



APPENDIX G

COST ESTIMATES FOR PRACTICAL ALTERNATIVES

Eastman Avenue
City of Midland
7/15/2005



ITEM CODE	ITEM	UNIT	UNIT PRICE	QUANTITY	ITEM COST
2040011	Pavt, Rem	syd	\$5	61731	\$309,689
-	Station Grading	sta	\$500	100	\$50,064
3010002	Subbase, CIP	cyd	\$9	31343	\$282,086
3020016	Aggregate Base, 6 inch	syd	\$4	94029	\$376,115
5020053	HMA (9"-990#/syd)	ton	\$40	37235	\$1,489,414
8020018	Curb and Gutter, Conc, Type B2	ft	\$17	31639	\$537,862
8030004	Sidewalk, 7 inch	sft	\$4	100127	\$400,508
-	Slope Restoration	syd	\$5	34699	\$173,493
-	Dr Structures	ea	\$1,500	40	\$60,076
-	12" Sewer	ft	\$45	2050	\$92,250
-	18" Sewer	ft	\$55	10013	\$550,699
-	Culvert Extension	ls	\$15,000	1	\$15,000
-	Maintaining Traffic	ls	\$150,000	1	\$150,000
-	Permanent Signing	ls	\$50,000	1	\$50,000
-	Pavement Marking	ls	\$25,000	1	\$25,000
-	Lighting	ea	\$2,000	100	\$200,254
-	Signals	ea	\$50,000	6	\$300,000
-	Utility Relocation	ls	\$100,000	1	\$100,000
-	Mobilization - 5%	ls	\$253,125	1	\$253,125
-	Contingency - 30%	ls	\$1,518,753	1	\$1,518,753
				Subtotal	\$6,934,387
	Engineering - 8%	ls	\$554,751	1	\$554,751
	Construction Inspection - 12%	ls	\$832,126	1	\$832,126
	Right-of-Way	ls	\$3,512,248	1	\$3,512,248
				TOTAL	\$11,833,513

Design	<u> </u> SPR 6/28/05
Check	<u> </u> MUM 6/29/05

ASSUMPTIONS

9" HMA pavement for new roadways.
Curb and gutter on all roadways
Drainage structures every 250' of roadway, 18" main sewer line, 12" leads.

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Eastman Avenue
City of Midland
7/15/2005



ITEM CODE	ITEM	UNIT	UNIT PRICE	QUANTITY	ITEM COST
2040011	Pavt, Rem	syd	\$5	60224	\$302,125
-	Station Grading	sta	\$500	95	\$47,495
3010002	Subbase, CIP	cyd	\$9	29023	\$261,209
3020016	Aggregate Base, 6 inch	syd	\$4	87070	\$348,278
5020053	HMA (9"-990#/syd)	ton	\$40	34480	\$1,379,183
8020018	Curb and Gutter, Conc, Type B2	ft	\$17	27816	\$472,872
8030004	Sidewalk, 7 inch	sft	\$4	103555	\$414,220
-	Slope Restoration	syd	\$5	32955	\$164,777
-	Dr Structures	ea	\$1,500	38	\$56,994
-	12" Sewer	ft	\$45	1900	\$85,500
-	18" Sewer	ft	\$55	9499	\$522,445
-	Culvert Extension	ls	\$15,000	1	\$15,000
-	Maintaining Traffic	ls	\$150,000	1	\$150,000
-	Permanent Signing	ls	\$50,000	1	\$50,000
-	Pavement Marking	ls	\$25,000	1	\$25,000
-	Lighting	ea	\$2,000	95	\$189,980
-	Pump house Relocation	ls	\$50,000	1	\$50,000
-	Utility Relocation	ls	\$100,000	1	\$100,000
-	Mobilization - 5%	ls	\$224,254	1	\$224,254
-	Contingency - 30%	ls	\$1,345,524	1	\$1,345,524
				Subtotal	\$6,204,856
	Engineering - 8%	ls	\$496,388	1	\$496,388
	Construction Inspection - 12%	ls	\$744,583	1	\$744,583
	Right-of-Way	ls	\$3,007,176	1	\$3,007,176
				TOTAL	\$10,453,003

Design	<u>SPR 6/28/05</u>
Check	<u>MUM 6/29/05</u>

ASSUMPTIONS

9" HMA pavement for new roadways.
Curb and gutter on all roadways
Drainage structures every 250' of roadway, 18" main sewer line, 12" leads.

