

# **Appendix A**

## **Detailed Cost Estimate**

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**Detailed Roadway Cost Estimate (2003 Dollars)**  
**14 West IRC: North Mankato to New Ulm**  
**TH 15 to CSAH 6**

Alternatives		Existing Alignment Alternatives	Base Roadway Cost (million \$/mile)	Right of Way Cost	County/ Township Road Improvements	Additional Construction Cost	Description	Construction Multiplier (New Alignment) (million \$/mile)	Roadway Length (New Alignment) (miles)	Roadway Construction Cost (New Alignment) (million \$)	Construction Multiplier (Ex. Alignment) (million\$/mile)	Roadway Length (Ex. Alignment) (miles)	Roadway Construction Cost (Ex. Alignment) (million \$)	Total Roadway Length (miles)	Total Project Cost (unrounded) (million \$)	Total Project Cost (million \$)	
Segment	Alt.																
Hwy. 14/15	1	A	No-Build (Rural Two-Lane)	\$0	0%	0%	0%		\$0.0	0	\$0.00	\$0.0	4.1	\$0.00	4.1	\$0.00	\$0.0
		B	Existing Alignment (Rural Four-Lane)	\$2	5%	5%	0%		\$2.2	0	\$0.00	\$2.2	4.1	\$9.12	4.1	\$9.12	\$9.1
		N1	River Valley Alignment (Rural Four-Lane)	\$2	15%	5%	0%		\$2.4	1.1	\$2.60	\$2.2	3.0	\$6.71	4.1	\$9.31	\$9.3
		N2	Hwy. 14/15 Top of Bluff Alignment (Rural Four-Lane)	\$2	15%	5%	10%	Grading	\$2.6	2.2	\$5.64	\$2.2	2.1	\$4.61	4.3	\$10.26	\$10.3
		N3	Hwy. 14/15/37 Top of Bluff Alignment (Rural Four-Lane)	\$2	15%	5%	10%	Grading	\$2.6	3.5	\$8.98	\$2.2	0.8	\$1.75	4.2	\$10.72	\$10.7
		N4	Courtland Top of Bluff Alignment (Rural Four-Lane)	\$2	15%	5%	10%	Grading	\$2.6	4.1	\$10.56	\$0.0	0	\$0.00	4.1	\$10.56	\$10.6
Courtland	2	A	No-Build (Urban Two-Lane, Courtland)	\$0	0%	0%	0%		\$0.0	0	\$0.00	\$0.0	1.1	\$0.00	-----	-----	-----
		A	No-Build (Rural Two-Lane)	\$0	0%	0%	0%		\$0.0	0	\$0.00	\$0.0	6.2	\$0.00	7.3	\$0.00	\$0.0
		B	Existing Alignment (Urban Four-Lane, Courtland)	\$2	15%	5%	10%	Drainage	\$2.6	0	\$0.00	\$2.6	1.1	\$2.78	-----	-----	-----
		B	Existing Alignment (Rural Four-Lane)	\$2	5%	5%	0%		\$2.2	0	\$0.00	\$2.2	6.2	\$13.65	7.3	\$16.43	\$16.4
		N1	Courtland Northern Bypass #1 (Rural Four-Lane)	\$2	15%	5%	0%		\$2.4	5.1	\$12.34	\$2.2	2.2	\$4.73	7.3	\$17.07	\$17.1
		N2	Courtland Northern Bypass #2 (Rural Four-Lane)	\$2	15%	5%	0%		\$2.4	6.2	\$14.77	\$2.2	1.1	\$2.41	7.2	\$17.18	\$17.2
Nicollet	3	A	No-Build (Urban Two-Lane, Nicollet)	\$0	0%	0%	0%		\$0.0	0	\$0.00	\$0.0	1.1	\$0.00	-----	-----	-----
		A	No-Build (Rural Two-Lane)	\$0	0%	0%	0%		\$0.0	0	\$0.00	\$0.0	9.3	\$0.00	10.4	\$0.00	\$0.0
		B	Existing Alignment (Urban Four-Lane, Nicollet)	\$2	15%	5%	10%	Drainage	\$2.6	0	\$0.00	\$2.6	1.1	\$2.98	-----	-----	-----
		B	Existing Alignment (Rural Four-Lane)	\$2	5%	5%	0%		\$2.2	0	\$0.00	\$2.2	9.3	\$20.41	10.4	\$23.39	\$23.4
		S1	Nicollet Southern Bypass #1 (Rural Four-Lane)	\$2	15%	5%	0%		\$2.4	2.8	\$6.78	\$2.2	7.4	\$16.32	10.2	\$23.09	\$23.1
		S2	Nicollet Southern Bypass #2 (Rural Four-Lane)	\$2	15%	5%	0%		\$2.4	4.2	\$10.07	\$2.2	6.1	\$13.32	10.3	\$23.39	\$23.4

Source: Howard R. Green Company

**NOTES:**

- 1.) Road costs are based on an average cost of \$2.0 Million per mile for 4-lane roadways with additions for right-of-way acquisition, drainage, and grading.
- 2.) Segment 1 is defined along TH 14 as TH 15 to Township Road 150, just west of Courtland.
- 3.) Segment 2 is defined along TH 14 as Township Road 150, just west of Courtland, to Township Road 166, midway between Courtland and Nicollet.
- 4.) Segment 3 is defined along TH 14 as Township Road 166, midway between Courtland and Nicollet, to CSAH 6, west of North Mankato.
- 5.) All alternatives include construction costs for the proposed new alignment, where applicable, and reconstruction of the existing alignment.
- 6.) No-Build alternatives do not include normal maintenance costs or projects to maintain the existing roadway.
- 7.) All costs represented are in 2003 dollars.



**14 West IRC**