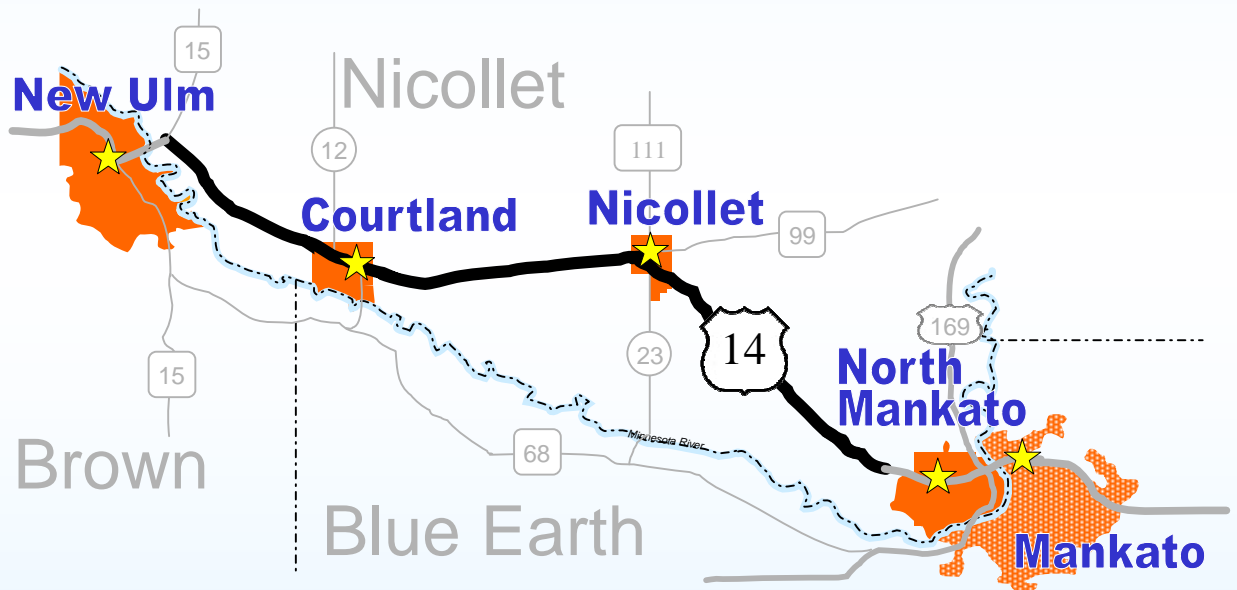


14 West Interregional Corridor

North Mankato to New Ulm



June 2003

TABLE OF CONTENTS

EXECUTIVE SUMMARY	ES-1
1.0 INTRODUCTION.....	1-1
1.1 TH 14 West Study Area	1-1
1.1.1 Project Description	1-1
1.1.2 Functional Classification	1-1
1.1.3 Purpose of Project	1-1
1.2 History of TH 14 West	1-1
1.2.1 Early Roads	1-3
1.2.2 State Trunk Highway System.....	1-3
1.2.3 National Highway System.....	1-4
1.2.4 Mn/DOT Interregional Corridor System.....	1-4
1.3 Vision Statement	1-7
1.4 Goals and Objectives	1-8
1.5 Plan Purpose	1-9
1.6 Project Schedule.....	1-10
2.0 PUBLIC AND AGENCY INVOLVEMENT	2-1
2.1 Purpose.....	2-1
2.2 Advisory Committee.....	2-1
2.3 Project Management Team.....	2-5
2.4 Public Information Open House.....	2-6
2.5 Public Outreach.....	2-7
2.6 Scoping Hearing.....	2-7
2.7 Communications.....	2-10
2.7.1 Newsletters.....	2-10
2.7.2 Fact Sheet.....	2-10
2.7.3 Website.....	2-10

2.7.4	Press Releases.....	2-10
2.7.5	Newspaper Articles.....	2-10
3.0	EXISTING AND FORECAST CONDITIONS.....	3-1
3.1	Roadway Description	3-1
3.1.1	Functional Classification & Facility Type.....	3-1
3.1.2	Interregional Corridor Priority Ranking.....	3-2
3.1.3	Corridor Segments.....	3-2
3.1.4	Intersection Lane Geometry	3-6
3.2	Land Use.....	3-6
3.2.1	Nicollet County.....	3-8
3.2.2	City of Courtland.....	3-10
3.2.3	City of Nicollet	3-14
3.3	Environmental Overview	3-17
3.3.1	Purpose	3-17
3.3.3	Preliminary Environmental Review for Scoping Process	3-17
3.3.3	Environmental Overview	3-18
3.4	Corridor Traffic Characteristics	3-39
3.4.1	Existing and Historic Traffic Volumes.....	3-39
3.4.2	Heavy Commercial ADT.....	3-39
3.4.3	Forecast Traffic Volumes.....	3-42
3.4.4	Origin and Destination Study	3-45
3.4.5	Highway Access (Type and Density)	3-58
3.4.6	Traffic Operations.....	3-61
3.4.7	Existing No Passing Zones.....	3-68
3.4.8	Existing Roadway Safety Characteristics.....	3-68
3.4.9	Snow Traps	3-84
3.4.10	Local and Supporting Roadway System	3-86
4.0	IDENTIFICATION OF DEFICIENCIES	4-1
4.1	Performance Measures and Results of Analysis	4-1
4.1.1	Roadway Safety.....	4-1
4.1.2	Traffic Operations.....	4-5
4.1.3	Access	4-8
4.1.4	Signal Risk.....	4-14
4.1.5	Roadway Design/Geometrics	4-16
4.1.6	Local and Supporting Roadway System Deficiencies.....	4-18