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Eastman Avenue
City of Midland
7/15/2005



ITEM CODE	ITEM	UNIT	UNIT PRICE	QUANTITY	ITEM COST
2040011	Pavt, Rem	syd	\$5	61731	\$309,689
-	Station Grading	sta	\$1,000	143	\$142,776
3010002	Subbase, CIP	cyd	\$9	27033	\$243,298
3020016	Aggregate Base, 6 inch	syd	\$4	81099	\$324,397
5020053	HMA (9"-990#/syd)	ton	\$40	32115	\$1,284,613
8020018	Curb and Gutter, Conc, Type B2	ft	\$17	29967	\$509,447
8030004	Sidewalk, 7 inch	sft	\$4	142776	\$571,104
-	Slope Restoration	syd	\$5	31370	\$156,850
-	Dr Structures	ea	\$1,500	57	\$85,666
-	12" Sewer	ft	\$45	2900	\$130,500
-	18" Sewer	ft	\$55	14278	\$785,268
-	12'x8' Box Culvert	ls	\$50,000	1	\$50,000
-	Maintaining Traffic	ls	\$100,000	1	\$100,000
-	Permanent Signing	ls	\$75,000	1	\$75,000
-	Pavement Marking	ls	\$25,000	1	\$25,000
-	Lighting	ea	\$2,000	143	\$285,552
-	Signals	ea	\$50,000	9	\$450,000
-	Utility Relocation	ls	\$100,000	1	\$100,000
-	Mobilization - 5%	ls	\$276,458	1	\$276,458
-	Contingency - 30%	ls	\$1,658,748	1	\$1,658,748
Subtotal					\$7,564,367
	Engineering - 8%	ls	\$605,149	1	\$605,149
	Construction Inspection - 12%	ls	\$870,561	1	\$870,561
	Right-of-Way	ls	\$3,628,776	1	\$3,628,776
TOTAL					\$12,668,854

Design	<u>SPR 6/28/05</u>
Check	<u>MUM 6/29/05</u>

ASSUMPTIONS

9" HMA pavement for new roadways.
Curb and gutter on all roadways
Drainage structures every 250' of roadway, 18" main sewer line, 12" leads.

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Joe Mann Ave
City of Midland
11/7/2005



ITEM CODE	ITEM	UNIT	UNIT PRICE	QUANTITY	ITEM COST
2040011	Pavt, Rem	syd	\$5	24708	\$123,540
2050031	Roadway Grading	sta	\$500	70	\$35,000
2040006	Curb and Gutter, Rem	ft	\$3.5	12354	\$43,239
2057050	Driveway Grading	ea	\$1,000	10	\$10,000
3010002	Subbase, CIP	cyd	\$9	17364	\$156,274
3020016	Aggregate Base, 6 inch	syd	\$4	52091	\$208,365
5020053	HMA (9"-990#/syd)	ton	\$40	20628	\$825,125
8020018	Curb and Gutter, Conc, Type B2	ft	\$17	13892	\$236,164
8030004	Sidewalk, 7 inch	sft	\$4	69460	\$277,840
-	Slope Restoration	syd	\$5	30872	\$154,360
-	Dr Structures	ea	\$1,500	28	\$41,676
-	12" Sewer	ft	\$45	700	\$31,500
-	18" Sewer	ft	\$55	6946	\$382,030
-	Maintaining Traffic	ls	\$150,000	1	\$150,000
-	Permanent Signing	ls	\$50,000	1	\$50,000
-	Pavement Marking	ls	\$25,000	1	\$25,000
-	Lighting	ea	\$2,000	70	\$140,000
-	Signals	ea	\$50,000	3	\$150,000
-	Utility Relocation	ls	\$100,000	1	\$100,000
-	Mobilization - 5%	ls	\$157,006	1	\$157,006
-	Contingency - 30%	ls	\$942,034	1	\$942,034
				Subtotal	\$4,239,153
	Engineering - 8%	ls	\$339,132	1	\$339,132
	Construction Inspection - 12%	ls	\$508,698	1	\$508,698
	Right-of-Way	ls	\$888,528	1	\$888,528
				TOTAL	\$5,975,511

Design	<u>NL 11/4/05</u>
Check	<u>MMH 11/10/05</u>

ASSUMPTIONS

9" HMA pavement for new roadways.
Curb and gutter on all roadways
Drainage structures every 250' of roadway, 18" main sewer line, 12" leads.

