



Report on

Major Highway Projects, Trunk Highway Fund Expenditures, and Efficiencies

December 2016



Prepared by

The Minnesota Department of Transportation
395 John Ireland Boulevard
St. Paul, Minnesota 55155-1899

Phone: 651-296-3000

Toll-Free: 1-800-657-3774

TTY, Voice or ASCII: 1-800-627-3529

To request this document in an alternative format

Please call 651-366-4718 or 1-800-657-3774 (Greater Minnesota). You may also send an email to ADArequest.dot@state.mn.us.

Contents

Contents	3
Legislative Request.....	5
Purpose and Scope of the Report	7
Introduction	7
Summary of Report Contents.....	7
Major Highway Projects Summary.....	10
State Highway Investment Planning Process	10
Project Selection	12
Impacts of Project Cost Changes.....	13
Project Prioritization	13
Project Summary Sheets	13
Environmental Mitigation and Compliance Analysis	14
Metro District Project: Highway 5 in Victoria and Laketown Township.....	14
Greater Minnesota Project: Highway 14 from Highway 218 to County Highway 43.....	15
Trunk Highway Fund Expenditures	18
Products and Services Budget and Spending.....	20
Methodology	20
Agency Overhead.....	20
2016 Products and Services Summary	21
2016 Products and Services Framework	21
Department Summary.....	22
Productivity Measures	36
Introduction.....	36
Bridges: Inspection Cost per Square Foot of Deck Area.....	37
Bridges: Maintenance Cost per Square Foot of Deck Area	39
Pavement: Cost per roadway mile-year added	42
Snow and Ice: Cost per Plow-Mile Driven.....	45
Pavement Markings: Cost per Mile Striped.....	47
Transit: MnDOT Administrative Cost per Transit Passenger Trip.....	49
Freight: MnDOT Cost per Oversize/Overweight Permit Issued.....	51
Program Planning and Delivery to Construction Expenditure Ratio.....	53
Efficiencies.....	57
Background	57
Methodology	57

State Road Construction.....	60
Administration, Maintenance & Operations	63
Appendix A: Products and Services Summary List and Descriptions	69
2016 Products and Services Framework	69
Products and Services Descriptions.....	70
Appendix B: Glossary of Terms	74
Appendix C: Project Summaries.....	78
Appendix D: Future Major Highway Projects (planned 2021 – 2032).....	344-348

Legislative Request

This report was completed to comply with [Minnesota Statute 174.56](#).

174.56 Report on Major Highway Projects, Trunk Highway Fund Expenditures, and Efficiencies.

Subdivision 1. Report required.

(a) The commissioner of transportation shall submit a report by December 15 of each year on (1) the status of major highway projects completed during the previous two years or under construction or planned during the year of the report and for the ensuing 15 years, and (2) trunk highway fund expenditures, and (3) beginning with the report due in 2016, efficiencies achieved during the previous two fiscal years.

(b) For purposes of this section, a "major highway project" is a highway project that has a total cost for all segments that the commissioner estimates at the time of the report to be at least (1) \$15,000,000 in the metropolitan highway construction district, or (2) \$5,000,000 in any nonmetropolitan highway construction district.

Subd. 2. Report contents; major highway projects.

For each major highway project the report must include:

- (1) a description of the project sufficient to specify its scope and location;
- (2) a history of the project, including, but not limited to, previous official actions by the department or the appropriate area transportation partnership, or both, the date on which the project was first included in the state transportation improvement plan, the cost of the project at that time, the planning estimate for the project, the engineer's estimate, the award price, the final cost as of six months after substantial completion, including any supplemental agreements and cost overruns or cost savings, the dates of environmental approval, the dates of municipal approval, the date of final geometric layout, and the date of establishment of any construction limits;
- (3) the project's priority listing or rank within its construction district, if any, as well as the reasons for that listing or rank, the criteria used in prioritization or rank, any changes in that prioritization or rank since the project was first included in a department work plan, and the reasons for those changes;
- (4) past and potential future reasons for delay in letting or completing the project, details of all project cost changes that exceed \$500,000, and specific modifications to the overall program that are made as a result of delays and project cost changes;
- (5) two representative trunk highway construction projects, one each from the department's metropolitan district and from greater Minnesota, and for each project report the cost of environmental mitigation and compliance; and
- (6) the annual budget for products and services for each Department of Transportation district and office, with comparison to actual spending and including measures of productivity for the previous fiscal year.

Subd. 2a. **Report contents; trunk highway fund expenditures.**

The commissioner shall include in the report information on the total expenditures from the trunk highway fund during the previous fiscal year, for each Department of Transportation district, in the following categories: road construction; planning; design and engineering; labor; compliance with environmental regulations; administration; acquisition of right-of-way, including costs for attorney fees and other compensation for property owners; litigation costs, including payment of claims, settlements, and judgments; maintenance; and road operations.

Subd. 3. **Department resources.**

The commissioner shall prepare and submit the report with existing department staff and resources.

Report cost

The cost of preparing the report elements required by Minn. Stat. 174.56 is approximately \$75,000.

The costs reported for the 2016 Major Highway Projects, Trunk Highway Expenditures, and Efficiencies report includes the costs to gather the data needed to report on the budget by products and services and productivity measures.

Purpose and Scope of the Report

Introduction

The first legislative report on Major Highway Projects was delivered by the Minnesota Department of Transportation to the legislature in January 2009.

The Major Highway Projects, Trunk Highway Fund Expenditures and Efficiencies report, or MHPR, provides a snapshot of MnDOT's programming and delivery for all large construction projects meeting the cost thresholds laid out in statute. The scope of the report and the information it contains are meant to inform the reader about MnDOT's business planning, building, operating and maintaining Minnesota's transportation system.

This is one of MnDOT's most comprehensive reports. The purpose of the report is to provide the reader with information about major projects, financial management, budgeting by products and services, and efficiencies achieved. The report breaks down, in high-level detail, various parts of a major project. This is consistent with the agency's focus on delivering high quality projects on time and within budget.

Some of the details reported about major projects include:

- location and scope
- funding
- cost savings / overruns
- environmental costs
- delays
- project history
- cost estimates

Together, this information provides the 2016 picture of MnDOT's performance in planning, building, operating and maintaining a safe, accessible, efficient and reliable multimodal transportation system that connects people to destinations and markets throughout the state, regionally and around the world.

The report is organized into these sections:

- Trunk highway fund expenditures
- Environmental mitigation and compliance costs
- Products and services budget expenditures report
- Productivity measures
- Efficiencies
- Major highway project summary sheets

Summary of Report Contents

Major Highway Projects

This section of the report identifies major projects on the state trunk highway system, which includes the interstate and national highway systems. Per [Minnesota Statutes 174.56](#), this report includes projects with cost estimates equal to or in excess of \$15 million in the Twin Cities Metro District and with cost estimates equal to or in excess of \$5 million in Greater Minnesota.

This report includes information on projects that meet the total project cost estimate criteria and are either under construction, programmed or planned within the next 15 years. For each project completed in the past two fiscal years (2015-2016) or identified for construction in the next four years (2017-2020), a project summary is included that provides detailed information on project location, purpose, scope, schedule and cost. Each project planned for construction in 2021-2031 is included in Appendix D and contains the basic information on project location, description, schedule and cost.

All the projects are arranged by MnDOT districts. A district map highlighting the locations of the projects within the area and a list of projects precede the project summary pages for each district. The information provided in this report is current as of November 2016.

Environmental Mitigation and Compliance Costs

To comply with the legislative requirement in subdivision 2, clause (5), the cost of environmental mitigation and compliance was analyzed for two representative projects.

1. The Trunk Highway 5 project, in Carver County in MnDOT's Metro District in the City of Victoria and Laketown Township, was chosen in part because it represents the types of mitigation that are common within metro-area projects.
2. The Trunk Highway 14 expansion from Highway 218 to County Road 43 project, located in Steele County in MnDOT's District 6, was chosen because it represents the types of environmental mitigation involved in a two lane to four lane expansion.

Trunk Highway Fund Expenditures

Fiscal year 2016 expenditure information is provided for each of the categories specified in the statute.

Products and Services Budget

MnDOT developed a product and service framework that organizes and describes its products and services. The expenses and budgets provided in this report, by products and services, represent the department's annual budget for fiscal year 2016, as appropriated. It also includes expenses for services that may have been rendered in fiscal year 2015, but due to processing time would have been paid in fiscal year 2016.

Key concepts to remember when reviewing this section include:

- Timing differences between the two years of a biennium cause variances that would not be present if the report was prepared on a biennial basis. For example, carry-over from the first year of the biennium to the second year impacts the data for the second year.
- Some spending may not match budgets exactly because funds may have been encumbered in one year and expended in another.
- Uncommitted and carry-over budgets may seem to exhibit spending in excess of the total budget; however, this spending occurs within a biennium and is allowed by statute.
- The 2016 budget values were based on previous fiscal products and services analysis.

Productivity Measures

Productivity measures are an effort to identify, create, examine and document current levels of productivity within MnDOT. This project reports measures of MnDOT productivity for the most recent 10 years of data (where available).

Performance measures are not new at MnDOT. Traditional performance measures used by MnDOT are measures of product and service delivery effectiveness. Productivity measures align well with the department goal of enhancing financial effectiveness and are the next step to evaluate how efficiently MnDOT's products and services are delivered.

The report includes the following measures:

- Bridges:
 - Inspection cost per square foot of deck area
 - Maintenance cost per square foot of deck area
- Pavement: Cost per roadway mile-year added
- Snow and ice: Cost per plow mile driven
- Pavement markings: Cost per mile striped
- Transit: MnDOT administrative cost per transit passenger trip
- Freight: MnDOT cost per oversize/overweight permit issued
- Program Planning and Delivery to construction expenditure ratio

The background for each productivity measure is presented along with data through the previous 10 years where possible. Each measure includes a discussion about why the measure presented is an effective measure of productivity and lists major influencing factors.

Two of the eight productivity measures show the inflation-adjusted unit costs declining. Specifically, pavement markings cost per mile striped and cost per oversize/overweight permit issued all show declining inflation-adjusted unit costs. Four of the eight measures show an overall flat trend. Specifically, the bridge maintenance cost per square foot of bridge deck area, cost per roadway mile-year added, cost per plow-mile driven, and MnDOT administrative cost per transit trip all remained relatively flat over the analysis period. The bridge inspection cost per square foot of deck area appears to have stabilized over the last seven years following a spike in 2008 and 2009. A trend line has not been applied to the program, planning and delivery to construction expenditure ratio measure as there are just three three-year rolling average data points available at this time.

Efficiencies

MnDOT consistently aims to be a good steward of public funds. Starting in 2015, the department decided to take a more targeted approach to identify and quantify these efficiencies, while looking for additional best practices and improvements. In FY 2016, MnDOT identified an estimated \$71 million in savings from new and revised practices deployed across the organization. The majority of these efficiencies identified in FY 2016 came from construction program delivery and project development. Savings identified in the analysis led to program and project costs that were lower than if the efficient strategies had not been implemented.

Major Highway Projects Summary

This annual report identifies major projects constructed within the past two years, and all major projects programmed or planned for construction on the state trunk highway system over the next 15 years, including the interstate and national highway systems. As directed in [Minnesota Statutes 174.56](#), this report includes projects with cost estimates equal to or in excess of \$15 million in the Metro District and projects with cost estimates equal to or in excess of \$5 million in Greater Minnesota. This report includes 460 projects that met the statutory cost threshold. The information provided in this report is current as of November 2016.

Table 1: Projects included in 2016 Major Highway Projects report

MnDOT District	Number of projects completed, under construction or listed in the STIP	Projects in years 2020-2031	Total Projects
1	37	38	75
2	24	24	48
3	27	42	69
4	27	25	52
6	40	13	53
7	44	31	75
8	16	11	27
Metro	32	29	61
TOTAL State	247	213	460

Of the 460 projects reported this year, 61 are in the Twin Cities metro area and 399 are in Greater Minnesota. Projects vary in type, and include pavement preservation, bridge replacement and rehabilitation and mobility projects based on the priorities established in the [MnDOT's 20-year State Highway Investment Plan, also known as MnSHIP](#).

State Highway Investment Planning Process

[MnSHIP](#) is an important link between the guiding principles in the [Minnesota GO 50-Year Vision](#), the strategies in the [Statewide Multimodal Transportation Plan](#) and the actual capital improvements made to the state highway system. MnSHIP sets a “fiscally constrained” framework (that is, using only forecasted funding) for future capital improvements by identifying investment needs and priorities. This plan will serve as the framework for statewide investment on trunk highways for the next year before a new 20-year investment plan is produced. The investment levels identified in MnSHIP are being adhered to and MnDOT is on track to deliver on the fiscally constrained decisions from the plan.

Figure 1: Planning mechanisms and plans



MnSHIP covers three planning periods: years 1-4, years 5-10 and years 11-20. Projects identified for years 1-4 (FY 2017-20) are those listed in the [2017-2020 Statewide Transportation Improvement Program, also known as the STIP](#). MnDOT intends to deliver these projects during the next four years, although the programmed year of construction may be adjusted if actual revenues increase or decrease.

Investments identified for years 5-10 (FY 2021-26) include general funding levels for certain improvement categories (e.g., pavement preservation, traveler safety), and construction cost estimates for several specific projects within the improvement categories. These projects and their cost estimates should be considered preliminary, as revenue forecasts are uncertain.

Specific projects are not identified for years 11-20 (FY 2027-35); instead, MnSHIP has set broad investment priorities associated with funding allocations, which focus primarily on preserving the transportation assets MnDOT currently owns. Such elements include, but are not limited to:

- Pavement within MnDOT right of way
- Bridges
- Bike and pedestrian facilities
- Drainage structures
- Barriers, guardrails and fences
- Lighting and intelligent transportation system features
- Signs
- Noise walls

Investment priorities may change as a result of system performance conditions, legislative initiatives or federal funding requirements related to the MAP-21 and the FAST Act transportation programs.

MnDOT began the process by:

- Reviewing current investment priorities, asset conditions and other system needs
- Projecting the amount of federal and state funds that will be available for investment on the state highway system during the next 20 years
- Reviewing agency policy and federal and state transportation laws
- Identifying emerging significant risks that may affect investment priorities

Next, MnDOT established a range of potential investment levels for nine categories of highway investment priorities. These investment levels were combined into example investment scenarios to solicit feedback from the public. For investment direction for the 20-year plan, MnDOT considered stakeholder input, legislative direction, federal requirements and system-wide risks and outcomes to develop a final mix of investment priorities. This investment direction guided statewide and district investment goals. These goals are achieved by districts developing a schedule of projects that comprise their investment programs and designed to make progress towards these goals.

Project Selection

MnDOT selects projects through several different planning and programming processes all designed to address performance-based needs and achieve key objectives on the trunk highway system. These processes are the methods used by MnDOT to decide how to use authorized federal and state funds and revenue from the sale of trunk highway bonds. The primary framework for project selection is outlined below.

10-year Work Plan

The existing investment plan known as MnSHIP created two programs to guide project selection at a state and regional level for the next 10 years. They are the Statewide Performance Program and the regional District Risk Management Program. The purpose of establishing these two programs is to ensure the department efficiently and effectively works toward common statewide goals. These goals consist of meeting Governmental Accounting Standards Board thresholds for pavements and bridges, and meeting the performance requirements started in Moving Ahead for Progress in the 21st Century Act, or MAP-21, and continued in the more recent passage of the Fixing America's Surface Transportation Act, or FAST Act, while simultaneously maintaining regional flexibility to address unique risks and circumstances at the district level.

Statewide Performance Program

MAP-21, the previous federal transportation bill, placed greater emphasis on National Highway System performance and required MnDOT to make progress toward national performance goal areas, including those related to asset condition, safety and congestion. The greater emphasis on the NHS was continued in the FAST Act. If MnDOT fails to adequately progress towards the national goals, some federal funding flexibility is at risk. Further, an analysis highlighted the expectation that MnDOT maintain the state's most important routes in a good repair. In response, MnDOT developed the Statewide Performance Program to ensure that federal and state performance targets are met on the NHS and that the condition of these routes meets public and MnDOT expectations.

District Risk Management Program

The Statewide Performance Program focuses funding on addressing key performance targets on National Highway System routes, while the District Risk Management Plan, or DRMP, focuses funding on other non-NHS highway needs on all state highways. The majority of the program supports pavement and bridge rehabilitation or replacement projects. The DRMP project selection process is structured to give districts the flexibility to address their greatest regional and local risks. Districts are also able to make additional investments on the NHS system if the proposed project is in response to a high risk issue.

In the DRMP, each MnDOT district is responsible for selecting projects that mitigate its highest risks in the areas of asset management, traveler safety, critical connections and projects, which are a regional and community improvement priority. MnDOT distributes different levels of funding to the districts for this program based on a revenue distribution method that accounts for various system factors. MnDOT districts collaborate with Area Transportation Partnerships metropolitan planning organizations and other key partners to select projects.

MnSHIP directs 45 percent of MnDOT's annual revenues toward DRMP projects or approximately \$337 million per year, not including the cost of delivering those projects, such as right of way acquisition, consulting services, cost overruns and supplemental agreements. The DRMP's share of MnDOT's annual

program may vary in the future depending on the outcomes of MnDOT's ongoing risk-based and performance-based planning efforts. The investment category mixes for each district vary depending on the system characteristics and conditions unique to that area of the state.

Impacts of Project Cost Changes

Changes to project costs and schedules affect the state trunk highway capital investment program. These effects are most directly seen through revisions to the [STIP](#), which is a master listing of projects that MnDOT is planning to complete in the next four construction seasons. Seventy-five percent of the projects listed in the STIP are let and completed in their originally scheduled construction season. The completion date for other projects may be adjusted, and project scope and costs may increase or decrease after being listed in the STIP.

Project costs may change for a variety of reasons, including: changes in economic conditions, inflationary factors, scope changes, supplemental agreements, cost overruns and right of way acquisition. Costs may change prior to letting or after a contract is awarded. Changes in project costs prior to letting are handled through the STIP process. The STIP process allows projects to be added, revised or removed on an annual basis. Cost changes to a project post-letting are managed at the district level. If cost changes are higher than anticipated, set-asides are primarily used to handle the change. If project costs are lower than projected, other projects may be advanced to an earlier construction date, or funds may be directed to cover funding gaps and/or cost overruns on other projects. Project cost overruns and cost savings are managed on an aggregate program level.

If the statewide performance program has cumulative cost estimate changes resulting in a significant amount of uncommitted funds, a specific, one-time program may be implemented, such as the recent Better Roads for a Better Minnesota, which focused on achieving statewide performance objectives for overall pavement condition. To deliver the Better Roads program, projects that most effectively achieved these performance objectives and were at an appropriate stage in the project development process were accelerated so that they could be completed earlier than previously programmed.

Conversely, if cumulative project cost estimate changes increase by a significant enough level to necessitate revisions to the STIP, a number of projects may be delayed or removed, based on the fiscal ability to fully deliver each annual construction program. Projects that have not yet progressed through the project development process are more likely to be subject to schedule delays or cost revisions.

Project Prioritization

All projects identified within the 2017-20 STIP can be funded with current revenue projections and are high priority projects to local stakeholders, districts and Area Transportation Partnerships. Projects within the 2021-30 mid-range and long-range planning periods are a priority, but revenue forecasts, federal program requirements and funding sources are more uncertain and full funding may not have been identified. The [20-year Minnesota Highway Investment Plan](#) details how investments at a program level are prioritized in this mid-range and long-range timeframe.

Project Summary Sheets

See Appendix C for one-page summaries, statewide maps, district maps and an indexed table of all major highway projects. An explanation of the information included for each project, common abbreviations and definitions are provided in Appendix B.

Environmental Mitigation and Compliance Analysis

The two projects below were chosen to represent the types of environmental mitigation and compliance issues MnDOT faces. Both were completed in 2015-16.

Highway 5 is located in Carver County within MnDOT's Metro District. This project was highlighted because it represents some of the types of mitigation that are commonly part of projects in Minnesota's metropolitan areas. The Metro District works proactively with Watershed Districts to meet requirements related to stormwater runoff.

The Highway 14 project from Highway 218 to County Highway 43, in Steele County, is located in MnDOT's District 6. This segment of Highway 14 was chosen because it is an example of the types of environmental mitigation involved in a two lane to four lane expansion.

Metro District Project: Highway 5 in Victoria and Laketown Township

This MnDOT Metro District project took place on 3.58 miles of Highway 5 from Laketown Township to Victoria in Carver County. The project involved pavement resurfacing, adding turn lanes, replacing guardrail, widening shoulders and improving drainage.

Environmental mitigation and compliance costs of \$ 1,181,180 are detailed below and account for approximately 8.8 percent of project costs.

The total project cost (also detailed below) was \$13.5 million. The construction cost of the project was \$11.2 million, right of way costs were \$6,000 and project engineering costs were \$2.2 million.

Table 2: Environmental Mitigation Percentage for Highway 5 in Carver County

Environmental Mitigation & Compliance Costs Breakdown: Hwy 5	
Environmental Documents: Costs NOT included in the mitigation cost total	
Preliminary Investigation (no environmental document was required)	\$8,500
TOTAL	\$8,500
Preconstruction Engineering Costs	
Stormwater Infiltration Basins	\$30,100
Wetlands	\$23,020
Erosion Control	\$62,000
Sub-Total	\$115,120
Construction Engineering / Administration Costs	
Stormwater Infiltration Basins	\$20,070
Erosion Control	\$41,330
Sub-Total	\$61,400
Right of Way Costs (land related only)	
Wetlands (credits)	\$670
Sub-Total	\$670

Construction Costs	
Asbestos Abatement	\$176,080
Stormwater Infiltration Basins	\$250,860
Erosion Control	\$516,680
Cattle Pass Removal	\$8,720
Sub-Total	\$952,340
Supplemental Agreements and Work Orders	
Revised end of box culvert for Watershed District permit compliance	\$22,840
Erosion Control Emergency Work Orders	\$28,810
Sub-Total	\$51,650
Total Environmental Mitigation and Compliance Costs	
TOTAL	\$1,181,180
Project Delivery Costs (Engineering)	
Preconstruction Engineering	\$1,347,560
Construction Engineering / Administration	\$898,370
Sub-Total	\$2,245,930
Right of Way Costs (land only)	
Total Project Right of Way Costs	\$6,000
Sub-Total	\$6,000
Construction Costs	
Total Project Construction Costs	\$11,229,670
Sub-Total	\$11,229,670
Total Project Costs	
Total Project Construction Costs	\$11,229,670
Total Right of Way Costs	\$6,000
Total Project Delivery Costs (Engineering)	\$2,245,930
TOTAL	\$13,481,600
Percentage of Project Costs for Environmental Mitigation & Compliance	
Total Environmental Mitigation Costs divided by Total Project Costs	
\$1,181,180 divided by \$13,481,600 =	8.8%

Greater Minnesota Project: Highway 14 from Highway 218 to County Highway 43

This District 6 project consisted of reconstruction of Highway 14 to expand from a two lane to a four lane roadway from Highway 218 to west of the DM&E Railroad crossing in Steele County. This project constructed approximately 2.7 miles of 4-lane roadway. The existing two lane bituminous roadway (TH 14) was removed, reconstructed and converted to become the new eastbound lanes. Part of the westbound concrete was removed and reconstructed, and the remainder of the westbound roadway was constructed on new embankment. Bridges and culverts in the project area were lengthened or replaced, an at-grade restricted crossing intersection was constructed at County Highway 43 and other existing accesses to Highway 14 were closed.

Environmental mitigation and compliance costs of \$727,350 are detailed below and account for approximately 5.1 percent of project costs.

The total project cost (also detailed below) was \$14.4 million. The construction cost of the project was \$12.0 million, there were no right of way costs for this segment, and project engineering costs were \$2.4 million.

Table 3: Environmental Mitigation Percentage for Highway 14 in Steele County

Environmental Mitigation & Compliance Costs Breakdown: Hwy 14 in Steele County	
Environmental Documents: Costs NOT included in the mitigation cost total	
Environmental Impact Statement (EIS) for entire corridor	\$1,230,500
TOTAL	\$1,230,500
Environmental Investigation Costs	
Historical / Cultural Resources	\$29,250
Contamination	\$8,040
Sub-Total	\$37,290
Preconstruction Engineering Costs	
Stormwater Ponds/Infiltration	\$34,800
Erosion Control	\$30,340
Wetlands	\$37,520
Sub-Total	\$102,660
Construction Engineering / Administration Costs	
Stormwater Ponds/Infiltration	\$23,200
Erosion Control	\$20,230
Sub-Total	\$43,430
Right of Way Costs (land related only)	
Wetlands (credits)	\$1,150
Sub-Total	\$1,150
Construction Costs	
Stormwater Ponds/Infiltration	\$289,970
Erosion Control	\$252,850
Sub-Total	\$542,820
Total Environmental Mitigation and Compliance Costs	
Project Delivery Costs (Engineering)	
Preconstruction Engineering	\$1,439,420
Construction Engineering / Administration	\$959,610
Sub-Total	\$2,399,030
Right of Way Costs (land only)	
Total Project Right of Way Costs	\$0
Sub-Total	\$0
Construction Costs	
Total Project Construction Costs	\$11,995,150
Sub-Total	\$11,995,150

Total Project Costs	
Total Project Construction Costs	\$11,995,150
Total Right of Way Costs	\$0
Total Project Delivery Costs (Engineering)	\$2,399,030
TOTAL	\$14,394,180

Percentage of Project Costs for Environmental Mitigation & Compliance	
Total Environmental Mitigation Costs divided by Total Project Costs	
\$727,350 divided by \$14,394,180 =	5.1%

Trunk Highway Fund Expenditures

The following contains fiscal year 2016 cost information for each of the categories listed in the graph below. The graph lists the budgetary expenditures by category. A brief explanation follows, describing what is included in each cost category.

Table 4: Trunk highway fund and trunk highway bond fund expenditures by category (millions)

Number	Category Name	TH Fund Expenditures
1	Road construction	\$956.3
2	Design and engineering	\$199.6
3	Labor	\$385.4
4	Acquisition of right of way	\$66.5
5	Litigation	\$6.0
6	Maintenance	\$107.9
7	Road operations	\$221.0
8	Planning	\$15.8
9	Environmental compliance	\$15.6
10	Administration	\$89.7

Note: In \$ millions

1. Road construction costs include all actual costs and encumbrances for road and bridge construction contracts. It includes both the design and engineering and construction cost portions of design/build contracts, and project related consultant costs.
2. Design and engineering costs include all costs and encumbrances for design, pre-design, construction and other engineering activities performed internally by MnDOT employees and by consultants.
3. Labor costs include all MnDOT expenditures to pay MnDOT employee wages including overtime and benefits for full-time, part-time and unclassified employees.
4. Right of way acquisition costs include all costs and encumbrances to acquire and manage land assets for the trunk highway system.
5. Litigation costs include the following: payments to the State Attorney General's Office for legal services, costs paid for expert witness fees, court reporters and transcribers, tort claims, and general and administrative costs related to legal services.
6. Maintenance costs include all costs and encumbrances to operate and maintain the trunk highway system, including bridges and structures inspection and maintenance and system roadways structure maintenance.

7. Road operations costs are all costs and encumbrances related to such activities as snow and ice removal, roadside and auxiliary infrastructure, and traffic devices operation and maintenance.
8. Planning costs are all costs for planning related to construction and maintenance of the trunk highway system, paid either to MnDOT employees or consultants.
9. Environmental compliance costs are derived from the completion of environmental review processes, documentation of review processes (e.g. Categorical Exclusions), environmental assessment worksheets, environmental impact statements, and environmental plans. Both internal employee and consultant costs are included.
10. Administration costs include all general and administrative costs related to the construction, maintenance and general support of the trunk highway system.

PLEASE NOTE:

- Debt service is not included in the road construction category.
- These 10 categories, required by the statute, do not represent all Trunk Highway Fund expenditures. Also, these 10 categories are not mutually exclusive; some expenditures are reported in more than one category, such as labor and administration.

Products and Services Budget and Spending

Since 2014, MnDOT has implemented and refined reporting of expenditures by products and services as required by statute. The budget and spending information in this section is for fiscal year 2016 for all funds.

Methodology

The financial information presented includes spending by each MnDOT office and district. This shows how each office and district contributes to the products and services that MnDOT delivered. Budget and expenditure amounts include bond proceeds.

Notes about the data

- Timing differences between the two years of a biennium cause variances that would not be present if the report was prepared on a biennial basis. For example, carry-over from the first year of the biennium to the second year impacts the data for the second year.
- Some spending may not match budgets exactly because funds may have been encumbered in one year and expended in another.
- Uncommitted and carry-over budgets may seem to exhibit spending in excess of the total budget; however, this spending occurs within a biennium and is allowed by statute.
- Negative spending amounts exist when corrections from the prior period are made in the current period.

Agency Overhead

Agency overhead includes services provided throughout the department, such as: leave time, fleet support, buildings, building services and maintenance, finance and accounting, human resources and workforce relations, training, supervision, IT, legal services, government relations, audit, research, communication, citizen participation, customer relations, management and administration, risk reserve, workers' compensation, insurance and unemployment.

2016 Products and Services Summary

2016 Products and Services Framework

Table 5: Products and Services Framework

Program	
Budget Activity	Product and Service
Multimodal Systems	
Aeronautics	Airports Aviation Safety Operations and Regulation
Freight	Commercial Truck and Bus Safety Freight Rail Improvements Freight System Planning Port Improvements Rail Crossing Safety
Passenger Rail	Intercity Passenger Rail Improvement
Transit	Bicycle and Pedestrian Planning and Grants Light and Commuter Rail Transit Planning and Grants
State Roads	
Trunk Highway Program Planning and Delivery	Develop Highway Improvement Projects Highway Construction Management Oversight Plan Highway System Research and Development
Trunk Highway State Road Construction	Other Trunk Highway System Improvements Trunk Highway System Expansion Trunk Highway System Preservation
Trunk Highway Debt Service	Trunk Highway Debt Service
Trunk Highway Operations and Maintenance	Bridges and Structures Inspection and Maintenance Roadside and Auxiliary Infrastructure Snow and Ice System Roadway Structures Maintenance Traffic Devices Operation and Maintenance
Statewide Radio Communications	Radio Towers and Communications
Local Roads	
County State Aid Roads	County State Aid Highway
Municipal State Aid Roads	Municipal State Aid Highway

Note: External Partner Support can be used by any office and any budget activity.

Department Summary

Department Summary	2014-15 Biennium					
	2014 Totals		2015 Totals		2016 Totals	
	Budget	Spent	Budget	Spent	Budget	Spent
Products and Services						
Airports	107,262	38,681	108,502	50,028	85,339	57,270
Aviation Safety Operation and Regulation	15,031	13,472	13,644	17,601	19,677	21,951
Bicycle and Pedestrian Planning and Grants	66	0	66	13,081	4,860	27,124
Bridges and Structures Inspection, Maintenance	8,833	8,317	12,611	10,647	9,575	10,526
Commercial Truck and Bus Safety	3,645	3,428	3,134	3,641	4,230	3,514
County State Aid Highway	865,970	775,858	930,583	879,055	932,872	871,147
Develop Highway Improvement Projects	55,047	59,091	65,864	92,032	93,760	86,603
External Partner Support	117,505	87,024	191,558	83,474	93,641	84,860
Freight Rail Improvements	2,817	1,686	1,758	2,002	3,311	3,821
Freight System Planning	576	351	568	457	267	168
Highway Construction Management Oversight	33,574	41,697	42,694	45,857	53,179	49,959
Intercity Passenger Rail Improvement	9,069	1,971	2,740	7,365	8,094	5,971
Light and Commuter Rail	18,884	559	6,004	589	4,199	3,991
Municipal State Aid Highway	156,022	163,455	169,162	183,273	183,244	187,444
Other Trunk Highway System Improvements	151,504	235,283	93,870	260,038	284,882	145,212
Plan Highway System	26,628	15,975	26,675	16,827	26,121	16,080
Port Improvements	609	393	32	1,047	5,899	4,030
Radio Towers and Communications	11,968	27,023	5,464	28,665	3,852	17,009
Rail Crossing Safety	8,196	7,491	9,563	5,127	14,064	10,027
Research and Development	13,462	7,631	17,458	8,992	9,186	7,779
Roadside and Auxiliary Infrastructure	15,337	13,933	18,877	20,366	15,584	17,899
Snow and Ice	21,475	29,642	81,602	80,153	74,351	66,322
System Roadway Structures Maintenance	29,052	26,054	38,546	41,742	36,488	37,913
Traffic Devices Operation and Maintenance	28,571	29,102	44,471	46,191	41,613	46,821
Transit Planning and Grants	130,515	115,012	140,436	80,179	132,051	114,760
Trunk Highway Debt Service	158,417	144,282	199,739	157,024	197,381	183,156
Trunk Highway System Expansion	465,906	352,611	456,537	491,210	450,609	424,439
Trunk Highway System Preservation	629,174	467,267	505,217	584,081	413,368	484,697
Direct	3,085,115	2,667,289	3,187,375	3,210,744	3,201,697	2,990,493
Agency Overhead	414,937	383,215	270,600	317,481	391,084	294,068
Grand Total	3,500,051	3,050,503	3,457,975	3,528,225	3,592,781	3,284,561

Note: The dollar amounts listed in the tables are in thousands. Totals may not add up due to rounding.

Note: Upon continued products and services maturity, beginning in FY15 fleet and inventory costs were included in Direct Expenses. Fleet and inventory totaled \$70M in FY16 and \$94M in FY15. In FY14, fleet and inventory costs are not in Direct Expense but are in Agency Overhead.

Note: The Agency Overhead amounts above include items such as workers compensation, severance (medical portion), unemployment, and risk reserve. These specific items totaled \$8,876 in FY14, \$12,857 in FY15, and \$13,415 in FY 16.

Division Summary

Division Summary	Chief Counsel Division		Chief of Staff Division		Commissioners Office Division	
	Budget	Spent	Budget	Spent	Budget	Spent
Products and Services						
Airports						
Aviation Safety Operation and Regulation						
Bicycle and Pedestrian Planning and Grants						
Bridges and Structures Inspection, Maintenance						
Commercial Truck and Bus Safety						
County State Aid Highway						
Develop Highway Improvement Projects	678	492				
External Partner Support						
Freight Rail Improvements						
Freight System Planning						
Highway Construction Management Oversight	465	552				
Intercity Passenger Rail Improvement						
Light and Commuter Rail						
Municipal State Aid Highway						
Other Trunk Highway System Improvements						
Plan Highway System	1,719	1,652				
Port Improvements						
Radio Towers and Communications						
Rail Crossing Safety						
Research and Development						
Roadside and Auxiliary Infrastructure						
Snow and Ice						
System Roadway Structures Maintenance						
Traffic Devices Operation and Maintenance						
Transit Planning and Grants						
Trunk Highway Debt Service						
Trunk Highway System Expansion						
Trunk Highway System Preservation						
Direct	2,862	2,696	0	0	0	0
Agency Overhead	6,562	6,957	4,698	3,094	3,374	4,221
Grand Total	9,424	9,653	4,698	3,094	3,374	4,221

Note: The dollar amounts listed in the tables are in thousands. Totals may not add up due to rounding.

Division Summary (continued)	Corporate Services Division		Engineering Services Division		Modal Planning & Program Management Division	
	Budget	Spent	Budget	Spent	Budget	Spent
Products and Services						
Airports					108,502	50,028
Aviation Safety Operation and Regulation					13,644	17,601
Bicycle and Pedestrian Planning and Grants					66	13,081
Bridges and Structures Inspection, Maintenance			2,378	1,410		
Commercial Truck and Bus Safety					3,134	3,641
County State Aid Highway					1,932	
Develop Highway Improvement Projects	546	622	19,493	25,493	608	206
External Partner Support	118	98	179,465	71,924	1,204	1,379
Freight Rail Improvements					1,758	2,002
Freight System Planning					568	457
Highway Construction Management Oversight	376	303	6,041	7,491	55	-78
Intercity Passenger Rail Improvement					2,740	7,365
Light and Commuter Rail					6,004	388
Municipal State Aid Highway						
Other Trunk Highway System Improvements					4,361	15,986
Plan Highway System	325	5	3,466	1,720	15,408	10,158
Port Improvements					32	1,047
Radio Towers and Communications						
Rail Crossing Safety					9,563	5,127
Research and Development	19	9	3,653	1,835	8,502	4,286
Roadside and Auxiliary Infrastructure			466	701		99
Snow and Ice			64	24		
System Roadway Structures Maintenance			32	124		
Traffic Devices Operation and Maintenance			372	227	140	276
Transit Planning and Grants					140,436	80,179
Trunk Highway Debt Service					199,739	157,024
Trunk Highway System Expansion					54,815	9,378
Trunk Highway System Preservation				8	10,260	4,224
Direct	1,384	1,037	215,430	110,957	583,471	383,854
Agency Overhead	44,199	55,514	33,683	32,532	12,570	12,813
Grand Total	45,583	56,551	249,113	143,489	596,041	396,667

Note: The dollar amounts listed in the tables are in thousands. Totals may not add up due to rounding.

Division Summary (continued)	Operations Division		State Aid for Local Transportation Division	
	Budget	Spent	Budget	Spent
Products and Services				
Airports				
Aviation Safety Operation and Regulation				
Bicycle and Pedestrian Planning and Grants				
Bridges and Structures Inspection and Maintenance	10,233	9,237		
Commercial Truck and Bus Safety				
County State Aid Highway			928,651	879,055
Develop Highway Improvement Projects	44,364	65,140		
External Partner Support	7,990	6,751	2,781	3,322
Freight Rail Improvements				
Freight System Planning				
Highway Construction Management Oversight	35,740	37,666		
Intercity Passenger Rail Improvement				
Light and Commuter Rail		201		
Municipal State Aid Highway			169,162	183,273
Other Trunk Highway System Improvements	89,509	244,052		
Plan Highway System	4,991	3,371		
Port Improvements				
Radio Towers and Communications	40		5,424	28,665
Rail Crossing Safety				
Research and Development	5,284	2,862		
Roadside and Auxiliary Infrastructure	18,411	19,566		
Snow and Ice	81,538	80,129		
System Roadway Structures Maintenance	38,514	41,618		
Traffic Devices Operation and Maintenance	43,959	45,688		
Transit Planning and Grants				
Trunk Highway Debt Service				
Trunk Highway System Expansion	401,722	481,832		
Trunk Highway System Preservation	494,957	579,849		
Direct	1,277,252	1,617,962	1,106,018	1,094,315
Agency Overhead	144,727	187,703	151	3,895
Grand Total	1,421,979	1,805,665	1,106,169	1,098,210

Note: The dollar amounts listed in the tables are in thousands. Totals may not add up due to rounding.

Offices and Districts by Division

Chief Counsel Division	Chief Counsel		Civil Rights		Total	
	Budget	Spent	Budget	Spent	Budget	Spent
Products and Services						
Develop Highway Improvement Projects			678	492	678	492
Highway Construction Management Oversight			465	552	465	552
Plan Highway System			1,719	1,652	1,719	1,652
Direct	0	0	2,862	2,696	2,862	2,696
Agency Overhead	5,177	5,723	1,385	1,234	6,562	6,957
Grand Total	5,177	5,723	4,247	3,930	9,424	9,653

Chief of Staff Division	Chief of Staff		Communications		Equity & Diversity		Government Affairs		Public Engagement & Constituent Services		Total	
	Budget	Spent	Budget	Spent	Budget	Spent	Budget	Spent	Budget	Spent	Budget	Spent
Products and Services												
Agency Overhead	531	336	1,062	1,023	762	809	952	0	1,391	926	4,698	3,094
Grand Total	531	336	1,062	1,023	762	809	952	0	1,391	926	4,698	3,094

Note: The offices of Customer Relations and Public Engagement & Constituent Services were combined during 2015 and are therefore both combined under Public Engagement & Constituent Services

Commissioner's Office Division	Audit		Commissioner's Staff		Total	
	Budget	Spent	Budget	Spent	Budget	Spent
Products and Services						
Agency Overhead	1,721	1,587	1,653	2,634	3,374	4,221
Grand Total	1,721	1,587	1,653	2,634	3,374	4,221

Note: The dollar amounts listed in the tables are in thousands. Totals may not add up due to rounding.

Corporate Services Division	Administration		Financial Management		Human Resources		Technology Investment Management		Corporate Services Division Administration		Total	
	Budget	Spent	Budget	Spent	Budget	Spent	Budget	Spent	Budget	Spent	Budget	Spent
Products and Services												
Develop Highway Improvement Projects					567	487					567	487
External Partner Support	104	103	0	340	0	4					104	447
Highway Construction Management Oversight	0	0	6,813	0	368	272					7,181	272
Plan Highway System					78	14					78	14
Research and Development					25	17					25	17
System Roadway Structures Maintenance	0	0	2,000								2,000	0
Trunk Highway System Expansion							0	153			0	153
Trunk Highway System Preservation	0	0	4,000								4,000	0
Direct	6,113	103	12,813	340	1,038	794	0	153	0	0	13,955	1,390
Agency Overhead	11,819	11,171	9,288	7,563	5,519	5,348	57,722	24,828	2,070	919	86,418	49,829
Grand Total	11,923	11,274	22,100	7,903	6,557	6,142	57,722	24,981	2,070	919	100,373	51,219

Note: The dollar amounts listed in the tables are in thousands. Totals may not add up due to rounding.

Engineering Services Division	Bridges		Construction & Innovative Contracting		Environmental Stewardship		Land Management		Materials & Road Research	
	Budget	Spent	Budget	Spent	Budget	Spent	Budget	Spent	Budget	Spent
Products and Services										
Bridges and Structures Inspection, Maintenance	980	927			0	1				
Develop Highway Improvement Projects	3,990	4,004	505	384	2,093	1,698	6,183	5,818	2,674	3,142
External Partner Support	64,735	69,411	112	70	96	69	5,303	3,527	5,428	96
Highway Construction Management Oversight	1,010	1,012	777	778	85	118	535	351	3,454	3,355
Other Trunk Highway System Improvements	0	2							0	1
Plan Highway System	4	78			160	338			369	135
Research and Development	66	41			2	169			1,827	1,783
Roadside and Auxiliary Infrastructure	10	8			97	168	236	236		
Snow and Ice					38	30				
System Roadway Structures Maintenance	0	19			2	28				
Traffic Devices Operation and Maintenance	1	15			0	2				
Trunk Highway System Expansion	0	5							0	2
Trunk Highway System Preservation									208	208
Direct	70,796	75,522	1,394	1,232	2,573	2,621	12,257	9,932	13,960	8,722
Agency Overhead	3,989	3,871	2,181	2,073	3,174	2,859	4,531	4,413	4,551	4,761
Grand Total	74,785	79,393	3,575	3,305	5,747	5,480	16,788	14,345	18,511	13,483

Note: The dollar amounts listed in the tables are in thousands. Totals may not add up due to rounding.

Engineering Services Division (continued)	Project Management and Technical Support		Engineering Services Division Administration		Total	
	Budget	Spent	Budget	Spent	Budget	Spent
Products and Services						
Bridges and Structures Inspection, Maintenance	912	698			1,892	1,626
Develop Highway Improvement Projects	9,937	8,946			25,382	23,992
External Partner Support	31	1,723			75,705	74,896
Highway Construction Management Oversight	1,759	1,088			7,620	6,702
Other Trunk Highway System Improvements					0	3
Plan Highway System	1,540	1,269			2,073	1,820
Research and Development	519	260			2,414	2,253
Roadside and Auxiliary Infrastructure	3	0			346	412
Snow and Ice					38	30
System Roadway Structures Maintenance	0	49	0	617	2	713
Traffic Devices Operation and Maintenance	363	149			364	166
Trunk Highway System Expansion					0	7
Trunk Highway System Preservation					208	208
Direct	15,064	14,182	0	617	116,044	112,828
Agency Overhead	7,481	6,226	802	741	26,709	24,944
Grand Total	22,545	20,408	802	1,358	142,753	137,772

Note: The dollar amounts listed in the tables are in thousands. Totals may not add up due to rounding.

Modal Planning & Program Management Division	Aeronautics		Freight & Commercial Vehicle Operations		Passenger Rail		Transit	
	Budget	Spent	Budget	Spent	Budget	Spent	Budget	Spent
Products and Services								
Airports	85,339	57,270						
Aviation Safety Operation and Regulation	19,676	21,951						
Bicycle and Pedestrian Planning and Grants							4,860	27,124
Commercial Truck and Bus Safety			4,230	3,514				
Develop Highway Improvement Projects			556	0			50	49
External Partner Support	16	14	1,415	873	600	0	23	22
Freight Rail Improvements			3,311	3,821				
Freight System Planning			267	168				
Highway Construction Management Oversight								
Intercity Passenger Rail Improvement					8,094	5,971		
Light and Commuter Rail							4,199	3,991
Other Trunk Highway System Improvements								
Plan Highway System								
Port Improvements			5,899	4,030				
Rail Crossing Safety			14,064	10,027				
Research and Development								
Traffic Devices Operation and Maintenance								
Transit Planning and Grants							132,051	114,760
Trunk Highway Debt Service								
Trunk Highway System Expansion								
Trunk Highway System Preservation								
Direct	105,031	79,235	29,742	22,433	8,694	5,971	141,183	145,946
Agency Overhead	2,720	2,456	2,821	3,063	110	101	1,116	934
Grand Total	107,751	81,691	32,563	25,496	8,804	6,072	142,299	146,880

Note: The dollar amounts listed in the tables are in thousands. Totals may not add up due to rounding.