4.2	Summary of Deficiencies	4-21
5.0	DEVELOPMENT OF ALTERNATIVES	5-1
5.1	Universe of Alternatives	5-1
5.1.1	Development of Alternatives	5-1
5.1.2	No-Build Alternative.....	5-3
5.1.3	Roadway Design Alternatives	5-4
5.1.4	Roadway Location Alternatives	5-6
5.2	Evaluation of Alternatives	5-15
5.2.1	Description of Evaluation Criteria/Measures of Effectiveness	5-15
5.2.2	Design Alternative Evaluation.....	5-17
5.2.3	Location Alternative Evaluation.....	5-17
5.3	Access Management Plan	5-23
6.0	ALTERNATIVE STAGING AND IMPLEMENTATION.....	6-1
6.1	Scoping Process	6-1
6.1.1	Summary of Scoping.....	6-1
6.1.2	Alternatives Dismissed and Retained	6-3
6.1.3	Schedule	6-9
6.2	Prioritization of Projects.....	6-11
6.2.1	Recommended Prioritization of Alternatives.....	6-11
6.2.2	Jurisdictional Roadway Changes	6-12
6.2.3	Joint Powers Agreements.....	6-13
6.3	Interim Measures.....	6-13
6.3.1	Safety Mitigation Projects.....	6-14
6.3.2	Corridor Management Strategies.....	6-16
7.0	COMMUNITY RESOLUTIONS AND AGENCY COMMENTS.....	7-1
7.1	Identification of Community and Agency Respondents.....	7-1
7.2	Resolutions/Comments Received	7-1

APPENDICES

APPENDIX A Public Participation

- Advisory Committee Meeting Minutes
- Public Outreach Meeting Summaries
- Comments on Alternatives
 - City of Nicollet
 - City of Courtland
- Communications
 - Press Release
 - Fact Sheet
 - Newsletter

APPENDIX B Origin-Destination Study Data

LIST OF TABLES

Table 2.2-1	Advisory Committee Members	2-4
Table 2.3-1	Project Management Team.....	2-6
Table 2.6-1	Public and Agency Participation Meetings	2-9
Table 3.1-1	Corridor Segments	3-4
Table 3.1-2	Existing Geometry at Studied Intersections.....	3-7
Table 3.3-1	Roadway Suitability Ratings for Bicycle Traffic	3-20
Table 3.4-1	Historical and Existing Average Annual Daily Traffic (AADT)	3-40
Table 3.4-2	Existing PM Peak Hour Intersection Turning Movements.....	3-41
Table 3.4-3	Year 2025 Average Daily Traffic (ADT) Forecasts.....	3-43
Table 3.4-4	Observed Travel times Between Stations and Through Trip Times.....	3-49
Table 3.4-5	Summary of Access Inventory by Segment	3-59
Table 3.4-6	Existing Peak Hour Travel Speeds.....	3-61
Table 3.4-7	Existing and Future Segment Capacity.....	3-65
Table 3.4-8	2025 Intersection Turning Movement Forecasts	3-66
Table 3.4-9	Existing and Future Intersection Capacity.....	3-67
Table 3.4-10	Existing No Passing Zones	3-68
Table 3.4-11	Existing Crash and Severity Rates by Growth Segment (1996-2000).....	3-72
Table 3.4-12	Crash Distribution by Growth Segments (1996-2000).....	3-76
Table 3.4-13	Percentage of Crash Distribution by Growth Segments (1996-2000).....	3-77
Table 3.4-14	Existing Intersection Crash and Severity Rates (1996-2000)	3-79
Table 3.4-15	Percentage of Distribution of Intersection Crashes (1996-2000).....	3-82
Table 3.4-16	Percentage of Distribution of Intersection Crashes (1996-2000).....	3-83
Table 4.1-1	Safety Deficiencies for Intersections and Segments	4-2
Table 4.1-2	Existing and Future Travel Times	4-6
Table 4.1-3	Segment Level of Service	4-7
Table 4.1-4	Intersection Level of Service	4-7
Table 4.1-5	Summary of Draft Access Spacing Guidelines – HPRC’s (9/2001).....	4-12
Table 4.1-6	Access Deficiencies Based on Mn AAD and Mn/DOT’s IRC Guidelines.....	4-13
Table 4.1-7	Criteria for Assessment of Signal Risk	4-14
Table 4.1-8	Signal Risk for At-Grade Crossings of TH 14.....	4-15
Table 4.1-9	Existing Geometric Deficiencies on TH 14 IRC	4-19
Table 5.2-1	Evaluation of Alternatives	5-18
Table 7.1-1	Status of Resolutions Received.....	7-1