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Joe Mann Ave
City of Midland
11/7/2005



ITEM CODE	ITEM	UNIT	UNIT PRICE	QUANTITY	ITEM COST
2040011	Pavt, Rem	syd	\$5	27502	\$137,511
2050031	Roadway Grading	sta	\$500	76	\$38,000
2040006	Curb and Gutter, Rem	ft	\$3.5	12376	\$43,316
2057050	Driveway Grading	ea	\$1,000	10	\$10,000
3010002	Subbase, CIP	cyd	\$9	23808	\$214,270
3020016	Aggregate Base, 6 inch	syd	\$4	71423	\$285,693
5020053	HMA (9"-990#/syd)	ton	\$40	19855	\$794,218
8020018	Curb and Gutter, Conc, Type B2	ft	\$17	27463	\$466,871
8030004	Sidewalk, 7 inch	sft	\$4	78280	\$313,120
-	Slope Restoration	syd	\$5	50138	\$250,691
-	Dr Structures	ea	\$1,500	30	\$45,126
-	12" Sewer	ft	\$45	800	\$36,000
-	18" Sewer	ft	\$55	7521	\$413,655
-	Maintaining Traffic	ls	\$150,000	1	\$150,000
-	Permanent Signing	ls	\$50,000	1	\$50,000
-	Pavement Marking	ls	\$25,000	1	\$25,000
-	Lighting	ea	\$2,000	76	\$152,000
-	Signals	ea	\$50,000	1	\$50,000
-	Utility Relocation	ls	\$100,000	1	\$100,000
-	Mobilization - 5%	ls	\$178,774	1	\$178,774
-	Contingency - 30%	ls	\$1,072,641	1	\$1,072,641
				Subtotal	\$4,826,885
	Engineering - 8%	ls	\$386,151	1	\$386,151
	Construction Inspection - 12%	ls	\$579,226	1	\$579,226
	Right-of-Way	ls	\$1,655,376	1	\$1,655,376
				TOTAL	\$7,447,638

Design	NL 11/4/05
Check	MMH 11/10/05

ASSUMPTIONS

9" HMA pavement for new roadways.
Curb and gutter on all roadways
Drainage structures every 250' of roadway, 18" main sewer line, 12" leads.

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Wackerly Road
City of Midland
11/7/2005



ITEM CODE	ITEM	UNIT	UNIT PRICE	QUANTITY	ITEM COST
2040011	Pavt, Rem	syd	\$5	5278	\$26,477
2050031	Roadway Grading	sta	\$500	13	\$6,500
2040013	Sidewalk, Rem	syd	\$5	603	\$3,014
2040008	Guardrail, Rem	ft	\$2	1240	\$2,480
2040006	Curb and Gutter, Rem	ft	\$3.5	2500	\$8,750
2050010	Embankment, CIP	cyd	\$3.5	10660	\$37,311
2057050	Driveway Grading	ea	\$1,000	4	\$4,000
3010002	Subbase, CIP	cyd	\$9	2894	\$26,042
3020016	Aggregate Base, 6 inch	syd	\$4	8681	\$34,722
5020053	HMA (9"-990#/syd)	ton	\$40	3438	\$137,500
8020018	Curb and Gutter, Conc, Type B2	ft	\$17	3406	\$57,902
8030004	Sidewalk, 7 inch	sft	\$4	15400	\$61,600
8070000	Guardrail, Type B	Ft	\$12	963	\$11,550
8070031	Guardrail Anch, Bridge, Detail T2	ea	\$1,300	2	\$2,600
8070040	Guardrail Approach, Terminal 1B	ea	\$1,600	6	\$9,600
-	Slope Restoration	syd	\$5	6515	\$32,573
-	Dr Structures	ea	\$1,500	10	\$15,000
-	12" Sewer	ft	\$45	250	\$11,250
-	18" Sewer	ft	\$55	1250	\$68,750
-	Maintaining Traffic	ls	\$45,000	1	\$45,000
-	Permanent Signing	ls	\$20,000	1	\$20,000
-	Pavement Marking	ls	\$5,000	1	\$5,000
-	Lighting	ea	\$2,000	13	\$26,000
-	Mobilization - 5%	ls	\$32,681	1	\$32,681
-	Contingency - 30%	ls	\$196,086	1	\$196,086
Subtotal					\$882,388
	Engineering - 8%	ls	\$70,591	1	\$70,591
	Construction Inspection - 12%	ls	\$105,887	1	\$105,887
	Right-of-Way	ls	\$78,096	1	\$78,096
TOTAL					\$1,136,961