Modal Planning & Program Management Division (continued)	Transportation System Management		Modal Planning & Program Management Division Administration		Total	
	Budget	Spent	Budget	Spent	Budget	Spent
Products and Services						
Airports					85,339	57,270
Aviation Safety Operation and Regulation					19,676	21,951
Bicycle and Pedestrian Planning and Grants					4,860	27,124
Commercial Truck and Bus Safety					4,230	3,514
Develop Highway Improvement Projects	77	76			683	125
External Partner Support	296	61			2,350	970
Freight Rail Improvements					3,311	3,821
Freight System Planning					267	168
Highway Construction Management Oversight	-3	14			-3	14
Intercity Passenger Rail Improvement					8,094	5,971
Light and Commuter Rail					4,199	3,991
Other Trunk Highway System Improvements	89,760	6,183			89,760	6,183
Plan Highway System	19,386	9,344			19,386	9,344
Port Improvements					5,899	4,030
Rail Crossing Safety					14,064	10,027
Research and Development	2,869	3,452			2,869	3,452
Traffic Devices Operation and Maintenance	140	110			140	110
Transit Planning and Grants					132,051	114,760
Trunk Highway Debt Service	197,381	183,156			197,381	183,156
Trunk Highway System Expansion	22,918	437			22,918	437
Trunk Highway System Preservation	47,159	7,184			47,159	7,184
Direct	379,983	210,017	0	0	664,633	463,602
Agency Overhead	4,645	3,417	1,145	2,480	12,557	12,451
Grand Total	384,628	213,434	1,145	2,480	677,190	476,053

Note: The dollar amounts listed in the tables are in thousands. Totals may not add up due to rounding.

Operations Division	District 1		District 2		District 3		District 4	
Products and Services	Budget	Spent	Budget	Spent	Budget	Spent	Budget	Spent
Aviation Safety Operation and Regulation								
Bridges and Structures Inspection, Maintenance	1,041	1,103	443	484	449	606	215	316
County State Aid Highway								
Develop Highway Improvement Projects	20,959	16,238	3,047	3,855	4,291	4,211	2,324	2,242
External Partner Support	497	34	32	17	14	10	20	0
Highway Construction Management Oversight	3,976	9,075	1,646	1,701	4,020	4,114	1,947	2,466
Municipal State Aid Highway								
Other Trunk Highway System Improvements	1,988	1,540	16,751	14,266	26,343	12,305	11,694	15,825
Plan Highway System	110	224	181	294	271	334	122	202
Research and Development			2	2	1	7	1	1
Roadside and Auxiliary Infrastructure	1,044	1,068	927	1,162	817	1,518	686	1,198
Snow and Ice	9,394	8,513	5,805	5,322	8,833	7,588	6,291	5,204
System Roadway Structures Maintenance	3,999	4,433	2,073	2,640	4,230	4,755	3,103	3,396
Traffic Devices Operation and Maintenance	1,172	1,441	873	858	1,995	2,489	921	1,424
Trunk Highway System Expansion	103,311	102,595	1,302	749	30,402	43,417	9,661	15,452
Trunk Highway System Preservation	51,930	76,663	25,345	25,156	64,554	51,972	31,742	36,643
Direct	199,421	222,927	58,427	56,506	146,220	133,326	68,727	84,369
Agency Overhead	13,988	12,939	8,002	8,293	12,704	13,012	8,956	9,061
Grand Total	213,409	235,866	66,429	64,799	158,924	146,338	77,683	93,430

Note: The dollar amounts listed in the tables are in thousands. Totals may not add up due to rounding.

Operations Division (continued)	District 6		District 7		District 8		Metro District	
	Budget	Spent	Budget	Spent	Budget	Spent	Budget	Spent
Products and Services								
Aviation Safety Operation and Regulation								
Bridges and Structures Inspection, Maintenance	1,157	1,456	655	730	543	625	3,132	3,571
County State Aid Highway								
Develop Highway Improvement Projects	11,135	9,881	2,749	2,893	1,852	1,702	18,742	18,897
External Partner Support	1,601	652	24	25	4	0	7,840	4,646
Highway Construction Management Oversight	4,299	5,795	4,087	2,543	1,570	1,624	15,489	14,330
Municipal State Aid Highway								
Other Trunk Highway System Improvements	11,350	22,177	12,435	10,881	5,600	4,448	86,519	53,615
Plan Highway System	298	232	224	211	395	231	1,174	1,278
Research and Development	4	1	1	0	2	0	12	20
Roadside and Auxiliary Infrastructure	1,552	1,987	1,196	1,385	471	804	4,854	3,823
Snow and Ice	8,417	7,787	6,435	6,671	4,287	4,241	20,623	19,706
System Roadway Structures Maintenance	3,807	3,679	3,512	3,655	1,978	2,125	10,980	12,510
Traffic Devices Operation and Maintenance	2,076	2,273	1,014	992	607	689	18,219	23,978
Trunk Highway System Expansion	94,365	71,912	23,814	19,514	595	5,597	164,241	164,597
Trunk Highway System Preservation	53,377	63,337	35,989	73,832	25,866	25,691	72,405	123,384
Direct	193,438	191,169	92,135	123,332	43,770	47,777	424,230	444,355
Agency Overhead	14,906	14,588	10,000	10,419	7,988	7,955	65,240	43,765
Grand Total	208,344	205,757	102,135	133,751	51,758	55,732	489,470	488,120

Note: The dollar amounts listed in the tables are in thousands. Totals may not add up due to rounding.

Operations Division (continued)	Maintenance		Traffic, Safety & Technology		Operations Division Administration		Total	
	Budget	Spent	Budget	Spent	Budget	Spent	Budget	Spent
Products and Services								
Aviation Safety Operation and Regulation	1	0					1	0
Bridges and Structures Inspection and Maintenance	5	4	43	5			7,683	8,900
County State Aid Highway	2	0					2	0
Develop Highway Improvement Projects			1,351	1,588			66,450	61,507
External Partner Support	0	71	182	55	65	104	10,279	5,614
Highway Construction Management Oversight			882	771			37,916	42,419
Municipal State Aid Highway	1	0					1	0
Other Trunk Highway System Improvements			22,442	3,943	0	26	195,122	139,026
Plan Highway System			90	244			2,865	3,250
Research and Development			3,855	2,026			3,878	2,057
Roadside and Auxiliary Infrastructure	3,691	4,542					15,238	17,487
Snow and Ice	1,394	1,110	834	150			72,313	66,292
System Roadway Structures Maintenance	-29	7	833	0			34,486	37,200
Traffic Devices Operation and Maintenance	9,002	10,193	5,230	2,208			41,109	46,545
Trunk Highway System Expansion					0	9	427,691	423,842
Trunk Highway System Preservation			793	595	0	32	362,001	477,305
Direct	14,067	15,927	36,535	11,585	65	171	1,277,035	1,331,444
Agency Overhead	45,904	50,481	3,016	2,671	2,531	2,338	193,235	175,522
Grand Total	59,971	66,408	39,551	14,256	2,596	2,509	1,470,270	1,506,966

Note: The dollar amounts listed in the tables are in thousands. Totals may not add up due to rounding.

State Aid Division	State Aid for Local Transportation		Statewide Radio Communications		Total	
	Budget	Spent	Budget	Spent	Budget	Spent
County State Aid Highway	932,870	871,147			932,870	871,147
External Partner Support	1,007	617	4,196	2,316	5,203	2,933
Municipal State Aid Highway	183,243	187,444			183,243	187,444
Radio Towers and Communications			3,852	17,009	3,852	17,009
Direct	1,117,120	1,059,208	8,048	19,325	1,125,168	1,078,533
Agency Overhead	0	545	1,829	3,090	1,829	3,635
Grand Total	1,117,120	1,059,753	9,877	22,415	1,126,997	1,082,168

Note: The dollar amounts listed in the tables are in thousands. Totals may not add up due to rounding.

Productivity Measures

Introduction

Traditional performance measures used by MnDOT are measures of product and service delivery effectiveness. Performance measures have been used at MnDOT since the 1990s. Productivity measures help to evaluate how efficiently MnDOT's products and services are delivered.

Background

The productivity measures are an effort to identify, create, examine and document current levels of productivity within MnDOT for MnDOT's core products and services. This project is aimed at complying with the requirement to annually report measures of MnDOT productivity for the previous fiscal year.

The report includes the following measures:

- Bridges:
 - Inspection cost per square foot of deck area
 - Maintenance cost per square foot of deck area
- Pavement: Cost per roadway mile-year added
- Snow and ice: Cost per plow mile driven
- Pavement markings: Cost per mile striped
- Transit: MnDOT administrative cost per transit passenger trip
- Freight: MnDOT administrative cost per oversize/overweight permit issued
- Program planning and delivery to construction expenditure ratio

These areas represent a subset of MnDOT's products and services.

Purpose and scope

The productivity measures contained in this report were identified and developed by each respective operational area. The data is repeatable, verifiable and auditable. Measures of productivity should be viewed in the context of MnDOT's drive to deliver a safe and reliable multi-modal transportation system for Minnesotans. While measures of effectiveness are not included in this report, they can be found within MnDOT's [Annual Transportation Performance Report](#).

Costs are presented in both inflation adjusted and unadjusted terms. The base year for inflation adjusted data is 2016; therefore, the adjusted and unadjusted values for 2016 are identical. Inflation factors were selected for each measure based upon the nature of the work performed and the expenses incurred. For measures where the bulk of costs are labor related, a 2 percent inflation factor is used based on historic MnDOT labor inflation rates. For measures where the bulk of costs are maintenance related, a 3 percent inflation factor is used based on average inflation in MnDOT's maintenance and operations commodities and labor from 2008-2016.

For the pavement measure, actual values are used from MnDOT's pavement surfacing index. The surfacing index has been volatile, but increased an average of 7 percent per year from 2005-2015. For the program planning and delivery to construction expenditure ratio, two different inflation factors were applied. For the program planning and delivery side of the ratio, the 2 percent labor

inflation factor is applied since those expenditures are primarily labor. For the construction expenditure side of the ratio, actual MnDOT construction cost index values are used. This index has been volatile, but increased an average of 4 percent per year from 2006-2016.

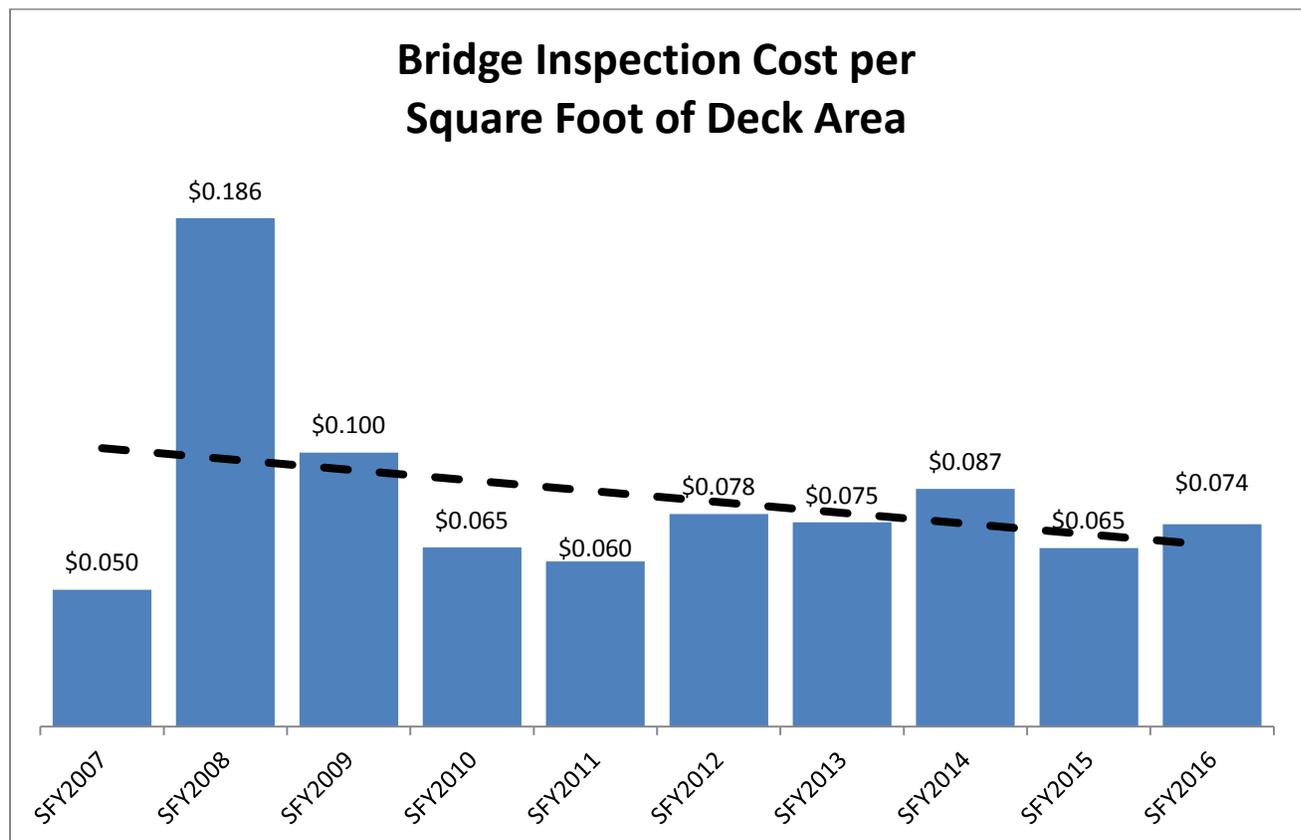
Bridges: Inspection Cost per Square Foot of Deck Area

Routine and fracture critical bridge safety inspections play key roles in maintaining a safe transportation system, ensuring the structural integrity of bridges and keeping MnDOT in compliance with state and federal laws. Bridge safety inspections also provide the condition assessment data that supports MnDOT investment decisions regarding bridge repair, rehabilitation and replacement.

Measure definition

The bridge inspection productivity measure tracks dollars spent on routine and fracture critical bridge inspections (labor and equipment costs) against the total deck area of bridges inspected to calculate the average inspection cost per square foot. Note that these average inspection costs are not necessarily directly proportional to the square footage of a particular bridge. Many factors affect inspection costs such as bridge design type complexity, access, traffic-control requirements, equipment requirements and the bridge's level of deterioration.

Figure 2: State Fiscal Year 2007-2016 Bridge Inspection Cost per Sq. Ft. of Deck Area



The square foot of deck area for 2006–2011 does not include all bridges inspected due to previous cost accounting practices and software limitations. Data from 2012 forward is accurate with regard to both cost and square foot of deck area inspected. Costs were adjusted to 2016 dollars using a 2 percent annual inflation factor based on historic MnDOT labor inflation.

Results and analysis

The cost per square foot for bridge inspections appears to have stabilized over the last seven years following a spike in 2008 and 2009. Bridge inspection expenses and cost per square foot peaked in fiscal year 2008 when the governor mandated accelerated inspections for all bridges. Other primary factors that affected annual costs include:

- A change to the federal National Bridge Inspection Standards, which increased the frequency of fracture critical inspections to every 24 months. Previous to 2008 these inspections were performed every 48 months. Fracture critical inspections take more time and are more expensive per square foot of bridge deck area than routine inspections.
- Age of infrastructure results in more deterioration to monitor and increases inspection times.
- Trends toward certain new and reconstructed bridges as complex bridges also add inspection time and create access issues.
- Increases in the necessary amount of traffic control and the cost of equipment and materials.

Table 6: Inflation-adjusted bridge inspection cost per square foot of deck area

State Fiscal Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Bridge inspection expenses (\$1,000)	\$1,460	\$7,458	\$3,180	\$2,110	\$1,882	\$1,998	\$2,178	\$2,163	\$2,024	\$2,225
Sq. ft. of bridge deck inspected (1,000s)	29,217	40,191	31,804	32,243	31,236	25,752	29,220	24,934	31,044	30,107
Cost per sq. ft. of inspection	\$0.050	\$0.186	\$0.100	\$0.065	\$0.060	\$0.078	\$0.075	\$0.087	\$0.065	\$0.074

Costs were adjusted to 2016 dollars using a 2 percent annual inflation factor based on historic MnDOT labor inflation.

Table 7: Actual (unadjusted) bridge inspection cost per square foot of deck area

State Fiscal Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Bridge inspection expenses (\$1,000)	\$1,222	\$6,365	\$2,768	\$1,874	\$1,705	\$1,846	\$2,052	\$2,079	\$1,984	\$2,225
Sq. ft. of bridge deck inspected (1,000s)	29,217	40,191	31,804	32,243	31,236	25,752	29,220	24,934	31,044	30,107
Cost per sq. ft. of inspection	\$0.042	\$0.158	\$0.087	\$0.058	\$0.055	\$0.072	\$0.070	\$0.083	\$0.064	\$0.074

Numbers within the table are not adjusted for inflation.

Major influencing factors

Primary factors that influence this measure include changes to:

- fracture critical inspection frequency
- bridges with advanced deterioration require additional time and effort to inspect
- large and complex bridges require more advanced equipment and inspection techniques
- traffic control requirements, access and equipment requirements

Also, since 2012, a possible factor influencing MnDOT time and effort on bridge inspections is the National Bridge Inspection Oversight Program established by FHWA in 2011. This program evaluates state bridge inspection programs for compliance annually using 23 metrics. These metrics were put in place to ensure consistency among states' programs and to ensure bridges are safe, reduce liability for bridge owners and increase public confidence. This program resulted in more administrative costs to the states, and has possibly impacted the amount of time spent reporting bridge inspection information. Because of the numerous contributing factors, the cost per square foot for bridge inspections is not necessarily directly proportional to the bridge deck area.

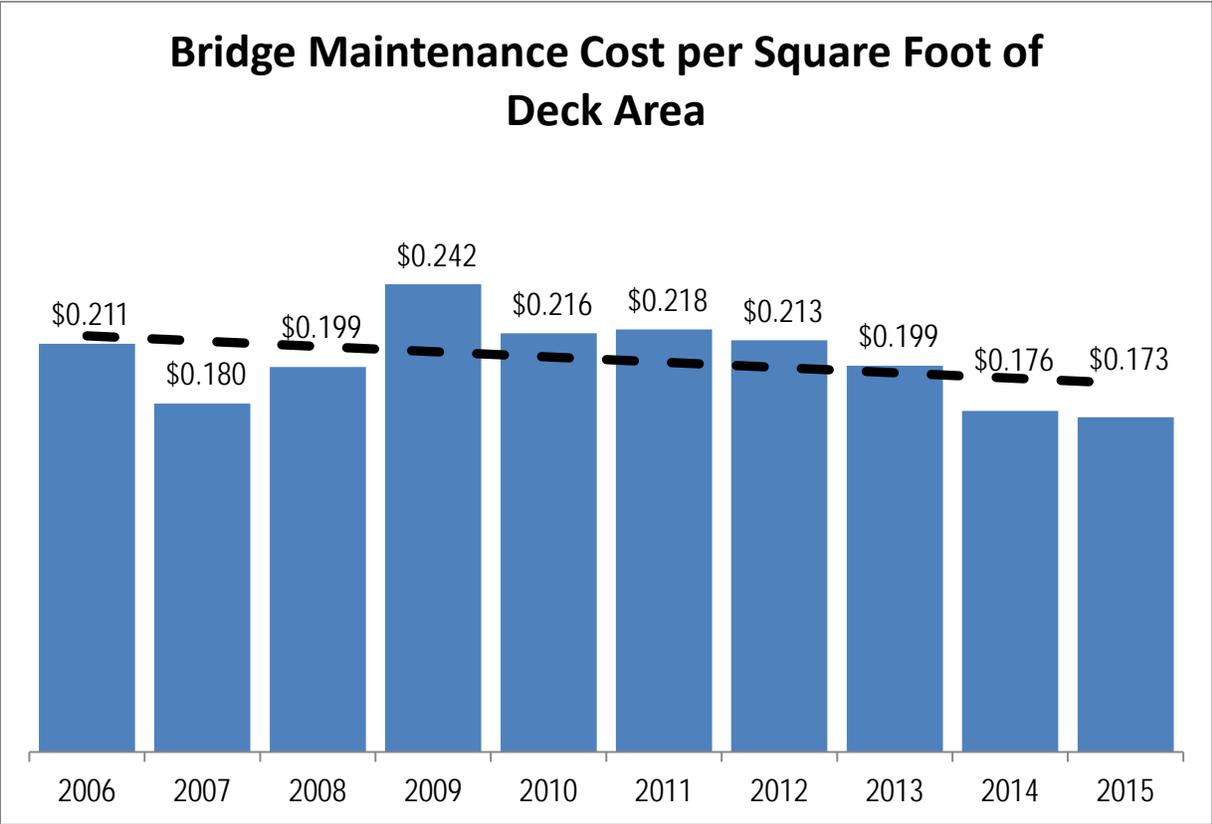
Bridges: Maintenance Cost per Square Foot of Deck Area

Bridge preservation keeps bridges in sound condition and slows their deterioration through preventative and reactive maintenance. Preventive maintenance includes routine maintenance activities performed on a cyclical basis and periodic minor repairs. Reactive maintenance includes those activities scheduled in response to an identified condition that may compromise ride, public safety or bridge structural function. Preventive maintenance on newer bridges is cost effective and will keep them in good condition longer. Reactive maintenance when needed will delay the need for extensive rehabilitation or replacement.

Measure definition

The bridge maintenance productivity measure compares dollars spent on preventive and reactive maintenance (labor, equipment and material costs) against the total deck area of Minnesota's trunk highway bridges to calculate the average cost per square foot of deck area maintained. Note that these average maintenance costs are not necessarily directly proportional to the square footage of a particular bridge. Many factors affect maintenance costs such as bridge design type and complexity, access, traffic-control requirements, scope of work, equipment requirements and the bridge's level of deterioration.

Figure 3: 2006-2015 Bridge Maintenance Cost per Sq. Ft. of Deck Area



Costs were adjusted to 2016 dollars using a 3 percent annual inflation factor based on historic MnDOT maintenance and operations commodity and labor inflation.

Results and analysis

Over the last decade, between \$0.173 and \$0.242 per square foot was spent on average to perform preventive and reactive maintenance adjusting for inflation. As a reference, it costs an average of \$150 per square foot to construct a new bridge.

The overall trend is flat, although costs have trended downward over the last few years. MnDOT’s ability to perform bridge preventive maintenance was enhanced from FY 2006-2009 due to a budget shift from State Road Construction to Operations and Maintenance. This may partially account for the temporary rise in maintenance costs per square foot.

With additional funding MnDOT can address medium and low priority reactive maintenance needs that might otherwise wait. Consequently, higher costs per square foot in one year help prevent more urgent and costly repairs in the future. As the bridge system ages, maintenance costs per square foot may trend upwards as the amount of reactive maintenance required is expected to increase.

Table 8: Inflation-adjusted bridge maintenance cost per square foot of deck area

Calendar Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Preventive Maintenance Expenditures (\$1,000)	\$5,309	\$4,438	\$4,104	\$4,335	\$3,755	\$4,280	\$2,991	\$2,707	\$3,016	\$3,094
Reactive Maintenance Expenditures (\$1,000)	\$4,443	\$4,043	\$5,352	\$7,106	\$6,524	\$6,097	\$7,120	\$6,872	\$5,795	\$5,964
Total Bridge Maintenance (\$1,000)	\$9,752	\$8,481	\$9,456	\$11,441	\$10,278	\$10,377	\$10,112	\$9,579	\$8,810	\$9,058
Total Bridge Deck sq. ft. (1,000)	46,257	47,124	47,576	47,373	47,531	47,543	47,567	48,034	50,003	52,417
Maintenance Cost/sq. ft. Adjusted for inflation	\$0.211	\$0.180	\$0.199	\$0.242	\$0.216	\$0.218	\$0.213	\$0.199	\$0.176	\$0.173

Costs were adjusted to 2016 dollars using a 3 percent annual inflation factor based on historic MnDOT maintenance and operations commodity and labor inflation.

Table 9: Actual (unadjusted) bridge maintenance costs

Calendar Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Preventive Maintenance Expenditures (\$1,000)	\$3,950	\$3,401	\$3,239	\$3,525	\$3,145	\$3,692	\$2,658	\$2,477	\$2,843	\$3,004
Reactive Maintenance Expenditures (\$1,000)	\$3,306	\$3,098	\$4,225	\$5,778	\$5,463	\$5,260	\$6,326	\$6,289	\$5,462	\$5,790
Total Bridge Maintenance (\$1,000)	\$7,256	\$6,500	\$7,464	\$9,303	\$8,608	\$8,951	\$8,984	\$8,766	\$8,305	\$8,794
Total Bridge Deck sq. ft. (1,000)	46,257	47,124	47,576	47,373	47,531	47,543	47,567	48,034	50,003	52,417
Maintenance Cost/sq. ft.	\$0.157	\$0.138	\$0.157	\$0.196	\$0.181	\$0.188	\$0.189	\$0.182	\$0.166	\$0.168

Costs are not adjusted for inflation

Major influencing factors

Budget allocations and the condition of Minnesota’s overall bridge system are factors that influence this measure. As the condition of the bridge system trends toward good and satisfactory, preventive maintenance becomes the predominant treatment. As the condition of the bridge system trends toward fair and poor, reactive maintenance needs increase.

Other factors that influence this measure include bridge design type and complexity, traffic control requirements, access and equipment requirements. Because of the numerous contributing factors, the cost per square foot for bridge maintenance is not necessarily directly proportional to the bridge deck area. These costs are very high level and are appropriate for monitoring the overall trend.

This report includes only the costs associated with MnDOT-performed preventive and reactive maintenance activities. MnDOT generally self-performs the majority of bridge preservations, but future reporting efforts may include contract maintenance work.

Pavement: Cost per roadway mile-year added

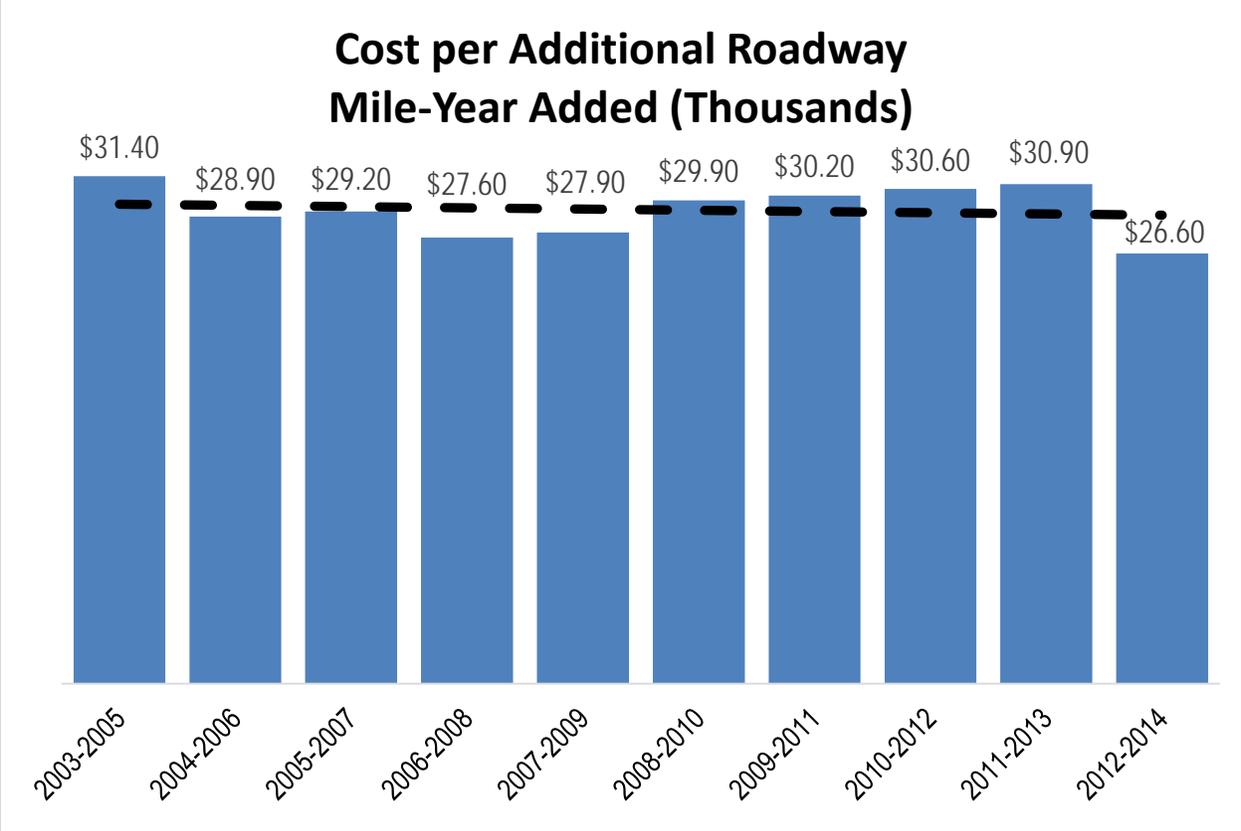
Preserving the functional and structural integrity of Minnesota's highways is a priority for MnDOT because timely repair and replacement reduces long-term costs and because highway smoothness greatly affects Minnesotans' satisfaction with overall state highway maintenance. MnDOT performs a variety of rehabilitation activities that extend the remaining service life of roadways. Remaining service life is the time in years until the roughness of a pavement section is predicted to reach the point where travelers feel the road is rough. A roadway with zero years of service life remaining can still be driven on, but it has reached the point when some sort of rehabilitation is warranted.

Measure definition

The pavement productivity measure compares MnDOT's estimated pavement preservation investments against the number of mile-years it adds to Minnesota's trunk highway system for MnDOT's contracted work. Mile-years are defined as the number of miles of roadway that receive treatment in a given year multiplied by the design life (in years) of that treatment. For example, one mile of roadway that receives a fix expected to last 10 years would be calculated as 10 mile-years.

The investment numbers represent MnDOT's contracted work for the following program categories: reconstruction, recondition, resurfacing and road repair. Work performed by MnDOT labor, such as patching pot holes, is not included. A three-year rolling average is used to smooth financial data that is in fiscal years and condition data that is in calendar years. Additionally, any improvement in condition is captured the year after the investment is made.

Figure 4: Three-year Rolling Average 2003-2014 of Cost per Roadway Mile-Year Added (Thousands)



Costs were adjusted to 2015 dollars using the actual annual Pavement Surfacing Index from the MnDOT Construction Cost Index that has been volatile but increased an average of 7 percent per year for the last 10 years.

Rehabilitation activities that extend service life will add a considerable number of years to the remaining service life of a pavement but are typically more costly. Less expensive short-term fixes may increase the pavement smoothness in the near term, but will not add many additional years of remaining service life. This measure provides a way of looking at the makeup of the pavement program. Long life fixes, while adding considerable life to a roadway, are very costly. Fixes with short lives, while fairly inexpensive, do not add much life to the system. A good balance of long and short term fixes is desired. When budgets are tight, the program will trend toward increased miles of low cost, short life fixes, to keep the system in serviceable condition. As funds increase, a greater number of the higher cost, long life fixes can be part of the program.

Results and analysis

Due to a large data migration project to a new system, pavement data for 2015 is not yet available. The results through 2014 show the trend in cost per roadway mile-year added is flat over time. It should be noted that this measure only includes an analysis of the contracted work that was performed. It does not suggest whether the overall investment in the system is adequate. One must look at the condition of the system, and projected condition based on programmed investment, to see how the system condition is changing over time.

Table 10: Inflation-adjusted cost per roadway mile-year added

3-year averages	2003-2005	2004-2006	2005-2007	2006-2008	2007-2009	2008-2010	2009-2011	2010-2012	2011-2013	2012-2014
Pavement Preservation spending (millions)	\$295.6	\$331.5	\$333.7	\$278.6	\$327.8	\$379.3	\$432.9	\$462.4	\$517.2	\$511.6
Mile-Years added (1,000s)	9.4	11.5	11.4	10.1	11.8	12.7	14.3	15.1	16.7	19.2
Cost per roadway mile year added (1,000s)	\$31.4	\$28.9	\$29.2	\$27.6	\$27.9	\$29.9	\$30.2	\$30.6	\$30.9	\$26.6

Costs were adjusted to 2015 dollars using the actual annual Pavement Surfacing Index from the MnDOT Construction Cost Index that has been volatile but increased an average of 7 percent per year from 2005-2015.

Table 11: Actual (unadjusted) cost per roadway mile-year added

3-year averages	2003-2005	2004-2006	2005-2007	2006-2008	2007-2009	2008-2010	2009-2011	2010-2012	2011-2013	2012-2014
Pavement Preservation spending (millions)	\$149.7	\$184.8	\$208.8	\$205.0	\$255.9	\$307.3	\$349.8	\$394.3	\$461.4	\$478.0
Mile-Years added (1,000s)	9.4	11.5	11.4	10.1	11.8	12.7	14.3	15.1	16.7	19.2
Cost per roadway mile year added (1,000s)	\$15.9	\$16.1	\$18.2	\$20.3	\$21.8	\$24.2	\$24.4	\$26.1	\$27.6	\$24.8

Costs were not adjusted for inflation.

Major influencing factors

Inflation in construction costs is a major influencing factor for MnDOT's construction program. Pavement is especially impacted by inflation since asphalt and concrete prices have increased disproportionately compared to other construction activities and commodities in recent history.

In addition, many pavement projects are chosen due to reasons that are not primarily related to pavement condition. The need to improve safety and/or mobility along a route often is a primary reason the project is selected. Although the pavement is repaired or replaced as part of the project, the cost of the project is higher, in some cases much higher, due to the non-pavement related work, such as culvert or underground drainage structure repairs. This makes it difficult to derive a good relationship between the number of years of life added and the dollar spent on pavement repairs. Some years, MnDOT's program has more of these types of projects than others, making it difficult to analyze yearly trends. Finally, as new materials and construction techniques are developed, the lives of the various fixes will hopefully increase, when compared to MnDOT's current methods. If the added cost of the new method provides a substantial increase in pavement life, it will be reflected in this measure.

Snow and Ice: Cost per Plow-Mile Driven

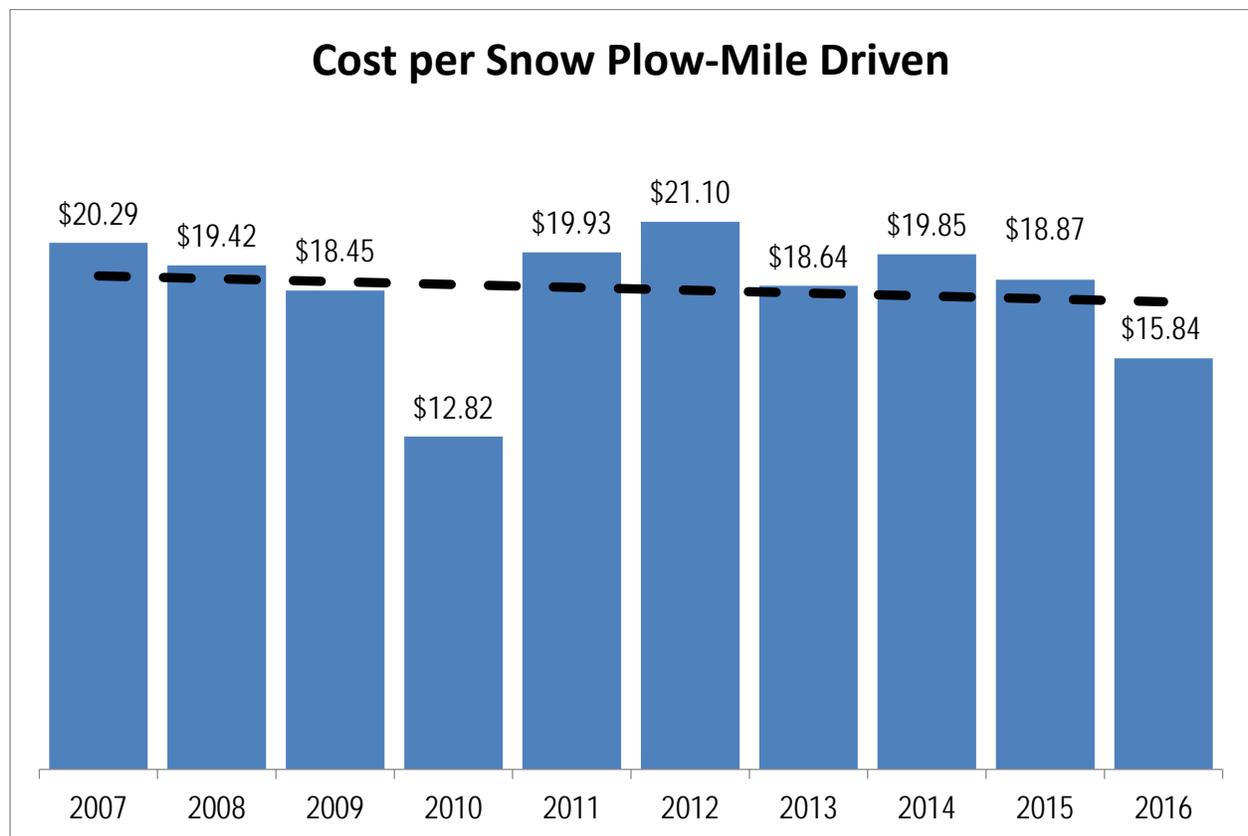
Fast and effective snow and ice control is critically important to Minnesotans' quality of life during the winter months. It preserves mobility, increases traveler safety, reduces damage to vehicles and limits the extent of weather-induced congestion.

The primary goal of MnDOT's snow and ice operations is the safety of Minnesota's traveling public. Citizens expect to be able to carry out normal activities through most weather events and to have transportation facilities that safely accommodate travel shortly after an event has passed. In addition, the snow and ice program works to prevent the accumulation of snow through snow fences and prevent the formation of ice through the application of anti-icing chemicals prior to a snow event.

Measure definition

The snow and ice productivity measure compares dollars spent on MnDOT's snow and ice program against the number of plow miles driven during the snow and ice season. The data includes miles driven to get to and from routes, since those miles are required to deliver snow and ice operations.

Figure 5: State Fiscal Year 2007-2016 Cost per Snow Plow-Mile Driven



Costs were adjusted to 2016 dollars using a 3 percent annual inflation factor based on historic MnDOT maintenance and operations commodity and labor inflation.

Results and analysis

The chart above shows the cost per plow-mile driven was stable over nine of the last 10 years. The exceptionally low cost per plow-mile driven in SFY2010 is the result of an exceptionally mild winter.

Table 12: Inflation-adjusted cost per snow plow-mile driven

State Fiscal Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Costs (\$millions)	\$77.4	\$105.7	\$112.7	\$90.6	\$124.3	\$69.8	\$122.7	\$144.5	\$90.6	\$94.2
Plow Miles Driven (1000s)	3,814	5,445	6,111	7,068	6,235	3,306	6,583	7,282	4,800	5,943
Cost per Mile	\$20.29	\$19.42	\$18.45	\$12.82	\$19.93	\$21.10	\$18.64	\$19.85	\$18.87	\$15.84

Costs were adjusted to 2016 dollars using a 3 percent annual inflation factor based on historic MnDOT maintenance and operations commodity and labor inflation.

Table 13: Actual (unadjusted) cost per snow plow-mile driven

State Fiscal Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Costs (\$millions)	\$59.3	\$83.5	\$91.7	\$75.9	\$107.2	\$62.0	\$112.3	\$136.2	\$87.9	\$94.2
Plow Miles Driven (1000s)	3,814	5,445	6,111	7,068	6,235	3,306	6,583	7,282	4,800	5,943
Cost per Mile	\$15.55	\$15.33	\$15.00	\$10.73	\$17.19	\$18.75	\$17.06	\$18.71	\$18.32	\$15.84

Numbers within the table are not adjusted for inflation.

Major influencing factors

Factors that influence higher expenses are congestion, winter severity, type of weather, event timing, wind, clean-up, inventorying materials, maintenance of storage facilities, salt brine production and terrain. MnDOT is looking at ways to control more of these factors when measuring productivity.

Contributing to added efficiency are innovative technologies and practices including tow plows, anti-icing, pre-wetting, de-icing, comprehensive snowfighter training, snow fences and enhanced materials.

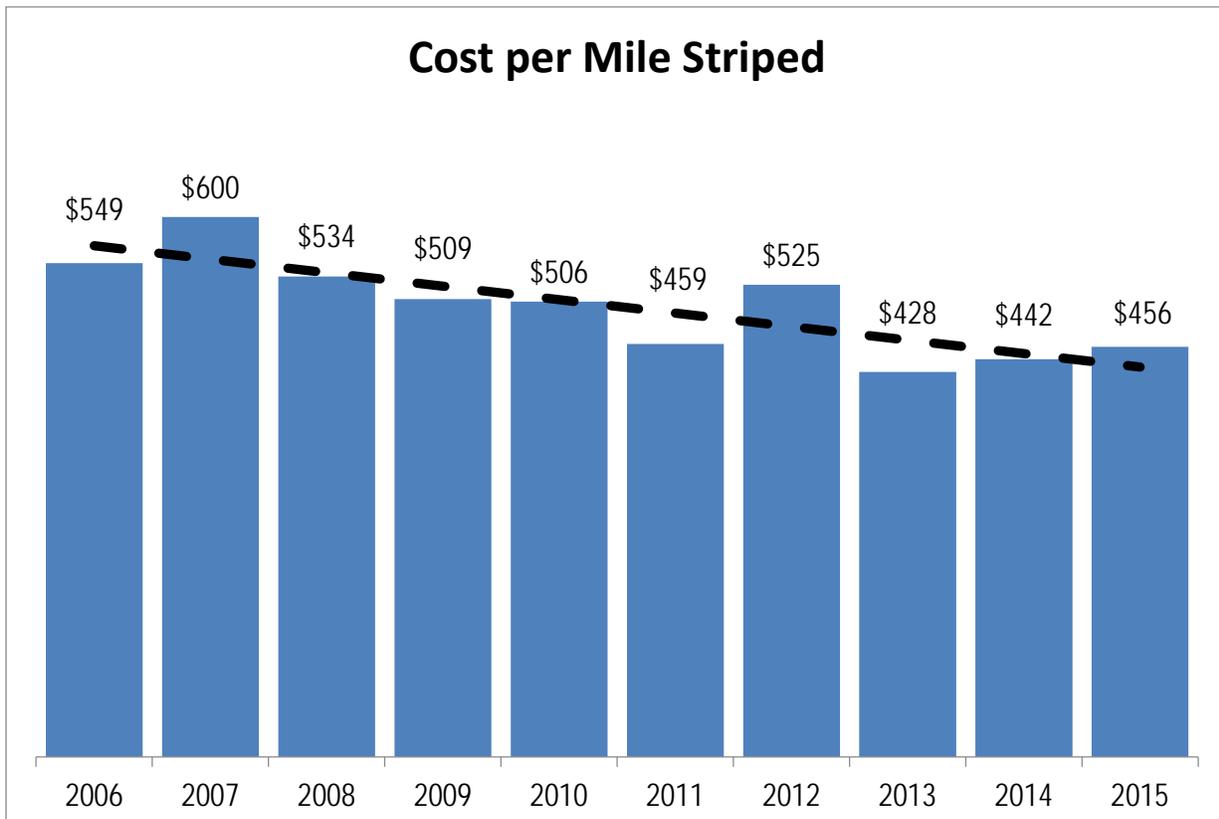
Pavement Markings: Cost per Mile Striped

Pavement markings perform an important function in managing, directing and controlling traffic. In some cases, they are used to supplement the regulations or warnings of other devices, such as traffic signs or signals. Sometimes, they are used alone and produce results that cannot be obtained by the use of any other device.

Measure definition

The pavement markings productivity measure compares dollars spent marking pavements on Minnesota's trunk highway system against the number of miles striped.

Figure 6: Calendar Year 2006-2015 Cost per Mile Striped



Costs were adjusted to 2016 dollars using a 3 percent annual inflation factor based on historic MnDOT maintenance and operations commodity and labor inflation.

Results and analysis

Striping cost per mile trends downward over the reporting period, although it does fluctuate from year-to-year due to the influencing factors listed below.

Table 14: Inflation-adjusted cost per mile striped

Calendar Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Total Striping Costs (1,000s)	\$9,218	\$9,705	\$9,991	\$9,142	\$8,146	\$6,909	\$8,738	\$6,183	\$6,679	\$6,694
Miles Striped (1,000s)	16.8	16.2	18.7	18	16.1	15	16.7	14.4	15.1	14.7
Cost per mile	\$549	\$600	\$534	\$509	\$506	\$459	\$525	\$428	\$442	\$456

Costs were adjusted to 2016 dollars using a 3 percent annual inflation factor based on historic MnDOT maintenance and operations commodity and labor inflation.

Table 15: Actual (unadjusted) cost per mile striped

Calendar Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Total Striping Costs (1,000s)	\$6,859	\$7,438	\$7,887	\$7,433	\$6,822	\$5,960	\$7,764	\$5,658	\$6,295	\$6,499
Miles Striped (1,000s)	16.8	16.2	18.7	18	16.1	15	16.7	14.4	15.1	14.7
Cost per mile	\$408	\$460	\$421	\$414	\$424	\$396	\$466	\$392	\$417	\$442

Major influencing factors

Equipment, labor and material costs, along with organization, management, supervision, weather, planning and coordination all influence this measure. The materials used also vary greatly, ranging from less costly and less durable markings such as latex, to the midrange product epoxy, to polymer pre-formed tape, which has a long service life and is used for markings that will be exposed to high levels of roadway traffic.