LIST OF FIGURES

Figure 1.1-1	Study Area	1-2
Figure 1.2-4	National Highway System Map.....	1-5
Figure 1.2-5	Mn/DOT IRC System Plan	1-6
Figure 1.5-1	Project Schedule.....	1-11
Figure 2.1-1	Roles and Responsibilities.....	2-2
Figure 2.2-2	TH 14 West Advisory Committee.....	2-3
Figure 3.1-1	Access/Mobility Relationship to Functional Classification.....	3-1
Figure 3.1-2	Nicollet County Functional Classification System.....	3-3
Figure 3.1-3	Corridor Segments	3-5
Figure 3.2-1	Nicollet County Zoning Map	3-9
Figure 3.2-2	Existing Land Use – Courtland	3-12
Figure 3.2-3	Future Land Use Plan – Courtland.....	3-13
Figure 3.2-4	Existing Land Use Plan – Nicollet.....	3-15
Figure 3.2-5	Future Land Use Plan – Nicollet	3-16
Figure 3.3-1	Minnesota Bike Map West	3-19
Figure 3.3-2	MPCA	3-22
Figure 3.3-3	Steep Slope Areas	3-24
Figure 3.3-4	Prime Farmland	3-26
Figure 3.3-5	Floodplains.....	3-27
Figure 3.3-6	Cemeteries	3-30
Figure 3.3-7	Parks, WMA’s and Recreational Areas	3-32
Figure 3.3-8	Schools	3-34
Figure 3.3-9	Rare Species and Natural Communities.....	3-35
Figure 3.3-10	Wetlands and Protected Waters	3-38
Figure 3.4-1	Existing and Future ADT.....	3-44
Figure 3.4-2	Origin Destination Study: Station Locations	3-46
Figure 3.4-3	Origin Destination Study: Data Collection	3-47
Figure 3.4-4	Origin Destination Study: Through vs. Local Trips in New Ulm.....	3-50
Figure 3.4-5	Origin Destination Study: Through vs. Local Trips on TH 14	3-52
Figure 3.4-6	Origin Destination Study: Commuting Patterns.....	3-53
Figure 3.4-7	Distribution of Through Movements to and from Station 3 and Station 6....	3-55
Figure 3.4-8	Distribution of Through Movements to and from Station 5 and Station 1...	3-56
Figure 3.4-9	Access Density	3-60
Figure 3.4-10	Level of Service Concept.....	3-63
Figure 3.4-11	No Passing Zones.....	3-69
Figure 3.4-12	Existing Crash and Severity Rates by Growth Segment (1996-2000)	3-73
Figure 3.4-13	Existing Severity Rates by Growth Segment (1996–2000)	3-75
Figure 3.4-14	Existing Roadway Head-On and Sideswipe Crashes (1996-2000)	3-78
Figure 3.4-15	Existing Intersection Crash Rates (1996-2000)	3-80
Figure 3.4-16	Existing Intersection Severity Rates (1996-2000)	3-81
Figure 3.4-17	Snow Traps.....	3-85
Figure 4.1-1	Supporting Roadway System.....	4-20

Figure 4.2-1	Summary of Deficiencies	4-22
Figure 5.1-1	Alternatives Development Process.....	5-2
Figure 5.1-2	Roadway Design Alternatives	5-5
Figure 5.1-3	Roadway Location Alternative Segments.....	5-7
Figure 5.1-4	Universe of Alternatives	5-8
Figure 5.1-5	Segment 1 - Universe of Alignment Alternatives.....	5-10
Figure 5.1-6	Segment 2 - Universe of Alignment Alternatives.....	5-12
Figure 5.1-7	Segment 3 - Universe of Alignment Alternatives.....	5-14
Figure 6.1-1	Design Alternatives Retained for Further Analysis	6-7
Figure 6.1-2	Location Alternatives Retained for Further Analysis	6-8
Figure 6.1-3	Highway Project Development Process.....	6-10
Figure 6.2-1	Specific Service Signage.....	6-13
Figure 6.3-1	TH 14/TH 111/CSAH 23 Intersection Lane Restriping	6-15