00
Preliminary Estimate					\$ 52,960.00
12% Engineering					\$ 6,355.20
10% Contingency					\$ 5,296.00
Total:					\$ 64,611.20

Middle Gibraltar to South End

City of Gibraltar, MICHIGAN

Preliminary Cost Estimate

C. E. Raines Company Job No. GR-182

July 12, 2023

BASE BID - Pulverize and Pave

Item	Description	Unit	Estimated Quantity	Unit Price	Estimated Total Amount
1	Pulverize Existing HMA pavement	SYD	1,133	\$ 25.00	\$ 28,333.33
2	Misc. Structure Adjustments	SYD	0	\$ 750.00	\$ -
3	Misc. Subgrade undercutting, Type II	SYD	113	\$ 110.00	\$ 12,466.67
4	2.5" HMA Leaving course, 4EMH Super Pave	SYD	1,133	\$ 21.00	\$ 23,800.00
5	1.5" HMA Wearing course, 5EMH Super Pave	EA	1,133	\$ 15.00	\$ 17,000.00
6	Pavement Markings	LF	510	\$ 1.00	\$ 510.00
7	Traffic Maintenance and Control	EA	1	\$ 12,000.00	\$ 12,000.00
8	Restoration and Clean-up	EA	1	\$ 500.00	\$ 500.00
Preliminary Estimate					\$ 94,610.00
12% Engineering					\$ 11,353.20
10% Contingency					\$ 9,461.00
Total:					\$ 115,424.20

Middle Gibraltar to South End

City of Gibraltar, MICHIGAN

Preliminary Cost Estimate

C. E. Raines Company Job No. GR-182

July 12, 2023

BASE BID - Remove and Replace

Item	Description	Unit	Estimated Quantity	Unit Price	Estimated Total Amount
1	Remove existing HMA pavement	SYD	1,133	\$ 17.00	\$ 19,266.67
2	Misc. Structure Adjustments	SYD	0	\$ 750.00	\$ -
3	Misc. Subgrade undercutting, Type II	SYD	113	\$ 110.00	\$ 12,466.67
4	2" HMA Base Course, 4EMH Super Pave	SYD	1,133	\$ 17.00	\$ 19,266.67
5	2.5" HMA Leaving course, 4EMH Super Pave	SYD	1,133	\$ 21.00	\$ 23,800.00
6	1.5" HMA Wearing course, 5EMH Super Pave	SYD	1,133	\$ 15.00	\$ 17,000.00
7	Install 8" 21AA Crushed limestone	SYD	1,133	\$ 30.00	\$ 34,000.00
8	Pavement Markings	LF	510	\$ 1.00	\$ 510.00
9	Traffic Maintenance and Control	EA	1	\$ 12,000.00	\$ 12,000.00
10	Restoration and Clean-up	EA	1	\$ 500.00	\$ 500.00
Preliminary Estimate					\$ 138,810.00
17% Engineering					\$ 23,597.70
10% Contingency					\$ 13,881.00
Total:					\$ 176,288.70

Lowell St in Gibraltar

7/14/2023

Road Name	Depth	Conversion	Width	Length	Syd	lbs.	Tons	Signs	Structures	Shoulder	Comments
N/A	1"	1 SYD = 110 LBS	18 FT	LF	18.1818182	2000	1	-	-	3LF*L/9=SYD	
	4"	1 SYD = 440 LBS	18 FT	LF	4.54545455	2000	1	-	-	3LF*L/9=SYD	

Chip Seal	Width (feet)	Length (feet)	Area (sq ft)	Area (syd)	Length (mile)	Joint/Crack (lbs)	Base Repair (syd)	Structures	Shoulder	Comments
Grandview to Davis	20	555	11,100	1,233	0.1051	10	-	0	0	
Davis to Cora	20	553	11,060	1,229	0.1047	10	-	0	0	
Cora to Middle Gibraltar	20	542	10,840	1,204	0.1027	10	-	0	0	
Middle Gibraltar to South End	20	510	10,200	1,133	0.0966	10	-	0	0	
Totals		2,160		4,800	0.41	40	-	0	0	

Mill and Fill	Depth	Conversion	Width	Length	Syd	lbs.	Tons	Signs	Structures	Shoulder	Comments
Grandview to Davis	2	220	20	555	1,233	271,333	136	0	0	0	full depth is estimated is 10% of RD
Davis to Cora	2	220	20	553	1,229	270,356	135	0	0	0	full depth is estimated is 10% of RD
Cora to Middle Gibraltar	2	220	20	542	1,204	264,978	132	0	0	0	full depth is estimated is 10% of RD
Middle Gibraltar to South End	2	220	20	510	1,133	249,333	125	0	0	0	full depth is estimated is 10% of RD
Total				2,160	4,800	1,056,000	528	0	0	-	

Pulverize and Pave	Depth	Conversion	Width	Length	Syd	lbs.	Tons	Signs	Structures	Shoulder	Comments
Grandview to Davis	4	440	20	555	1,233	542,667	271	0	0	0	full depth is estimated is 10% of RD
Davis to Cora	4	440	20	553	1,229	540,711	270	0	0	0	full depth is estimated is 10% of RD
Cora to Middle Gibraltar	4	440	20	542	1,204	529,956	265	0	0	0	full depth is estimated is 10% of RD
Middle Gibraltar to South End	4	440	20	510	1,133	498,667	249	0	0	0	full depth is estimated is 10% of RD
Total				2,160	4,800	2,112,000	1,056	0	0	-	

Remove and Replace	Depth	Conversion	Width	Length	Syd	lbs.	Tons	Signs	Structures	Shoulder	Comments
Grandview to Davis	6	660	20	555	1,233	814,000	407	0	0	0	full depth is estimated is 10% of RD
Davis to Cora	6	660	20	553	1,229	811,067	406	0	0	0	full depth is estimated is 10% of RD
Cora to Middle Gibraltar	6	660	20	542	1,204	794,933	397	0	0	0	full depth is estimated is 10% of RD
Middle Gibraltar to South End	6	660	20	510	1,133	748,000	374	0	0	0	full depth is estimated is 10% of RD
Total				2,160	4,800	3,168,000	1,584	0	0	-	