Transit: MnDOT Administrative Cost per Transit Passenger Trip

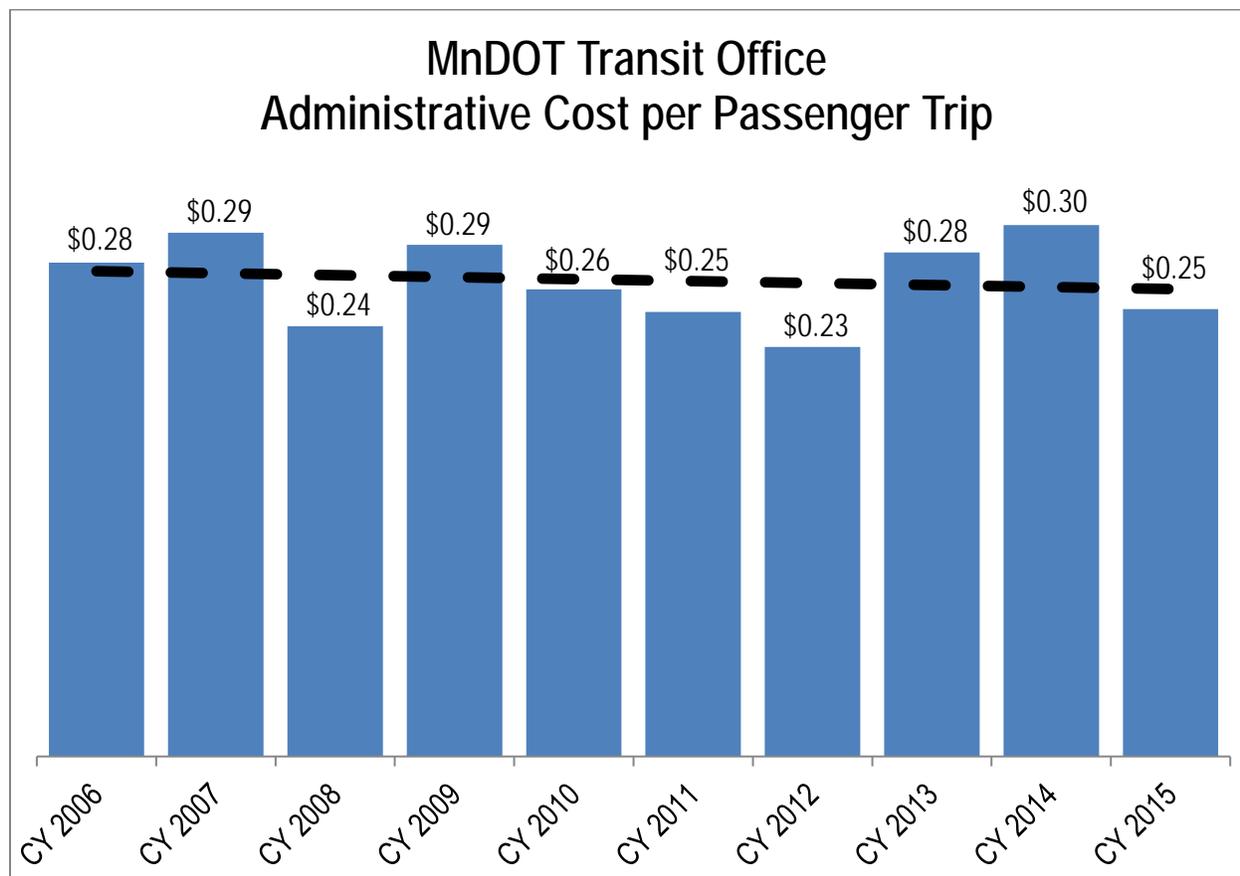
Transit connects people to jobs, family, schools, shopping, health care centers and sports and cultural events. These systems enhance the mobility of the elderly, low-income and persons with disabilities in communities across the state by providing a reliable transportation option. Transit can be an alternative to driving that can reduce congestion, fuel consumption and greenhouse gas emissions.

Greater Minnesota's 46 public transit systems are operated by local governments and non-profits. MnDOT supports these systems through planning, research, technical assistance, and the management of state and federal transit grants for funding programs that administer capital and operational funding. MnDOT's Transit Office also supports transportation for seniors and individuals with disabilities statewide, contributes a share to Northstar Commuter Rail, and administers federal dollars for transit in the rural parts of the seven-county metro area.

Measure definition

The Greater Minnesota transit productivity measure compares dollars spent by MnDOT's Transit Office providing grant contracts and overseeing transit fund recipients against the number of passenger trips provided by those grantees. This measure does not capture the total average cost per passenger trip as it does not include local, state and federal dollars granted directly to local transit providers nor does it include funding collected at the fare box.

Figure 7: Calendar Year 2006-2015 Transit Office Administrative Cost per Passenger Trip



Costs were adjusted to 2016 dollars using a 2 percent annual inflation factor based on historic MnDOT labor inflation.

Results and analysis

The MnDOT Transit Office administrative cost per passenger trip has remained relatively flat over the period of analysis, with moderate fluctuations due to factors listed below.

Table 16: Inflation-adjusted MnDOT administrative cost per transit passenger trip

Calendar Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Expenses (\$1000's)	\$2,864	\$3,212	\$2,921	\$3,498	\$3,339	\$3,283	\$3,065	\$3,900	\$4,116	\$3,486
Ridership (1,000's)	10,361	10,954	12,128	12,216	12,772	13,189	13,368	13,826	13,839	13,920
Cost per Ride	\$0.28	\$0.29	\$0.24	\$0.29	\$0.26	\$0.25	\$0.23	\$0.28	\$0.30	\$0.25

Costs were adjusted to 2016 dollars using a 2 percent annual inflation factor based on historic MnDOT labor inflation.

Table 17: Actual (unadjusted) MnDOT administrative cost per transit passenger trip

Calendar Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Expenses (\$1,000's)	\$2,350	\$2,687	\$2,493	\$3,045	\$2,964	\$2,973	\$2,832	\$3,675	\$3,956	\$3,418
Ridership (1,000s)	10,361	10,954	12,128	12,216	12,772	13,189	13,368	13,826	13,839	13,920
Cost per Ride	\$0.23	\$0.25	\$0.21	\$0.25	\$0.23	\$0.23	\$0.21	\$0.27	\$0.29	\$0.25

Costs were not adjusted for inflation.

Major influencing factors

Factors that cause fluctuations in MnDOT's administrative cost per passenger trip include regulatory changes such as the introduction of new grant programs necessitating educational outreach and more intensive oversight, increases and decreases in available funding, and the 2011 state government shutdown. As part of its "Transit for Our Future" initiative, MnDOT's Transit Office is working to increase cooperation with local providers to improve service for the traveling public and to build transit providers' administrative capacity to comply with state and federal rules with minimal assistance from MnDOT transit staff.

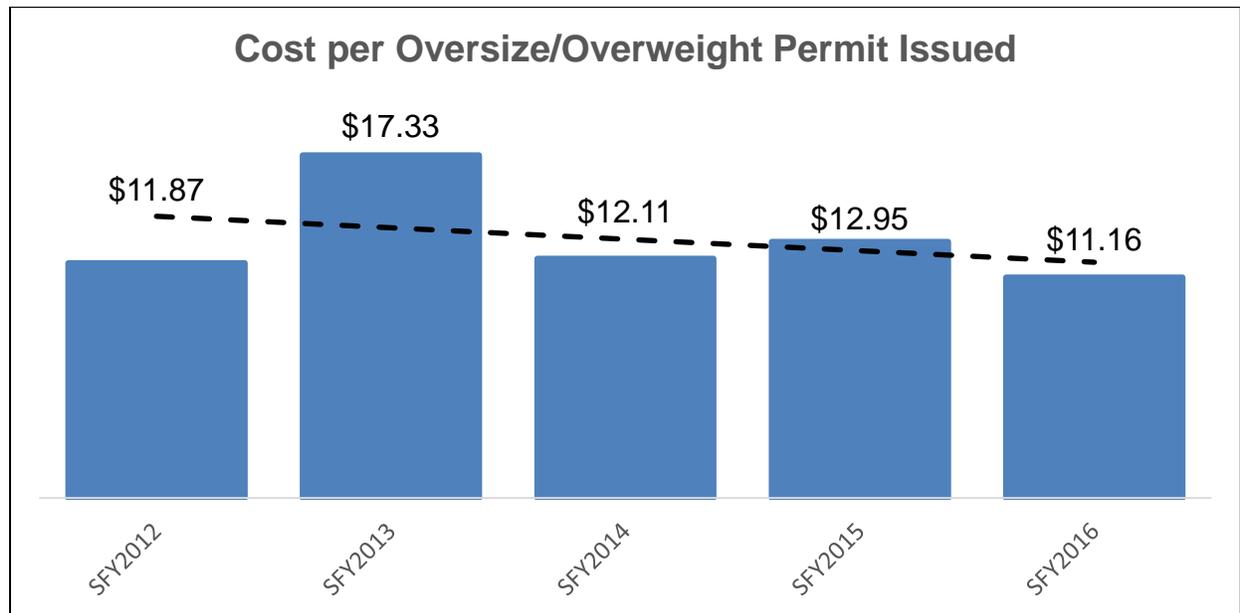
Freight: MnDOT Cost per Oversize/Overweight Permit Issued

Oversize/overweight permitting protects and preserves Minnesota's transportation infrastructure by directing oversized and/or overweight loads toward routes that can safely accommodate them. The permitting process benefits freight haulers by helping them identify a compliant route before a truck departs. The permitting process also benefits the public by minimizing the costs of expensive repairs to infrastructure due to damage caused by bridge strikes or damage to pavement from overloading of a roadway or bridge. Applications are currently submitted online, in person, via e-mail, or by U.S. mail. Simple applications are typically processed on the same day with some online applications processed automatically. For applications requiring special handling due to especially large or heavy loads, the permitting unit conducts a more detailed review, coordinating with relevant engineering and district staff.

Measure definition

The oversize/overweight permit productivity measure tracks dollars spent processing permit requests and directly supporting that work against total permits issued each year. Note that the average cost per permit will differ significantly between simple permit and those that require special handling.

Figure 8: Inflation-adjusted MnDOT Administrative Cost per Oversize/Overweight Permit Issued



Costs were adjusted to 2016 dollars using a 2 percent annual inflation factor based on historic MnDOT labor inflation.

Results and analysis

The cost per oversize/overweight permit issued trended slightly downward over the last five state fiscal years. A notable exception to the downward trend was the spike in SFY2013 that was due to significant enhancements to the permitting software and changes to the payment service. Comparable data is not reasonably attainable for fiscal years prior to 2012 due to a change in accounting systems that year (from MAPS to SWIFT).

Table 18: Inflation-adjusted MnDOT administrative cost per oversize/overweight permit issued

State Fiscal Year	2012	2013	2014	2015	2016
Expenses (\$1,000)	\$1,057	\$1,566	\$1,086	\$1,126	\$927
Permits Issued	89,028	90,372	89,679	86,969	83,093
Cost per Permit	\$11.87	\$17.33	\$12.11	\$12.95	\$11.16

Costs were adjusted to 2016 dollars using a 2 percent annual inflation factor based on historic MnDOT labor inflation.

Table 19: Actual (unadjusted) MnDOT administrative cost per oversize/overweight permit issued

State Fiscal Year	2012	2013	2014	2015	2016
Expenses (\$1,000)	\$977	\$1,476	\$1,044	\$1,104	\$927
Permits Issued	89,028	90,372	89,679	86,969	83,093
Cost per Permit	\$10.97	\$16.33	\$11.64	\$12.70	\$11.16

Costs were not adjusted for inflation.

Major influencing factors

Factors that cause fluctuations in MnDOT’s administrative cost per oversize/overweight permit issued include:

- total number of permit applications received
- volume of applications submitted by mail, fax, or telephone versus through an online application
- development or purchase of technology that improves the application or route analysis process
- the mix of simple permit applications versus those requiring special handling
- availability of routes for oversized or overweight vehicles on Minnesota’s trunk highway network.

For loads big or heavy enough to require special handling, incremental increases to a load’s size or weight can substantially increase the complexity of a permit.

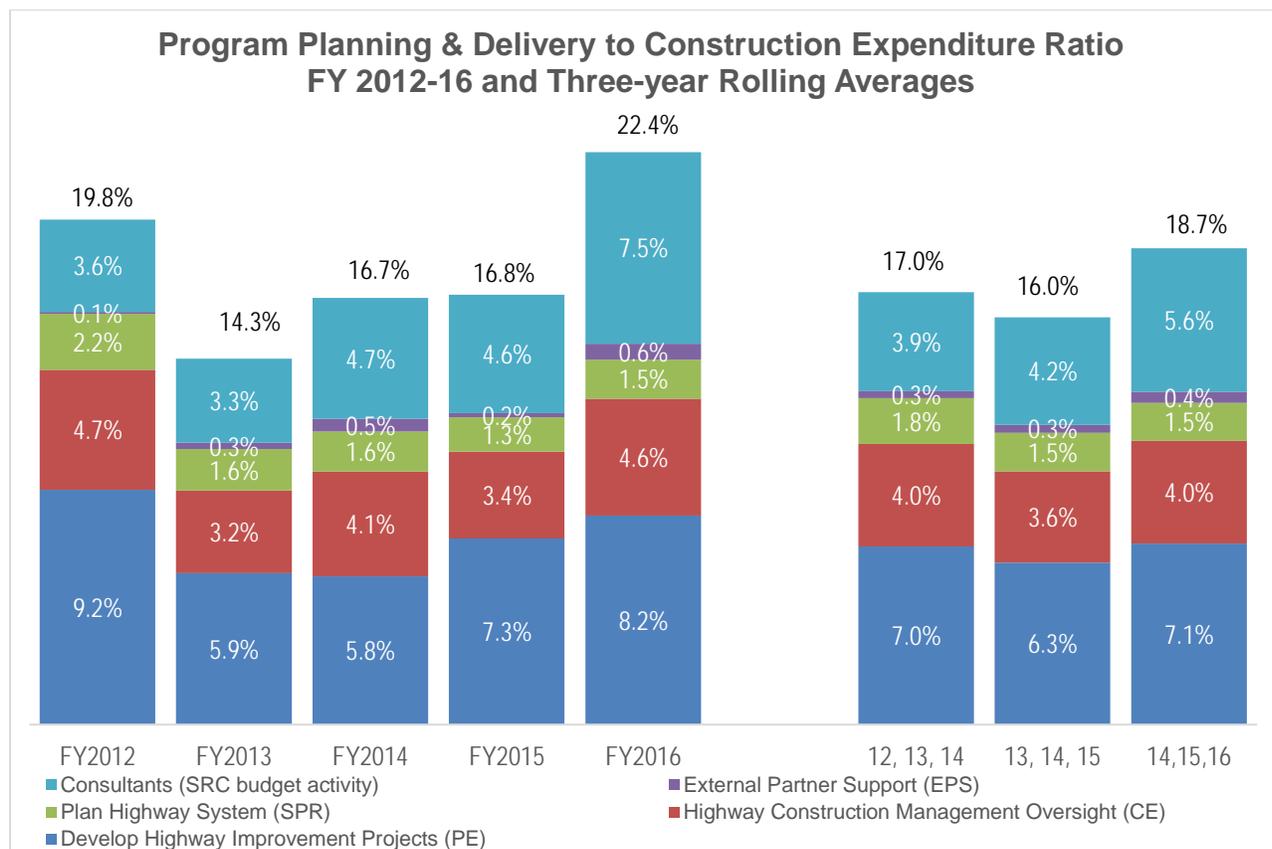
Program Planning and Delivery to Construction Expenditure Ratio

MnDOT manages and delivers the State Road Construction or SRC program. This includes planning at the state and district levels and developing and managing state highway projects from project initiation through completion of construction. MnDOT employees perform the majority of program planning and delivery activities, however consultants are regularly contracted to plan and lead projects. Program planning and delivery includes preliminary engineering, design, construction contract administration, and indirect costs associated with delivering MnDOT's construction program. Private contractors typically construct SRC projects. For this measure, consultant led program planning and delivery costs are subtracted from SRC expenditures and added into program planning and delivery expenditures.

Measure Definition

The program planning and delivery to construction expenditure ratio examines dollars spent on program planning and delivery and compares the amount to construction expenditures. For this measure, consultant-led program planning and delivery costs are subtracted from SRC expenditures and added into program planning and delivery expenditures. Three-year rolling averages are calculated for this measure because projects typically require multi-year planning and construction expenditures.

Figure 9: Fiscal Year 2012-2016 Program Planning & Deliver to Construction Expenditure Ratio



Amounts reflect budgetary commitments (expenditures and encumbrances) and include consultant-led program planning and delivery. Program delivery expenditures were adjusted to 2016 dollars using a 2 percent annual inflation rate. Construction expenditures were adjusted to 2016 dollars using the actual annual MnDOT Construction Cost Index that has been volatile but increased an average of -4 percent per year for the last 10 years.

Table 20: Inflation-adjusted planning and delivery to construction expenditure ratio

Fiscal Year	2012	2013	2014	2015	2016	2012-14	2013-15	2014-16
Develop Highway Improvement Projects (PE) (\$1,000)	\$76,446	\$73,238	\$61,552	\$91,696	\$85,783	\$70,412	\$75,495	\$79,677
Highway Construction Management Oversight (CE) (\$1,000)	\$39,026	\$39,961	\$43,435	\$42,788	\$47,854	\$40,807	\$42,061	\$44,692
Plan Highway System (SPR) (\$1,000)	\$18,196	\$19,975	\$16,638	\$16,938	\$16,020	\$18,270	\$17,850	\$16,532
External Partner Support (EPS) (\$1,000)	\$643	\$3,102	\$5,289	\$2,106	\$6,495	\$3,011	\$3,499	\$4,630
Consultants (SRC budget activity) (\$1,000)	\$30,067	\$40,625	\$50,199	\$58,211	\$78,594	\$40,297	\$49,678	\$62,335
Program Planning and Delivery Expenditures (\$1,000)	\$164,378	\$176,900	\$177,113	\$211,554	\$234,746	\$172,797	\$188,522	\$207,804
State Road Construction Expenditures(\$1,000)	\$830,244	\$1,233,325	\$1,058,652	\$1,256,552	\$1,045,837	\$1,040,740	\$1,182,843	\$1,120,347
Program Delivery Expenditure/Construction Expenditure Ratio	19.8%	14.3%	16.7%	16.8%	22.4%	17.0%	16.0%	18.7%

Amounts reflect budgetary commitments (expenditures and encumbrances) of direct costs and include consultant-led program planning and delivery. Program delivery expenditures were adjusted to 2016 dollars using a 2 percent annual inflation rate. Construction expenditures were adjusted to 2016 dollars using the actual annual MnDOT Construction Cost Index that has been volatile but increased an average of -4 percent per year for the last 10 years.

Table 21: Unadjusted planning and delivery to construction expenditure and ratio

Fiscal Year	2012	2013	2014	2015	2016	2012-14	2013-15	2014-16
Develop Highway Improvement Projects (PE) (\$1,000)	\$70,330	\$68,844	\$59,090	\$89,862	\$85,783	\$66,088	\$72,599	\$78,245
Highway Construction Management Oversight (CE) (\$1,000)	\$35,904	\$37,563	\$41,697	\$41,932	\$47,854	\$38,388	\$40,397	\$43,828
Plan Highway System (SPR) (\$1,000)	\$16,740	\$18,776	\$15,972	\$16,599	\$16,020	\$17,163	\$17,116	\$16,197
External Partner Support (EPS) (\$1,000)	\$592	\$2,916	\$5,077	\$2,064	\$6,495	\$2,862	\$3,352	\$4,545
Consultants (SRC budget activity) (\$1,000)	\$27,662	\$38,187	\$48,191	\$57,047	\$78,594	\$38,014	\$47,809	\$61,278
Program Planning and Delivery Expenditures (\$1,000)	\$151,228	\$166,286	\$170,029	\$207,323	\$234,746	\$162,514	\$181,213	\$204,033
State Road Construction Expenditures(\$1,000)	\$786,409	\$1,125,972	\$1,086,198	\$1,351,131	\$1,045,837	\$999,526	\$1,187,767	\$1,161,055
Program Delivery Expenditure/Construction Expenditure Ratio	19.2%	14.8%	15.7%	15.3%	22.4%	16.6%	15.3%	17.8%

Amounts reflect budgetary commitments (expenditures and encumbrances) and include consultant-led program planning and delivery. Costs were not adjusted for inflation.

Results and analysis

The graph above shows the program planning and delivery to construction expenditures ratio for the most recent five years, along with three three-year averages broken out by products and services. Comparable data is not reasonably attainable for fiscal years prior to 2012 due to a change in accounting systems that year (from MAPS to SWIFT).

Adjusted for inflation, the three-year rolling average program planning and delivery to construction expenditure ratio is between 16.0 and 18.7 percent. In other words, to deliver the construction program, MnDOT spends \$0.16 and \$0.187 in program planning and delivery direct expenditures for every dollar of construction expenditure.

The direct expenditures refer to labor, equipment and materials that are specifically related to the program, planning and delivery activities, such as design and preliminary engineering.

In addition, indirect costs of delivering MnDOT's construction program, such as time charged to customer service, public outreach and feedback, governance and consultant management activities are not included. These costs are generally unique to a public agency. A majority of the indirect costs were not included in the direct cost. Improvements in timesheet coding, i.e., creation/refinement of new and existing source codes and improvements in how indirect costs are cost allocated across the agency are needed to better define these indirect costs.

Major influencing factors

Program delivery expenditures such as scoping, environmental review and design typically precede construction expenditures, frequently by several years. Therefore the program delivery expenditures do not exactly line up with the construction program delivered in the same year. The agency is using a three-year rolling average for this measure because projects typically require multi-year planning and construction expenditures. In addition, funding fluctuates. Construction funding increased with one time programs such as Corridors of Commerce, the American Recovery and Reinvestment Act and the 2008 Chapter 152 bridge-bonding program. Now, in the past couple of years, MnDOT has increased its investment in program planning and delivery for the accelerated development of projects. The three-year rolling average reduces the influence of fluctuating appropriations on the delivery/construction ratio.

While inflation affects all measures, this one includes diverging costs. Labor costs are rising at lower rates than construction costs. If all else is equal, this adjustment would show increasing efficiency over time. There are other factors that could influence this ratio as well, for example an increased level of effort due to added statutory or regulatory requirements such as endangered species and storm water treatment.

Efficiencies

MnDOT aims to be a good steward of public funds. Starting in 2015, the department decided to take a more targeted approach to identify and quantify these efficiencies, while looking for additional best practices and improvements. In fiscal year 2016, MnDOT identified an estimated \$71 million in savings from new and revised practices deployed across the organization. Including fiscal year 2015 savings, MnDOT achieved an estimated \$134 million in saving from these practices over the previous two fiscal years. The majority of these efficiencies identified in FY 2016 came from construction program delivery and project development. Savings identified in the analysis led to program and project costs that were lower than if the efficient strategies had not been implemented.

Background

In advance of embarking on the fiscal year 2015 analysis, MnDOT conducted research on efficiency measurement throughout the country at other state DOTs. There are three state DOTs that are reporting their overall department efficiencies to the public in a manner similar to the approach chosen for Minnesota: Florida, Utah, and Missouri. Florida and Utah highlight illustrative examples of efficiency on a case by case basis. Missouri's efficiency and performance measurement tracker summarizes its savings by benchmarking its use of 'practical design', innovation and value engineering. Missouri also analyzes how savings from construction bids that come in lower than estimated are reallocated. MnDOT uses an approach similar to that of Missouri.

Compared to other states, MnDOT is conservative in its efficiency measurement by only tracking savings that are directly attributed to deliberate decisions in planning, project management, and delivery that advance efficient outcomes. Although external market forces can have an impact on MnDOT's ability to stretch each dollar further, the agency is not counting savings that can be attributed to external market forces in this analysis.

Methodology

Overview

MnDOT analyzes and evaluates its performance in a number of different ways to measure overall organizational effectiveness. MnDOT evaluates the conditions and service levels being provided to the public through its traditional performance measures.

Although efficiency is always a consideration, there are other priorities MnDOT considers such as equitably providing transportation access regardless of geographic location. The ability to maximize efficiency is often limited by the more significant directive to equitably provide transportation services to all Minnesotans. This is a charge that is not easily measured using traditional performance measures.

To add to traditional performance measures, MnDOT is evaluating and identifying the efficiency with which it operates. Efficiency measurement looks at an organization's ability to maximize the output from a given set of input resources.¹ There are different ways to identify and evaluate levels of efficiency, each with its own strengths and weaknesses. Benchmarking best practices is a common tool for identifying best cases given certain constraints. It analyzes what has worked, why it has

¹ Palmer, A. (1993). Performance Measurement in Local Government. *Public Money & Management*, 31-36.

worked, in what conditions it has worked, and how it may work in the future.² The analysis looks to isolate key decisions and strategies that are maximizing outputs without compromising outcomes to the public.³

Internal efficiencies are essentially all the ways MnDOT maximizes the use of financial resources through deliberate decisions and business processes that allow the agency to directly save money, avoid costs or provide a higher quality outcome. Efficiencies that provide cost savings and cost avoidance are pursued as long as they do not compromise the organization's legal requirements or the quality of the final product delivered. The evaluation analyzes internal efficiencies and also looks to note decisions that affect the public, but that may limit the organization's options in saving money. Strategic choices that do not provide cost savings, but still enhance MnDOT's service to the public are noted as external impacts in the individual project reports.

Data Limitations

MnDOT is required to evaluate the efficiency of the organization each fiscal year and report on the efficiencies that occurred in the previous two fiscal years. Projects usually take years to be developed, so to identify efficient practices that have produced programmatic savings in the current fiscal year, the department analyzed practices and processes that were implemented in previous years after the initial scoping process was completed, which impacted the overall project cost. For example, projects under construction in fiscal year 2016 have been in development for six to 10 years. Many of the decisions have already been made that would lead to significant project savings.

Approach

MnDOT used a best practice case-analysis approach to evaluate and measure efficiency. Best practice evaluation reviews dimensions of efficiency in quality, time and cost.⁴ It analyzes what has worked, why it has worked, in what conditions it has worked, and how it may work in the future.⁵ MnDOT analyzed each case for implementation of cost saving strategies, designs and processes. Efficiencies were determined by evaluation against the sample of cases across the state. Best cases were determined by comparison of the standard approaches being employed.

- | |
|--|
| <ol style="list-style-type: none">1. A comparative process2. An action3. A linkage between the action and an outcome or goal |
|--|

Figure 10: Best practice evaluation components (Bretschneider, Marc-Aurele, & Wu, 2005)

MnDOT is a large organization serving a diverse mission for the state of Minnesota. Strategic decisions and changes to business processes made in one part of the organization often have effects on other parts of MnDOT. To account for this, efficiency measurement was separated into two key areas of the organization to ensure efficiencies are not quantified more than once.

- **State Road Construction:** development and delivery of construction projects that are funded through Minnesota's state road construction budget

² Behn, R. D. (1993). Case-analysis research and managerial effectiveness. *Public management: The state of the art*, 40-54.

³ Holzer, Ph.D., M., Fry, J., Charbonneau, E., Riccucci, Ph.D., N., Kwak, S., & Burnash, E. (2009). *Literature Review and Analysis Related to Measurement of Local Government Efficiency*.

⁴ Bretschneider, S., Marc-Aurele, F. J., & Wu, J. (2005). "Best Practices" Research: A Methodological Guide for the Perplexed. *Journal of Public Administration Research and Theory*, 307-323.

⁵ Behn, R. D. (1993). Case-analysis research and managerial effectiveness. *Public management: The state of the art*, 40-54.

- **Administration, Maintenance & Operations:** the administration of the organization including all daily maintenance, long term maintenance and operation of transportation systems

State Road Construction was analyzed for efficiency at the project level, while all other business lines were evaluated at a program level. This distinction reflects where critical decisions are being made and the financial magnitude of those decisions. Transportation construction projects cost millions of dollars with each one involving complex tradeoffs and design considerations that can affect a project's cost by hundreds of thousands of dollars.

Administration, Maintenance and Operations were analyzed for efficiency at the program level. Efficient strategies and business process improvements were evaluated against former approaches. To have a basis for comparison, only emerging strategies that began scaling after the Chapter 152 program in 2008 were used. The efficiencies were analyzed for cost savings by calculating the present value of the approach being taken inclusive of the upfront costs and ongoing cost savings.

Below are the best practice areas that were identified in the efficiency analysis:

State Road Construction

- Pavement Design Methodology
- Performance-based Practical Design
- Innovative Construction Staging
- Value Engineering
- Alternative Technical Concepts

Administration, Maintenance and Operation

- Automated Flagger Assistance Devices
- Dynamic Message Sign Defrosters
- LED Ramp Meters
- LED Roadway Lighting
- Maintenance Decision Support System
- MnPASS Contracting
- MnSTEP
- Portable Signals
- Tow Plows
- Printing Business Practices
- Georilla
- Living Snow Fences
- Connecting MnDOT Facilities by Fiber Optic Network
- Conversion of Fiber Optic Communication Standard
- Importing Sign Data into CAD
- Slurry Tanks

State Road Construction

Efficiencies identified in fiscal year 2016 came throughout project development for each project more than \$10 million and any regionally significant project let in FY 2016. Savings identified in the analysis led to project costs that were lower than if the efficient strategies were not implemented. MnDOT employs a number of strategies to reduce the overall cost of the projects before delivery. The analysis looked at key business processes directly linked to more efficient project delivery. The projects were evaluated on how well the business process improvements were implemented. The five areas linked to more efficient outcomes are: improved Pavement Design Methodology, Performance-Based Practical Design, Innovative Construction Staging, Value Engineering, and Alternative Technical Concepts. A summary of the savings on major projects can be found below.

Table 22: State Road Construction Efficiencies by Method for FY 2015 and FY 2016

SRC Savings Area	FY 2015	FY 2016
Pavement Design Methodology	\$7,315,000	\$9,072,175
Performance-Based Practical Design	\$35,792,500	\$34,815,205
Innovative Construction Staging	\$2,875,000	\$4,340,000
Value Engineering	\$9,948,000	\$10,153,350
Alternative Technical Concepts	\$3,710,500	\$1,571,325
Total Savings	\$59,641,000	\$59,952,055

Table 23: Total Detailed Efficiency Savings for the State Road Construction program for FY 2016

Project	Total Estimated Efficiency Savings
I-35 - Unbonded Concrete Overlay (11 miles total)	\$4,121,150
Value Engineering	\$4,121,150
Hwy 53 - Relocate Roadway and new Bridge Construction	\$2,800,000
Performance-based Practical Design	\$2,800,000
Hwy 23 - Pavement resurfacing, bridge construction, and drainage, safety and sidewalk improvements	\$1,200,000
Performance-based Practical Design	\$1,200,000
Hwy 169 - Corridors of Commerce 2 Lane to 4 Lane Expansion (1.5 Miles)	\$348,000
Pavement Design Methodology	\$240,000
Performance-based Practical Design	\$108,000
Hwy 169 - Reconstruct, Grade and Surface (7.044 Miles)	\$1,050,000
Performance-based Practical Design	\$1,050,000
Hwy 25 - Reconstruction, Widening and Traffic Signals	\$250,000
Innovative Construction Staging	\$250,000
Hwy 75 - Unbonded Concrete Overlay (4.8 Miles Concrete Overlay 2.3 Miles Bituminous)	\$2,128,000
Innovative construction Staging	\$2,050,000
Performance-based Practical Design	\$78,000
Hwy 371 - 2 Lane to 4 Lane Expansion	\$11,519,325
Performance-based Practical Design	\$7,500,000
Value Engineering	\$2,448,000
Alternative Technical Concepts	\$1,571,325

Project	Total Estimated Efficiency Savings
Hwy 200 – Mill and Overlay	\$1,800,000
Performance-based Practical Design	\$1,800,000
Hwy 250 - Replace Bridge 6975 and 6977 (3.5 Miles)	\$5,497,000
Performance-based Practical Design	\$4,997,000
Innovative Construction Staging	\$500,000
Hwy 61 - Replace aging Traffic Signals, Increase Safety and Improve Traffic Operation	\$1,350,000
Pavement Design Methodology	\$1,100,000
Performance-Based Practical Design	\$250,000
Hwy 57 Repair Retaining Walls	\$115,000
Performance Based Practical Design	\$115,000
I-90 - Mill and Overlay (20 Miles)	\$200,000
Innovative Construction Staging	\$200,000
Hwy 19 - Replace Bridge #5369 with Br \$ 40009	\$2,500,000
Performance-based Practical Design	\$2,500,000
Hwy 23 - Construct Passing Lanes (Six Locations)	\$2,225,000
Performance-based Practical Design	\$1,425,000
Innovative Construction Staging	\$800,000
I-94 - Unbonded Concrete Overlay, Auxiliary Lane, and McKnight Signals	\$925,000
Performance-based Practical Design	\$925,000
Hwy 43 - Winona Bridge	\$11,044,580
Pavement Design Methodology	\$7,207,175
Performance-based Practical Design	\$242,205
Innovative Construction Staging	\$240,000
Value Engineering	\$3,355,200
I-694 - Grade Surface and Bridge	\$2,229,000
Value Engineering	\$229,000
Performance-based Practical Design	\$2,000,000
Hwy 36 - Lexington Bridge Replacement	\$2,275,000
Pavement Design Methodology	\$275,000
Performance-based Practical Design	\$2,000,000
I-35E - MnPASS Managed Lane, Noise walls, Storm Sewer and Barrier Work	\$7,300,000
Performance-based Practical Design	\$7,000,000
Innovative Construction Staging	\$300,000

Note: Six other projects were reviewed but no quantifiable efficiencies were identified.

Identified estimated savings reflect costs that were lower than if the efficient strategies were not implemented. The estimated savings identified in FY 2016 were the product of decisions made throughout project development – often over the course of four years. It was not feasible to retroactively calculate where each estimated dollar was repurposed. The agency is working to develop tracking software to better calculate the movement of funds during project development, but is not equipped to currently measure at that minute level of detail. Additionally, actions were evaluated once a project was selected for construction. Decisions being made before a project was selected to be built were deemed to be too abstract to determine causal relationships between actions and more efficient outcomes.

Pavement Design Methodology

In 2015, MnDOT began implementing a new pavement design strategy for its MnPAVE flexible pavement design. Based on findings from Minnesota's Cold Weather Pavement Testing facility, also known as MnROAD, concrete pavement depths were recalibrated to reduce concrete pavement thickness without sacrificing the life of the pavement. This new calibration allows MnDOT to resurface pavements with the thinnest layers possible while maintaining the service life and smooth ride expected. With the new Pavement Design Methodology, paving projects let in FY 2016 saved an estimated \$9 million.

Performance-Based Practical Design

Performance-based design uses sophisticated analytical tools, flexible design criteria and a value-conscious approach to balance competing objectives, optimize return on investment, and increase local and system-level performance. It uses in-depth analysis and risk assessment to more closely scrutinize the use of funds and the effects on resources and communities. It focuses on building only what is needed while maintaining and improving safety. This is done by scoping projects to stay within the core purpose and need. By eliminating nonessential project design elements, the resulting project is lower cost and has improved return on investment. Through implementation of Performance-based Practical Design, projects let in FY 2016 saved an estimated \$34.8 million.

Innovative Construction Staging

MnDOT is working to reduce the need to purchase permanent and temporary property. These acquisitions can be costly. Acquiring property can be so costly that project managers are increasingly using innovate staging strategies to help reduce and mitigate MnDOT's project costs, including the manner in which property is purchased. Through implementation of Innovative Construction Staging, projects let in FY 2016 saved an estimated \$4.3 million.

Value Engineering

Value Engineering is a systematic process using a team of people from a variety of disciplines to improve the value of a project. Value can be increased by either improving the function or reducing the cost, while maintaining the safety, necessary quality and environmental attributes of the project. The VE process incorporates, to the extent possible, the values of design; construction; state, local, and federal approval agencies; other stakeholders; and the public. Cost savings, risk reduction, schedule improvements, improved design and quality are common outcomes of VE studies. Through implementation of Value Engineering practices, projects let in FY 2016 saved an estimated \$10.1 million.

Alternative Technical Concepts

Alternative Technical Concepts allow for innovation and flexibility during the bidding process. The ATC process allows design-build firms to propose "equal or better" alternatives to the project requirements during the bidding process. The process is used to allow innovation and flexibility in the design and/or construction of a particular element of the project. Through implementation of ATC, projects let in FY 2016 saved an estimated \$1.6 million.

Administration, Maintenance & Operations

Emerging strategies and business process improvements were evaluated at a program level. Specific actions were evaluated in comparison to the former approach. Only emerging strategies that were implemented after the adoption of the Chapter 152 program in 2008 were evaluated. An interdisciplinary team of engineers, planners and performance measurement staff evaluated these emerging strategies. They evaluated new approaches being taken, compared them to former processes, and determined if a link existed between the new approach and a more efficient outcome. Efficiencies were analyzed for cost savings by calculating the present value of the approach being taken inclusive of the upfront costs and ongoing cost savings. The costs and savings were then distributed over the life cycle of the new approach (10 years unless otherwise noted). Summaries of the areas reviewed are listed in the following table.

Table 24: Total Efficiency Savings for the Administration, Maintenance and Operations

Program	Total Estimated Efficiency Savings (in 2015 Dollars) FY 2015	Total Estimated Efficiency Savings (in 2016 Dollars) FY 2016
Automated Flagger Assistance Devices (AFAD)	\$13,000	\$13,000
Dynamic Message Sign Defrosters (DMSD)	\$120,000	\$120,000
LED Roadway Lighting	\$1,900,000	\$2,600,000
LED Ramp Meters	\$65,000	\$66,000
Maintenance Decision Support System (MDSS)	\$380,000	\$5,800,000
MnPASS Contracting	\$200,000	\$200,000
MnSTEP	\$130,000	\$130,000
Portable Signals	\$100,000	\$100,000
Tow Plows	\$490,000	\$680,000
Printing Business Practices	\$89,000	\$9,100
Georilla		\$180,000
Blowing Snow Control		\$670,000
Slurry Tanks		\$45,000
Connecting MnDOT Facilities		\$230,000
RTMC Cost Savings (Sonet to IP)		\$180,000
Sign Placement Tool		\$11,000
TOTAL	\$3,487,000	\$11,034,100

Efficiencies identified in FY 2016 led to administrative, maintenance and operations costs that were lower than if the efficient strategies were not implemented. Staff time savings were reallocated to administrative, maintenance and operational priorities. Capital savings such as snow plow purchases avoided through the use of tow plows allowed MnDOT to reinvest in needed capital priorities. All 2015 efficiencies carried forward in 2016 have a background inflation factor applied but may appear unchanged due to rounding.

Automatic Flagger Assistance Devices

Automated Flagger Assistance Devices are portable traffic control devices used by flagging personnel instead of traditional flagging equipment. The deployment of AFADs increases safety and efficiency of flagging operations. Efficiencies are realized through the reduction of personnel needed for flagging operations. For example, where a traditional flagging operation requires four people, a flagging operation using AFADs may require only one or two people. The reduction in personnel required for flagging allows for reassignment of people to other aspects of the scheduled work, resulting in quicker turn around and faster project completion. There were no significant changes to AFAD use in 2016. Including all associated costs to implement this program, MnDOT is saving an estimated \$13,000 a year by using AFADs.

Dynamic Message Sign Defrosters

Dynamic Message Signs were originally designed with defrosters because of the potential for frost and condensation to cause problems with the previous generation of electronics and reduce the readability of the displays. Metro Freeway Operations staff analyzed the cost of electricity for using the defrosters, contacted sign manufacturers for recommendations based on experience with deployments in similar climates and conducted tests on a limited number of the DMS. The results showed DMS would operate well without any long term maintenance impacts without using the defrosters. There were no changes to the DMS efficiency 2016. Including all associated costs to implement, MnDOT is saving an estimated \$120,000 a year.

LED Ramp Meters

The installation of low-maintenance LED bulbs on Twin Cities ramp meters reduced electricity usage and freed staff to do other preventative maintenance work. MnDOT replaced all incandescent bulbs in its 430 ramp meter signal locations with longer service life and higher efficiency LED bulbs. Each ramp meter location has a total of 12 individual bulbs. There is an initial cost outlay for the LED installations, but the savings in electrical utility cost and elimination of the need to replace bulbs over the service life of the ramp metering infrastructure is greatly offset. This efficiency continued in 2016 with no changes. For purposes of this analysis a 20-year life cycle is anticipated. Including all associated costs to implement, MnDOT is saving an estimated \$66,000 a year through the use of LEDs on ramp meters.

Conversion to LED Roadway Lighting

The statewide LED lighting conversion project involves converting more than 28,500 roadway lights from traditional high-pressure sodium to LED or light emitting diode technology. LED lights have an average life of about 18 years, whereas the life of a sodium bulb is only about four years. The conversion includes replacing both light fixtures and bulbs. Financial impacts will include a sizeable reduction in energy costs and the elimination of labor and equipment costs for the replacement of bulbs every four years. By the fall of 2016, approximately 5,000 lights in Greater Minnesota and 18,500 lights in the Twin Cities Metro will have been replaced. In 2016 MnDOT converted 4,500 lights in the metro area to LED technology, and an additional 2,500 in Greater Minnesota. The entire conversion is anticipated to be complete by 2020. For purposes of this analysis a 17 year life cycle is anticipated. Average annual savings for MnDOT will be approximately \$2.6 million.

MDSS

The Maintenance Decision Support System, Mobile Data Computers and Automated Vehicle Location are the three technologies that together provide critical information about real-time weather and pavement condition for the most efficient distribution of drivers and equipment for roadway maintenance. The most useful application of MDSS is during snow and ice clearance. The MDSS assists drivers with determining the correct amount of material to apply to the roadway surface, which is usually significantly less than most plow drivers would normally apply. In addition to minimizing environmental impacts of salt and chemical usage, the MDSS also presents significant financial savings for the department. Due to external circumstances the system was not completely used in fiscal year 2015. The department was able to use some MDSS algorithms to produce recommendations but operators did not have the ability to communicate in real time with MDSS. Savings in 2015 were estimated to be \$380,000. In 2016, MnDOT was able to remedy the issues and MDSS was operational on approximately 600 plow trucks. By 2020 MnDOT's entire snow plow fleet will be outfitted with MDSS. Including all associated costs to implement, the MDSS business approach creates savings of an estimated \$5.8 million a year.

MnPASS System

The MnPASS system was an innovative conversion of an existing High Occupancy Vehicle lane with a first of its kind dynamic pricing component. This system carefully regulates the number of paying single occupant vehicles within these lanes. For purposes of this analysis the benefit calculated is based on MnPASS's five-year contract life. Including all associated costs to implement, MnDOT is saving an estimated \$200,000 a year compared to using an old system on this new business process. This efficiency remains unchanged from 2015.

MnSTEP–MnDOT Stretching Together Employee Program

An aging workforce, rising workers' compensation costs, and increasingly sedentary lifestyles among workers are just some of the challenges that Safety & Loss professionals face while trying to keep employees' safe and costs under control. In 2010 MnDOT's District 3 implemented an employee flexibility program in an effort to: achieve a safe and healthy workplace, reduce the risk of overexertion injuries, increase work performance and reduce workers' compensation costs. After implementation of the program recordable injuries decreased by 44 percent, lost time injuries decreased by 45 percent, and overexertion injuries dropped by 62 percent. By reducing these types of injuries, average annual workers' compensation costs were down 47 percent and the number of claims was down 32 percent. For purposes of this analysis a five-year life cycle is anticipated. Including all associated costs to implement, MnDOT's District 3 is saving an estimated \$130,000 a year by instituting MnSTEP. This efficiency remains unchanged from 2015.

Portable Signals

Portable Signal Systems are traffic control devices used instead of traditional flagging personnel and equipment. Efficiencies are realized through elimination of personnel needed for flagging traffic through the work area. The reduction in personnel required for flagging allows for reassignment of people to other projects, resulting in quicker turn around and faster project completion. Including all associated costs to implement, MnDOT is saving an estimated \$100,000 a year on this new business process. This efficiency remains unchanged from 2015.

Tow Plows

The operational gap of snow plow trucks needed to deliver snow and ice removal services versus the number of snow plow trucks available in the fleet is partially addressed by the deployment of an existing tandem axle truck outfitted with an unmanned tow plow. It is a 26-foot plow that is mounted on a trailer pulled by a tandem axle snow plow truck. With a pull of a lever by the truck operator, the plow moves to the right side of the truck. It has the capability to clear a path in excess of 24 feet wide. MnDOT deployed six new tow plows in 2016, thus growing the efficiency by \$190,000. Including all associated costs to implement, MnDOT is saving an estimated \$680,000 a year by using tow plows.

Printing Business Practices

Printing materials and documents represent a large cost category within administrative areas of the organization. In 2014, central office printers were defaulted to duplex printing. A majority of the 1.5 million sheet reduction recorded that year can be attributed to this change. Additional strategies such as signing and processing administrative documents electronically and transferring documents electronically are also being pursued. Implementation costs for the switch to duplex printing were negligible. MnDOT is saving an estimated \$9,100 a year by switching to duplex printing. Calculation based on currently available data for a portion of MnDOT offices.

Georilla

Georilla is a web mapping interface MnDOT's Metro District began using in 2010. Since its inception, it has gained wide acceptance and has become a department-wide resource. Currently Georilla has more than 600 users and gets 200 users daily. Georilla brings disparate data and tools together in one interface, allowing managers and employees to access the vast amounts of data across the agency. Georilla provides a map, but also allows employees to drill down into the depths of the data to find greater detail. The financial benefits of Georilla from 2016 forward were evaluated through agency-wide survey conducted in July 2016 in which 57 employees reported a total of 5,416 hours in annual time savings from Georilla-enabled efficiencies. Compensation by staff group applied in proportion to hour-weighted reported savings, a majority were in either technical or engineering positions. In 2016 there were more than 55,000 site visits to Georilla. Benefits from 2010-2015 were then prorated based on site visits for each year. Using this approach and including all associated costs to implement, MnDOT is saving an estimated \$180,000 annually by using Georilla.

Blowing Snow Control Using Benefit Cost Analysis

MnDOT uses an array of blowing snow control measures such as living snow fences, structural snow fences, standing corn rows, strategically placed bales, native tall grass plantings, and road design elements. All are intended to either increase snow storage in the road ditch or to prevent snow from blowing from the field on to the roadway. MnDOT now uses a web-based tool developed in 2013 in conjunction with the University of Minnesota's Center for Transportation Studies to determine the benefit cost ratio of individual sites, selection factors include land use, winter climate data, and traffic volumes. More than 3,700 blowing and drifting snow problem sites covering approximately 1,200 miles of state highways were identified as potential sites. In 2016 the benefits and costs were determined at seven sites where standing corn rows or bales were used. The median benefit cost ratio of the selected sites was 5 to 1 and this ratio was applied to the statewide program extent of 16 miles. In 2016 MnDOT paid farmers or landowners an average \$5,376.55 per

mile for standing corn rows/bales. Farmers are asked to leave five to six rows of standing corn approximately 200 feet from the centerline of the road. By 2026, the program is expected to grow to 50 miles of living snow fence. By applying the 5 to 1 benefit cost ratio to payments made and assuming an expanding program, the agency expects to save approximately \$670,000 annually over the next 10 years.