Design NL 11/7/05Check MMH 11/10/05**ASSUMPTIONS**

9" HMA pavement for new roadways.
Curb and gutter on all roadways
Drainage structures every 250' of roadway, 18" main sewer line, 12" leads.
MOT Estimate from M-81/I-75 Estimate
Pavement Marking Estimate from M-81/I-75 Estimate
Permanent Signing Estimate from M-81/I-75 Estimate
No Utility Relocation

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Wackerly Road
City of Midland
11/7/2005



ITEM CODE	ITEM	UNIT	UNIT PRICE	QUANTITY	ITEM COST
2040011	Pavt, Rem	syd	\$5	7189	\$36,065
2050031	Roadway Grading	sta	\$500	18	\$9,000
2040013	Sidewalk, Rem	syd	\$5	944	\$4,722
2040008	Guardrail, Rem	ft	\$2	1240	\$2,480
2040006	Curb and Gutter, Rem	ft	\$3.5	3480	\$12,180
2057050	Driveway Grading	ea	\$1,000	4	\$4,000
3010002	Subbase, CIP	cyd	\$9	3867	\$34,800
3020016	Aggregate Base, 6 inch	syd	\$4	11600	\$46,400
5020053	HMA (9"-990#/syd)	ton	\$40	4594	\$183,744
8020018	Curb and Gutter, Conc, Type B2	ft	\$17	3480	\$59,160
8030004	Sidewalk, 7 inch	sft	\$4	17400	\$69,600
8070000	Guardrail, Type B	ft	\$12	963	\$11,550
8070031	Guardrail Anch, Bridge, Detail T2	ea	\$1,300	2	\$2,600
8070040	Guardrail Approach, Terminal 1B	ea	\$1,600	6	\$9,600
-	Slope Restoration	syd	\$5	7733	\$38,667
-	Dr Structures	ea	\$1,500	14	\$20,880
-	12" Sewer	ft	\$45	348	\$15,660
-	18" Sewer	ft	\$55	1740	\$95,700
-	Maintaining Traffic	ls	\$45,000	1	\$45,000
-	Permanent Signing	ls	\$20,000	1	\$20,000
-	Pavement Marking	ls	\$5,000	1	\$5,000
-	Lighting	ea	\$2,000	18	\$36,000
-	Signals	ea	\$50,000	1	\$50,000
-	Mobilization - 5%	ls	\$40,640	1	\$40,640
-	Contingency - 30%	ls	\$243,842	1	\$243,842
				Subtotal	\$1,097,290
Engineering - 8%		ls	\$87,783	1	\$87,783
Construction Inspection - 12%		ls	\$131,675	1	\$131,675
Right-of-Way		ls	\$43,504	1	\$43,504
				TOTAL	\$1,360,252

Design	NL 11/7/05
Check	MMH 11/10/05

ASSUMPTIONS

- 9" HMA pavement for new roadways.
- Curb and gutter on all roadways
- Drainage structures every 250' of roadway, 18" main sewer line, 12" leads.
- MOT Estimate from M-81/I-75 Estimate
- Pavement Marking Estimate from M-81/I-75 Estimate
- Permanent Signing Estimate from M-81/I-75 Estimate
- No Utility Relocation

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