Snow and Ice Control (Slurry Tanks)

Slurry tanks are molded tanks mounted in the box of a snowplow. Each tank holds 400 gallons of liquid that is comprised of 70 percent granular salt and 30 percent salt brine solution. Saturating the salt before it is applied to the roadway reduces blow off and scatter and results in fewer snow plow runs to achieve bare pavement. Saturated salt also melts snow and ice more quickly. Financial benefits in this analysis result from reduced salt use. In 2016, 19 trucks in the western portion of MnDOT District 6, near Owatonna, were using slurry tanks. Including all associated costs to implement, use of those 19 slurry trucks are saving the agency an estimated \$45,000 annually.

Connecting MnDOT Facilities by Fiber Optic Network

Connecting MnDOT facilities through a wide area network using the Regional Transportation Management Center fiber optic system provides significant cost savings, greater flexibility and more redundancy than historical connections. Capitalizing on the established fiber network also allowed for enhanced capabilities such as VOIP and facility monitoring. Starting in 2009, MnDOT began connecting its Metro Area facilities through its own fiber optic network, eliminating the need to pay monthly fees to service providers. Fees ranged from \$4,000 per month for a large facility at Central Office to \$200 per month for a typical truck station. To date, MnDOT has connected 19 facilities. Including all associated costs to implement, connecting Metro Area facilities via MnDOT-owned fiber optic network is saving the agency an estimated \$230,000 annually.

Conversion of Fiber Optic Communication Standard (SONET to IP)

The electronics communications industry continues to develop new products that combine lower cost with greater capabilities. These new products enabled MnDOT's Regional Transportation Management Center to change the fiber optic communications system backbone from the SONET industry standard to an IP based communication system. Both standards have an approximate lifespan of 10 years. However, the cost of a typical IP switch is \$5,500 compared to \$35,000 for a SONET switch. By applying the reduced switch cost to the RTMC's 60 switches, and including all associated costs to implement, MnDOT is saving an estimated \$180,000 annually.

Sign Placement Tool (Importing Sign Data using MicroStation)

The Sign Placement Tool was developed in MnDOT's Metro District, after completing an accurate Geographic Information System sign inventory. The GIS based inventory was considered essential for furthering asset management within the organization. Development of the SPT then created efficiencies when generating maps, layouts and other resources for work orders and construction plans. The tool is initiated within MicroStation by entering the specific project roadway and associated reference points. The SPT and designer basically create an in-place signing plan at their desk with limited time in the field. This process is not only more efficient than the previous field logging technique but it's also safer and eliminates the need for "boots on the ground" field time.

Each year, Metro District staff complete and average of four stand-alone sign replacement projects. Prior to development of the tool, each project required three weeks of field work for one staff person. By using the tool that staff time is reduced to one week of combined field and MicroStation time. Including all associated costs to implement, MnDOT is saving an estimated \$11,000 a year using this new Sign Placement Tool.

Additional Efficiency Activity

Throughout the department MnDOT is pursuing other efficiencies. Many are smaller efforts such as a minor change to snow plow blade that an operator determines will save time or perform better. Others are larger efforts that are not yet mature, such as using drones or robots for remote inspection of bridges or culverts. As these efforts mature or their deployment grows they will be considered for inclusion in future efficiencies reports.

Appendix A: Products and Services Summary List and Descriptions

2016 Products and Services Framework

Table 25: Products and Services Framework

Program	
Budget Activity	Product and Service
Multimodal Systems	
Aeronautics	Airports Aviation Safety Operations and Regulation
Freight	Commercial Truck and Bus Safety Freight Rail Improvements Freight System Planning Port Improvements Rail Crossing Safety
Passenger Rail	Intercity Passenger Rail Improvement
Transit	Bicycle and Pedestrian Planning and Grants Light and Commuter Rail Transit Planning and Grants
State Roads	
Trunk Highway Program Planning and Delivery	Develop Highway Improvement Projects Highway Construction Management Oversight Plan Highway System Research and Development
Trunk Highway State Road Construction	Other Trunk Highway System Improvements Trunk Highway System Expansion Trunk Highway System Preservation
Trunk Highway Debt Service	Trunk Highway Debt Service
Trunk Highway Operations and Maintenance	Bridges and Structures Inspection and Maintenance Roadside and Auxiliary Infrastructure Snow and Ice System Roadway Structures Maintenance Traffic Devices Operation and Maintenance
Statewide Radio Communications	Radio Towers and Communications
Local Roads	
County State Aid Roads	County State Aid Highway
Municipal State Aid Roads	Municipal State Aid Highway

Note: External Partner Support can be used by any office and any budget activity.

Products and Services Descriptions

Aeronautics

Airports: Funding and administering airport grants, assisting local units of government and installing and operating navigational aids.

Aviation Safety Operations and Regulation: Protecting aviation users, promoting aeronautics safety and developing aviation policies and regulations in Minnesota.

Freight

Commercial Truck and Bus Safety: Issuing appropriate registrations, certificates and permits; conducting audits, reviews and safety inspections; and providing information, education and technical assistance related to commercial motor carriers.

Freight Rail Improvements: Funding provided to regional railroad authorities, railroads and shippers to improve rail facilities through the Minnesota Rail Service Improvement program. This includes developing related agreements and administering related grants and loans from other funding sources.

Freight System Planning: Developing plans and information to support an integrated system of freight transportation in Minnesota, including statewide plans related to freight, rail and ports and waterways.

Port Improvements: Funding provided to public port authorities through the Port Development Assistance Program. This includes developing related agreements and administering related grants and loans.

Rail Crossing Safety: Identifying and developing safety improvements at railroad grade crossings: coordinating rail crossing safety and rail regulatory activities and monitoring functions of railroad track and structures.

Passenger Rail

Intercity Passenger Rail Improvement: Activities and grants related to high speed and intercity rail. Includes system planning; project scoping; environmental documents; public hearings; preliminary engineering; final design; rolling stock procurement; acquisitions (including right of way); construction; field inspections; negotiating with the railroads; developing financial, project management and operating plans; value engineering; entering into cost sharing agreements with other public and private entities; carrying out the provisions of the High Speed Rail Compact on behalf of the state; and other technical activities.

Transit

Light and Commuter Rail: All work and grants related to light rail transit, including planning, project scoping, environmental documents, public hearings, preliminary engineering, value engineering, final design, acquisitions (including right of way), construction, field inspection and other technical activities.

Bicycle and Pedestrian Planning and Grants: Developing and implementing the Statewide Bicycle System Plan, Pedestrian System Plan, State Bikeway Route development, State Bicycle Map, bicycle and pedestrian design guidance and program administration. Administering Safe Routes to School grant programs and managing the ABC Ramps.

Transit Planning and Grants: Developing and implementing the Greater Minnesota Transit Investment Plan and other planning activities. This includes programming and administering grants funded by the Federal Transit Administration and state appropriations.

Trunk Highway Program Planning & Delivery

Highway Construction Management Oversight: Managing or monitoring the overall progress of a state highway project through completion of construction and final project documentation. Includes early project coordination to address project specific or procurement method requirements and constraints. Work primarily includes field inspections, oversight, quality management, testing, project scheduling and monitoring for compliance with the schedule and specifications. Work also involves managing and advising appropriate implementation of State Road Construction and federal funding allocations including fiscal management, financial tracking and regulatory conformity.

Develop Highway Improvement Projects: Managing or monitoring the overall progress of a state highway project from project initiation through completion of the project delivery package for procurement and letting. This includes ongoing project coordination as needed to address project specifics and procurement method requirements and constraints; activity coordination to ensure delivery of projects using appropriate scheduling and monitoring tools to ensure efficient delivery on time and within budget; managing and advising appropriate implementation of State Road Construction and federal funding allocations including fiscal management, financial tracking and regulatory conformity. This encompasses all direct and supporting activities necessary for preparing the contract documents and supporting documentation for construction contract procurement and as needed to support the procurement process. The time frame usually begins once a project is identified and ends prior to letting, but can extend into the construction time frame.

Research and Development: Administering and monitoring MnDOT's research program. Guiding policy decisions by developing, refining and testing methods for best practices and by using appropriate economic, demographic and labor market analysis. Providing strategic direction and establishing outcomes and performance measures for MnDOT's research program. Fostering the exchange of technical information and providing access to results of external and internal research.

Plan Highway System: Managing and integrating current data and best practices for multi-modal policy formation and investment packaging; coordinating transportation system plans and policies with other government entities; preparing updates of the statewide plan; applying long-range statewide transportation policies and performance measures at the district level to guide district transportation project/investment decisions both within the district and in regional and inter-regional corridors, which may cross district lines; using mobility performance targets to monitor corridor performance, identify problem areas, and assess where additional management and/or investments are needed to improve under-performing areas. This includes the technical assistance provided to districts and local partners by MnDOT's Central Office.

Trunk Highway State Road Construction

Trunk Highway System Expansion: Hard construction dollars used for expansion on roads and bridges shoulder to shoulder.

Other Trunk Highway System Improvements: Hard construction dollars used for stand-alone projects outside of the highway shoulder, including intelligent transportation systems.

Trunk Highway System Preservation: Hard construction dollars used for preservation of roads and bridges shoulder to shoulder.

Trunk Highway Debt Service

Trunk Highway Debt Service: Repayment of bond debt.

Trunk Highway Operations and Maintenance

Bridges and Structures Inspection and Maintenance: Inspecting, maintaining and operating bridges and structures (bridges, box culverts and overhead sign structures). Conducting bridge inspections, providing inspection training, monitoring and certification; maintaining and repairing bridges; inspecting, maintaining and repairing non-bridge structures such as earth retaining systems (retaining walls), noise walls, tower lighting, roadway lighting and traffic signal systems.

Roadside and Auxiliary Infrastructure: Maintaining rest areas, fixed scale sites, roadside erosion, vegetation, mowing, and regulatory functions such as land management permits, encroachments, noxious weed control, MS4, etc.

Snow and Ice: All work related to keeping the roads clear of snow and ice. Major activities include winter stockpiling, setup and transfer of de-icing materials, plowing and sanding, preparing, inspecting and cleaning equipment, installing snow fences and post storm cleanup.

Traffic Devices Operation and Maintenance: Inspecting, maintaining, operating and managing the highway traffic safety system through signal timing, freeway management/operations, speed zoning, signals, signing, lighting, guardrail, cable median barrier, crash attenuators, pavement markings, traffic management systems (i.e. ramp meters, cameras) and other activities and devices.

System Roadway Structures Maintenance: Inspecting, maintaining and operating the state highway system roadway structures, including pavement, shoulders and drainage.

Statewide Radio Communications

Radio Towers and Communications: Making major wireless or electronic systems upgrades or improvements; providing a shared public safety radio system among state agencies; deploying electronic and wireless communications systems at regional Transportation Operations Communications Centers, maintaining wireless two-way radio communications systems, towers and electronic equipment.

County State Aid Roads

County State Aid Highway: Distributing and administering construction and maintenance funds to counties for eligible roads and bridges.

Municipal State Aid Roads

Municipal State Aid Highway: Distributing and administering construction and maintenance funds to cities with a population greater than 5,000 for eligible roads and bridges.

External Partner Support

External Partner Support (can occur in any of the products and services): Used for dedicated appropriations, including agreements and partnerships. These services are for outside partners, such as cities, counties, other agencies, states, countries or other governmental entities. This can be used by any program or budget activity.

Appendix B: Glossary of Terms

The glossary of terms provides definitions of specific terms used in this report.

Area Transportation Partnership: An ATP is a group of traditional and non-traditional transportation partners including representatives from MnDOT, Metropolitan Planning Organizations, Regional Development Commissions, counties, cities, tribal governments, special interests and the public that have the responsibility of developing a regional transportation improvement program for their area of the state.

The ATP process was introduced in the early 1990s to ensure stakeholder participation in the investment of federal transportation funding. The ATP process provides for early and continuous involvement in the development of the State Transportation Improvement Plan a four-year list of projects that are expected to be done within that timeframe.

Construction cost index: The Minnesota construction cost index is an indicator of price trends for highway construction. It is composed of six indicator items: roadway excavation, to indicate the price trends for all roadway excavation; concrete pavement and plant-mixed bituminous, to indicate the price trend for all surfacing types; and reinforcing steel, structural steel, and structural concrete, to indicate the price trend for structures.

Cost - Indirect: Indirect costs are those costs that cannot be directly tied to a specific output, e.g. depreciation, routine building maintenance and other administrative and support costs. Indirect costs are frequently referred to as “the cost to keep the lights on.”

Cost - Direct: Direct costs occur when expenditures are tied directly to a project number that can be tracked to a customer deliverable. That is, direct cost dollars buy products and/or services delivered directly to the traveling public.

District Risk Management Program: Focuses funding on all non-National Highway System highway needs on all state highways. The majority of the program supports pavement and bridge rehabilitation or replacement projects. The DRMP project selection process is structured to give districts the flexibility to address their greatest regional and local risks. Districts are also able to make additional investments on the NHS system if the proposed project is in response to a high risk issue.

Effectiveness: Performance measure focused on achieving the end goal and takes into consideration any variables that may change in the future. Effectiveness encourages innovation as it demands innovation to meet desired goal(s).

Efficiency: Efficiency is often confused with effectiveness as the output to input ratio and focuses on getting the maximum output with minimum resources and still meet effectiveness measures. Efficiency focuses on doing things right and demands documentation and repetition. An efficiency is a deliberate decision or business process improvement that provides cost savings without compromising the quality of outcomes to the state of Minnesota.

Inflation factor: For unit cost growth across all operations and maintenance activities, MnDOT is using a 3 percent inflation factor based on historical data. It incorporates labor compensation rates and pricing for major commodity materials and services, such as fuel, asphalt, utilities, and salt. A 2 percent inflation factor is used when the bulk of the costs are labor, based on historical MnDOT labor costs.

Internal Efficiency Savings: Internal efficiencies are essentially all the ways MnDOT maximizes the use of financial resources, such as through deliberate decisions and business processes that allow MnDOT to directly save money, avoid costs or provide a higher quality outcome. Efficiencies that provide cost savings and cost avoidance are pursued as long as they do not compromise the organization's legal requirements or the quality of the final product delivered.

Metropolitan Planning Organization: A metropolitan planning organization is a federally mandated and federally funded transportation policy-making organization in the United States that is made up of representatives from local government and governmental transportation authorities.

MPOs, representing local governments and working in coordination with state departments of transportation and major providers of transportation services, have responsibility for the regional transportation planning processes in urbanized areas. A core function of MPOs is to establish and manage a fair and impartial setting for effective transportation decision making in an urbanized area.⁶

Minnesota GO: The Minnesota Department of Transportation’s 50-year vision to better align the transportation system with what Minnesotans expect for their quality of life, economy and natural environment. The vision focuses on an understanding that transportation is a means to other ends, not an end in itself. It also recognizes that infrastructure is only one of many elements necessary to achieving a high quality of life, a competitive economy and a healthy environment.

This 50-year vision for transportation requires consistency and collaboration across jurisdictions and sectors. Although MnDOT initiated the effort to develop the vision, this is a vision for all forms of transportation and ownership of the vision is a shared responsibility.

Minnesota’s multimodal transportation system maximizes the health of people, the environment and our economy. The system:

- Connects Minnesota’s primary assets—the people, natural resources and businesses within the state—to each other and to markets and resources outside the state and country
- Provides safe, convenient, efficient and effective movement of people and goods
- Is flexible and nimble enough to adapt to changes in society, technology, the environment and the economy

Quality of Life	Environmental Health	Economic Competitiveness
Recognizes and respects the importance, significance and context of place – not just as destinations, but also where people live, work, learn, play, and access services Is accessible regardless of socio-economic status or individual ability.	Is designed in such a way that it enhances the community around it and is compatible with natural systems. Minimizes resource use and pollution.	Enhances and supports Minnesota’s role in a globally competitive economy and the international significance and connections of Minnesota’s trade centers Attracts human and financial capital to the state.

⁶ {[United States Government Accountability Office \(GAO\) Report-GAO-09-868, entitled, “Metropolitan Planning Organizations: Options Exist to Enhance Transportation Planning Capacity and Federal Oversight”](#). September 2009. Pages 3-4.}

[Minnesota State Highway Investment Plan](#): The 20-Year Minnesota State Highway Investment Plan 2014-2033 supports the guiding principles from the Minnesota GO vision and links the policies and strategies laid out in the [Statewide Multimodal Transportation Plan](#) to improvements on the [state highway system](#).

National Highway System: The National Highway System consists of roadways important to the nation's economy, defense and mobility, and was developed by the Department of Transportation in cooperation with the states, local officials, and metropolitan planning organizations. The NHS includes the following subsystems of roadways (a specific highway route may be on more than one subsystem):

Interstate - The Eisenhower Interstate System of highways retains its separate identity within the NHS.

Other Principal Arterials - These are highways in rural and urban areas that provide access between an arterial and a major port, airport, public transportation facility, or other intermodal transportation facility.

Strategic Highway Network - This is a network of highways that are important to the United States' strategic defense policy and that provide defense access, continuity and emergency capabilities for defense purposes.

Major Strategic Highway Network Connectors - These are highways that provide access between major military installations and highways that are part of the Strategic Highway Network.

Intermodal Connectors - These highways provide access between major intermodal facilities and the other four subsystems making up the National Highway System.

Performance measures: Quantifiable indicators used to assess how well, or how effectively, an organization is achieving its desired objectives. Much of the time results are compared against established targets to determine if improvement is needed.

Productivity: The measure of production or output per unit, not necessarily measure in monetary terms.

Project full cost: Actual transaction amounts plus applied overhead cost rates established by MnDOT based on the previous year's activity.

Regional Community Improvement Priority: Regional Community Improvement Priorities are investments that respond to regional concerns and collaboration opportunities, beyond system performance needs, to support economic competitiveness and quality of life in Minnesota. While these investments may improve highway performance, they do not constitute an improvement necessary to meet MnDOT's system-wide performance targets.

[Statewide Multimodal Transportation Plan](#): This document is reflective of Minnesotans' voices, as expressed throughout an intensive engagement and review process. The content is strategically organized into chapters that address the most pertinent questions facing Minnesota's transportation system. The result is a transportation policy framework for all Minnesota partners and transportation modes for the next 20 years. The plan will focus on multimodal solutions that ensure a high return-on-investment while considering the context of place and how land use and transportation systems should be better integrated.

[State Transportation Improvement Plan](#): The State Transportation Improvement Program is Minnesota's four year transportation improvement program. The STIP identifies the schedule and funding of transportation projects by state fiscal year (July 1 through June 30). It includes all state and local transportation projects with federal highway and/or federal transit funding along with 100

percent state funded transportation projects. Rail, port and aeronautic projects are included for information purposes. The STIP is developed/updated on an annual basis.

Statewide Performance Program: The statewide planning process establishes a cooperative, continuous and comprehensive framework for making transportation investment decisions throughout the state. Oversight of the process is a joint responsibility of the Federal Highway Administration and the Federal Transit Administration.

Performance-Based Planning

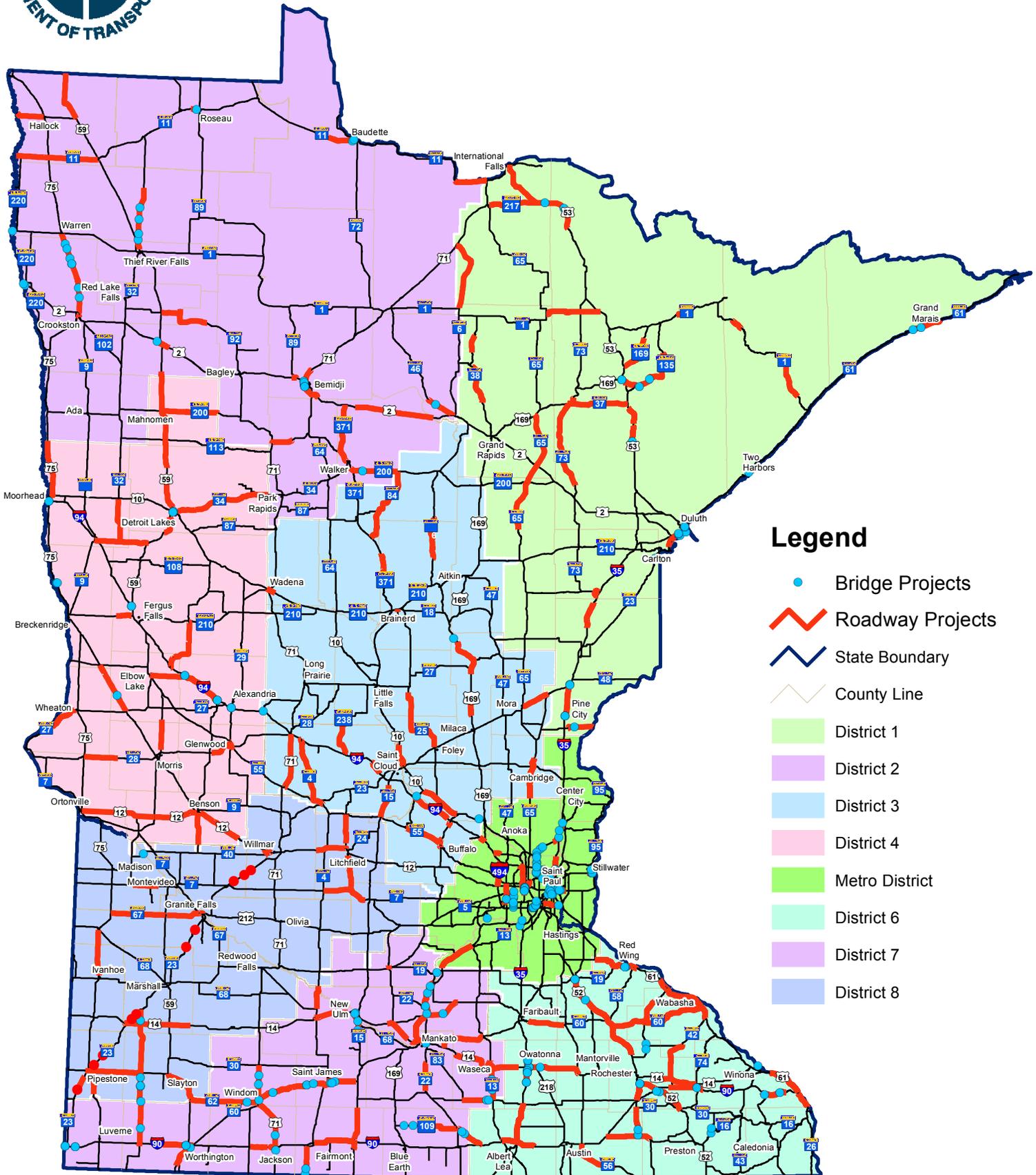
- The statewide planning process will establish and use a performance-based approach to transportation decision-making to support the national goals ([MAP-21 23 USC §150](#); [MAP-21 Fact Sheet on Performance Management, National performance goals](#); and [FAST Act Fact Sheet on Performance Management](#)).
- Each state will establish performance targets that address the performance measures, where applicable, to use in tracking progress toward attainment of critical outcomes for the state.
- The state will select performance targets in coordination with the relevant Metropolitan Planning Organizations to ensure consistency, to the maximum extent practicable.
- In urbanized areas not represented by a MPO, the state will select performance targets in coordination with the providers of public transportation, to the maximum extent practicable, to ensure consistency with sections 5326(c) and 5329(d) of title 49.
- States will integrate into the statewide transportation planning process other performance-based plans and processes

Trend analysis: The practice of collecting information and developing a pattern or trend in the information. In project management, trend analysis technique uses historical results to predict future outcome.

Appendix C: Major Highway Project Summaries



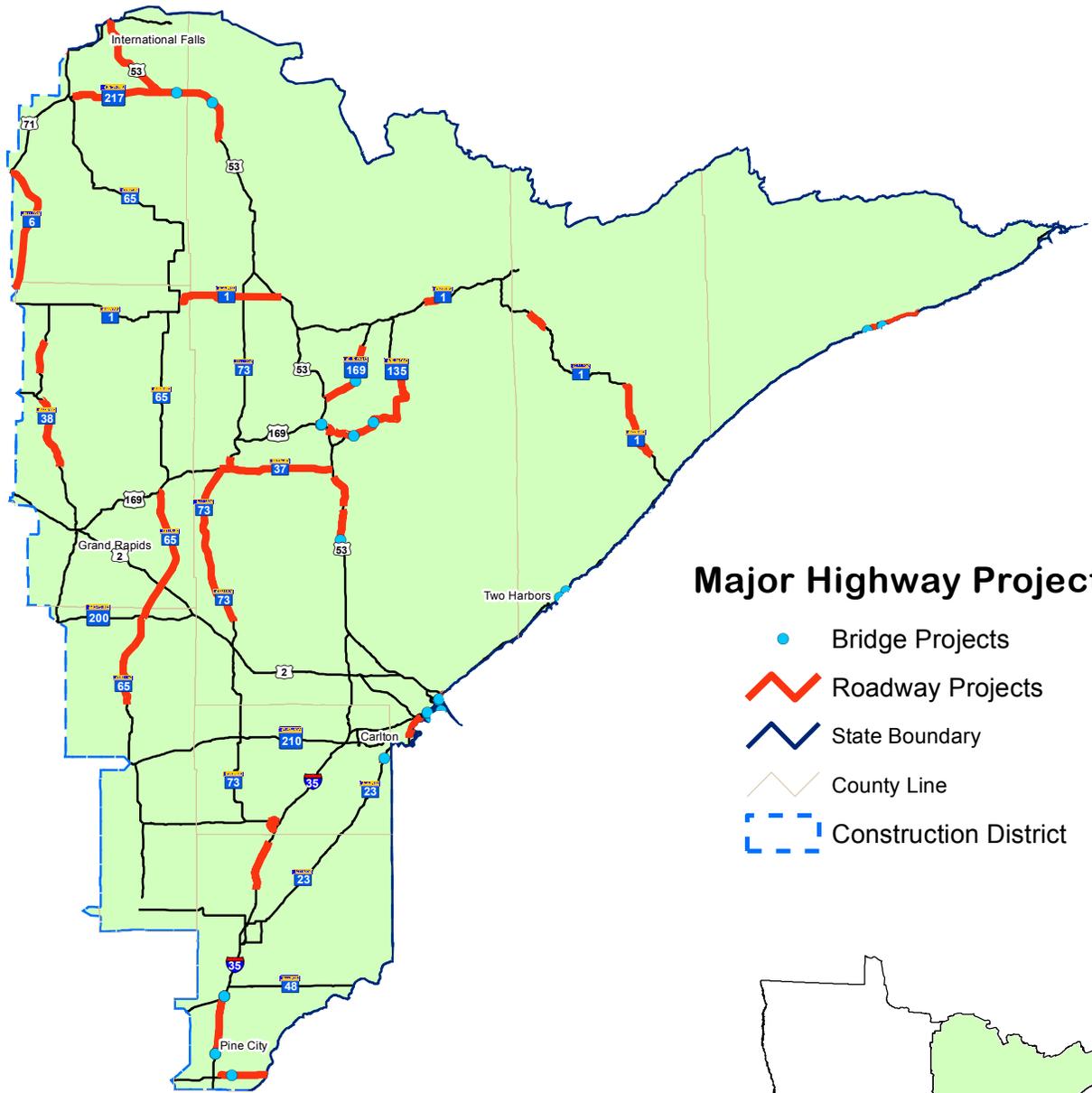
Major Highway Projects 2016





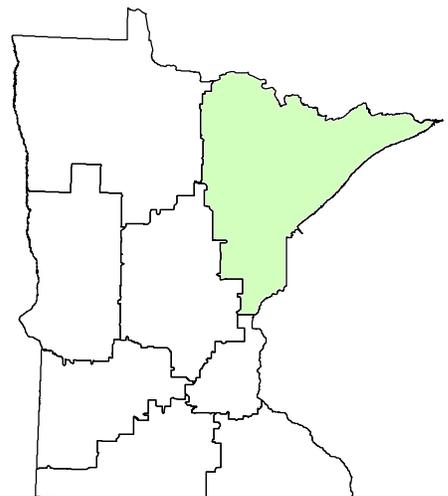
Major Highway Projects 2016

D1-DULUTH



Major Highway Projects

- Bridge Projects
- ▬ Roadway Projects
- ▬ State Boundary
- ▬ County Line
- ▬ Construction District



District Project Summary

District 1

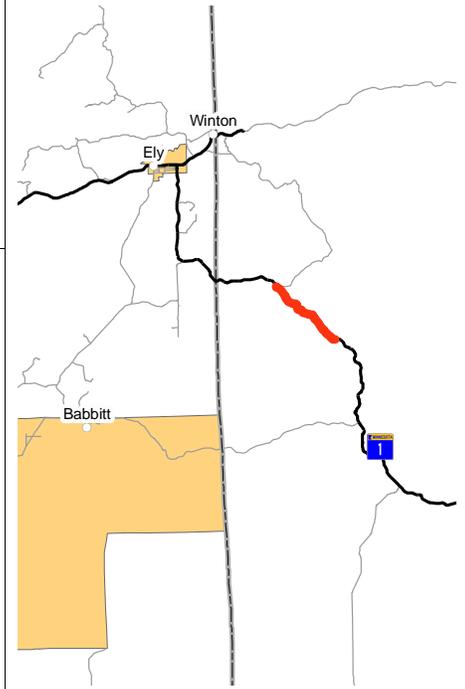
Route	State Project #	Project Location	Page
Hwy 1	3801-92	Located about a half mile north of the Kawishiwi River on Hwy 1 for 5 miles; and, another segment for 14 miles on Hwy 1 from one mile south of CR 2 to Isabella	A 2
Hwy 1	6904-46	Six Mile Lake Road to Bradach Road in St. Louis County	A 3
Hwy 1	3803-34	From Isabella and National Forest Rd. to Salverson Rd.	A 4
Hwy 1	3101-37	Hwy 65 to Hwy 53	A 5
Hwy 2	6937-69100D	Bong Bridge over Saint Louis River	A 6
Hwy 2	6937-102	In Duluth	A 7
Hwy 6	3603-14	On Hwy 6 from just north of Hwy 1 to Big Falls	A 8
Hwy 23	6910-96	In Duluth From Becks Road to 84th Avenue West	A 9
Hwy 23	0901-67	Hwy 23 near intersection with County Road 18	A 10
Hwy 23	6910-89	I-35 to Becks Road	A 11
Hwy 27, 73 & 289	8821-200	Moose Lake Area	A 12
Hwy 37	6947-50	From Highway 169 in Hibbing to Highway 53	A 13
Hwy 38	3108-70	County Road 19 to the City of Marcell	A 14
Hwy 38 & Hwy 286	3108-76	On Hwy 38 from Horseshoe Lake Rd to Bigfork and on Hwy 286 from Hwy 6 to Marcell	A 15
Hwy 53	6918-86	Between Eveleth and Virginia, relocate Hwy 53 away from United Taconite Operations	A 16
Hwy 53	6917-142	On Hwy 53 from the Central Lakes Road to the interchange with Hwy 37	A 17
Hwy 53	6917-141	Southbound from the Paleface River to Augusta Lake Rd	A 18
Hwy 53	3608-49	From Keyes Rd to Crescent Dr in International Falls	A 19
Hwy 53	3608-48	In the city of International Falls	A 20
Hwy 61	1602-50	Around Grand Marais	A 21
Hwy 61	3805-79	Silver Creek Crossing	A 22
Hwy 61	3805-99	Hwy 2 at Stewart River	A 23
Hwy 65	0112-52	South Sandy River to Hwy 200	A 24
Hwy 65	3111-30	Hwy 200 to Hwy 169	A 25
Hwy 70	5811-12	East of Hwy 361 to the Minnesota/Wisconsin state line	A 26
Hwy 73	6928-28	Various locations on Highway 73 and Highway 2 that include the City of Cromwell and the City of Floodwood	A 27
Hwy 135	6912-77	From Hwy 53 to just south of County Road 558	A 28
Hwy 169	3116-142	County Road 15 to County Road 7	A 29
Hwy 169	6934-116	In Hibbing, from the intersection of Hwy 73 to east of County Road 5.	A 30
Hwy 169	6935-89	In Virginia from County Road 109 to Hoover Rd	A 31
Hwy 169	6936-19	Hwy 53 to County Hwy 26	A 32
Hwy 217	3614-20	Little Fork to Hwy 53	A 33
I-35	5880-180	North of Pine County Rd 33 to south of the Carlton County line	A 34
I-35	5880-186	Replace two bridges on I-35 over the BNSF railroad south of Hwy 48	A 35
I-35	5880-191	South of County Road 11 to 1 mile south of Hinckley	A 36
I-35	5880-189	North of Hwy 7 at Snake River	A 37
I-535	6981-9030L	On the I-535 Blatnik Bridge over the St. Louis River between Duluth, MN and Superior, WI.	A 38

PROJECT SUMMARY

Hwy 1

Located about a half mile north of the Kawishiwi River on Hwy 1 for 5 miles; and, another segment for 14 miles on Hwy 1 from one mile south of CR 2 to Isabella

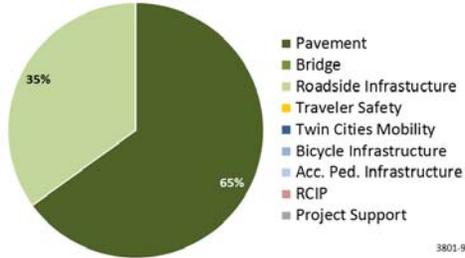
State Project No. 3801-92



Primary Purpose

Performance-based Need: Pavement condition

Investment Category



3801-92

Project Description

The northerly project segment is 5 miles long and located south of the Kawishiwi River. The southerly project segment is 14 miles long and located between Lake County Road 2 and Isabella. The work for both projects includes bituminous resurfacing, drainage improvements and the removal of rock outcroppings in some areas.

In general, a 75' right of way or easment width will be acquired on each side of the highway centerline.

Recent Changes and Updates

The project is programmed for construction in 2017. A large portion of the project is located in the Superior National Forest. In this area, MnDOT does not own any highway right of way; so, easements will need to be obtained from the Superior National Forest and permanent right of way from a number of private land owners.

Project History

The need for this project is driven by deteriorating pavement resulting in a rough ride, high maintenance costs, and reduced load carrying capacity.

The majority of the project area was last resurfaced in 2000. The 2015 pavement condition rating indicates the Ride Quality Index (RQI) is Poor.

The north project segment was initially planned to be reconstructed using the Federal Forest Highway Program; however, due to limited funding that is no longer being pursued. This segment will now be resurfaced along with drainage improvements and the removal of rock outcroppings in some areas.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2012

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 6.6	\$ 4.7
Other Construction Elements:	\$ 0.4	\$ 0.5
Engineering:	\$ 1.4	\$ 1.0
Right of Way:	\$ 0.0	\$ 0.2
Total:	\$ 8.4	\$ 6.4

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The current estimate was prepared in March of 2016. It includes the cost for pavement resurfacing and drainage improvements. The cost has been reduced as project scoping has progressed, which showed the need for fewer drainage improvements.

Project Risks

A substantial amount of culvert replacement work is required. There may be challenges in obtaining highway easements from the Superior National Forest due to federal environmental/NEPA processes. There is a low potential for sulfides to exist in the rock outcroppings. If encountered, it could require avoidance or mitigation due to acid drainage runoff.

Schedule

Environmental Approval Date: Pending Approval
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: Not Needed
 Construction Limits Established Date: Not Needed
 Original Letting Date: 02/27/2012
 Current Letting Date: 2/24/2017
 Construction Season: SPRING 2017-FALL 2017
 Estimated Substantial Completion: Fall 2017



Minnesota Department of Transportation
 District 1
 1123 Mesaba Ave
 (218) 725-2700

District Engineer: Duane Hill
Project Manager: Brian Larson

Revised Date: 12/15/2016

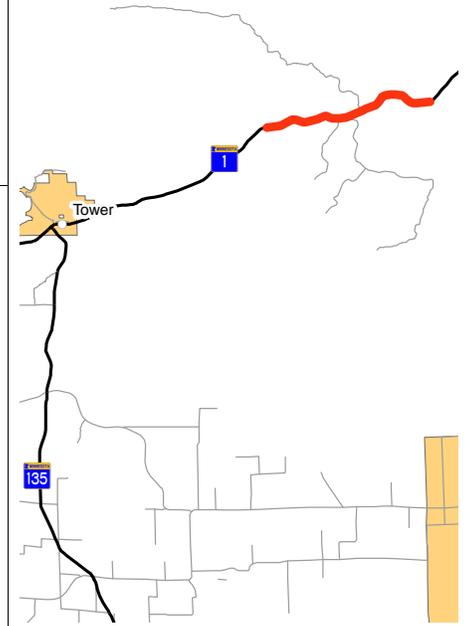
PROJECT SUMMARY

Hwy 1

Six Mile Lake Road to Bradach Road in St. Louis County

State Project No. 6904-46

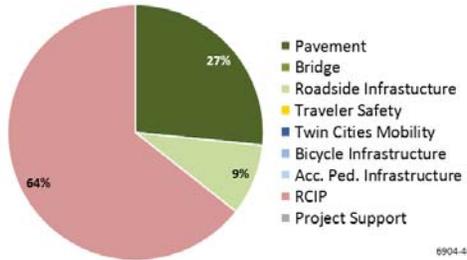
<http://www.dot.state.mn.us/d1/projects/Hwy169eagles>



Primary Purpose

Regional & community improvement priority

Investment Category



Project Description

Reconstruction of Six Mile Lake Road to Bradach Road in the Eagles Nest Lake Area.

Recent Changes and Updates

The rock drilling program was completed in the Fall of 2015. The lab tests results from the drilling were used to develop a rock mitigation plan in August 2016 for incorporation into the roadway construction plan. The rock mitigation plan identified a number of additional construction items to be added to this first MnDOT Project with Sulfide concerns in excavation of on-site materials. The additional construction items are now added and are reflected in the updated construction cost estimate.

The project letting was moved to November 2016 with an anticipated construction start date of January 2017.

Project History

Rock exploration was completed in the Fall of 2015 to further evaluate the sulfide potential in the proposed rock excavation. This work was completed in an effort to reduce the amount of risk encountered during construction.

Because of concerns with Hwy 169 between Virginia and Winton, a task force formed.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2007

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 10.5	\$ 24.4
Other Construction Elements:	\$ 0.5	\$ 1.7
Engineering:	\$ 2.2	\$ 6.5
Right of Way:	\$ 1.2	\$ 0.5
Total:	\$ 14.4	\$ 33.1

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The baseline estimate was based on the premise that equal amounts of money would be spent in two priority areas-the Eagles Nest Lake Area and the Thirteen Hills Area. The current estimate was completed in August of 2016 and includes costs for reconstruction of six mile road. The current estimate also includes cost for rock mitigation.

Project Risks

There are project risks related to schedule and overall project costs. The project requires a wetland permit from the Corp of Engineers in order to proceed with the project letting. We do not yet have the permit, and the Corp has requested additional information in regard to the rock mitigation plan. The data needed to complete the Corp request could impact delivery. In addition, some of the Corp questions and comments could impact the overall project construction costs.

Schedule

Environmental Approval Date: 11/3/2015
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: 1/4/2016
 Construction Limits Established Date: 06/1/2015
 Original Letting Date: 12/17/2010
 Current Letting Date: 11/18/16
 Construction Season: SPRING 2017-SUMMER 2018
 Estimated Substantial Completion: SUMMER 2018



Minnesota Department of Transportation
 District 1
 1123 Mesaba Ave
 (218) 725-2700

District Engineer: Duane Hill
Project Manager: Michael Kalnbach

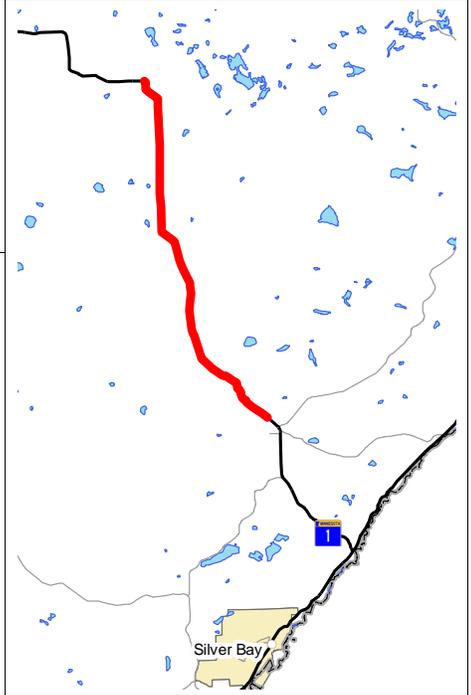
Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 1

From Isabella and National Forest Rd. to Salverson Rd.

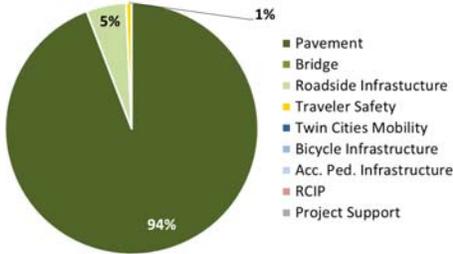
State Project No. 3803-34



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

On Hwy 1 from Isabella to Salverson Road, for a total length of 15.2 miles. The project will include resurfacing, frost heave correction and minor drainage repair.

Recent Changes and Updates

The letting date was changed in order to meet balanced letting requirements. A project scoping report was completed in August of 2015. A new pavement design recommendation was issued in August of 2016 which changed the proposed fix for the project from a mill and overlay to a cold inplace recycle with a chip seal.

Project History

This project will recondition and resurface the existing highway to improve the ride and extend the useful life of the highway.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2015

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 4.9	\$ 4.1
Other Construction Elements:	\$ 0.3	\$ 0.4
Engineering:	\$ 0.9	\$ 0.9
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 6.1	\$ 5.4

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The current cost estimate was prepared in August of 2016. The estimate includes costs for pavement resurfacing with some short areas of reconstruction. The cost change is based on a reduced need for reconstruction.

Project Risks

The extent of Frost heave correction work has not been finalized.
Culvert treatment areas have not been finalized.

Schedule

Environmental Approval Date: Need Unknown
Municipal Consent Approval Date: Not Needed
Geometric Layout Approval Date: Not Needed
Construction Limits Established Date: Not Needed
Original Letting Date: 01/01/2019
Current Letting Date: 4/27/18
Construction Season: SPRING 2018 -FALL 2018
Estimated Substantial Completion: FALL 2018



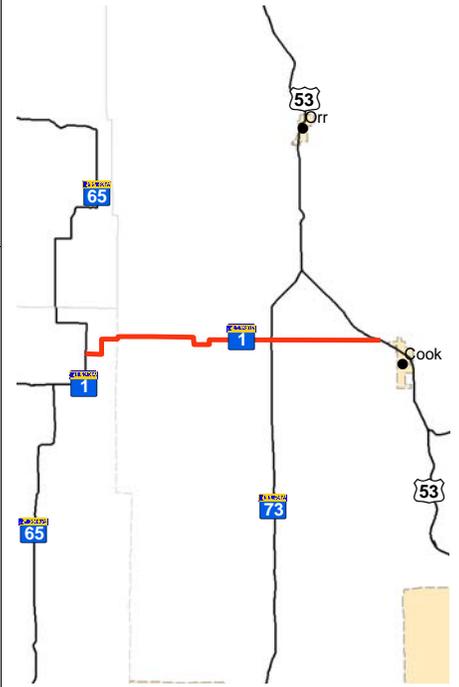
Minnesota Department of Transportation
District 1
1123 Mesaba Ave
(218) 725-2700

District Engineer: Duane Hill
Project Manager: Randy Costley

Revised Date: 12/15/2016

PROJECT SUMMARY

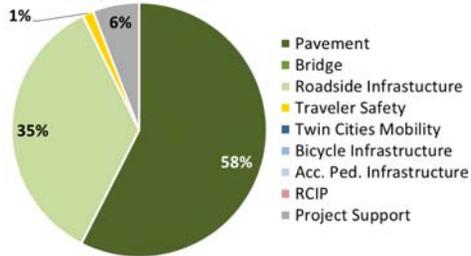
Hwy 1
Hwy 65 to Hwy 53
State Project No. 3101-37



Primary Purpose

Pavement preservation project.

Investment Category



Project Description

The project is 20.7 miles of bituminous pavement resurfacing from the junction with TH 65 to the junction of TH 53. Two sections of TH 1 that go around rock out-croppings will be realigned to improve the highway geometrics.

Recent Changes and Updates

New project

Project History

Deteriorating pavement is resulting in rough ride, high maintenance costs, and reduced load carrying capacity for the roadway.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 7/1/2016

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 8.5	\$ 8.5
Other Construction Elements:	\$ 0.9	\$ 0.9
Engineering:	\$ 1.6	\$ 1.6
Right of Way:	\$ 0.8	\$ 0.8
Total:	\$ 11.8	\$ 11.8

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The base and current cost estimate were prepared in February of 2016 and includes costs for bituminous pavement resurfacing.

Project Risks

This project may be linked to SP 6931-01 on TH 73 from the junction with TH 1 to the junction of TH 53. Right of way acquisition is needed on this project, the costs to acquire the right of way may impact the Total Project Cost Estimate in the future.

Schedule

Environmental Approval Date: TBD
Municipal Consent Approval Date: Not Needed
Geometric Layout Approval Date: Not Needed
Construction Limits Established Date: TBD
Original Letting Date: 2/28/20
Current Letting Date: 2/28/20
Construction Season: SPRING 2020-FALL2020
Estimated Substantial Completion: FALL 2020



Minnesota Department of Transportation
District 1
1123 Mesaba Ave
(218) 725-2700

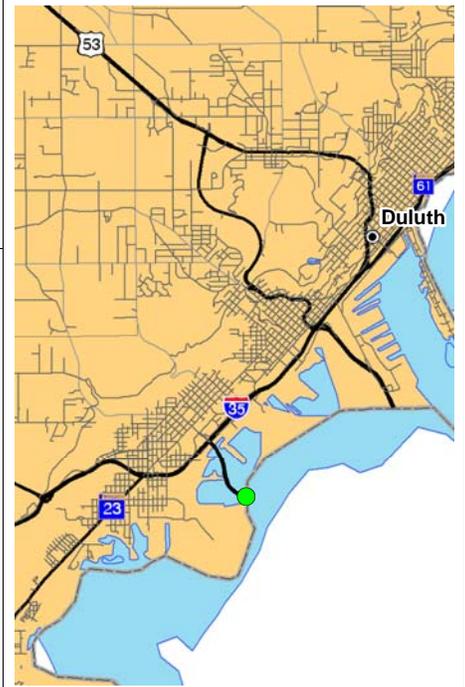
District Engineer: Duane Hill
Project Manager: Derek Fredrickson

Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 2
 Bong Bridge over Saint Louis River
 Bridge 69100
 State Project No. 6937-69100D

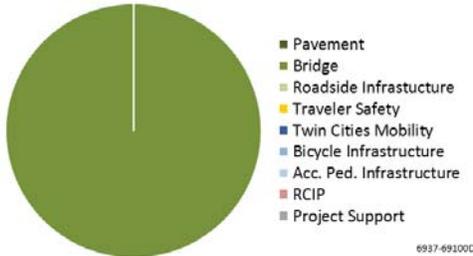
Substantially Complete



Primary Purpose

Performance-based Need: Bridge Condition

Investment Category



Project Description

The project is for the rehabilitation of Bridge 69100, which carries Hwy 2 over the St. Louis River. This is a joint project of the Minnesota and Wisconsin Departments of Transportation. The work includes bridge deck replacement, joint replacement, spot concrete repairs, support cable work and painting.

Recent Changes and Updates

This project was substantially completed in the fall of 2015.

Project History

The Wisconsin Department of Transportation is the lead agency on this project. This project was let in January 2014. The Minnesota bound work was completed in the fall of 2014 and the Wisconsin bound work is currently under construction.

The Hwy 2 Bong Bridge over the St. Louis River between Duluth and Superior was built in 1982. This is a fracture critical bridge.

The proposed rehabilitation work will extend the useful service life of this bridge and decrease the amount of future maintenance needed to keep it operational.

Work planned for Bridges 69101, 69102 and 69109 was removed from this project.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2010

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 23.2	\$ 7.0
Other Construction Elements:	\$ 1.0	\$ 0.5
Engineering:	\$ 4.7	\$ 1.1
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 28.9	\$ 8.6

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The baseline cost includes the cost of both WisDOT's and MnDOT's share. The project was let in January of 2014. The current estimate is based on actual bid costs and includes only MnDOT's share of the costs for bridge.

Project Risks

The project is complete. There are no remaining risks.

Schedule

Environmental Approval Date: 06/26/2012
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: Not Needed
 Construction Limits Established Date: Not Needed
 Original Letting Date: 02/28/2004
 Current Letting Date: 01/14/2014
 Construction Season: 2014 & 2015
 Estimated Substantial Completion: Fall 2015



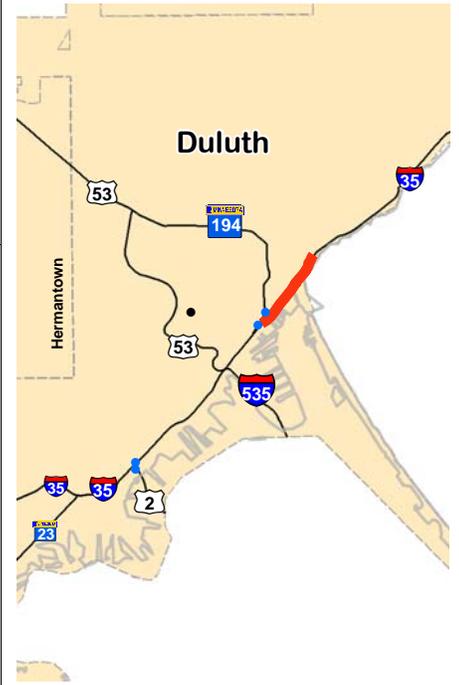
Minnesota Department of Transportation
 District 1
 1123 Mesaba Ave
 (218) 725-2700

District Engineer: Duane Hill
Project Manager: Derek Fredrickson

Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 2
In Duluth
Bridge 69101,69102,69839, &, 69840
State Project No. 6937-102



Primary Purpose

Performance-based need: Bridge Condition for S.P. 6937-102 and 6933-95. Performance-based need: Pavement Condition for S.P. 6933-97.

Investment Category

*This project was designed and scoped before the current highway investment plan MnSHIP was developed, which breaks projects into investment categories.

Project Description

This is an urban project located in Duluth. The project work includes bridge rehabilitation to two bridges (69101 & 69102) on Hwy 2 and two bridges (69839 & 69840) on Hwy 194/Mesaba Ave. The rehabilitation work involves retrofitting the fracture critical pier caps. Traffic lane configuration changes will be made on Bridge 69839.

It also includes concrete pavement repair, storm sewer repair and ADA accessibility improvements on Hwy. 194/Mesaba Ave. between I-35 and Sixth Ave. East, a distance of 1.4 miles.

Recent Changes and Updates

This project and Hwy. 194/Mesaba Ave. (S.P. 6933-97) project are now tied together, resulting in a total cost estimate that falls in the Major Projects category.

Project History

When originally programmed, the bridge rehab work on Hwy. 2 (S.P. 6937-102) and Hwy. 194/Mesaba Ave. (S.P. 6933-95) were tied. In 2016, it was determined that the Hwy. 194/Mesaba Ave. (S.P. 6933-97) pavement repair, ADA improvements and storm sewer repair project be tied to the bridge projects to better coordinate how traffic was handled during construction. Bundling these projects together results in a total cost estimate that falls in the Major Projects category.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 7/1/2015

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 7.8	\$ 7.8
Other Construction Elements:	\$ 0.6	\$ 0.6
Engineering:	\$ 1.7	\$ 1.7
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 10.1	\$ 10.1

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The base and current cost estimate were prepared in August of 2016. The estimates include bridge rehabilitation for S.P. 6937-102. Concrete pavement repair, storm sewer repair and ADA accessibility improvements for S.P. 6933-97.

Project Risks

Right of Way or Temporary Rights to Construct are needed so that the ADA accessibility improvements can be made which could impact project schedule.

Schedule

Environmental Approval Date: Pending approval
Municipal Consent Approval Date: Pending Approval
Geometric Layout Approval Date: Pending Approval
Construction Limits Established Date: 05/24/2016
Original Letting Date: 1/1/18
Current Letting Date: 7/28/17
Construction Season: AUG 2017-NOV. 2018
Estimated Substantial Completion: FALL 2018



Minnesota Department of Transportation
District 1
1123 Mesaba Ave
(218) 725-2700

District Engineer: Duane Hill
Project Manager: Brian Larson

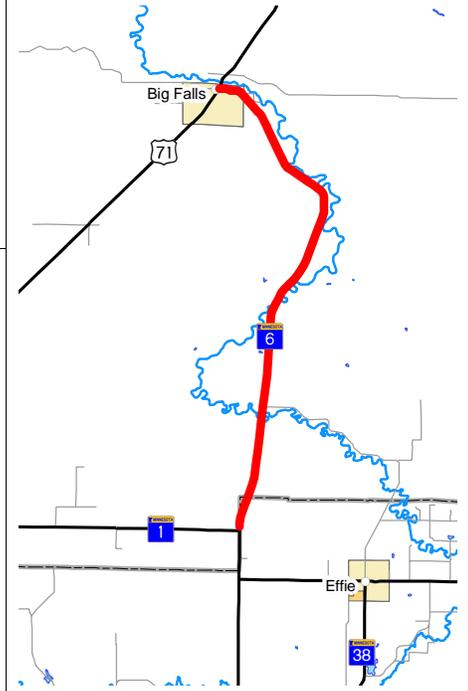
Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 6

On Hwy 6 from just north of Hwy 1 to Big Falls

State Project No. 3603-14



Primary Purpose

Performance-based Need: pavement condition.

Investment Category

*This project was designed and scoped before the current highway investment plan MnSHIP was developed, which breaks projects into investment categories.

Project Description

The project is 25 miles long on Hwy 6 between the north junction of Hwy 1 and Hwy 71 in Big Falls. The work includes bituminous pavement resurfacing and drainage improvements. Edge-line rumble strips will also be added to improve safety.

Recent Changes and Updates

This pavement resurfacing project is programmed for construction in calendar year 2019.

Adding short segments of wider shoulders in select areas for truck pull-offs will be explored.

Letting date changed to 11/16/18 for balanced letting purposes.

Project History

The need for the project is driven by deteriorating pavement resulting in a rough ride, high maintenance costs and reduced load carrying capacity.

The 2015 pavement condition rating indicates the Ride Quality Index (RQI) is Fair.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2015

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 7.2	\$ 8.5
Other Construction Elements:	\$ 0.5	\$ 0.8
Engineering:	\$ 1.3	\$ 1.6
Right of Way:	\$ 0.0	\$ 0.1
Total:	\$ 9.0	\$ 11.0

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The base cost estimate was prepared in December of 2014 before the project was scoped. The estimate includes costs for pavement resurfacing. The current estimate was prepared in August of 2015 with a higher contingency providing for the possibility that a thicker pavement surface may be required.

Project Risks

The extent of the pavement repair has not been fully determined. Truck pull-off areas could result in wetland impacts and require right of way.

Schedule

Environmental Approval Date: Pending Approval
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: Not Needed
 Construction Limits Established Date: Pending Approval
 Original Letting Date: 01/01/2019
 Current Letting Date: 11/16/18
 Construction Season: SPRING 2019 - FALL 2019
 Estimated Substantial Completion: Fall of 2019



Minnesota Department of Transportation
 District 1
 1123 Mesaba Ave
 (218) 725-2700

District Engineer: Duane Hill
Project Manager: Brian Larson

Revised Date: 12/15/2016

PROJECT SUMMARY

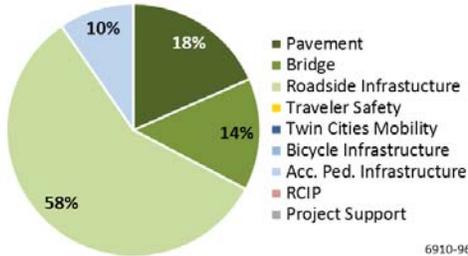
Hwy 23
 In Duluth From Becks Road to 84th Avenue West
 Bridge 69091
 State Project No. 6910-96



Primary Purpose

Performance-based Need: Pavement, bridge & roadside infrastructure condition

Investment Category



6910-96

Project Description

This is an urban/rural project in West Duluth from Becks Road to 84th Avenue West. The work includes pavement resurfacing, bridge construction over Knowlton Creek, as well as drainage, safety, and sidewalk improvements.

Recent Changes and Updates

The letting of this project was delayed in order to complete design and acquire necessary right of way. The delay to completing construction on SP 6910-89 required a later construction start of this "Phase II" project. This project will take the complete construction season to achieve substantial completion. This project was let in the spring of 2016 and construction is on-going.

The bridge construction over Knowlton Creek is near completion.

It was determined that the Munger Trail bridge would be left as is. The culvert that goes under TH 23 and the Munger Trail was unable to be constructed under this project. It was added to SP 8821-281 in FY 2021.

Project History

The work in this project was previously included in SP 6910-89. The project was divided in order to accommodate the construction of a bridge at Knowlton Creek.

This project has just been developed.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2014

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 8.6	\$ 12.3
Other Construction Elements:	\$ 0.7	\$ 0.7
Engineering:	\$ 1.4	\$ 2.1
Right of Way:	\$ 0.8	\$ 0.5
Total:	\$ 11.5	\$ 15.6

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The base estimate was prepared in March of 2014 and includes costs for bituminous milling and paving, bridge construction, drainage improvements, signal construction and ADA improvements. The project was let in April of 2016. The current cost estimate is based on actual bid costs and includes additional costs for bridge construction, slope repairs, sidewalk and some pavement reconstruction.

Project Risks

Project risks include potential construction changes.

Schedule

Environmental Approval Date: 2/25/2015
 Municipal Consent Approval Date: 8/27/2014
 Geometric Layout Approval Date: 8/29/2014
 Construction Limits Established Date: 4/1/2015
 Original Letting Date: 02/26/2016
 Current Letting Date: 4/22/2016
 Construction Season: 2016
 Estimated Substantial Completion: Fall 2016



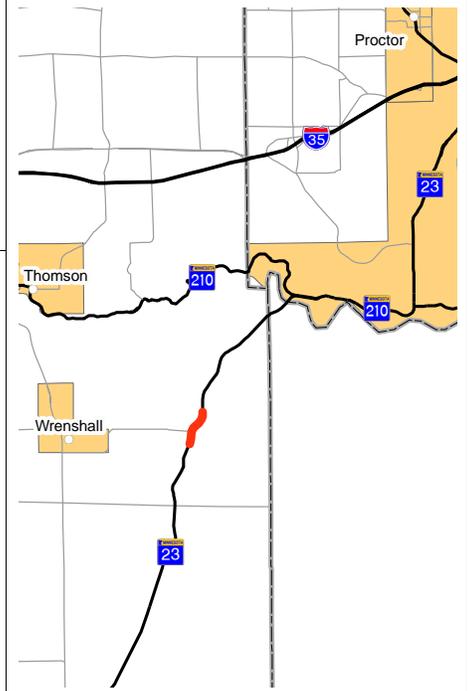
Minnesota Department of Transportation
 District 1
 1123 Mesaba Ave
 (218) 725-2700

District Engineer: Duane Hill
Project Manager: Derek Fredrickson

Revised Date: 12/15/2016

PROJECT SUMMARY

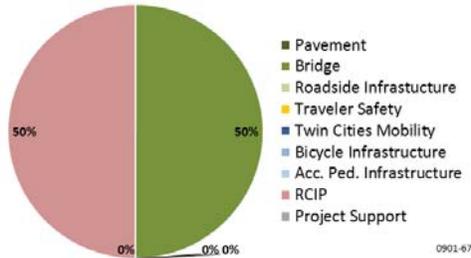
Hwy 23
 Hwy 23 near intersection with County Road 18
 Bridge 5470
 State Project No. 0901-67



Primary Purpose

Performance-based Need: Bridge condition

Investment Category



Project Description

This project replaces the bridge that carries Hwy 23 over the Burlington Northern Santa Fe railroad. The bridge is being constructed on a new alignment so the existing bridge can continue to be used during construction. The project is located approximately 16 miles NE of the south Carlton County line.

Recent Changes and Updates

This project is in its second year of construction and is on schedule for a November 2016 completion.

Project History

This two-year project started in 2015. MnDOT needed to coordinate the development of this project with the BNSF railroad.

Bridge 5470 was built in 1936 and consists of a steel beam span with a cast in place concrete deck. This bridge is classified as structurally deficient. In 1973 the bridge received repairs to the deck, abutments, pier caps, and new concrete.

A conceptual sketch was developed and shared with the railroad in August 2013. The project impacts a local township road and MnDOT has met and coordinated with the local government.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2011

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 5.0	\$ 3.2
Other Construction Elements:	\$ 0.2	\$ 0.2
Engineering:	\$ 1.0	\$ 0.7
Right of Way:	\$ 0.1	\$ 0.1
Total:	\$ 6.3	\$ 4.2

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The project was let in December of 2014. The current estimate is based on the bid cost. The project cost was reduced from the base cost as result of refining the roadway alignment and bridge design.

Project Risks

The project has been let and is under construction. Risks remaining include potential construction changes.

Schedule

Environmental Approval Date: 09/17/2014
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: 06/14/2013
 Construction Limits Established Date: 12/26/2013
 Original Letting Date: 06/27/2003
 Current Letting Date: 11/21/2014
 Construction Season: 2015
 Estimated Substantial Completion: Fall 2016



Minnesota Department of Transportation
 District 1
 1123 Mesaba Ave
 (218) 725-2700

District Engineer: Duane Hill
Project Manager: Michael Kalnbach

Revised Date: 12/15/2016

PROJECT SUMMARY

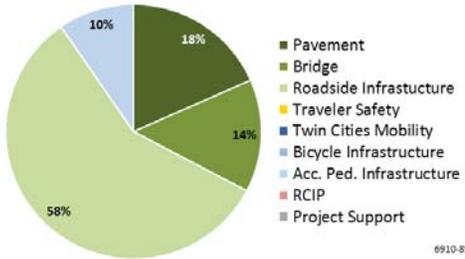
Hwy 23
 I-35 to Becks Road
 Bridge 88544A
 State Project No. 6910-89
Substantially Complete



Primary Purpose

Performance-based Need: Pavement Condition, Bridge Condition, Regional and Community Improvement Priority: CIMS

Investment Category



Project Description

The is an urban project in West Duluth, 5 miles long, from I-35 to Becks Road. The work includes pavement resurfacing, bridge construction over Kingsbury Creek, and drainage, safety, and sidewalk improvements.

Recent Changes and Updates

This project was substantially completed in the spring of 2016.

Project History

This project was let in April 2015 and is currently under construction.

In June 2013, Duluth was awarded a Corridor Investment Management Strategy grant in the amount of \$3,035,000. The CIMS elements will be constructed from I-35 to Becks Road. The pavement repairs under this project will be from I-35 to 83rd Avenue West.

The 2012 District 1 Remaining Service Life map shows this section is in poor condition (0-3 years). Pavement, drainage and pedestrian improvements are needed.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2012

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 11.4	\$ 10.4
Other Construction Elements:	\$ 0.5	\$ 0.9
Engineering:	\$ 2.4	\$ 2.5
Right of Way:	\$ 0.6	\$ 0.8
Total:	\$ 14.9	\$ 14.6

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The project was let in April of 2015. The current estimate is based on the bid cost. The project includes \$3,035,000 for CIMS work. These dollars were used for construction, purchase of right-of-way and engineering work.

Project Risks

The project is complete. There are no remaining risks.

Schedule

Environmental Approval Date: 03/10/2015
 Municipal Consent Approval Date: 08/27/2014
 Geometric Layout Approval Date: 08/29/2014
 Construction Limits Established Date: 12/02/2013
 Original Letting Date: 02/27/2015
 Current Letting Date: 04/24/2015
 Construction Season: May 2015 /November 2015
 Estimated Substantial Completion: Spring 2016



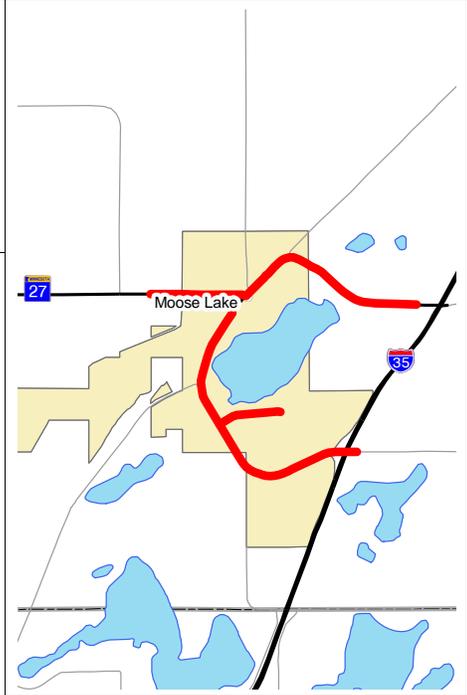
Minnesota Department of Transportation
 District 1
 1123 Mesaba Ave
 (218) 725-2700

District Engineer: Duane Hill
Project Manager: Derek Fredrickson

Revised Date: 12/15/2016

PROJECT SUMMARY

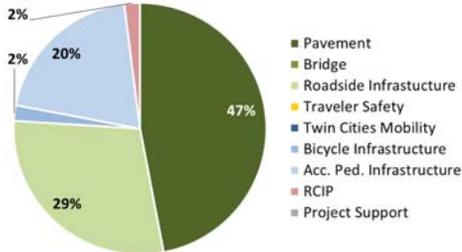
Hwy 27, 73 & 289
Moose Lake Area
State Project No. 8821-200



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

The project is in the City of Moose Lake on Hwys 27, 73 and 289 between the north and south junctions of I-35 and on Hwy 27/73 to the west limits. Work includes pavement rehabilitation, turn lanes, ADA and drainage improvements. Moose Lake will upgrade utilities under a cooperative agreement.

Recent Changes and Updates

Turn lanes will be constructed on Hwy 73 at sites of new development in the corridor. Plans are at 80% completion.

Project History

The pavement is in poor condition on Hwy 27, Hwy 73 and Hwy 289.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2014

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 3.2	\$ 6.1
Other Construction Elements:	\$ 0.2	\$ 0.5
Engineering:	\$ 0.6	\$ 1.3
Right of Way:	\$ 0.0	\$ 0.1
Total:	\$ 4.0	\$ 8.0

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The current estimate was prepared in May of 2016. The cost increase is because of the need to replace pavement and curb and gutter through some of the urban sections rather than simply resurfacing. Other added improvements include sidewalk replacement, turn lane construction, signal system revision at Hwy 61 and more extensive storm sewer reconstruction and repair.

Project Risks

Project risks include unknown construction conditions, wetland permit and weather in 2017 for one season construction.

Schedule

Environmental Approval Date: Pending Approval
Municipal Consent Approval Date: 09/14/2016
Geometric Layout Approval Date: Not Needed
Construction Limits Established Date: 07/14/2016
Original Letting Date: 04/28/2017
Current Letting Date: 03/24/2017
Construction Season: 2017
Estimated Substantial Completion: Fall 2017



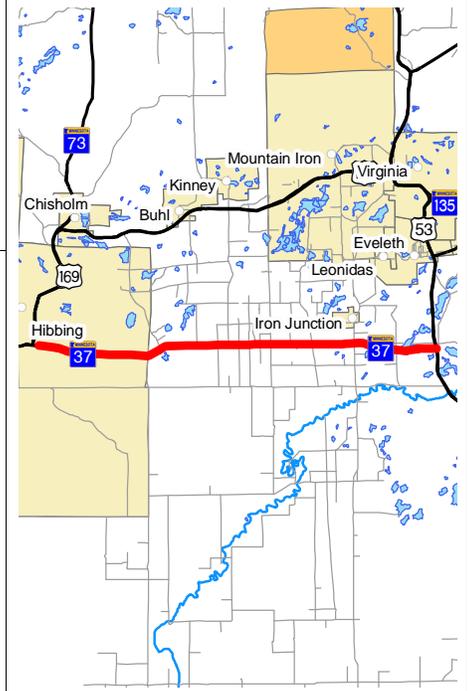
Minnesota Department of Transportation
District 1
1123 Mesaba Ave
(218) 725-2700

District Engineer: Duane Hill
Project Manager: Roberta Dwyer

Revised Date: 12/15/2016

PROJECT SUMMARY

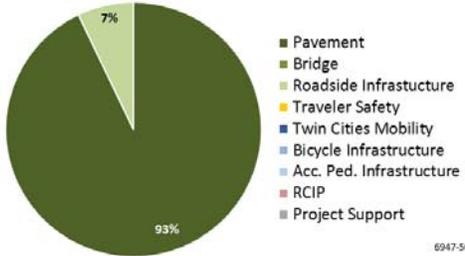
Hwy 37
 From Highway 169 in Hibbing to Highway 53
 State Project No. 6947-50



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

Pavement resurfacing and drainage improvements on Highway 37 from Hibbing to the interchange with Highway 53.

Recent Changes and Updates

The Original letting date was changed in order to meet balanced letting requirements. The project is currently in the final design phase and is on schedule for letting in December of 2016.

Project History

This segment of roadway was originally graded and paved in 1950. Since then, there were numerous spot improvements performed. Most recently, a resurfacing was performed on the west half in 1995 and the east half was resurfaced in 2001. A project scoping report was completed in January 2015.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2014

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 4.2	\$ 5.5
Other Construction Elements:	\$ 0.4	\$ 0.5
Engineering:	\$ 0.8	\$ 1.1
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 5.4	\$ 7.1

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The current estimate was prepared in February of 2016. The estimate includes costs for pavement resurfacing and drainage improvements. The cost change is because 7.7 miles of paving was added but the resurfacing of the shoulders was also eliminated.

Project Risks

There is the potential for contaminated materials at a former gas station at the intersection of South County Road 25.

Schedule

Environmental Approval Date: Pending Approval
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: Not Needed
 Construction Limits Established Date: Pending Approval
 Original Letting Date: 05/19/2017
 Current Letting Date: 12/16/16
 Construction Season: 2017
 Estimated Substantial Completion: Fall 2017



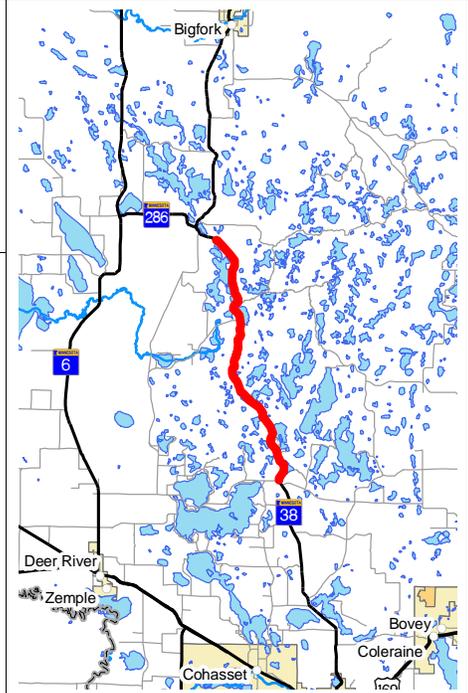
Minnesota Department of Transportation
 District 1
 1123 Mesaba Ave
 (218) 725-2700

District Engineer: Duane Hill
Project Manager: Randy Costley

Revised Date: 12/15/2016

PROJECT SUMMARY

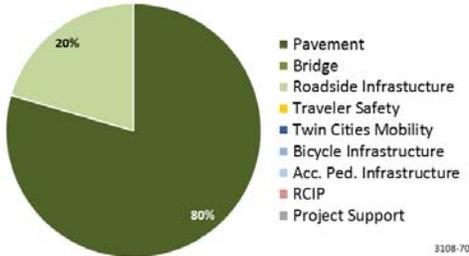
Hwy 38
 County Road 19 to the City of Marcell
 State Project No. 3108-70



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

The project is 14 miles long, from County Road 19 to the City of Marcell. The work consists of pavement resurfacing, drainage and other road improvements.

Recent Changes and Updates

The project design is on schedule for delivery in March 2017, however the Right-of-Way Acquisition Process has taken longer than anticipated resulting in the need to move the Construction Letting Date to the Fall of 2017 with construction scheduled for 2018.

Project History

The Environmental Assessment required for property acquisition in the Chippewa National Forest was started in 2015.

This segment of Hwy 38 was originally graded in the late 1920s and included a gravel surface. In the late 1940s improvements were made including numerous spot overlays, additional gravel and a bituminous surface. Continued construction and maintenance projects occurred over time, with the most recent bituminous overlay completed in 2000.

The purpose of this project is to recondition and resurface the existing highway to improve ride quality, extend the useful life of the highway, and reduce maintenance costs.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2014

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 12.2	\$ 11.7
Other Construction Elements:	\$ 1.0	\$ 0.8
Engineering:	\$ 2.3	\$ 2.3
Right of Way:	\$ 0.3	\$ 0.0
Total:	\$ 15.8	\$ 14.8

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The baseline estimate was completed in June of 2013. The current cost estimate was updated in December of 2015. Both estimates include costs for bituminous resurfacing and other road improvements. The current estimate was lowered because of less subgrade correction needed.

Project Risks

Project risks include subgrade conditions, difficulties in achieving safety improvements and potential for rock excavation. Additional risks include the need for an environmental assessment by Chippewa National Forest, right of way acquisition and securing a Corp of Engineers Permit for Wetlands.

Schedule

Environmental Approval Date: Pending Approval
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: Not known
 Construction Limits Established Date: Not known
 Original Letting Date: 01/02/2009
 Current Letting Date: 10/27/2017
 Construction Season: 2018
 Estimated Substantial Completion: Fall 2018



Minnesota Department of Transportation
 District 1
 1123 Mesaba Ave
 (218) 725-2700

District Engineer: Duane Hill
Project Manager: Michael Kalnbach

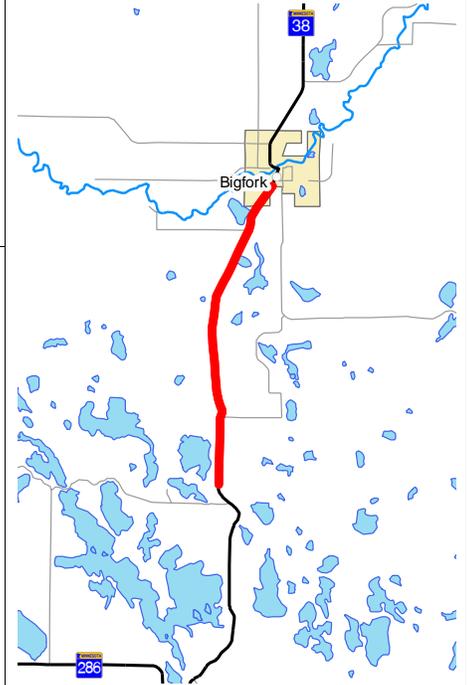
Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 38 & Hwy 286

On Hwy 38 from Horseshoe Lake Rd to Bigfork and on Hwy 286 from Hwy 6 to Marcell

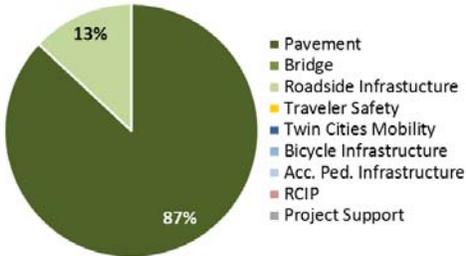
State Project No. 3108-76



Primary Purpose

Performance-based Need: Pavement condition

Investment Category



Project Description

The project is on Hwy 38 from Horseshoe Lake Rd to Bigfork and on Hwy 286 from Hwy 6 to Marcell. The work includes bituminous resurfacing and drainage improvements.

Recent Changes and Updates

The project is currently in the final design phase and is on schedule for letting in February of 2017.

Project History

There are two segments of this project:

1) Hwy 286 was originally graded in 1941 and initially paved in 1949. Since 1949, there have been two bituminous overlay projects in addition to one bituminous spot overlay project. The two overlays were completed in construction years 1968 and 1998. 2)

Hwy 38 was originally constructed as a gravel road in 1929. The gravel surface was overlaid and additional shoulder width was added in 1973. It was reconstructed in 1997 and bituminous cracks were sealed in 2000.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2013

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 3.9	\$ 3.2
Other Construction Elements:	\$ 0.3	\$ 0.3
Engineering:	\$ 0.7	\$ 0.7
Right of Way:	\$ 0.0	\$ 0.2
Total:	\$ 4.9	\$ 4.4

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The current cost estimate was updated in March of 2016 and includes costs for a bituminous mill and overlay on Hwy 38 and a bituminous mill and overlay on Hwy 286 as well as drainage improvements.

Project Risks

The cost of the necessary pavement repair has not been fully determined.

Schedule

Environmental Approval Date: Pending Approval
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: Not Needed
 Construction Limits Established Date: Pending Approval
 Original Letting Date: 01/27/2017
 Current Letting Date: 02/24/2017
 Construction Season: 2017
 Estimated Substantial Completion: Fall 2017



Minnesota Department of Transportation
 District 1
 1123 Mesaba Ave
 (218) 725-2700

District Engineer: Duane Hill
Project Manager: Randy Costley

Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 53

Between Eveleth and Virginia, relocate Hwy 53 away from United Taconite Operations

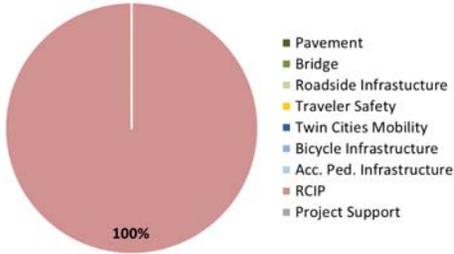
Bridge 69129, &, 69130
State Project No. 6918-86



Primary Purpose

Regional & Community Improvement Priority

Investment Category



Project Description

The project is located in St. Louis County, between Eveleth and Virginia. The proposed project is to abandon Hwy 53 in the area of the United Taconite mine expansion and reconstruct it in a new location. State Project 6918-86 (which is also included in the 6918-80 project scope) is all remaining grading on Hwy 53 & Hwy 135, including a bridge on Hwy 135 over Hwy 53.

Recent Changes and Updates

September 2016:
The Final Environmental Impact Statement and Record of Decision were completed in the fall of 2015. MnDOT negotiated an extension of the existing Highway 53 until November 15, 2017. MnDOT executed a construction contract with Kiewit Infrastructure Corporation to construct alternative E2 around and across the Rouchleau Pit. Construction started November 2, 2015 and is nearing 50% complete as of the end of August 2016. Traffic is scheduled to be on the new highway and the old highway infrastructure will be removed by November 15, 2017. Final project completion is scheduled for summer of 2018.

Project History

In 1960 United States Steel granted MnDOT Hwy easement rights for Hwy 53. In 2010, the successors of US Steel, United Taconite and RGGS Land and Minerals, in accordance with the easement provisions, gave MnDOT notice that they were terminating easement rights for Hwy 53. The easement expires on May 5, 2017.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2011

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 60.0	\$ 162.4
Other Construction Elements:	\$ 13.8	\$ 27.0
Engineering:	\$ 14.4	\$ 31.0
Right of Way:	\$ 0.0	\$ 17.2
Total:	\$ 88.2	\$ 237.6

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Total estimate after letting is \$244.8 MM. This total includes all MnDOT costs for the above categories AND construction cost for City of Virginia and VPUC utilities and relocation of the Mesabi Trail.

The original project estimate was a high level estimate for the proposed M1 alternative when the project was placed in the STIP. Subsequent engineering on M1 route has identified additional challenges on this route that increase the cost. MnDOT is currently targeting a total project cost estimate of \$240 million based on what is known today.

Project Risks

Risks include an aggressive timeline for relocating the highway; securing a permanent highway easement, public utility relocation; geotechnical issues, maintaining water quality for the drinking water supply for the city of Virginia, a challenging construction environment, and managing traffic during the time between when the easement expires and construction is complete.

Schedule

Environmental Approval Date: Fall 2015
Municipal Consent Approval Date: 04/14/2015
Geometric Layout Approval Date: 04/20/2015
Construction Limits Established Date: Spring 2015
Original Letting Date: 04/24/2015
Current Letting Date: 10/21/2015
Construction Season: 2016/2017
Estimated Substantial Completion: Fall 2017



Minnesota Department of Transportation
District 1
1123 Mesaba Ave
(218) 725-2700

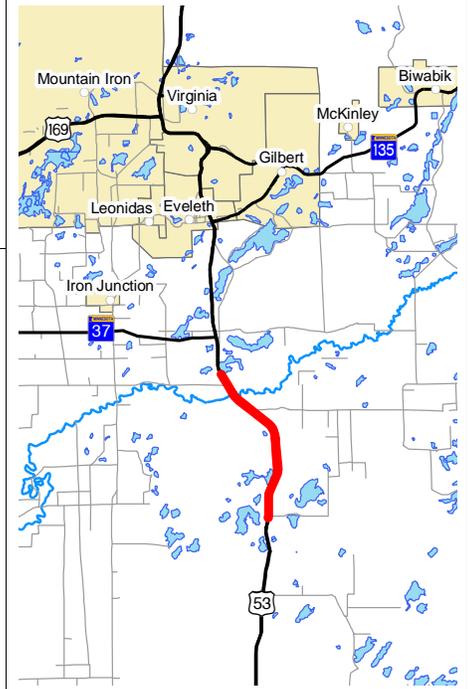
District Engineer: Duane Hill
Project Manager: Patrick Huston

Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 53

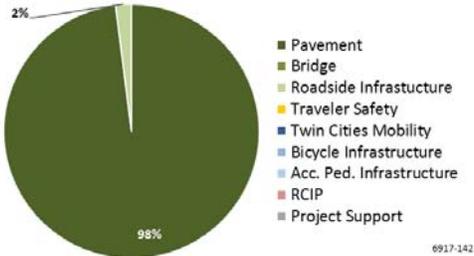
On Hwy 53 from the Central Lakes Road to the interchange with Hwy 37
State Project No. 6917-142



Primary Purpose

Performance-based Need: Pavement condition

Investment Category



Project Description

The project includes pavement rehabilitation work on northbound Hwy 53 from Central Lakes Road to the interchange with Hwy 37, and on southbound Hwy 53 from South Moon Lake Dr. to the interchange with Hwy 37.

Recent Changes and Updates

Due to rapidly deteriorating pavement condition, the project limits were increased, adding approximately 11 miles of pavement rehabilitation to the project and the letting date was moved from 4/28/17 to 7/22/16. The project design is complete, the project has been let, and construction is scheduled to occur in the fall of 2016.

Project History

This segment of roadway was originally graded and paved with concrete in the early 1920s. In the late 1940s it was widened and paved with bituminous. There were also bituminous overlays in the late 1960s and 1970s. The most recent improvements included a mill and overlay in 1996.

This project will recondition and resurface the existing highway to improve the ride and extend the useful life of the highway.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2013

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 6.5	\$ 3.7
Other Construction Elements:	\$ 0.5	\$ 0.4
Engineering:	\$ 1.2	\$ 1.0
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 8.2	\$ 5.1

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The baseline estimate was prepared in August 2013 and includes costs for pavement resurfacing. The project was let in July of 2016. The current estimate is based on actual bid costs. The cost decrease is due to the removal of repair work at the Anchor Lake Rest Area.

Project Risks

Project risks include potential construction changes.

Schedule

Environmental Approval Date: 5/13/2016
Municipal Consent Approval Date: Not Needed
Geometric Layout Approval Date: Not Needed
Construction Limits Established Date: Not Needed
Original Letting Date: 04/28/2017
Current Letting Date: 7/22/16
Construction Season: SUMMER 2016 FALL 2016
Estimated Substantial Completion: SPRING 2017



Minnesota Department of Transportation
District 1
1123 Mesaba Ave
(218) 725-2700

District Engineer: Duane Hill
Project Manager: Randy Costley

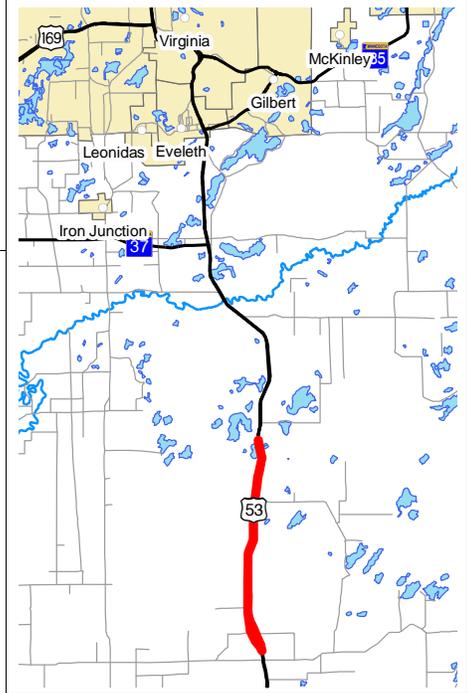
Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 53

Southbound from the Paleface River to Augusta Lake Rd
 Bridge 69022, and, 69071
 State Project No. 6917-141

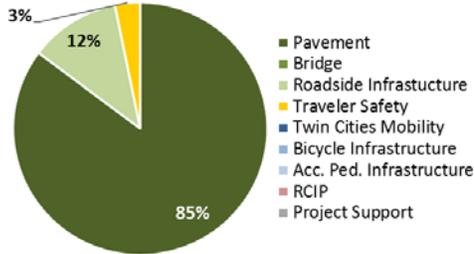
Substantially Complete



Primary Purpose

Performance-based Need: Pavement condition

Investment Category



Project Description

The project is located on southbound Highway 53 from the Paleface River to Augusta Lake Rd. The work includes 9 miles of pavement resurfacing and drainage improvements.

Recent Changes and Updates

The project was constructed in the summer of 2016.

Project History

This segment of Hwy 53 has been resurfaced numerous times including overlays in 1978, 1987 and 1996. Most recently, in 2000, the bituminous cracks on this segment were sealed.

The project limits have changed to include an additional 3 miles. The recommended pavement thickness has increased from a medium mill and overlay to a thick mill and overlay. The project design is completed and on schedule for letting in December 2015.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2013

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 2.4	\$ 2.3
Other Construction Elements:	\$ 0.2	\$ 0.1
Engineering:	\$ 0.5	\$ 0.8
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 3.1	\$ 3.6

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The project was let in December of 2015, and completed the summer of 2016. The current estimate is based on actual construction costs.

Project Risks

The project is substantially complete. There are no remaining risks.

Schedule

Environmental Approval Date: 06/01/2015
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: Not Needed
 Construction Limits Established Date: Not Needed
 Original Letting Date: 04/25/2014
 Current Letting Date: 12/18/2015
 Construction Season: 2016
 Estimated Substantial Completion: Fall 2016



Minnesota Department of Transportation
 District 1
 1123 Mesaba Ave
 (218) 725-2700

District Engineer: Duane Hill
Project Manager: Randy Costley

Revised Date: 12/15/2016

PROJECT SUMMARY

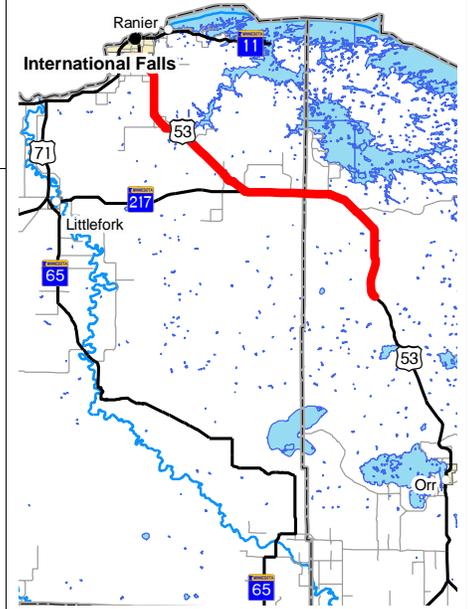
Hwy 53

From Keyes Rd to Crescent Dr in International Falls

Bridge 36003, and, 69X16

State Project No. 3608-49

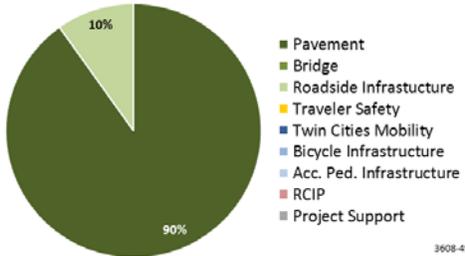
Substantially Complete



Primary Purpose

Performance-based Need: Pavement condition

Investment Category



Project Description

The project is 34 miles long, from south of Keyes Rd to Crescent Dr in International Falls. The work includes pavement resurfacing, bridge deck repairs and drainage improvements. In addition, the project includes safety improvements at two intersections.

Recent Changes and Updates

This project is under construction and is on schedule for completion in early fall 2015.

Project History

The southernmost 18 miles had a bituminous overlay in the mid 1990s and a crack repair project in the late 1990s. The next 12 miles included a bituminous milling and paving project in 2000 and a crack repair project in 2001. The northernmost three miles had numerous bituminous overlays performed over portions of this segment between the 1960s and the 1980s.

The project was added for construction in 2015 as part of MAP-21 program.

The pavement repairs on this project are to include milling with a bituminous overlay. In addition to the pavement repairs, these improvements will be included: the addition of a center left turn lane at two intersections, bridge deck repairs, and a large box culvert will be replaced.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2014

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 14.2	\$ 10.1
Other Construction Elements:	\$ 1.3	\$ 1.2
Engineering:	\$ 2.8	\$ 0.7
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 18.3	\$ 12.0

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The project was let in January of 2015. The baseline cost was established with a high contingency prior to scoping. National Corridor Infrastructure Program Funds were used for the turn lane construction. Current Estimate based off of "Costs of Projects in Second Year of Substantial Completion (Final Year in Report)" 8/30/2016.

Project Risks

The project is complete. There are no remaining risks.

Schedule

Environmental Approval Date: 11/03/2014
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: Not Needed
 Construction Limits Established Date: 8/20/2014
 Original Letting Date: 01/23/2015
 Current Letting Date: 01/30/2015
 Construction Season: 2015
 Estimated Substantial Completion: Fall 2015



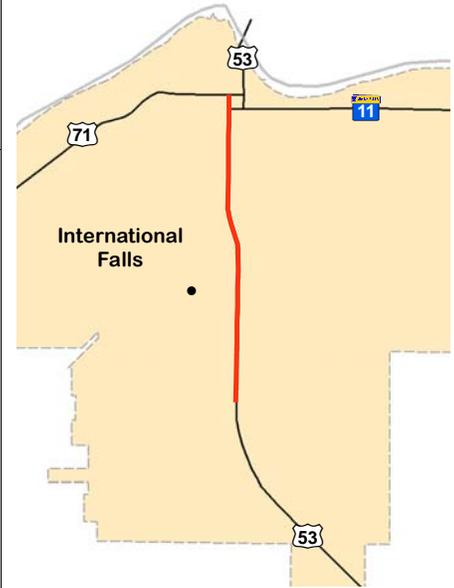
Minnesota Department of Transportation
 District 1
 1123 Mesaba Ave
 (218) 725-2700

District Engineer: Duane Hill
Project Manager: Brian Larson

Revised Date: 12/15/2016

PROJECT SUMMARY

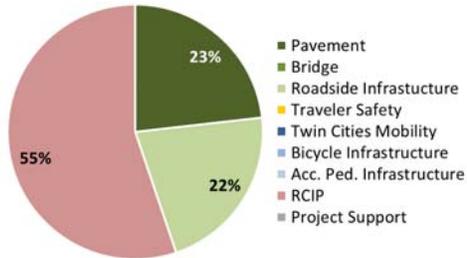
Hwy 53
In the cit of International Falls
State Project No. 3608-48



Primary Purpose

Performance-based need: Pavement Condition

Investment Category



Project Description

Project length is 1.6 miles. The project work includes pavement rehabilitation, storm sewer replacement, traffic signals & ADA accessibility improvements. The ADA improvements will result in replacement of all curb and gutter and sidewalk.

Recent Changes and Updates

This project was originally programmed for funding in FY 2015 but was deferred due to funding constraints. Complying with ADA requirements required significant sidewalk and curb and gutter replacement that could not be funded in FY 2015. The project was re-programmed for funding in FY 2020. The new cost estimate reflects complying with ADA requirements and results in the project now falling in the Major Projects category.

Project History

The need for this project is driven by deteriorating pavement resulting in a rough ride, high maintenance costs, and reduced load carrying capacity.

The majority of the project area was last resurfaced in 1999. The 2015 pavement condition rating indicates the Ride Quality Index (RQI) varies from Fair to Poor.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 7/1/2014

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 5.3	\$ 5.3
Other Construction Elements:	\$ 0.4	\$ 0.4
Engineering:	\$ 1.0	\$ 1.0
Right of Way:	\$ 0.1	\$ 0.1
Total:	\$ 6.8	\$ 6.8

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The base and current cost estimate were prepared in March of 2016 and includes costs for pavement rehabilitation, storm sewer replacement, traffic signals & ADA accessibility improvements.

Project Risks

Municipal consent from International Falls and International Falls level of funding under the Cooperative Construction Agreement.
Risk of encountering contaminated soils in International Falls could impact cost.
Need for additional Right of Way or Temporary Rights to Construct so that ADA improvements can be made could impact schedule.

Schedule

Environmental Approval Date: Need Unknown
Municipal Consent Approval Date: Pending approval
Geometric Layout Approval Date: Need unknown
Construction Limits Established Date: Pending approval
Original Letting Date: 4/24/15
Current Letting Date: 10/25/19
Construction Season: SPRING 2020 -FALL 2020
Estimated Substantial Completion: FALL 2020



Minnesota Department of Transportation
District 1
1123 Mesaba Ave
(218) 725-2700

District Engineer: Duane Hill
Project Manager: Brian Larson

Revised Date: 12/15/2016

PROJECT SUMMARY

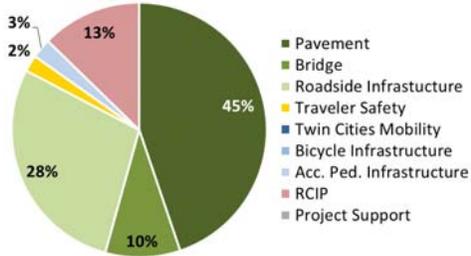
Hwy 61
 Around Grand Marais
 Bridge 8295, 8294
 State Project No. 1602-50



Primary Purpose

Pavement condition.

Investment Category



Project Description

This is an urban/rural project. Project length is 11.23 miles. Grand Marais urban reconstruction, box culvert replacement, pavement rehabilitation, accessibility improvements, & replace traffic signal. Project includes pavement rehabilitation north and south of Grand Marais.

Recent Changes and Updates

Layout is being developed to include City trail from 3rd Ave W to the Gunflint Trail.

Project History

This project was programmed as a pavement rehabilitation. The City of Grand Marais received a TAP grant to extend the trail system. The trail will be incorporated into State's plan.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 7/1/2017

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 8.5	\$ 8.5
Other Construction Elements:	\$ 0.7	\$ 0.7
Engineering:	\$ 1.7	\$ 1.7
Right of Way:	\$ 0.1	\$ 0.1
Total:	\$ 11.0	\$ 11.0

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The base and current cost estimate were prepared in February of 2016 before the final scoping document was completed. The estimate includes costs for urban reconstruction, pavement rehabilitation, accessibility improvements, and box culvert replacement.

Project Risks

City and county costs, utility conflicts, environmental permits.

Schedule

Environmental Approval Date: Pending
 Municipal Consent Approval Date: Pending
 Geometric Layout Approval Date: Pending
 Construction Limits Established Date: Pending
 Original Letting Date: 12/21/2018
 Current Letting Date: 12/21/18
 Construction Season: SPRING 2019-FALL 2020
 Estimated Substantial Completion: FALL 2020



Minnesota Department of Transportation
 District 1
 1123 Mesaba Ave
 (218) 725-2700

District Engineer: Duane Hill
Project Manager: Roberta Dwyer

Revised Date: 12/15/2016

PROJECT SUMMARY

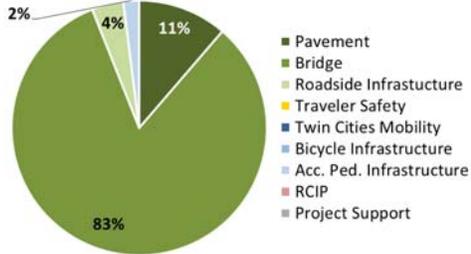
Hwy 61
Silver Creek Crossing
Bridge 5648
State Project No. 3805-79



Primary Purpose

Bridge and pavement preservation.

Investment Category



Project Description

Project length is 0.9 miles. Highway realignment & bridge replacement at Silver Creek.

Recent Changes and Updates

The Scoping Document for this project was signed on March 30, 2016. The project includes building a new bridge over Silver Creek and realigning TH 61 to accommodate the new bridge placement. The existing structure is two 10' by 10' box culverts. Silver Creek is a trout stream and is one of the top three priorities for the DNR to have converted into a natural bottom.

Project History

Bridge #5648 has deteriorated, and needs to be replaced. The pavement in the project area has deteriorated and is in the need of preventative maintenance to restore the ride.

Purpose Statement for Project: This project is part of the statewide plan to replace or improve deficient bridges on state highways, and also to improve ride and extend the useful life of the highway.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 11/5/2014

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 4.7	\$ 4.7
Other Construction Elements:	\$ 0.3	\$ 0.3
Engineering:	\$ 0.9	\$ 0.9
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 5.9	\$ 5.9

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The base/current estimate was prepared in March 2016, and includes costs for new pavement and a new bridge. This project's TPCE just recently hit the threshold for the MPR and therefore this represents the first year this is in the report.

Project Risks

Bridge and highway embankment costs are dependent on the presence of rock and muck.
The Minnesota Department of Natural Resources has requested a bike trail to be accommodated under the bridge and across the bridge. The funding from the DNR is a risk.
If right of way acquisition is needed for the project, the cost to acquire the right of way is a risk.

Schedule

Environmental Approval Date: TBD
Municipal Consent Approval Date: Not Needed
Geometric Layout Approval Date: Pending Approval
Construction Limits Established Date: Pending Approval
Original Letting Date: 1/27/17
Current Letting Date: 1/31/2020
Construction Season: SPRING 2020 - FALL 2020
Estimated Substantial Completion: FALL 2020



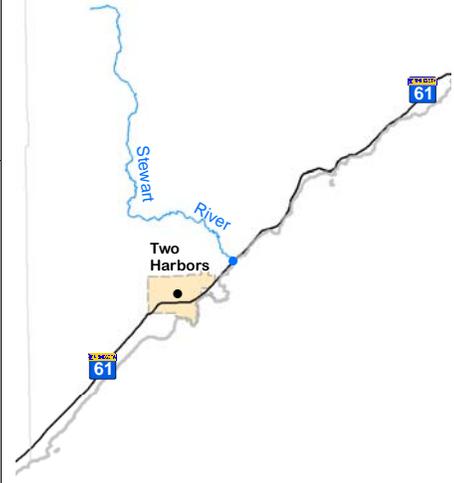
Minnesota Department of Transportation
District 1
1123 Mesaba Ave
(218) 725-2700

District Engineer: Duane Hill
Project Manager: Derek Fredrickson

Revised Date: 12/15/2016

PROJECT SUMMARY

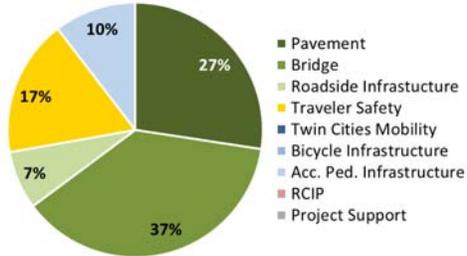
Hwy 61
Hwy 2 at Stewart River
Bridge 3589
State Project No. 3805-99



Primary Purpose

Bridge preservation.

Investment Category



Project Description

Rehabilitation of bridge over the Stewart River. This bridge is designated as a historic bridge so more work is necessary to determine what the full project description will be.

Recent Changes and Updates

The Minnesota Department of Transportation is currently working with the Federal Highway Administration on the Purpose and Need for the project.

Project History

This spandrell filled arch was originally constructed in 1924 and widened in 1939. This bridge is 1 of 24 bridges that MnDOT has committed to preserving.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 7/1/16

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 5.2	\$ 5.2
Other Construction Elements:	\$ 0.4	\$ 0.4
Engineering:	\$ 1.0	\$ 1.0
Right of Way:	\$ 0.2	\$ 0.2
Total:	\$ 6.8	\$ 6.8

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The base/current cost estimate was prepared in February of 2016 and includes cost for bridge repair.

Project Risks

The Purpose and Need will help determine the scope and budget for this project. Risks will be identified after the Scoping Document is completed.

Traffic handling during construction will be a major risk depending on the project scope.

Schedule

Environmental Approval Date: TBD
Municipal Consent Approval Date: Not Needed
Geometric Layout Approval Date: Need Unknown
Construction Limits Established Date: Need Unknown
Original Letting Date: 1/1/16
Current Letting Date: 1/31/20
Construction Season: SPRING 2020-FALL2020
Estimated Substantial Completion: FALL 2020



Minnesota Department of Transportation
District 1
1123 Mesaba Ave
(218) 725-2700

District Engineer: Duane Hill
Project Manager: Derek Fredrickson

Revised Date: 12/15/2016

PROJECT SUMMARY

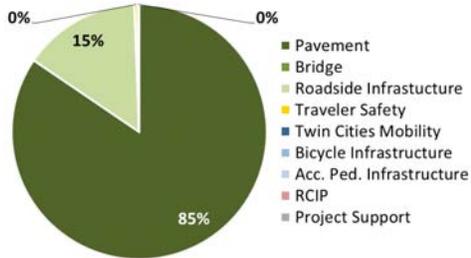
Hwy 65
 South Sandy River to Hwy 200
 State Project No. 0112-52



Primary Purpose

Pavement condition.

Investment Category



Project Description

Project length is 17.05 miles. Bituminous pavement resurfacing

Recent Changes and Updates

Letting date has changed to 2/22/19 to better balance District overall program.

Project History

This project will recondition and resurface the existing highway to improve the ride and extend the useful life of the highway.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 7/1/2015

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 6.8	\$ 6.8
Other Construction Elements:	\$ 0.6	\$ 0.6
Engineering:	\$ 1.3	\$ 1.3
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 8.7	\$ 8.7

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The base and current cost estimate were prepared in August of 2015 and includes costs for bituminous pavement resurfacing.

Project Risks

Environmental permits for drainage improvements.

Schedule

Environmental Approval Date: Need Unknown
 Municipal Consent Approval Date: Need Unknown
 Geometric Layout Approval Date: Need Unknown
 Construction Limits Established Date: Need Unknown
 Original Letting Date: 1/1/18
 Current Letting Date: 2/22/19
 Construction Season: SPRING 2019-NOVEMBER 2019
 Estimated Substantial Completion: FALL 2019



Minnesota Department of Transportation
 District 1
 1123 Mesaba Ave
 (218) 725-2700

District Engineer: Duane Hill
Project Manager: Roberta Dwyer

Revised Date: 12/15/2016

PROJECT SUMMARY

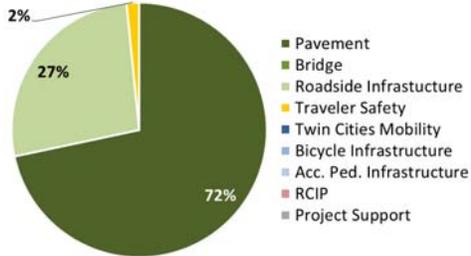
Hwy 65
Hwy 200 to Hwy 169
State Project No. 3111-30



Primary Purpose

Pavement condition.

Investment Category



Project Description

Project length is 25.87 miles. Bituminous pavement resurfacing from the Junction of Hwy 200 in Jacobson to Hwy 169 in Pengilly.

Recent Changes and Updates

Plans are at 90% complete.

Project History

This project was programmed based on pavement needs.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 7/1/2016

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 11.7	\$ 10.8
Other Construction Elements:	\$ 1.1	\$ 1.0
Engineering:	\$ 2.1	\$ 2.0
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 14.9	\$ 13.8

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The base estimate were prepared in May of 2014 and includes costs for pavement resurfacing. The current estimate was completed in February of 2016. The price difference was do to an anticipated decrease in bituminous cost.

Project Risks

Environmental permits.

Schedule

Environmental Approval Date: Pending
Municipal Consent Approval Date: Not Needed
Geometric Layout Approval Date: Not Needed
Construction Limits Established Date: 3/24/2016
Original Letting Date: 4/27/18
Current Letting Date: 5/17/2019
Construction Season: SUMMER 2019-FALL2019
Estimated Substantial Completion: FALL 2019



Minnesota Department of Transportation
District 1
1123 Mesaba Ave
(218) 725-2700

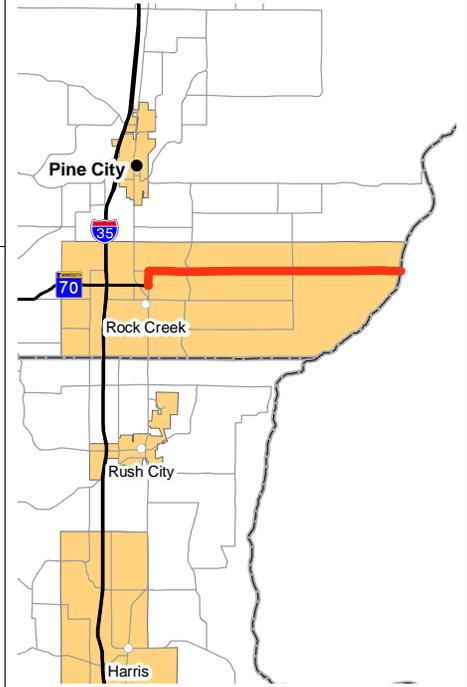
District Engineer: Duane Hill
Project Manager: Michael Kalnbach

Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 70
 East of Hwy 361 to the Minnesota/Wisconsin state line
 Bridge 58X03
 State Project No. 5811-12

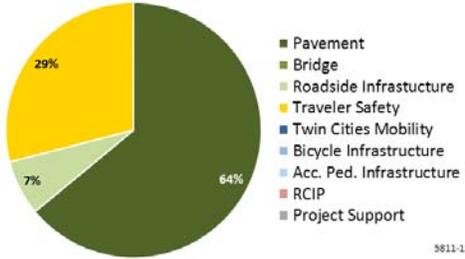
Substantially Complete



Primary Purpose

Performance-based Need: Pavement Condition and District Safety Plan

Investment Category



Project Description

The project is a 9 mile long rural project that includes pavement resurfacing, profile corrections, drainage improvements, and turn lane additions on Hwy 70 from just east of Hwy 361 to the Minnesota/Wisconsin

Recent Changes and Updates

This project was substantially completed in the fall of 2015.

Project History

This project was let in January 2015 and is nearly complete.

Currently, the pavement condition on this section of Hwy 70 is poor, based on the 2012 District 1 Remaining Service Life map.

The scope of this project will be to establish a long term pavement fix for this section of Hwy 70, improve sight distance and safety at identified spot locations, and improve drainage conditions.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2011

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 6.7	\$ 8.8
Other Construction Elements:	\$ 0.4	\$ 0.2
Engineering:	\$ 1.4	\$ 1.5
Right of Way:	\$ 0.4	\$ 0.4
Total:	\$ 8.9	\$ 10.9

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The project is substantially complete. The current estimate is based on the actual construction costs. The cost increase is due to the need to resurface the roadway using a stabilized bituminous reclamation and to reconstruct additional portions of the roadway.

Project Risks

The project is complete. There are no remaining risks.

Schedule

Environmental Approval Date: 10/15/2014
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: 9/09/2014
 Construction Limits Established Date: 11/20/2013
 Original Letting Date: 01/23/2015
 Current Letting Date: 01/30/2015
 Construction Season: 2015
 Estimated Substantial Completion: Fall 2015



Minnesota Department of Transportation
 District 1
 1123 Mesaba Ave
 (218) 725-2700

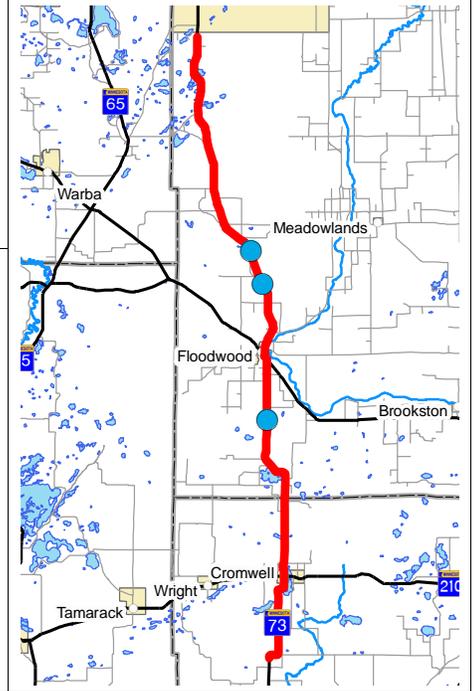
District Engineer: Duane Hill
Project Manager: Derek Fredrickson

Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 73

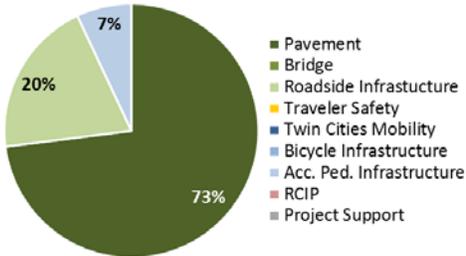
Various locations on Highway 73 and Highway 2 that include the City of Cromwell and the City of Floodwood
State Project No. 6928-28



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

This project is 30 miles long, at several locations along Highway 73 and Highway 2 including the City of Cromwell and the City of Floodwood. Project improvements include: pavement resurfacing, curb ramp construction and sidewalk improvements.

Recent Changes and Updates

District 1 staff have coordinated with the City of Floodwood to determine Floodwood Utility upgrades needed that will be completed in conjunction with the MnDOT Project.

The letting date changed from FY 2018 to FY 2019 as a result of overall program needs.

Project History

The project scoping was completed in August 2015.

The need for this project is driven by deteriorating pavement resulting in a rough ride, high maintenance costs, and reduced load carrying capacity.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2014

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 8.5	\$ 9.7
Other Construction Elements:	\$ 0.8	\$ 0.9
Engineering:	\$ 1.6	\$ 2.0
Right of Way:	\$ 0.0	\$ 0.1
Total:	\$ 10.9	\$ 11.0

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The baseline estimate was prepared in January of 2014 before the final scoping report was completed. The current estimate was prepared in April of 2016 and includes costs for pavement resurfacing and drainage improvements.

Project Risks

The section of TH 73 south of Cromwell is located on a section where MnDOT does not have designated Highway Right-of-Way/Easement. The lack of ROW/Easement and the length of time to acquire could result in a project schedule delay or removal of this segment from the project.

Schedule

Environmental Approval Date: Need Unknown
Municipal Consent Approval Date: Not Needed
Geometric Layout Approval Date: Not Needed
Construction Limits Established Date: Not Known
Original Letting Date: 01/01/2018
Current Letting Date: 6/29/18
Construction Season: SUMMER 2018
Estimated Substantial Completion: 6/15 /2019



Minnesota Department of Transportation
District 1
1123 Mesaba Ave
(218) 725-2700

District Engineer: Duane Hill
Project Manager: Michael Kalnbach

Revised Date: 12/15/2016

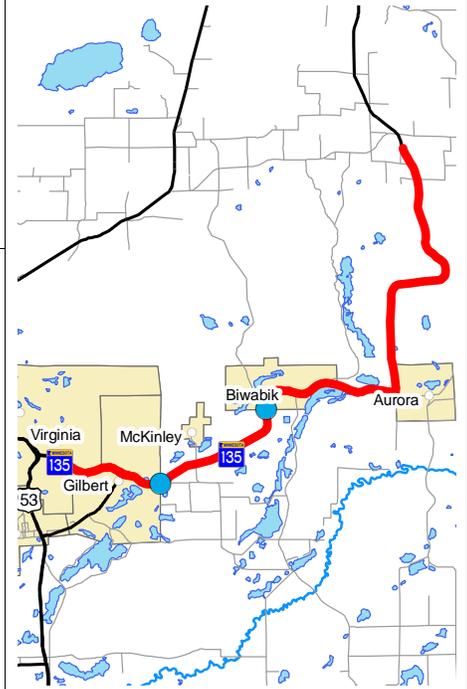
PROJECT SUMMARY

Hwy 135

From Hwy 53 to just south of County Road 558

Bridge 69023, 69025, 6942

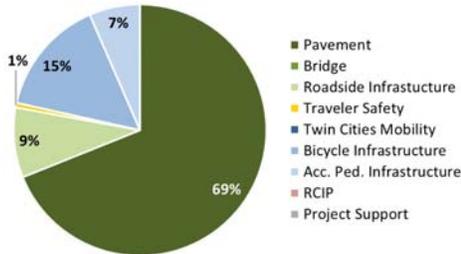
State Project No. 6912-77



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

This is a pavement resurfacing project on Hwy 135 from the junction of Hwy 53 to south of CR 558. It includes the cities of Gilbert and Biwabik. The work in Biwabik includes ADA improvements and new curb and gutter. The city of Biwabik plans to replace water and sewer lines under a cooperative agreement. There is minor work on 3 bridges and drainage repair throughout the project. Intersection revisions will be done at the intersection of CR 100.

Recent Changes and Updates

This project is new to the report.

Project History

The need for this project is driven by deteriorating pavement resulting in a rough ride, high maintenance costs, and reduced load carrying capacity.

The majority of the project area was last resurfaced in 2001. The 2015 pavement condition rating indicates the Ride Quality Index (RQI) is Fair.

Hwy 135 in this area has numerous turn lanes and bypass lanes. The Mesabi Trail parallels and crosses portions of the route.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2015

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 8.9	\$ 10.1
Other Construction Elements:	\$ 0.8	\$ 0.9
Engineering:	\$ 1.7	\$ 1.9
Right of Way:	\$ 0.0	\$ 0.1
Total:	\$ 11.4	\$ 13.0

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The current cost estimate was prepared in February of 2016. The project costs include pavement resurfacing and pedestrian infrastructure improvements in Biwabik. The cost increase is due to added bridge repair and intersection reconstruction in both Aurora and Gilbert.

Project Risks

Municipal consent from Biwabik and Biwabik's level of funding under the Cooperative Construction Agreement.
 Impact of replacement of city utilities in Biwabik.
 Risk of encountering contaminated soils in Biwabik could impact cost.
 Need for additional Right of Way or Temporary Rights to Construct so that ADA improvements can be made in Biwabik could impact schedule.

Schedule

Environmental Approval Date: Need Unknown
 Municipal Consent Approval Date: Pending Approval
 Geometric Layout Approval Date: Not Needed
 Construction Limits Established Date: Pending Approval
 Original Letting Date: 01/01/2019
 Current Letting Date: 11/16/2018
 Construction Season: 2019
 Estimated Substantial Completion: Fall 2019



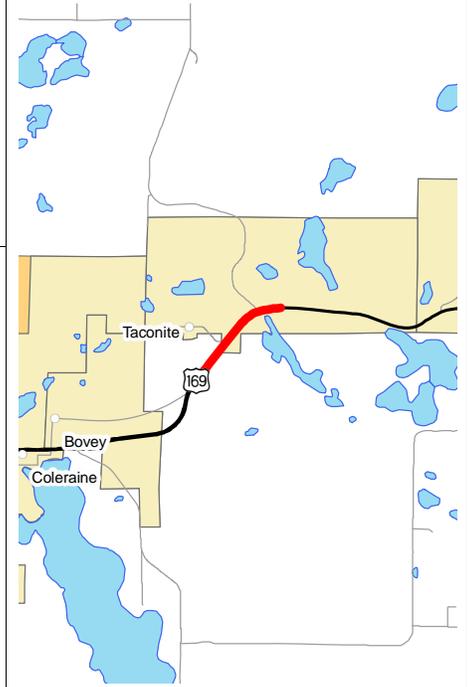
Minnesota Department of Transportation
 District 1
 1123 Mesaba Ave
 (218) 725-2700

District Engineer: Duane Hill
Project Manager: Brian Larson

Revised Date: 12/15/2016

PROJECT SUMMARY

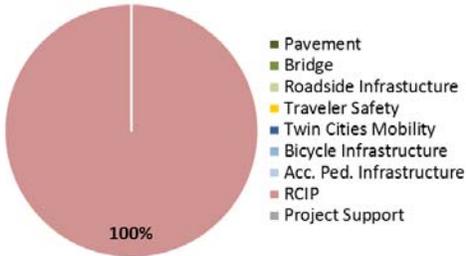
Hwy 169
 County Road 15 to County Road 7
 Bridge 31X09
 State Project No. 3116-142
<http://www.dot.state.mn.us/d1/projects/hwy169-cross-range/>



Primary Purpose

Regional & Community Improvement Priority

Investment Category



Project Description

This is a Corridors of Commerce project that is an expansion from two lanes to four lanes of Hwy 169 CR 7.

Recent Changes and Updates

This project was let in June 2016 and construction is scheduled to begin in September 2016.

Project History

The re-evaluation of the Environmental Assessment was completed in July of 2015.

Phases of this expansion were completed beginning in 1994 and most recently in 2007. Funding for this project was secured in the fall of 2013 as part of the Corridor of Commerce program.

Project design began in late 2013 and is currently at the 60% design phase. The Environmental Document is being drafted.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2014

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 8.3	\$ 5.9
Other Construction Elements:	\$ 0.8	\$ 0.8
Engineering:	\$ 2.1	\$ 2.1
Right of Way:	\$ 0.5	\$ 0.5
Total:	\$ 12.3	\$ 10.1

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The base cost estimate was prepared in February of 2014 and includes costs for constructing a four lane roadway with bituminous pavement and drainage facilities including a bridge/box culvert. The current estimate is the actual bid letting amount.

Project Risks

The project has been let. Risks remaining include potential construction changes.

Schedule

Environmental Approval Date: 07/16/2015
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: 10/23/2015
 Construction Limits Established Date: 03/13/2015
 Original Letting Date: 06/03/2016
 Current Letting Date: 06/03/2016
 Construction Season: 2016/2017
 Estimated Substantial Completion: Summer 2017



Minnesota Department of Transportation
 District 1
 1123 Mesaba Ave
 (218) 725-2700

District Engineer: Duane Hill
Project Manager: Michael Kalnbach

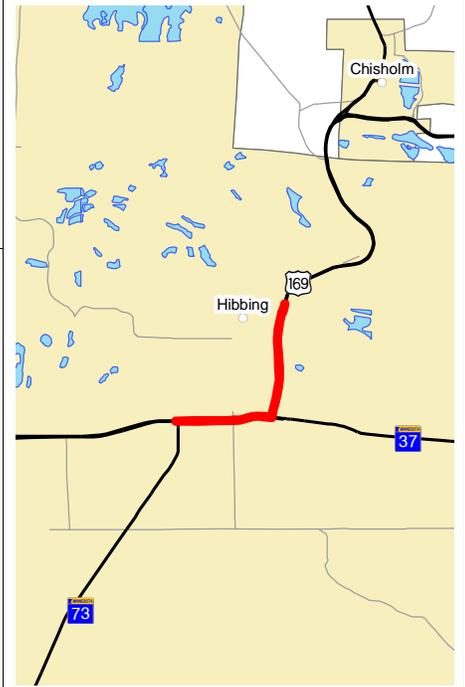
Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 169

In Hibbing, from the intersection of Hwy 73 to east of County Road 5.

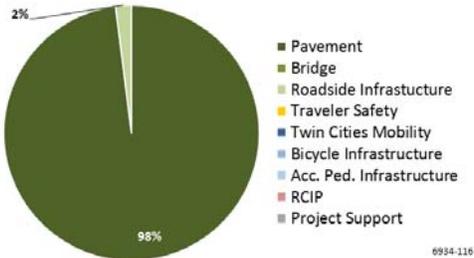
State Project No. 6934-116



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

The project consists of bituminous resurfacing, drainage and ADA improvements in Hibbing along 8 miles of Hwy 169 from the south junction of Hwy 73 to CR 5.

Recent Changes and Updates

The project was programmed for construction in 2017 as part of the Statewide Managed Program to improve pavement condition on the National Highway System.

Project History

The need for this project is driven by deteriorating pavement resulting in a rough ride, high maintenance costs, and reduced load carrying capacity.

The majority of the project area was last resurfaced in 2000. The 2015 pavement condition rating indicates the Ride Quality Index (RQI) is Fair.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2013

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 4.4	\$ 4.3
Other Construction Elements:	\$ 0.4	\$ 0.5
Engineering:	\$ 0.8	\$ 1.0
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 5.6	\$ 5.8

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The baseline estimate was prepared in June of 2014. Work on some additional roadway segments within the project limits were added to the project. The Current estimate was prepared in September of 2016 and includes costs for pavement resurfacing and drainage improvements.

Project Risks

A minor risk exists with the possibility of encountering contaminated soils.

Schedule

Environmental Approval Date: Pending Approval
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: Not Needed
 Construction Limits Established Date: 04/28/2016
 Original Letting Date: 05/19/2017
 Current Letting Date: 03/24/2017
 Construction Season: 2017
 Estimated Substantial Completion: Fall 2017



Minnesota Department of Transportation
 District 1
 1123 Mesaba Ave
 (218) 725-2700

District Engineer: Duane Hill
Project Manager: Brian Larson

Revised Date: 12/15/2016

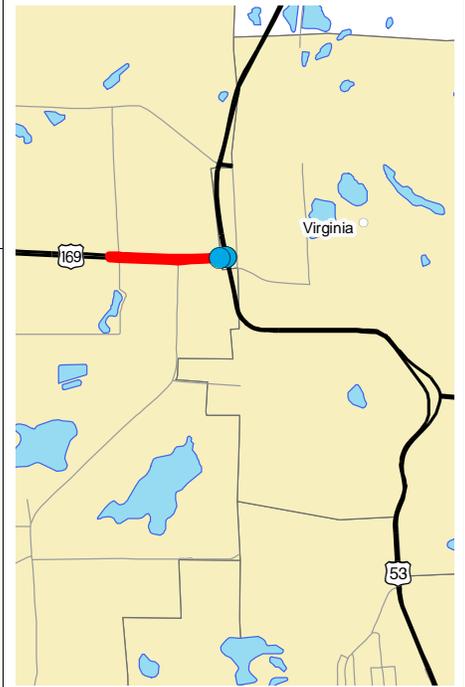
PROJECT SUMMARY

Hwy 169

In Virginia from County Road 109 to Hoover Rd

Bridge 69034, &, 69035

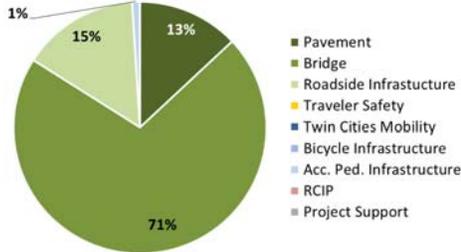
State Project No. 6935-89



Primary Purpose

Performance-based Need: Pavement Condition and Bridge Condition

Investment Category



Project Description

The project is 1 mile long from just west of CR 109 to Hoover Rd in Virginia. The work includes pavement resurfacing, turn lanes, bridge rehabilitation, and traffic signal, drainage, and sidewalk improvements.

Recent Changes and Updates

The project scoping was originally completed in January 2014. The scoping document is currently being amended to include some traffic and safety improvements along the corridor in coordination with the City of Mountain Iron and St. Louis County.

The pavement recommendations for the divided highway section was changed from a bituminous overlay to a Concrete Pavement Repair project.

Project History

The need for this project is deteriorating pavement resulting in a rough ride, high maintenance costs, and reduced load carrying capacity.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2014

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 3.6	\$ 6.2
Other Construction Elements:	\$ 0.8	\$ 0.5
Engineering:	\$ 0.8	\$ 1.3
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 5.2	\$ 8.0

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The current estimate was prepared in October of 2015. The estimate includes costs for pavement resurfacing, bridge rehabilitation and signal construction. The cost has increased due to the need to achieve bridge clearance over U.S. 53 and an added signal system revision. The cost of this project is expected to change after an amended scoping document is completed.

Project Risks

This project requires traffic signal and cooperative construction agreements with St. Louis County and the City of Mountain Iron.

The change from a bituminous overlay to a Concrete Pavement Repair may change the Total Project Cost Estimate.

Schedule

Environmental Approval Date: Pending Approval
 Municipal Consent Approval Date: Pending Approval
 Geometric Layout Approval Date: Pending Approval
 Construction Limits Established Date: Pending Approval
 Original Letting Date: 05/19/2017
 Current Letting Date: 05/19/2017
 Construction Season: 2017
 Estimated Substantial Completion: Fall 2017



Minnesota Department of Transportation
 District 1
 1123 Mesaba Ave
 (218) 725-2700

District Engineer: Duane Hill
Project Manager: Derek Fredrickson

Revised Date: 12/15/2016

PROJECT SUMMARY

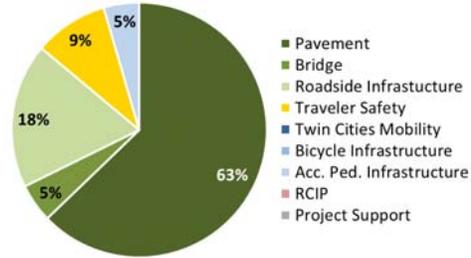
Hwy 169
 Hwy 53 to County Hwy 26
 Bridge 69088
 State Project No. 6936-19



Primary Purpose

Performance-based need: Pavement Condition

Investment Category



Project Description

Project length is 12.2 miles. The project includes bituminous pavement resurfacing, culvert replacements and removing trees from the highway clear zone. Rehabilitation work on Bridge 69088 over the Sandy River will also be included.

Recent Changes and Updates

Project History

The need for this project is driven by deteriorating pavement resulting in a rough ride, high maintenance costs, and reduced load carrying capacity.

The majority of the project area was last resurfaced in the late to mid 1990's. The 2015 pavement condition rating indicates the Ride Quality Index (RQI) is Fair.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 7/1/16

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 5.5	\$ 5.5
Other Construction Elements:	\$ 0.5	\$ 0.5
Engineering:	\$ 1.1	\$ 1.1
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 7.1	\$ 7.1

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The base and current cost estimate were prepared in February of 2016. The estimate includes costs for pavement resurfacing culvert work, tree removal, and bridge rehabilitation.

Project Risks

The final pavement repair fix could change from when this project was programmed.

Schedule

Environmental Approval Date: Pending Approval
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: Not Needed
 Construction Limits Established Date: Pending Approval
 Original Letting Date: 10/25/19
 Current Letting Date: 10/25/19
 Construction Season: SPRING 2020 - FALL 2020
 Estimated Substantial Completion: FALL 2020



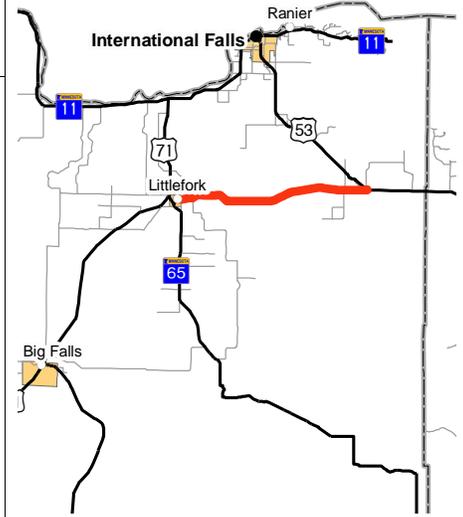
Minnesota Department of Transportation
 District 1
 1123 Mesaba Ave
 (218) 725-2700

District Engineer: Duane Hill
Project Manager: Brian Larson

Revised Date: 12/15/2016

PROJECT SUMMARY

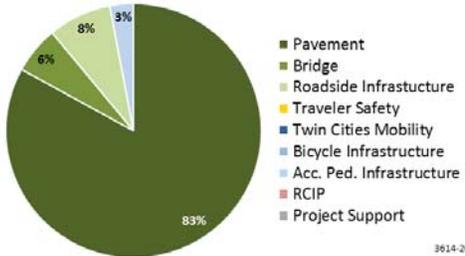
Hwy 217
 Little Fork to Hwy 53
 Bridge 9028A
 State Project No. 3614-20



Primary Purpose

Performance-based Need: Pavement condition

Investment Category



Project Description

The project is 17 miles long and includes bituminous pavement rehabilitation on Hwy 217 from the east limit of Little Fork to Hwy 53. The city of Little Fork will be replacing its water line along Hwy 217 within the project limits. Work on the bridge consists of repairing the superstructure.

Recent Changes and Updates

The city of Little Fork will be installing a new water line along Hwy 217 as part of the project. A cooperative construction agreement with the city will be needed for the work estimated at \$185,500.

Project History

This is a pavement rehabilitation project slated for the 2016 fiscal year. It has been scoped for development along the eastern edge of Little Fork to the junction of Hwy 53.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2012

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 9.0	\$ 4.8
Other Construction Elements:	\$ 0.5	\$ 0.4
Engineering:	\$ 1.9	\$ 1.0
Right of Way:	\$ 0.2	\$ 0.2
Total:	\$ 11.6	\$ 6.4

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The project was let in January of 2016. The current estimate is based on the bid costs. The scope of the pavement repair has changed, after the base estimate resulting in a lower cost. Much of the project work will now consist of a thinner pavement surface.

Project Risks

Bituminous paving on the project had not yet been completed when this report was being prepared. No problems are anticipated with the paving.

Schedule

Environmental Approval Date: 12/16/2015
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: Not Needed
 Construction Limits Established Date: Not Needed
 Original Letting Date: 05/15/2009
 Current Letting Date: 01/29/2016
 Construction Season: 2016
 Estimated Substantial Completion: Fall 2016



Minnesota Department of Transportation
 District 1
 1123 Mesaba Ave
 (218) 725-2700

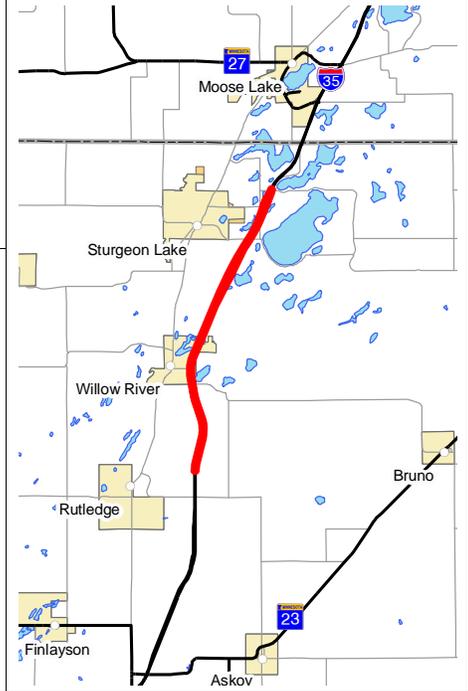
District Engineer: Duane Hill
Project Manager: Brian Larson

Revised Date: 12/15/2016

PROJECT SUMMARY

I-35

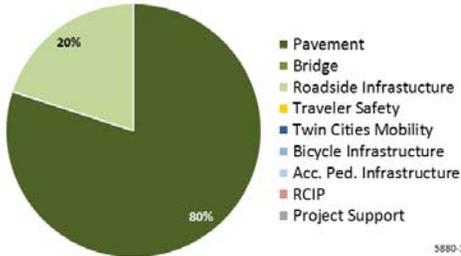
North of Pine County Rd 33 to south of the Carlton County line
State Project No. 5880-180



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



5880-180

Project Description

The project consists of a bituminous reclamation for 9 miles of I-35 from just north of Pine CR 33 to south of the Carlton county line in the Sturgeon Lake/Willow River area.

Recent Changes and Updates

The plans are 90% complete.

Project History

This project was initially programmed for bituminous resurfacing on the northbound roadway and changed to a bonded concrete overlay. The southbound section of I-35 is in fair condition, and the northbound section is in poor condition.

The project was programmed for construction in 2017 as part of the statewide managed program to improve pavement condition on the National Highway System.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2013

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 5.0	\$ 11.7
Other Construction Elements:	\$ 0.5	\$ 1.0
Engineering:	\$ 1.0	\$ 2.6
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 6.5	\$ 15.3

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The current cost estimate was prepared in July of 2016. The estimate includes costs for bituminous reclamation, and drainage repair. The cost increase from the base estimate is due to the addition of the southbound lane into the project.

Project Risks

Possible wetland impacts.

Schedule

Environmental Approval Date: Pending Approval
Municipal Consent Approval Date: Not Needed
Geometric Layout Approval Date: Not Needed
Construction Limits Established Date: 05/27/2016
Original Letting Date: 01/01/2012
Current Letting Date: 12/16/2016
Construction Season: 2017
Estimated Substantial Completion: Fall 2017



Minnesota Department of Transportation
District 1
1123 Mesaba Ave
(218) 725-2700

District Engineer: Duane Hill
Project Manager: Roberta Dwyer

Revised Date: 12/15/2016

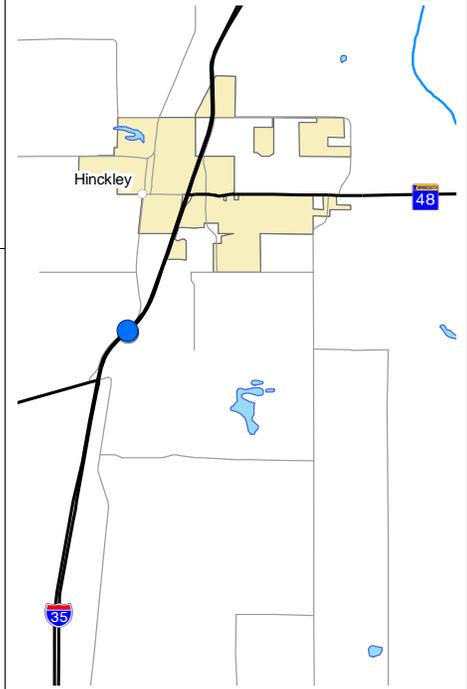
PROJECT SUMMARY

I-35

Replace two bridges on I-35 over the BNSF railroad south of Hwy 48

Bridge 9784, 9783

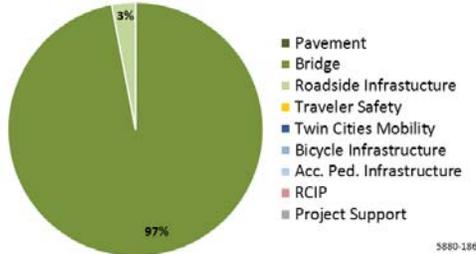
State Project No. 5880-186



Primary Purpose

Performance-based Need: Bridge condition

Investment Category



Project Description

The project is located on I-35, south of Hwy 48 at Hinckley and includes the replacement of Bridges 9783 and 9784 over the Burlington Northern Santa Fe railroad and associated approach work.

Recent Changes and Updates

This project and SP 5880-191, a concrete pavement project, have been linked together. Construction is underway with substantial completion expected in October 2016.

Project History

These bridges were originally constructed over the BNSF railroad with the I-35 construction in 1959. The bridge decks of both bridges are structurally deficient and in need of replacement. It is questionable whether the rest of the structure for both bridges should be repaired or replaced, or possibly widened to better match the width of the roadways. The project is under construction April-October 2016.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2013

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 5.7	\$ 5.8
Other Construction Elements:	\$ 0.4	\$ 0.4
Engineering:	\$ 1.1	\$ 1.1
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 7.2	\$ 7.3

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The initial cost estimate was prepared in February of 2014. The estimate includes costs for bridge replacement. The current estimate was prepared in March of 2015.

Project Risks

Agreements related to railroad access.

Schedule

Environmental Approval Date: 06/18/2015
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: July 29, 2015
 Construction Limits Established Date: July 29, 2015
 Original Letting Date: 01/01/2016
 Current Letting Date: 01/29/2016
 Construction Season: 2016
 Estimated Substantial Completion: Fall 2016



Minnesota Department of Transportation
 District 1
 1123 Mesaba Ave
 (218) 725-2700

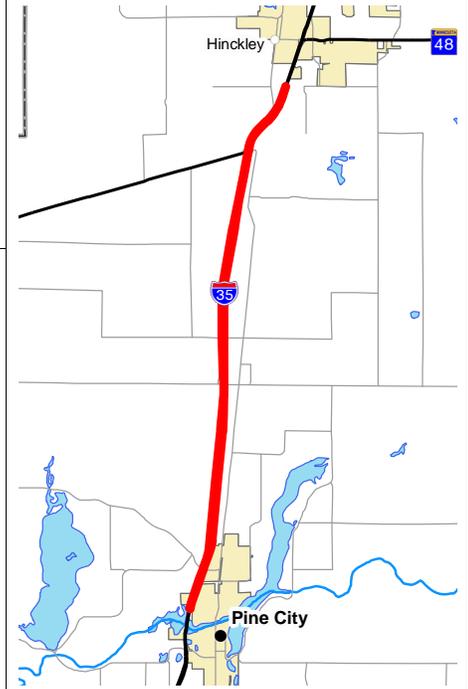
District Engineer: Duane Hill
Project Manager: Roberta Dwyer

Revised Date: 12/15/2016

PROJECT SUMMARY

I-35

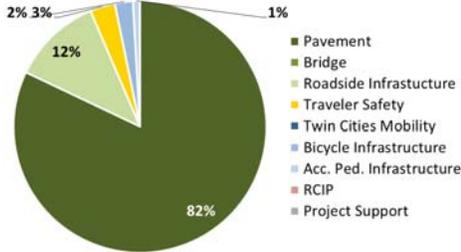
South of County Road 11 to 1 mile south of Hinckley
State Project No. 5880-191



Primary Purpose

Performance-based Need: Pavement condition

Investment Category



Project Description

Project length is 11.6 miles. This project consists of a concrete overlay on I-35 from the Snake River at Pine City to south of Highway 48 at Hinckley.

Recent Changes and Updates

Construction is underway with substantial completion in October 2016.

Project History

This segment of I-35 was constructed with concrete in 1961. The concrete underwent major repairs and in 2006, a bituminous overlay was placed over the concrete.

The bituminous overlay is failing at the joints resulting in a rough ride and a safety hazard. Current maintenance costs for patching exceed \$500,000 per year.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2015

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 24.6	\$ 27.0
Other Construction Elements:	\$ 2.6	\$ 2.6
Engineering:	\$ 5.3	\$ 5.3
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 32.5	\$ 34.9

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The base cost estimate was prepared in March of 2015 and includes costs for concrete pavement resurfacing. The project was let in January of 2016. The current estimate is based on the bid amount.

Project Risks

This project has been let and is under construction with completion scheduled for late October 2016. Remaining risks include construction changes and weather.

Schedule

Environmental Approval Date: 12/22/2015
 Municipal Consent Approval Date: Not required
 Geometric Layout Approval Date: Not required
 Construction Limits Established Date: 08/13/2015
 Original Letting Date: 01/29/2016
 Current Letting Date: 01/29/2016
 Construction Season: 2016
 Estimated Substantial Completion: Fall 2016



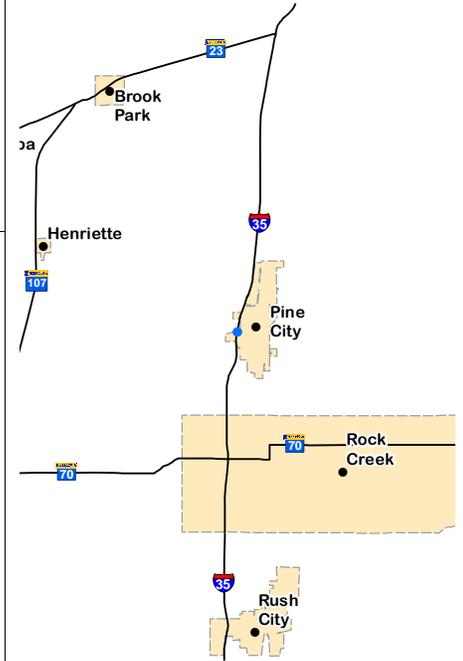
Minnesota Department of Transportation
 District 1
 1123 Mesaba Ave
 (218) 725-2700

District Engineer: Duane Hill
Project Manager: Roberta Dwyer

Revised Date: 12/15/2016

PROJECT SUMMARY

I-35
North of Hwy 7 at Snake River
Bridge 58803, &, 58804
State Project No. 5880-189



Primary Purpose

Performance based need: Bridge condition.

Investment Category

*This project was designed and scoped before the current highway investment plan MnSHIP was developed, which breaks projects into investment categories.

Project Description

Replace bridges on both north and south bound lanes over the Snake River at Pine City.

Recent Changes and Updates

Project may be linked to work on S.P. 5880-194, an unbonded concrete overlay from the river to the south Pine County line.

This is a new Project and will enter the 2017-2020 STIP in fiscal year 2020.

Project History

Bridges were constructed in 1960 and are structurally deficient and scour critical.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 7/1/16

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 8.4	\$ 8.4
Other Construction Elements:	\$ 0.6	\$ 0.6
Engineering:	\$ 1.6	\$ 1.6
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 10.6	\$ 10.6

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The base and current cost estimate were prepared in February of 2016 and includes costs for replacing two bridges.

Project Risks

Wetlands, mussels in Snake River, stormwater management, traffic management.

Schedule

Environmental Approval Date: Pending
Municipal Consent Approval Date: Not Needed
Geometric Layout Approval Date: Pending
Construction Limits Established Date: Pending
Original Letting Date: 1/1/19
Current Letting Date: 11/22/19
Construction Season: WINTER 2020 - FALL 2021
Estimated Substantial Completion: FALL 2021



Minnesota Department of Transportation
District 1
1123 Mesaba Ave
(218) 725-2700

District Engineer: Duane Hill
Project Manager: Roberta Dwyer

Revised Date: 12/15/2016

PROJECT SUMMARY

I-535

On the I-535 Blatnik Bridge over the St. Louis River between Duluth, MN and Superior, WI.

Bridge 9030

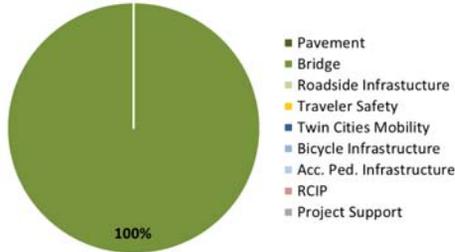
State Project No. 6981-9030L



Primary Purpose

Performance-based Need: Bridge condition.

Investment Category



Project Description

The Blatnik Bridge on I-535 between Duluth, MN and Superior, WI will have some of its steel structural members repainted along with minor concrete repairs to the superstructure.

Recent Changes and Updates

This bridge rehabilitation project is scheduled for construction years 2019 and 2020.

The project was moved to FY 2020 for Wisconsin DOT funding/programming purposes.

Project History

The Blatnik Bridge was originally built in 1961, and previous bridge work included: major renovation and remodeling work such as widening of the main truss in 1993, painting, concrete barrier replacement, joint replacements and lighting in 2012.

The need for the project is driven by a deteriorating paint system, which if left unchecked would expose the steel bridge to accelerated corrosion. The bridge is fracture critical. This project will paint areas that were not painted in the 2012 project.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2015

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 8.6	\$ 9.1
Other Construction Elements:	\$ 0.3	\$ 0.3
Engineering:	\$ 1.7	\$ 1.7
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 10.6	\$ 11.1

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The base cost estimate was prepared in April of 2015 prior to scoping. The estimate included costs for bridge painting. The current estimate was prepared in February 2016 after scoping was complete. 50% of the project cost will be paid for by WisDOT. The current estimate includes both the Wisconsin and Minnesota project cost.

Project Risks

Project will require cost sharing with the state of Wisconsin and their funding may not be available till 2020 or later.

The Bridge Management Plan being developed will result in a change to Scope or Schedule of this project.

Schedule

Environmental Approval Date: Need Unknown
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: Not Needed
 Construction Limits Established Date: Not Needed
 Original Letting Date: 01/01/2019
 Current Letting Date: 12/20/2019
 Construction Season: 2020
 Estimated Substantial Completion: Fall of 2020



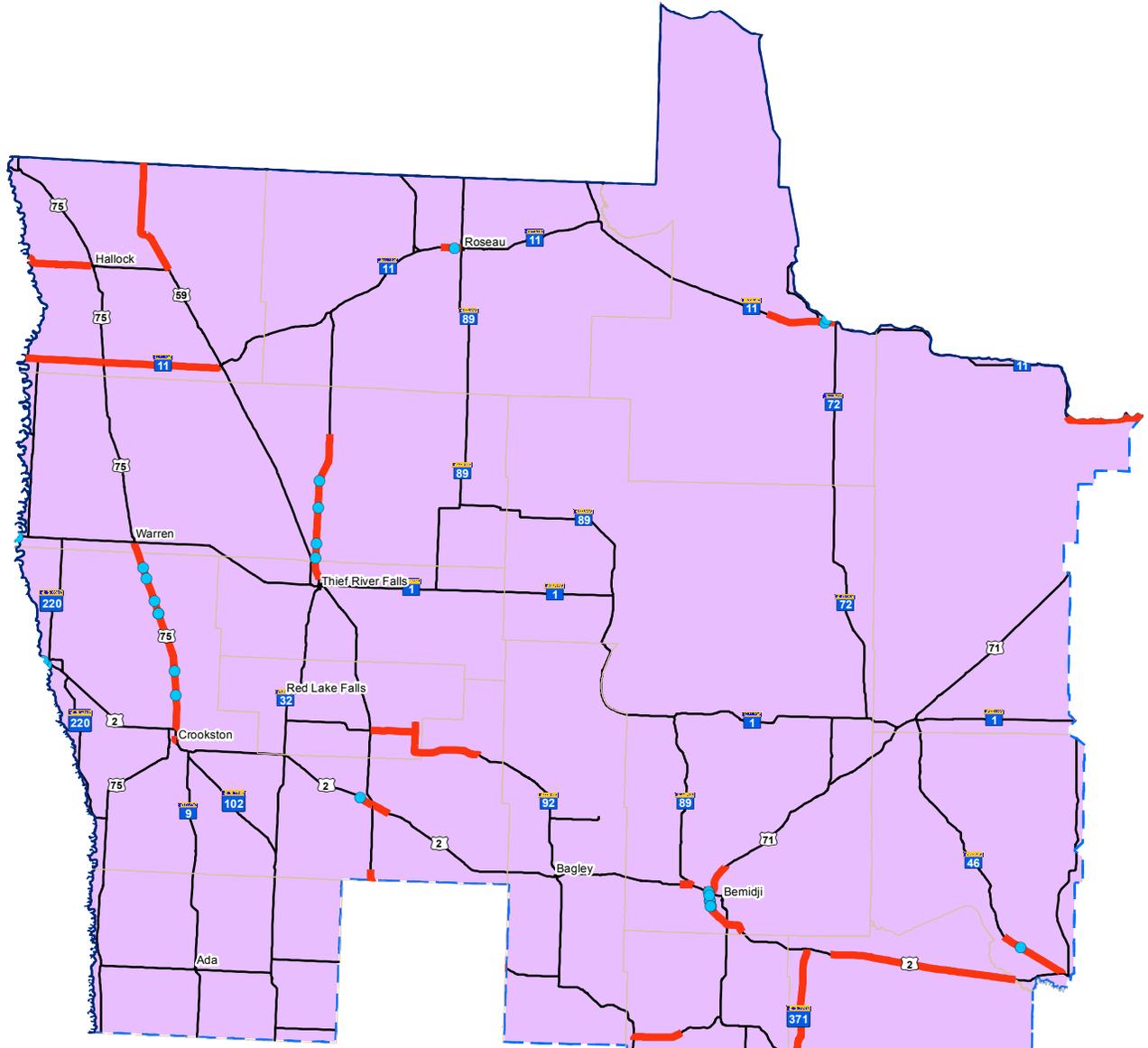
Minnesota Department of Transportation
 District 1
 1123 Mesaba Ave
 (218) 725-2700

District Engineer: Duane Hill
Project Manager: Brian Larson

Revised Date: 12/15/2016

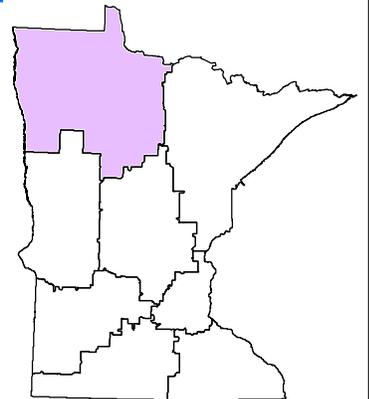


Major Highway Projects 2016 D2-BEMIDJI



Major Highway Projects

- Bridge Projects
- ▬ Roadway Projects
- ▬ State Boundary
- ▬ County Line
- ▬ Construction District



District Project Summary

District 2

Route	State Project #	Project Location	Page
Hwy 1	4509-05	Over the Red River in Oslo	B 2
Hwy 2	6018-02	Kennedy Bridge over the Red River in East Grand Forks	B 3
Hwy 2	6002-72	Slope protection in Crookston	B 4
Hwy 2	0406-59	Intersection of Hwy 2 & Hwy 89 west of Bemidji	B 5
Hwy 2	1102-62	From Cass Lake to Ball Club	B 6
Hwy 2	0406-60	Bemidji Bypass	B 7
Hwy 2	6004-24	In Erskine	B 8
Hwy 2B	6015-07	Over the Red River in East Grand Forks	B 9
Hwy 11	3604-73M	West of Loman to the junction of TH 71 at Pelland	B 10
Hwy 11	3501-14	From the Red River to the west end of Karlstad	B 11
Hwy 11	6802-27	From CSAH 15 to Roseau	B 12
Hwy 11	3901-41	Over 7 miles west of Baudette on Hwy 11 to Baudette	B 13
Hwy 32	4503-14	North of Thief River Falls to the north of Middle River	B 14
Hwy 46	3109-41M	From Hwy 2 to Itasca Hwy 39	B 15
Hwy 59	3505-19	From Hwy 175 to the Canadian border	B 16
Hwy 71	2906-18	From south of Hwy 200 to southern limits of Lake George	B 17
Hwy 71	0410-50	From Hwy 197 to 5 miles North of Bemidji	B 18
Hwy 72	3905-09	In Baudette over the Rainy River	B 19
Hwy 75	6011-24	From north of Hwy 2 to south of Hwy 1 in Warren	B 20
Hwy 75	6011-29	From Hwy 2 to Polk Hwy 19	B 21
Hwy 92 & Hwy 222	6305-18	From Hwy 59 to Trail	B 22
Hwy 175	3515-16	North Dakota Border to Hallock	B 23
Hwy 200	1106-15M	From Walker to Hwy 84	B 24
Hwy 371	1120-55	From Walker to Cass Lake	B 25

PROJECT SUMMARY

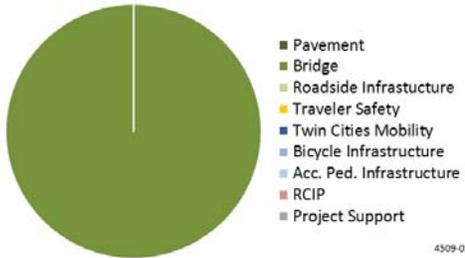
Hwy 1
Over the Red River in Oslo
Bridge 9100
State Project No. 4509-05



Primary Purpose

Performance-based Need: Bridge Condition

Investment Category



4509-05

Project Description

The project consists of improving the bridge over the Red River between Minnesota and North Dakota in Oslo.

Recent Changes and Updates

The project is at risk of delay. The historical significance of the structure restricts the State's ability to implement the improvements needed to meet the regions transportation needs. MnDOT and NDDOT are developing a plan of action to address this challenge.

Project History

The existing fracture critical bridge structure was built in 1959 and has exhausted its useful life. It is functionally obsolete. An engineering study to evaluate rehabilitation options, instead of replacement, was completed in late 2012. The project was let as a bridge rehabilitation on October 24, 2014. Due to the high cost of the bids received for the rehabilitation, all bids were rejected. The project has been delayed until 2018 and other rehabilitation or potential replacement options will be evaluated.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2010

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 8.1	\$ 7.5
Other Construction Elements:	\$ 9.4	\$ 10.0
Engineering:	\$ 1.3	\$ 2.5
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 18.7	\$ 20.0

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The current estimate is an updated estimate for bridge replacement in 2018. The other construction represents North Dakota's cost share for construction and engineering. There is an increase in engineering costs due to the development of a second set of construction plans.

Project Risks

The bridge is of historical significance and this may delay construction. MnDOT and NDDOT share ownership of the bridge and are both involved in decision-making/approval process, which could result in unforeseen delays or changes. There may be problems coordinating project scheduling with emergency services and schools. Local agencies are concerned that the bridge hydraulics are affecting flooding in the area.

Schedule

Environmental Approval Date: Pending Approval
Municipal Consent Approval Date: Pending Approval
Geometric Layout Approval Date: Pending Approval
Construction Limits Established Date: Pending Approval
Original Letting Date: 11/16/2012
Current Letting Date: 11/17/2017
Construction Season: 2018
Estimated Substantial Completion: Nov. 2019



Minnesota Department of Transportation
District 2
3920 Highway 2 West
(218) 755-6500

District Engineer: Craig Collison
Project Manager: Jeremy Hadrava

Revised Date: 12/15/2016

PROJECT SUMMARY

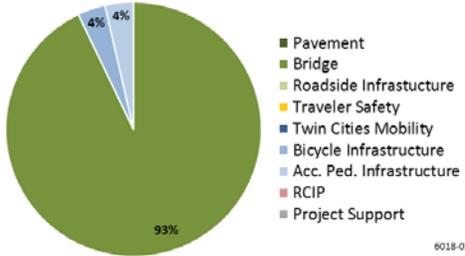
Hwy 2
Kennedy Bridge over the Red River in East Grand Forks
Bridge 9090
State Project No. 6018-02



Primary Purpose

Performance-based Need: Bridge Condition

Investment Category



Project Description

The project consists of rehabilitating the bridge over the Red River in East Grand Forks. The project includes replacing the bridge deck, repairing the tilted pier and painting.

Recent Changes and Updates

Construction plans have been submitted to NDDOT for approval. Project is on schedule for a November letting.

Project History

A planning study was completed in early 2014, and determined that a bridge rehabilitation project is a feasible alternative to reconstruction. The rehabilitation will include replacing a severely tilted bridge pier, installing a new concrete bridge deck, adding new vehicle railings, painting and constructing a pedestrian/bicycle path on the north side of the deck.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2012

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 25.0	\$ 9.0
Other Construction Elements:	\$ 0.0	\$ 10.9
Engineering:	\$ 2.5	\$ 1.9
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 27.5	\$ 21.8

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The current cost estimate is based on a bridge rehabilitation. Other Construction Elements represents North Dakota's cost share. Cost savings can be attributed to the improvement alternative selected.

Project Risks

Because several agencies are involved in the decision-making/approval process, there may be significant delays or changes or other construction assumptions. There may be problems coordinating project scheduling with emergency services and schools.

Schedule

Environmental Approval Date: 9/9/2016
Municipal Consent Approval Date: Not Needed
Geometric Layout Approval Date: Not Needed
Construction Limits Established Date: Not Needed
Original Letting Date: 11/17/2017
Current Letting Date: 11/18/2016
Construction Season: 2017 & 2018
Estimated Substantial Completion: Nov. 2018



Minnesota Department of Transportation
District 2
3920 Highway 2 West
(218) 755-6500

District Engineer: Craig Collison
Project Manager: Joe Mckinnon

Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 2
Slope protection in Crookston
State Project No. 6002-72

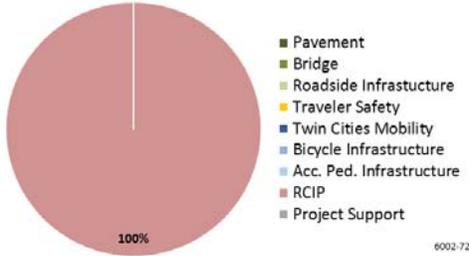
Substantially Complete



Primary Purpose

Regional & Community Improvement Project

Investment Category



Project Description

The project consists of providing slope protection along Hwy 2 adjacent to the Red Lake River in Crookston.

Recent Changes and Updates

Project is substantially completed.

Project History

Shear walls were installed and the slope was graded. The project experienced delays because of asbestos found during the project. The project was awarded as a design-build contract. The estimated substantial completion date was modified to reflect the contract documents. In 2012, the inslope adjacent to Hwy 2 in an urban portion of Crookston showed signs of possible slope failure. An alternative to protect the inslope with reinforcement would be installed. Slope monitoring devices have been installed.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2013

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 5.6	\$ 6.4
Other Construction Elements:	\$ 0.0	\$ 4.1
Engineering:	\$ 1.4	\$ 0.9
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 7.0	\$ 11.4

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The Baseline Estimate was developed based on 2013 historical cost data and uses an inflation factor applied to the midpoint of the construction season. The Current Estimate is based on actual costs. The significant cost increase can be attributed to asbestos materials unearthed during construction.

Project Risks

No remaining risks.

Schedule

Environmental Approval Date: 10/04/2013
Municipal Consent Approval Date: Not Needed
Geometric Layout Approval Date: Not Needed
Construction Limits Established Date: 10/04/2013
Original Letting Date: 03/26/2014
Current Letting Date: 03/26/2014
Construction Season: 2014
Estimated Substantial Completion: Sept, 2015



Minnesota Department of Transportation
District 2
3920 Highway 2 West
(218) 755-6500

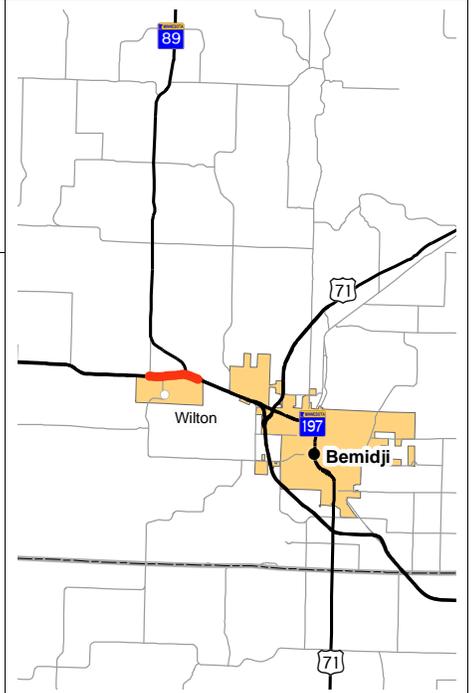
District Engineer: Craig Collison
Project Manager: Paul Konickson

Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 2
Intersection of Hwy 2 & Hwy 89 west of Bemidji
Bridge 04030
State Project No. 0406-59

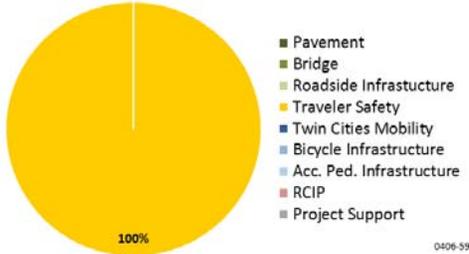
Substantially Complete



Primary Purpose

Performance-based Need: District Safety Plan

Investment Category



Project Description

The project consists of constructing a partial interchange at the intersection of Hwy 2 and Hwy 89.

Recent Changes and Updates

Project was substantially complete in October 2015.

Project History

The project was let and awarded to KGM Contractors Inc.

This intersection has the third highest injury related crash rate in the state. An engineering study was completed in December 2012 and recommended a partial interchange to eliminate the most recurring intersecting vehicle movements.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2011

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 5.0	\$ 4.9
Other Construction Elements:	\$ 0.0	\$ 0.4
Engineering:	\$ 0.6	\$ 1.4
Right of Way:	\$ 0.6	\$ 0.8
Total:	\$ 6.1	\$ 7.5

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The Current Estimate is based on actual costs. Additional engineering costs were needed due to the added complexity of the project.

Project Risks

No remaining risks

Schedule

Environmental Approval Date: 1/27/2015
Municipal Consent Approval Date: Not Needed
Geometric Layout Approval Date: 7/16/2014
Construction Limits Established Date: 07/16/2014
Original Letting Date: 04/25/2015
Current Letting Date: 04/24/2015
Construction Season: 2015
Estimated Substantial Completion: Oct. 2015



Minnesota Department of Transportation
District 2
3920 Highway 2 West
(218) 755-6500

District Engineer: Craig Collison
Project Manager: Brandy Pemberton

Revised Date: 12/15/2016

PROJECT SUMMARY

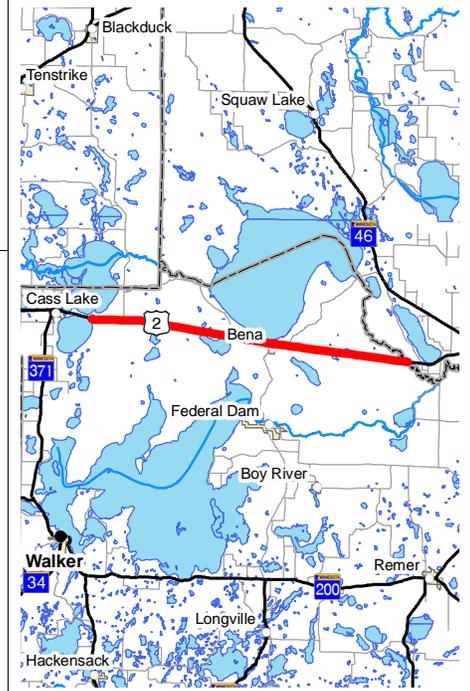
Hwy 2

From Cass Lake to Ball Club

State Project No. 1102-62

www.dot.state.mn.us/d2/projects/hwy2passinglanes/index.html

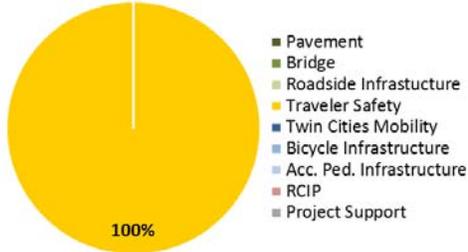
Substantially Complete



Primary Purpose

Performance-based Need: Interregional Corridor Mobility

Investment Category



Project Description

The project consists of constructing three 4-lane passing sections, 3 left turn lanes, 9 right turn lanes and 1 bypass lane.

Recent Changes and Updates

Project was substantially complete in October 2015.

Project History

The project was let and awarded to Gladen Construction Inc.

Hwy 2 from Cass Lake to Deer River is the last remaining segment of Hwy 2 from North Dakota to Wisconsin without passing lanes or a 4-lane cross section. Long traffic queues are common. This results in a lower level of service and encourages aggressive driving habits. The proposed project would improve overall traffic operations by breaking up traffic platoons and would reduce delays caused by inadequate passing opportunities.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2014

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 10.5	\$ 13.3
Other Construction Elements:	\$ 0.4	\$ 1.1
Engineering:	\$ 2.1	\$ 1.5
Right of Way:	\$ 0.1	\$ 0.0
Total:	\$ 13.1	\$ 15.9

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The Current Estimate is based on actual costs. The increased cost is due to deep muck excavation, construction staging and additional grading work identified during construction.

Project Risks

No remaining risks

Schedule

Environmental Approval Date: 06/30/2014
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: 4/29/2014
 Construction Limits Established Date: 04/29/2014
 Original Letting Date: 07/25/2014
 Current Letting Date: 08/22/2014
 Construction Season: 2014/2015
 Estimated Substantial Completion: Oct. 2015



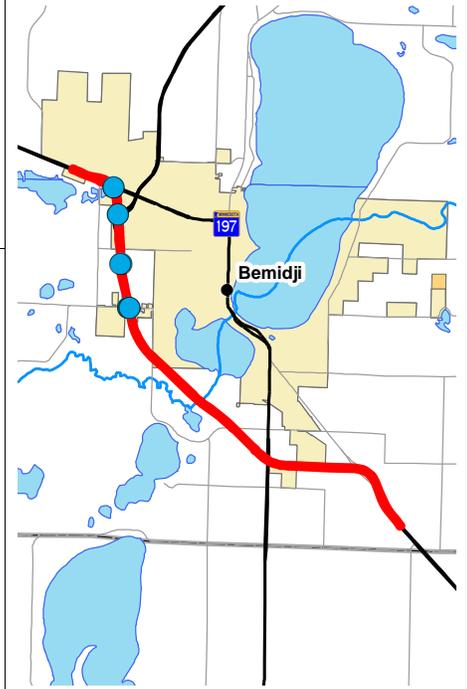
Minnesota Department of Transportation
 District 2
 3920 Highway 2 West
 (218) 755-6500

District Engineer: Craig Collison
Project Manager: Deb Bauer

Revised Date: 12/15/2016

PROJECT SUMMARY

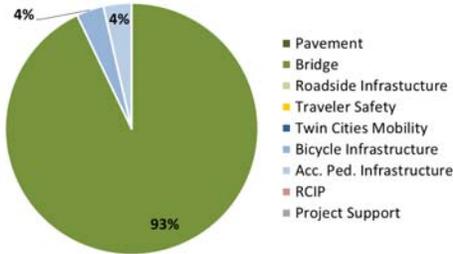
Hwy 2
 Bemidji Bypass
 Bridge 04005, -, 04010, 04019
 State Project No. 0406-60



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

The project consists of resurfacing 21.5 miles of pavement, rehabilitating 6 bridges and increasing bridge clearance along the corridor.

Recent Changes and Updates

Project is currently being advertised for bid.

Project History

MnDOT expanded the scope of a bridge rehabilitation project along the Bemidji bypass to include resurfacing 21.5 miles of pavement adjacent to the bridges. Combining these improvements provides cost savings along with constraining traffic impacts to one construction season. Accelerating the pavement resurfacing allows for a thinner, less costly resurfacing. Six of the bridges are over 30 years old and require rehabilitation to extend their useful lives. The bridge does not meet clearance requirements of a super-haul truck corridor. The pavement surface on US 2 is projected to be in poor condition by 2018. This project will extend the useful life of all six bridges, provide additional clearance under Bridge 04019 so it can be designated a super-haul truck corridor, and extend the useful service life of the pavement.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2013

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 3.3	\$ 6.8
Other Construction Elements:	\$ 0.2	\$ 0.3
Engineering:	\$ 0.6	\$ 1.5
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 4.1	\$ 8.6

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The estimate was developed based on 2014 historical cost data and uses an inflation factor based on the midpoint of the construction season. Inflation factor and scope changes identified in the project history were updated in 2015 resulting in a significant increase in the cost estimate.

Project Risks

The project is lengthy and may cause local traffic problems.

Schedule

Environmental Approval Date: Pending Approval
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: Not Needed
 Construction Limits Established Date: Pending Approval
 Original Letting Date: 8/26/2016
 Current Letting Date: 9/23/2016
 Construction Season: 2017
 Estimated Substantial Completion: Nov, 2017



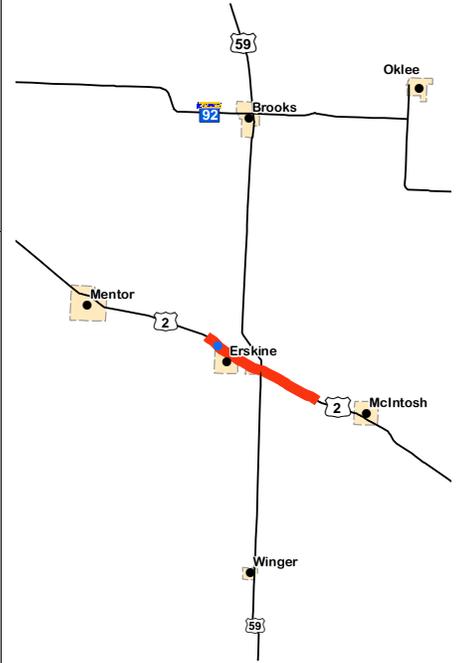
Minnesota Department of Transportation
 District 2
 3920 Highway 2 West
 (218) 755-6500

District Engineer: Craig Collison
Project Manager: Deb Bauer

Revised Date: 12/15/2016

PROJECT SUMMARY

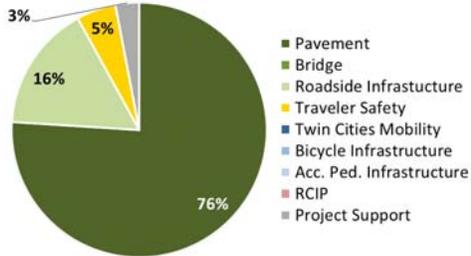
Hwy 2
In Erskine
Bridge 91262
State Project No. 6004-24



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

The project consists of replacing 5.5 miles of concrete pavement, replacing curb and gutter, replacing or repairing failing drainage infrastructure, constructing an auxiliary lane at the railroad crossing and rehabilitating a box culvert bridge.

Recent Changes and Updates

This is a new project added to the 2017-2020 STIP. The project was scoped and a baseline estimate was prepared.

Project History

The pavement surface ride quality on US 2 and US 59 ramps are projected to drop below acceptable levels by 2018. Culverts and storm sewers along the corridor are over 40 years old. There have been several rear-end crashes at the railroad crossing because trucks are required to stop before crossing the tracks on a high speed multilane highway. The bridge at the west end of the project has separated joints causing voids underneath the pavement.

The purpose of the project is to extend the useful service life of the pavement and to provide a smooth riding surface for the traveling public. It would also improve drainage, upgrade the existing roadside infrastructure (storm sewer system) and improve safety at the railroad crossing.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2017

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 8.4	\$ 8.4
Other Construction Elements:	\$ 0.4	\$ 0.4
Engineering:	\$ 1.7	\$ 1.7
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 10.5	\$ 10.5

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The Baseline Estimate was developed based on 2015 historical cost data and uses an inflation factor tied to the midpoint of the construction season.

Project Risks

The rehabilitation of Bridges 60006 & 60007 (Hwy 59 Overpass) are programmed in 2021, but could be advanced to gain efficiencies and economies of scale. The weigh station and rest area adjacent to project will be impacted by construction staging. Local traffic and businesses may be disrupted during construction.

Schedule

Environmental Approval Date: Pending Approval
Municipal Consent Approval Date: Not Needed
Geometric Layout Approval Date: Not Needed
Construction Limits Established Date: Pending Approval
Original Letting Date: 2019
Current Letting Date: 2019
Construction Season: 2019
Estimated Substantial Completion: Nov, 2019



Minnesota Department of Transportation
District 2
3920 Highway 2 West
(218) 755-6500

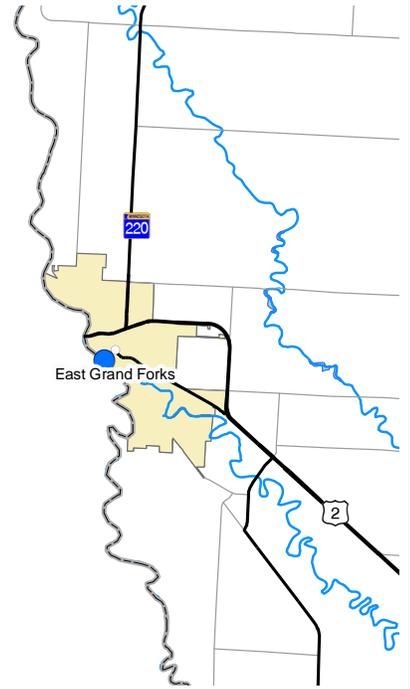
District Engineer: Craig Collison
Project Manager: Joseph McKinnon

Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 2B
Over the Red River in East Grand Forks
Bridge 4700
State Project No. 6015-07

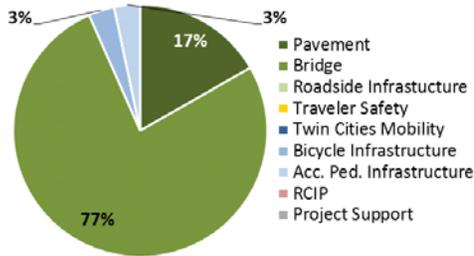
Substantially Complete



Primary Purpose

Performance-based Need: Bridge Condition

Investment Category



Project Description

The project consists of rehabilitating the bridge over the Red River on Hwy 2B (Demers Avenue) in East Grand Forks.

Recent Changes and Updates

Project is substantially complete.

Project History

Bridge rehabilitation was determined to be the appropriate improvement to extend the service life of the bridge. The project was accelerated to 2015 to avoid traffic impacts with the Kennedy Bridge Rehabilitation. Revising the scope to rehabilitation from reconstruction resulted in a significant reduction in cost.

North Dakota DOT is the lead agency for this project. In 2013 and early 2014, the engineering consultant on the project performed structural reviews of the bridge to determine the in-place condition and remaining bridge life. This review indicated a bridge rehabilitation will extend the life of the bridge for a significant time period. This bridge was constructed in 1929 and remodeled in 1986. The structure is historically significant.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2015

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 14.7	\$ 2.2
Other Construction Elements:	\$ 17.8	\$ 2.8
Engineering:	\$ 3.1	\$ 0.6
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 35.6	\$ 5.6

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The Current Estimate is based on actual costs. Other Construction Elements represents North Dakota's cost share. The significant cost reduction is attributed to scope revisions discussed in the Project History.

Project Risks

No remaining risks.

Schedule

Environmental Approval Date: 5/22/2015
Municipal Consent Approval Date: Not Needed
Geometric Layout Approval Date: Not Needed
Construction Limits Established Date: Not Needed
Original Letting Date: 11/15/2017
Current Letting Date: 5/22/2015
Construction Season: 2015
Estimated Substantial Completion: Nov. 2015



Minnesota Department of Transportation
District 2
3920 Highway 2 West
(218) 755-6500

District Engineer: Craig Collison
Project Manager: Joe Mckinnon

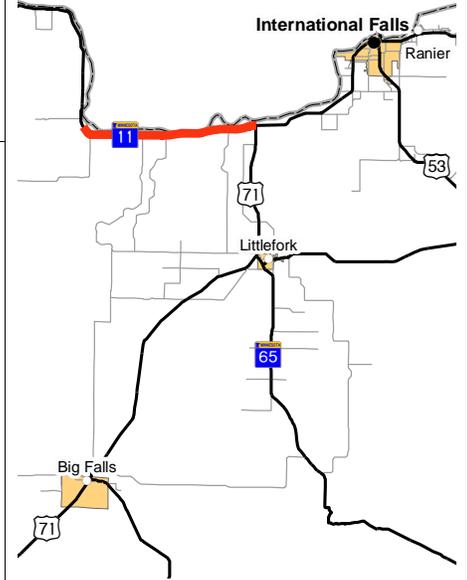
Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 11

West of Loman to the junction of TH 71 at Pelland
State Project No. 3604-73M

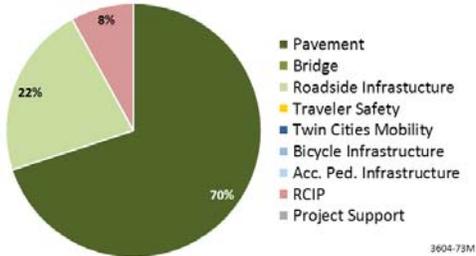
Substantially Complete



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

The project consists of resurfacing 11 miles of highway, widening shoulders and replacing failing culverts.

Recent Changes and Updates

Project is substantially complete in October 2014.

Project History

The project was in an isolated location and strict erosion control standards were necessary to protect the Rainy River. The design includes driveway and entrance revisions based on feedback from property owners. The design incorporates several small stormwater ponds for runoff control.

This project provides improved surface ride, wider shoulders, 10-ton pavement strength and additional shoulder width.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2011

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 6.5	\$ 7.0
Other Construction Elements:	\$ 0.3	\$ 0.0
Engineering:	\$ 1.1	\$ 1.1
Right of Way:	\$ 0.3	\$ 0.1
Total:	\$ 8.2	\$ 8.2

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The Current Estimate is based on actual costs. The increase in construction cost was caused by the isolated location of the project and the strict erosion control standards to protect the Rainy River.

Project Risks

An isolated slope failure is being monitored and will be corrected with a separate project. No risks remain.

Schedule

Environmental Approval Date: 07/26/2013
Municipal Consent Approval Date: Not Needed
Geometric Layout Approval Date: Not Needed
Construction Limits Established Date: 06/01/2013
Original Letting Date: 06/06/2014
Current Letting Date: 04/25/2014
Construction Season: 2014
Estimated Substantial Completion: Oct. 2014



Minnesota Department of Transportation
District 2
3920 Highway 2 West
(218) 755-6500

District Engineer: Craig Collison
Project Manager: Todd Vonasek

Revised Date: 12/15/2016

PROJECT SUMMARY

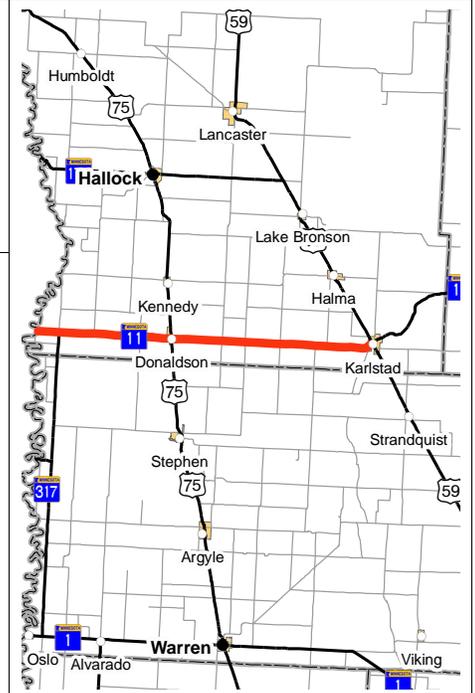
Hwy 11

From the Red River to the west end of Karlstad

Bridge 8513, &, 8514

State Project No. 3501-14

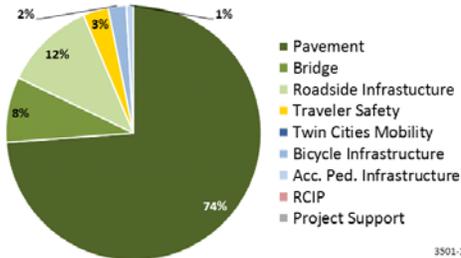
Substantially Complete



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

The project consists of resurfacing 21 miles of highway and replacing 2 box culvert bridges.

Recent Changes and Updates

Project is substantially complete.

Project History

This segment is in need of pavement improvement.

Since the initial project scoping, two miles of additional inslope slides occurred. The estimate increased to show the additional inslope repair and associated box culvert work. Additional slides are not anticipated because the deep ditch is only along a portion of Hwy 11.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2008

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 5.8	\$ 5.9
Other Construction Elements:	\$ 0.4	\$ 0.3
Engineering:	\$ 1.2	\$ 0.9
Right of Way:	\$ 0.1	\$ 0.0
Total:	\$ 7.5	\$ 7.1

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The Current Estimate is based on actual costs.

Project Risks

Contractor is contesting the earthwork quantities. This could result in a \$75K-\$100K supplemental agreement.

Schedule

Environmental Approval Date: 12/09/2013
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: Not Needed
 Construction Limits Established Date: 12/09/2013
 Original Letting Date: 04/27/2012
 Current Letting Date: 04/25/2014
 Construction Season: 2014
 Estimated Substantial Completion: Nov. 2014



Minnesota Department of Transportation
 District 2
 3920 Highway 2 West
 (218) 755-6500

District Engineer: Craig Collison
Project Manager: Shawn Groven

Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 11
 From CSAH 15 to Roseau
 Bridge 68X06
 State Project No. 6802-27

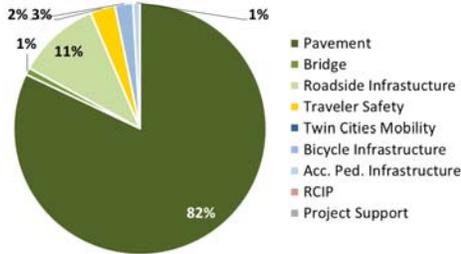
Substantially Complete



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

The project includes reclaiming 3 miles of highway, extending the center turn lane, widening shoulders, replacing 1 signal, replacing culverts, replacing 4 pedestrian ramps and replacing signage.

Recent Changes and Updates

Project was substantially complete in October, 2015

Project History

The project has been let and awarded to Minn-Dak Asphalt Inc. Additional sidewalk and storm sewer upgrades were needed to improve accessibility and drainage within Roseau.

The pavement conditions on Hwy 11 are projected to be unacceptable by 2017. The corridor lacks adequate shoulders and turning lanes. The traffic signal at TH 310 is not ADA compliant. Centerline culvert crossings are in poor condition. Sidewalks in Roseau do not comply with ADA standards.

The project provides a smooth riding surface, improves traffic mobility and safety, extends the useful life of roadside infrastructure and improves the accessibility of sidewalks.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2012

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 2.6	\$ 4.3
Other Construction Elements:	\$ 0.2	\$ 0.0
Engineering:	\$ 0.5	\$ 0.5
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 3.3	\$ 4.8

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The Baseline Estimate was developed based on 2012 historical cost data and uses an inflation factor applied to the midpoint of the construction season. The Current Estimate is based on actual costs. The significant cost increase can be attributed to scope changes identified in the project history.

Project Risks

No remaining risks.

Schedule

Environmental Approval Date: 1/27/2014
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: Not Needed
 Construction Limits Established Date: 1/27/2014
 Original Letting Date: 1/30/2015
 Current Letting Date: 1/30/2015
 Construction Season: 2015
 Estimated Substantial Completion: Nov, 2015



Minnesota Department of Transportation
 District 2
 3920 Highway 2 West
 (218) 755-6500

District Engineer: Craig Collison
Project Manager: Shawn Groven

Revised Date: 12/15/2016

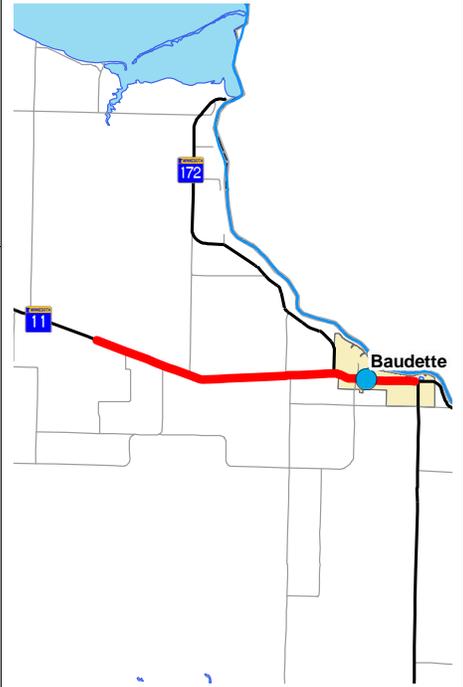
PROJECT SUMMARY

Hwy 11

Over 7 miles west of Baudette on Hwy 11 to Baudette

Bridge 39007

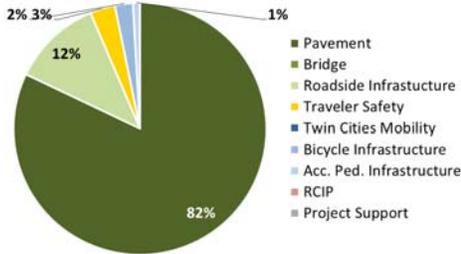
State Project No. 3901-41



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

The project consists of resurfacing 9.9 miles of pavement, reconstructing 1.3 miles of urban section pavement, rehabilitating 1 urban bridge, replacing 4 culverts, constructing 5 bypass/turn lanes and upgrading 15 blocks of sidewalk.

Recent Changes and Updates

Project was let and awarded to Davidson Construction Inc. and is currently under construction.

Project History

MnDOT expanded the project to include reconstruction of 1.3 miles of urban highway in Baudette to better accommodate ADA improvements and local utility needs, and to include the rehabilitation of a bridge over the Baudette River. Expanding the scope provides efficiencies and constrains traffic impacts to one construction season.

Pavement quality is projected to drop below acceptable levels by 2019. The existing sidewalks and pedestrian ramps are not ADA compliant. Bridge 39007 has a deteriorated deck. The storm sewer is undersized and does not adequately drain the city. Culverts are in poor condition, and intersections lack turning lanes.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2011

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 3.2	\$ 8.9
Other Construction Elements:	\$ 0.1	\$ 0.3
Engineering:	\$ 0.5	\$ 1.2
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 3.8	\$ 10.4

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The Baseline Estimate was developed based on 2013 historical cost data and uses an inflation factor applied to the midpoint of the construction season. The significant cost increase can be attributed to scope changes identified in the project history. The Current Estimate is the construction letting amount.

Project Risks

Local traffic and businesses may be disrupted by the length, complexity and urban setting of the project

Schedule

Environmental Approval Date: 11/25/2015
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: Not Needed
 Construction Limits Established Date: 1/13/2015
 Original Letting Date: 3/27/2015
 Current Letting Date: 4/22/2016
 Construction Season: 2016
 Estimated Substantial Completion: Nov, 2016



Minnesota Department of Transportation
 District 2
 3920 Highway 2 West
 (218) 755-6500

District Engineer: Craig Collison
Project Manager: Joe Mckinnon

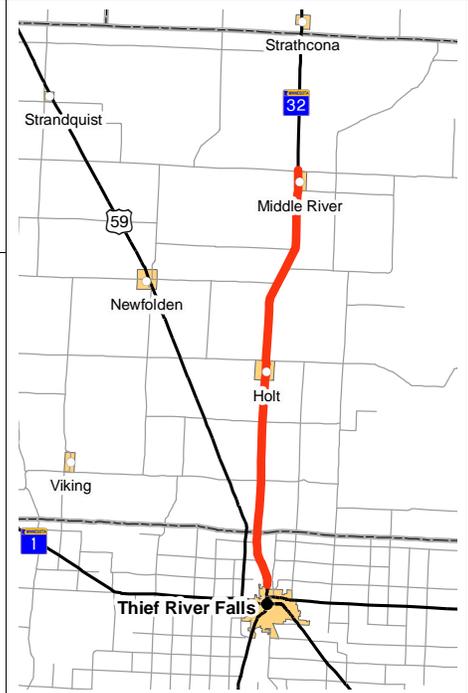
Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 32

North of Thief River Falls to the north of Middle River
 Bridge 8581, 8582, 8583, &, 6085
 State Project No. 4503-14

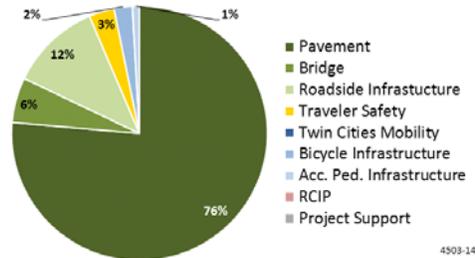
Substantially Complete



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

The project consists of rehabilitating 22 miles of highway, full width shoulder paving, replacing 4 box culvert bridges and replacing failing culverts. The project also includes reconstructing the urban section of highway in Middle River, replacing the storm sewer system and replacing sidewalks.

Recent Changes and Updates

Project is substantially complete.

Project History

Increased costs are due to modifications of the scope to include an urban reconstruct in Middle River to replace the failing storm sewer system, two additional box culvert replacements and paving full width shoulders. The project will be a cooperative project with the City of Middle River.

The current estimate was updated based on bituminous costs, two additional box culverts and centerline and entrance culverts. The project improves ride and surface condition, pavement strength and pavement life.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2011

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 8.8	\$ 10.7
Other Construction Elements:	\$ 0.5	\$ 0.8
Engineering:	\$ 1.6	\$ 1.0
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 10.9	\$ 12.5

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The Baseline Estimate was developed based on 2011 historical cost data and uses an inflation factor applied to the midpoint of the construction season. The Current Estimate is based on actual costs. The significant cost increase can be attributed to scope changes identified in the project history.

Project Risks

No remaining risks

Schedule

Environmental Approval Date: 06/13/2014
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: Not Needed
 Construction Limits Established Date: 07/22/2014
 Original Letting Date: 01/23/2015
 Current Letting Date: 03/27/2015
 Construction Season: 2015
 Estimated Substantial Completion: Nov. 2015



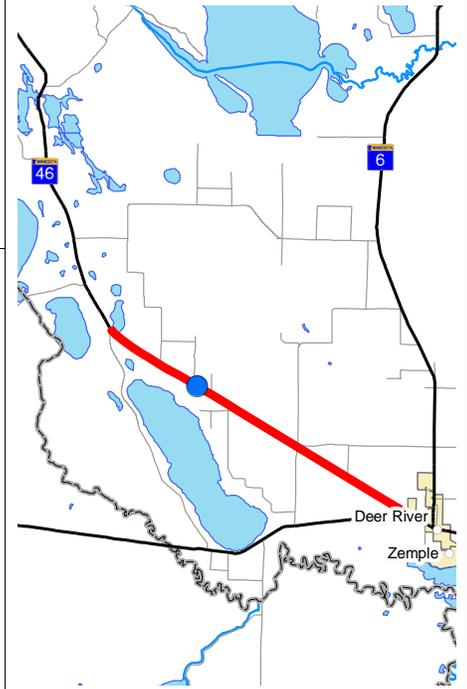
Minnesota Department of Transportation
 District 2
 3920 Highway 2 West
 (218) 755-6500

District Engineer: Craig Collison
Project Manager: Ray Gust

Revised Date: 12/15/2016

PROJECT SUMMARY

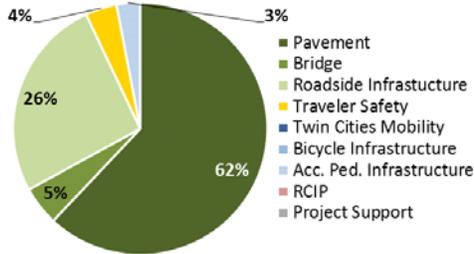
Hwy 46
 From Hwy 2 to Itasca Hwy 39
 Bridge 5623
 State Project No. 3109-41M



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

The project consists of reclaiming 3.5 miles and resurfacing 6.5 miles of highway, replacing 1 box culvert bridge, replacing 53 failing culverts, constructing 4 turn lanes, constructing a truck pull off area and replacing signs.

Recent Changes and Updates

The pavement improvement was upgraded to a reclaim on the northern section of the highway due to worse than expected pavement conditions.

Project History

A new entrance and right turning lane was constructed on Hwy 46 by the White Oak Casino.

The pavement surface ride quality has fallen below an acceptable level. Centerline culvert crossings and entrance culverts may fail. Bridge 5623 lacks adequate recovery area for run-off-the-road vehicles. Key intersections lack turning lanes. Narrow shoulders do not have adequate space for trucks to check loads. Signs do not meet reflectivity requirements. The proposed project provides a smooth riding surface, a structurally sound bridge, new culverts and increased safety.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2015

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 4.2	\$ 4.8
Other Construction Elements:	\$ 0.2	\$ 0.2
Engineering:	\$ 0.8	\$ 0.9
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 5.2	\$ 5.9

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The Baseline Estimate was developed based on 2013 historical cost data and uses an inflation factor to the midpoint of construction. The inflation factor and pavement fix changes were updated in 2016 resulting in an increase in the cost estimate.

Project Risks

Culverts are in extremely poor condition and may fail prior to construction letting. The project's location within the Chippewa National Forest and the Leech Lake Band of Ojibwe Reservation may lengthen schedule or increase costs. Proposed development at the White Oak Casino may effect shoulder access and project costs.

Schedule

Environmental Approval Date: Pending Approval
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: Not Needed
 Construction Limits Established Date: Pending Approval
 Original Letting Date: 3/23/2018
 Current Letting Date: 12/15/2017
 Construction Season: 2018
 Estimated Substantial Completion: Nov. 2018



Minnesota Department of Transportation
 District 2
 3920 Highway 2 West
 (218) 755-6500

District Engineer: Craig Collison
Project Manager: Rachel Miller

Revised Date: 12/15/2016

PROJECT SUMMARY

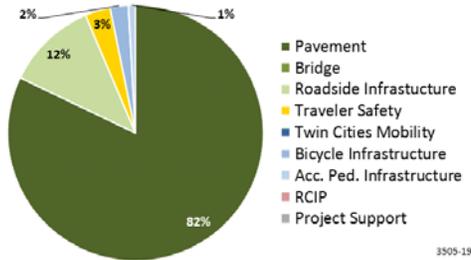
Hwy 59
 From Hwy 175 to the Canadian border
 Bridge 35X10
 State Project No. 3505-19



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

The project resurfaces 18 miles of highway, replaces failing culverts and a storm sewer in Lancaster.

Recent Changes and Updates

Only a few minor elements are left on the project before its full completion

Project History

This segment of roadway was in need of pavement improvement. The project's purpose is to improve the ride and surface condition, increase pavement strength and extend the life of the pavement.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2012

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 4.3	\$ 3.4
Other Construction Elements:	\$ 0.3	\$ 0.2
Engineering:	\$ 0.8	\$ 0.8
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 5.4	\$ 4.4

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The Baseline Estimate was developed based on 2012 historical cost data and uses an inflation factor tied to the midpoint of the construction season. The Current Estimate reflects bid savings that can be attributed to better than expected bituminous prices.

Project Risks

No remaining risks

Schedule

Environmental Approval Date: 09/10/2015
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: Not Needed
 Construction Limits Established Date: Not Needed
 Original Letting Date: 04/22/2016
 Current Letting Date: 02/26/2016
 Construction Season: 2016
 Estimated Substantial Completion: Nov. 2016



Minnesota Department of Transportation
 District 2
 3920 Highway 2 West
 (218) 755-6500

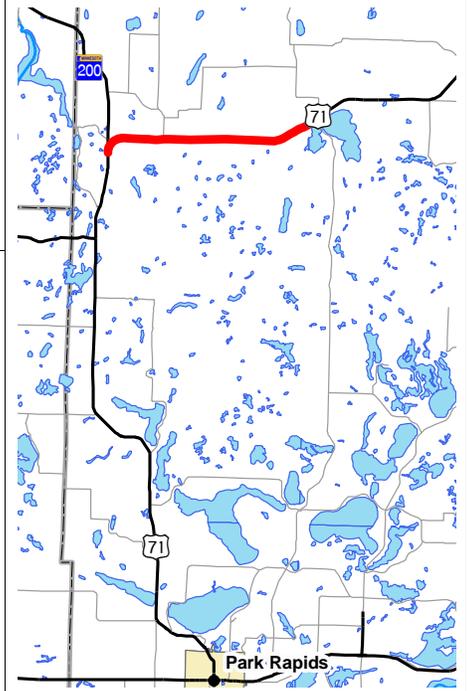
District Engineer: Craig Collison
Project Manager: Ray Gust

Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 71

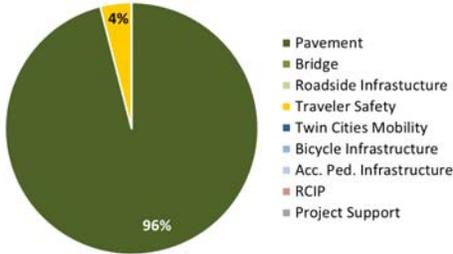
From south of Hwy 200 to southern limits of Lake George
State Project No. 2906-18



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

The project consists of reclaiming 7.5 miles of pavement, constructing 4 new right turn lanes, widening 1 bypass lane and lighting at the Hwy 200 intersection.

Recent Changes and Updates

Project was advanced to 2017 construction season due to a significant drop in pavement conditions.

Project History

The pavement surface on Hwy 71 is predicted to be unacceptable by 2017. Key intersections along the corridor lack turning lanes, the intersection of Hwy 71 and Hwy 200 lacks lighting and the bypass lane at Hwy 200 is too narrow. The purpose of this project is to extend the useful service life of the pavement, provide a smooth riding surface, improve traveler safety and reduce crashes along the corridor.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2016

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 4.2	\$ 3.0
Other Construction Elements:	\$ 0.2	\$ 0.1
Engineering:	\$ 0.8	\$ 0.7
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 5.2	\$ 3.8

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The estimate was developed based on 2014 historical cost data and uses an inflation factor tied to the midpoint of the construction season. Inflation factor and construction year was updated in 2016 resulting in a reduction in the cost estimate.

Project Risks

The project is lengthy and there may be local and recreational traffic impacts. Road conditions may degrade and increase project duration or cost.

Schedule

Environmental Approval Date: Pending Approval
Municipal Consent Approval Date: Not Needed
Geometric Layout Approval Date: Not Needed
Construction Limits Established Date: Not Needed
Original Letting Date: 2/23/2018
Current Letting Date: 2/24/2017
Construction Season: 2017
Estimated Substantial Completion: Nov, 2017



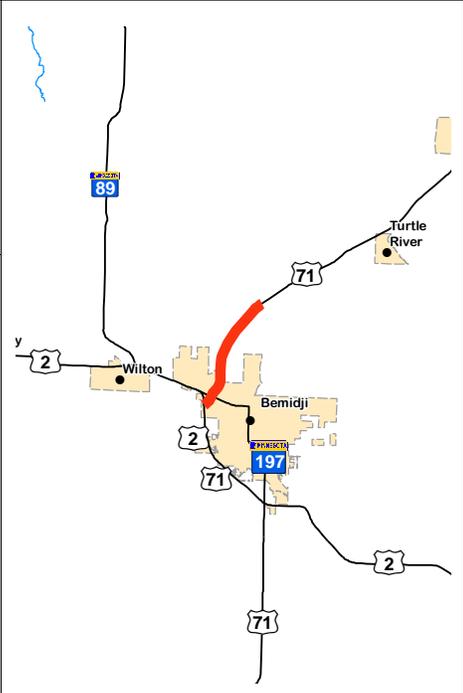
Minnesota Department of Transportation
District 2
3920 Highway 2 West
(218) 755-6500

District Engineer: Craig Collison
Project Manager: Joseph McKinnon

Revised Date: 12/15/2016

PROJECT SUMMARY

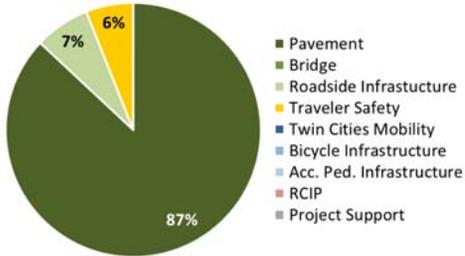
Hwy 71
 From Hwy 197 to 5 miles North of Bemidji
 State Project No. 0410-50



Primary Purpose

Performance-based need: Pavement Condition

Investment Category



Project Description

The project consists of 10 miles of bituminous reclamation, painting 2 signal systems, construction of 4 turn lanes, and replacement of 11 median drains.

Recent Changes and Updates

This is a new project added to the 2017-2020 STIP. The project was scoped and a baseline estimate was prepared.

Project History

The pavement on Hwy 71 is predicted to drop below acceptable levels by 2022. The project will extend the useful service life of the pavement and provide a smooth riding surface.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2016

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 4.6	\$ 4.6
Other Construction Elements:	\$ 0.2	\$ 0.2
Engineering:	\$ 0.9	\$ 0.9
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 5.7	\$ 5.7

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The Baseline Estimate was developed based on 2015 historical cost data and uses an inflation factor to the midpoint of the year of construction.

Project Risks

High volume corridor. Critical connection to hospital and for commuters north of Bemidji. Beltrami County is proposing to reclaim an alternative route (CSAH 15) in the same construction year.

Schedule

Environmental Approval Date: Pending Approval
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: Not Needed
 Construction Limits Established Date: Pending Approval
 Original Letting Date: 4/26/19
 Current Letting Date: 4/26/19
 Construction Season: 2019
 Estimated Substantial Completion: Nov, 2019

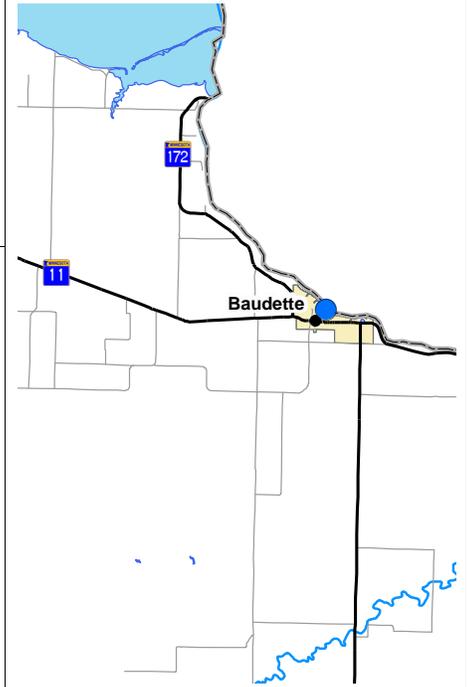


Minnesota Department of Transportation
 District 2

District Engineer: Craig Collison
Project Manager: Brandy Pemberton
Revised Date: 12/15/2016

PROJECT SUMMARY

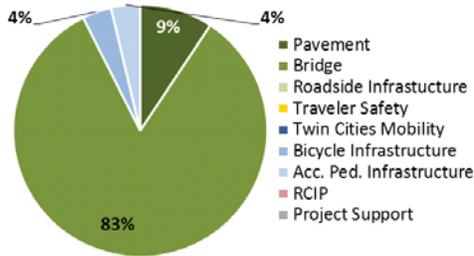
Hwy 72
 In Baudette over the Rainy River
 Bridge 9412
 State Project No. 3905-09



Primary Purpose

Performance-based Need: Bridge Condition

Investment Category



Project Description

The project replaces a bridge over the Rainy River in Baudette.

Recent Changes and Updates

The project is on schedule and will use a design-bid-build procurement method. The preliminary design package is nearing completion.

Project History

The project is in the preliminary design phase. The District will be investigating different procurement methods for contracting final design and construction.

In early 2014, MnDOT and the Ontario Ministry of Transportation discussed the preliminary design of a bridge replacement. In July of 2014, an engineering consultant was selected to complete the preliminary design. The major tasks include completing the Environmental Assessment, reviewing and recommending bridge alternatives and reviewing and recommending a bridge alignment. The preliminary design will be completed in January 2016.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2014

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 15.5	\$ 15.5
Other Construction Elements:	\$ 20.0	\$ 20.0
Engineering:	\$ 4.5	\$ 4.5
Right of Way:	\$ 0.3	\$ 0.3
Total:	\$ 40.3	\$ 40.3

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The Baseline Estimate was developed based on 2012 historical cost data and uses a standard inflation factor. Other Construction Elements include Canada's cost share.

Project Risks

Complexities in administering a project with Canada. New alignment alternatives are limited and have potential cultural and/or major utility impacts. Coordination with Customs and Border Protection for alignment alternatives may affect the existing port building and border security during construction.

Schedule

Environmental Approval Date: Pending Approval
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: Pending Approval
 Construction Limits Established Date: Pending Approval
 Original Letting Date: 11/17/2017
 Current Letting Date: 2/2018
 Construction Season: 2018 & 2019
 Estimated Substantial Completion: Nov. 2019



Minnesota Department of Transportation
 District 2
 3920 Highway 2 West
 (218) 755-6500

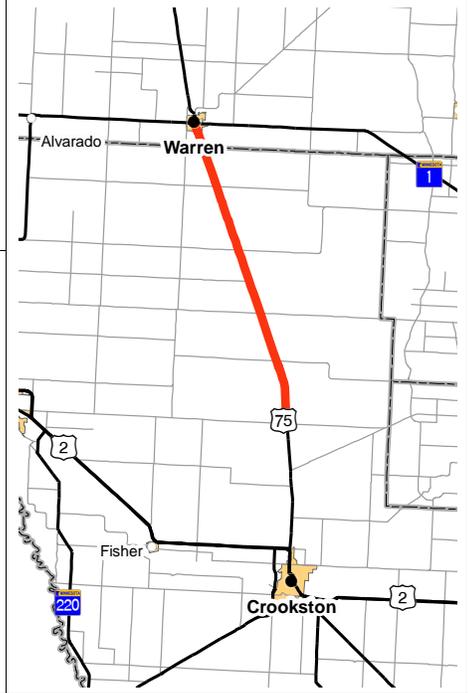
District Engineer: Craig Collison
Project Manager: Joe Mckinnon

Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 75

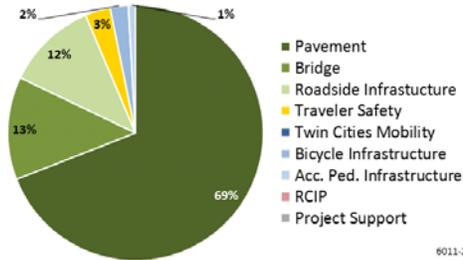
From north of Hwy 2 to south of Hwy 1 in Warren
 Bridge 3958, 8393, 8394, 3959, 4463, &, 6631
 State Project No. 6011-24



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



6011-24

Project Description

The project consists of resurfacing 20 miles of highway, shoulder paving south of Warren, replacing 6 box culvert bridges and replacing 13 failing culverts.

Recent Changes and Updates

Project was let and awarded to Knife River Materials and is currently under construction.

Project History

Shoulder paving south of Warren was added to the project to address bicycle needs identified by the community.

Replacement of the bridge and four culverts were removed from the project and added to SP 6011-29. This project was delayed from 2014 to 2016 to free up funding for changes to other projects in the STIP. The delay resulted in a slight cost increase.

This segment is in need of pavement improvement. The project's purpose is to improve the ride and surface condition, pavement strength and extended pavement life.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2010

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 5.7	\$ 4.6
Other Construction Elements:	\$ 0.4	\$ 0.4
Engineering:	\$ 1.2	\$ 1.2
Right of Way:	\$ 0.1	\$ 0.0
Total:	\$ 7.4	\$ 6.2

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The Baseline Estimate was developed based on 2013 historical cost data and uses a standard inflation factor. The Current Estimate is the construction letting amount. Bid savings can be attributed to better than expected bituminous prices.

Project Risks

The project may cause delays and problems for local and agricultural traffic.

Schedule

Environmental Approval Date: 2/9/2015
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: Not Needed
 Construction Limits Established Date: 2/9/2015
 Original Letting Date: 12/20/2013
 Current Letting Date: 12/18/2015
 Construction Season: 2016
 Estimated Substantial Completion: Nov. 2016



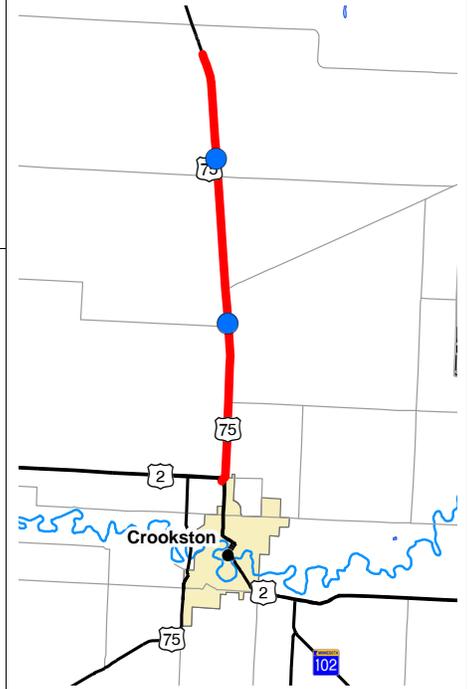
Minnesota Department of Transportation
 District 2
 3920 Highway 2 West
 (218) 755-6500

District Engineer: Craig Collison
Project Manager: Rachel Miller

Revised Date: 12/15/2016

PROJECT SUMMARY

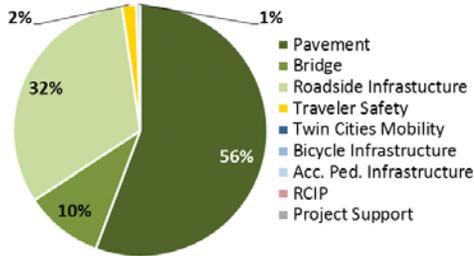
Hwy 75
 From Hwy 2 to Polk Hwy 19
 Bridge 8391, 8392
 State Project No. 6011-29



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

The project consists of resurfacing 12 miles of highway, replacing 2 box culvert bridges, replacing 29 failing culverts and constructing a new storm sewer system and pedestrian ramps in Euclid

Recent Changes and Updates

The project is in the preliminary design phase and is on schedule for construction in 2018.

Project History

Pavement quality will not be acceptable by 2018. The bridges are over 80 years old and lack an adequate recovery area for run-off-the-road vehicles. Concrete box culvert crossings and entrance culverts may fail. Curb & gutter in Euclid do not drain properly. Sidewalks in Euclid do not meet the ADA standards.

The project's purpose is to improve the ride and surface condition, provide structurally sound bridge crossings, to perpetuate existing drainage infrastructure, to improve the accessibility of Euclid's sidewalks and to improve drainage in Euclid.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2015

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 5.6	\$ 5.5
Other Construction Elements:	\$ 0.3	\$ 0.3
Engineering:	\$ 1.0	\$ 1.0
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 6.9	\$ 6.8

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The Baseline Estimate was developed based on 2013 historical cost data and uses an inflation factor to the midpoint of construction. The inflation factor was updated in 2016 resulting in a minor reduction in the cost estimate.

Project Risks

The project is lengthy and there may be local traffic and agricultural traffic impacts. Road conditions may degrade and increase project duration or cost.

Schedule

Environmental Approval Date: Pending Approval
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: Not Needed
 Construction Limits Established Date: Pending Approval
 Original Letting Date: 02/23/2018
 Current Letting Date: 10/27/2017
 Construction Season: 2018
 Estimated Substantial Completion: Nov. 2018



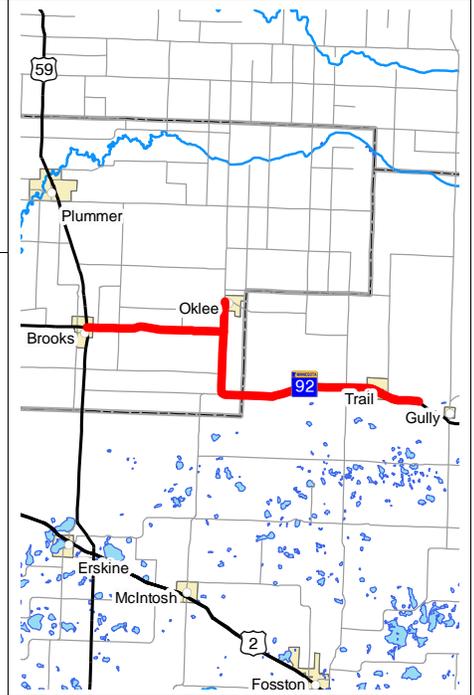
Minnesota Department of Transportation
 District 2
 3920 Highway 2 West
 (218) 755-6500

District Engineer: Craig Collison
Project Manager: Ray Gust

Revised Date: 12/15/2016

PROJECT SUMMARY

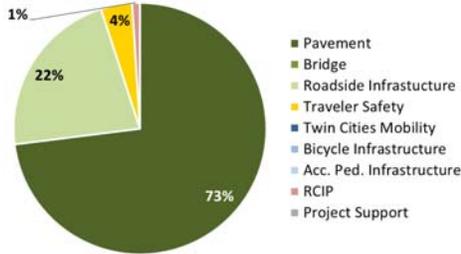
Hwy 92 & Hwy 222
 From Hwy 59 to Trail
 State Project No. 6305-18



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

The project consists of resurfacing 21 miles of highway and replacing 3 culvert crossings.

Recent Changes and Updates

The project is in the preliminary design phase and is on schedule for construction in 2018.

Project History

The pavement ride quality on Hwys 92 and 222 has fallen below an acceptable level. There are centerline culverts and entrance culverts that are in poor condition and may fail. The purpose of the project is to extend the useful service life of the pavement, provide a smooth riding surface and perpetuate existing drainage infrastructure.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2016

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 4.4	\$ 4.1
Other Construction Elements:	\$ 0.2	\$ 0.2
Engineering:	\$ 0.8	\$ 0.9
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 5.4	\$ 5.2

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The Baseline Estimate was developed based on 2014 historical cost data and uses an inflation factor tied to the midpoint of the construction season. The inflation factor was updated in 2016 resulting in a minor reduction in the cost estimate.

Project Risks

If the duration of the project causes traffic problems, the pace of the project may have to be changed.

Schedule

Environmental Approval Date: Pending Approval
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: Not Needed
 Construction Limits Established Date: Pending Approval
 Original Letting Date: 12/15/2017
 Current Letting Date: 12/15/2017
 Construction Season: 2018
 Estimated Substantial Completion: Nov, 2018



Minnesota Department of Transportation
 District 2
 3920 Highway 2 West
 (218) 755-6500

District Engineer: Craig Collison
Project Manager: Brandy Pemberton

Revised Date: 12/15/2016

PROJECT SUMMARY

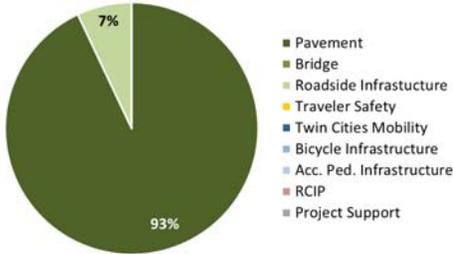
Hwy 175
North Dakota Border to Hallock
State Project No. 3515-16



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

The project consists of resurfacing 9.7 miles of pavement, reconstructing overflow areas with grade raise restrictions and replacing 7 entrance culverts.

Recent Changes and Updates

The project was advanced to the 2017 construction season, which allowed the pavement fix to be downscoped to a thin overlay resulting in a significant cost decrease.

Project History

The pavement of Hwy 175 is predicted to be unacceptable by 2020. Shoulders do not drain properly and are deteriorating rapidly. Existing culverts are in poor condition. The project will extend the useful service life of the pavement, provide a smooth riding surface, improve drainage of the subgrade, strengthen shoulders and upgrade failing roadside infrastructure.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2015

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 4.6	\$ 2.9
Other Construction Elements:	\$ 0.2	\$ 0.1
Engineering:	\$ 0.8	\$ 0.6
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 5.6	\$ 3.7

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The estimate was developed based on 2014 historical cost data and uses an inflation factor to the midpoint of the year of construction. Inflation factor, construction year and pavement fix changes were updated in 2016 resulting in a reduction in the cost estimate.

Project Risks

The project is lengthy and there may be local and agricultural traffic impacts. The highway is prone to seasonal flooding in the spring.

Schedule

Environmental Approval Date: 06/24/2016
Municipal Consent Approval Date: Not Needed
Geometric Layout Approval Date: Not Needed
Construction Limits Established Date: 06/24/2016
Original Letting Date: 4/27/2018
Current Letting Date: 11/18/2016
Construction Season: 2017
Estimated Substantial Completion: Nov, 2017



Minnesota Department of Transportation
District 2
3920 Highway 2 West
(218) 755-6500

District Engineer: Craig Collison
Project Manager: Ray Gust

Revised Date: 12/15/2016

PROJECT SUMMARY

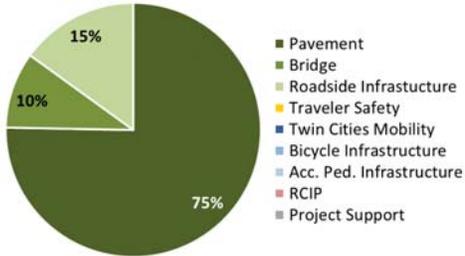
Hwy 200
 From Walker to Hwy 84
 Bridge 8136, &, 8533
 State Project No. 1106-15M



Primary Purpose

Performance-based need: Pavement Condition

Investment Category



Project Description

The project consists of resurfacing 15.5 miles of pavement, reconstructing 2 box culvert bridges, replacing 13 culverts, paving shoulders and constructing 14 turning lanes.

Recent Changes and Updates

The project received additional Highway Safety Improvement Program funds to pave the shoulders an additional 2 feet.

The purpose of the project is to extend the useful service life of the pavement, to provide a smooth riding surface for the traveling public, to provide a structurally sound and reliable bridge crossing on TH 200 over Bag Creek and Cedar Creek, to perpetuate existing roadside infrastructure, to improve traffic safety and reduces crashes along the corridor and to improve the accommodations for bicycles and pedestrians.

Project History

The pavement surface ride quality on TH 200 is predicted to be below acceptable levels by 2020. The box culvert bridges are over 70 years old and need to be reconstructed. The centerline culvert crossings and entrance culverts are in poor condition and at risk of failure. The crash rate and crash severity along the corridor are both higher than average. The shoulders are below standards and lack accommodations for bicycles. Key

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2016

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 7.1	\$ 6.5
Other Construction Elements:	\$ 0.3	\$ 0.3
Engineering:	\$ 1.3	\$ 1.3
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 8.7	\$ 8.1

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The Baseline Estimate was developed based on 2014 historical cost data and uses an inflation factor tied to the midpoint of the construction season. The inflation factor was updated in 2016 resulting in a reduction in the cost estimate.

Project Risks

The project is lengthy and there may be local and recreational traffic impacts. Road conditions may degrade and increase project duration or cost. The project requires additional coordination with the Leech Lake Band of Ojibwe and Chippewa National Forest.

Schedule

Environmental Approval Date: Pending Approval
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: Not Needed
 Construction Limits Established Date: Not Needed
 Original Letting Date: 10/26/2018
 Current Letting Date: 10/26/2018
 Construction Season: 2019
 Estimated Substantial Completion: Nov, 2019



Minnesota Department of Transportation
 District 2

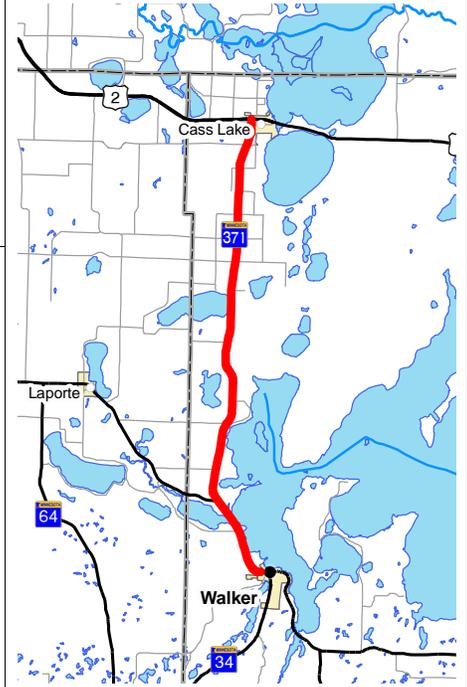
District Engineer: Craig Collison
Project Manager: Joseph McKinnon

Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 371
From Walker to Cass Lake
State Project No. 1120-55

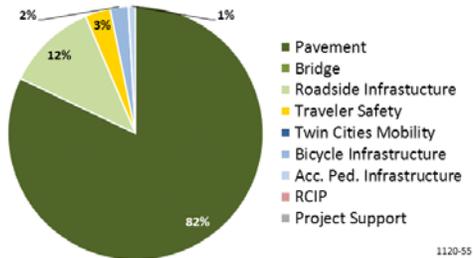
Substantially Complete



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



1120-55

Project Description

The project consists of resurfacing 20 miles of highway, replacing 1 culvert, lining 19 culverts and constructing turning and bypass lanes at key intersections.

Recent Changes and Updates

Project was substantially complete in October 2015.

Project History

The project was let and awarded to Anderson Brothers Construction.

The scope was modified to address shoulder paving and turning lane needs. The ADT is high enough to warrant additional right turn, left turn and bypass lanes. Providing protected turning lanes is proven to increase mobility and reduce crashes.

This segment is in need of pavement improvement. The project improves ride and surface condition, pavement strength and extends pavement life.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2011

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 3.6	\$ 5.6
Other Construction Elements:	\$ 0.0	\$ 0.5
Engineering:	\$ 0.7	\$ 0.4
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 4.3	\$ 6.5

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The Baseline Estimate was developed based on 2011 historical cost data and uses an inflation factor applied to the midpoint of the construction season. The significant cost increase can be attributed to scope changes identified in the project history. The Current Estimate is based on actual costs.

Project Risks

No remaining risks

Schedule

Environmental Approval Date: 2/20/2015
Municipal Consent Approval Date: Not Needed
Geometric Layout Approval Date: Not Needed
Construction Limits Established Date: Not Needed
Original Letting Date: 03/27/2015
Current Letting Date: 4/24/2015
Construction Season: 2015
Estimated Substantial Completion: Oct. 2015



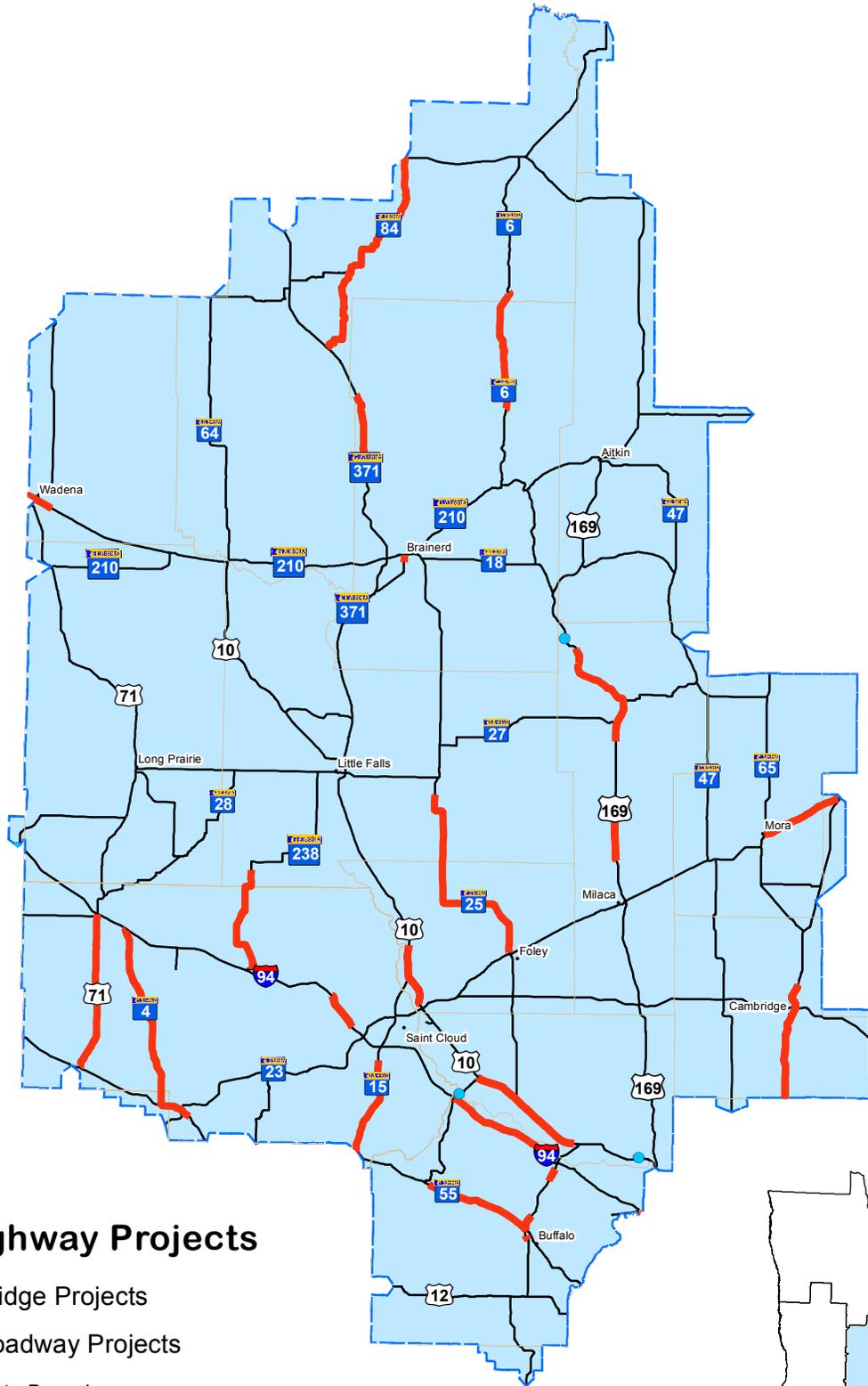
Minnesota Department of Transportation
District 2
3920 Highway 2 West
(218) 755-6500

District Engineer: Craig Collison
Project Manager: Deb Bauer

Revised Date: 12/15/2016



Major Highway Projects 2016 D3-BRAINERD



Major Highway Projects

- Bridge Projects
- ▬ Roadway Projects
- ▬ State Boundary
- ▬ County Line
- ▬ Construction District



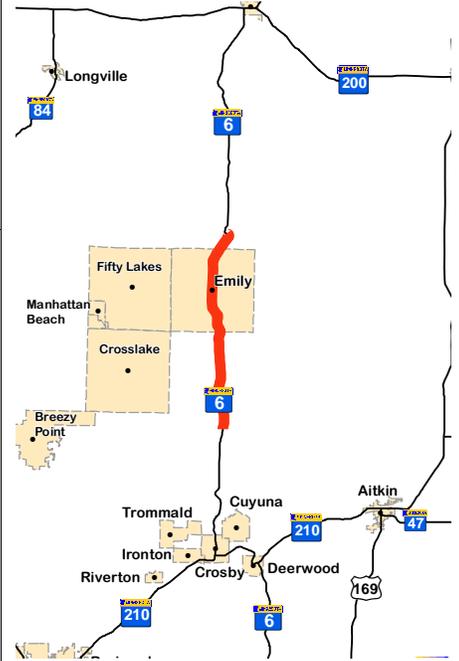
District Project Summary

District 3

Route	State Project #	Project Location	Page
Hwy 6	1802-53	North of Crosby to bridge in Outing	C 2
Hwy 10	7102-127	Bridge over Lake Orono in Elk River	C 3
Hwy 10	0502-103	From Benton CR 4 to railroad crossing near St. Germain St. in St. Cloud; and, on Hwy 15 from Hwy 10 for one mile south	C 4
Hwy 10	8001-40	End of 4-Lane west of Wadena easterly to Oink Joint Rd	C 5
Hwy 10	7102-133	Clear Lake to Big Lake	C 6
Hwy 15	7303-50	Kimball to St. Augusta	C 7
Hwy 23	3302-16	From Hwy 65 in Mora east to Hwy 107	C 8
Hwy 24	7108-23	Bridge over Mississippi River in Clearwater	C 9
Hwy 25	0508-13	From Foley to south of Genola	C 10
Hwy 25	8605-49	From 7th St. to Catlin St. in Buffalo	C 11
Hwy 25	8605-50	Monticello	C 12
Hwy 25	8604-37	Buffalo	C 13
Hwy 55	8606-60	Annandale to Buffalo	C 14
Hwy 55	7301-38	Kandiyohi/Stearns Co line to I-94 and Kandiyohi/Stearns Co line to Paynesville	C 15
Hwy 65	3003-47N/47P	Anoka/Isanti County line to end of 4-lane road north of Cambridge	C 16
Hwy 71	7318-39	Belgrade to Sauk Centre	C 17
Hwy 84	1110-14	Pine River to Hwy 200	C 18
Hwy 95	3006-36	Rum River Bridge in Cambridge	C 19
Hwy 169	4812-86	Mille Lacs County Hwy 11 to Rum River Rest Area	C 20
Hwy 169	4812-84	Mille Lacs County Hwy 19 south of Onamia to Vineland	C 21
Hwy 169	4814-3355A	Bridge over Whitefish Creek near Wigwam Bay at Lake Mille Lacs	C 22
Hwy 238	7323-12	Albany to Upsala	C 23
Hwy 371	1810-92	Nisswa to Jenkins	C 24
Hwy 371B	1814-06	Brainerd	C 25
I-94	7380-239	Stearns County Hwy 75 to bridge over Sauk River	C 26
I-94	2780-66	Rogers to St. Michael	C 27
I-94	8680-173	Monticello to Clearwater	C 28

PROJECT SUMMARY

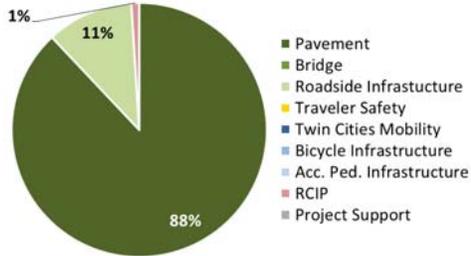
Hwy 6
North of Crosby to bridge in Outing
State Project No. 1802-53



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

This project provides for resurfacing from just north of Olander Road, which is north of Crosby, to a bridge (#11005) in Outing. The project excludes a road segment in Emily.

Recent Changes and Updates

This is a new project.

Project History

The project was selected to address deteriorating pavement.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2016

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 4.8	\$ 4.8
Other Construction Elements:	\$ 0.0	\$ 0.0
Engineering:	\$ 1.0	\$ 1.0
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 5.8	\$ 5.8

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The estimate is based on estimated quantities and average bid prices for similar projects.

Project Risks

No significant risks are anticipated.

Schedule

Environmental Approval Date: Not Started
Municipal Consent Approval Date: Not Required
Geometric Layout Approval Date: Not Required
Construction Limits Established Date: Not Started
Original Letting Date: 1/25/2019
Current Letting Date: 1/25/2019
Construction Season: 2019
Estimated Substantial Completion: Summer 2019



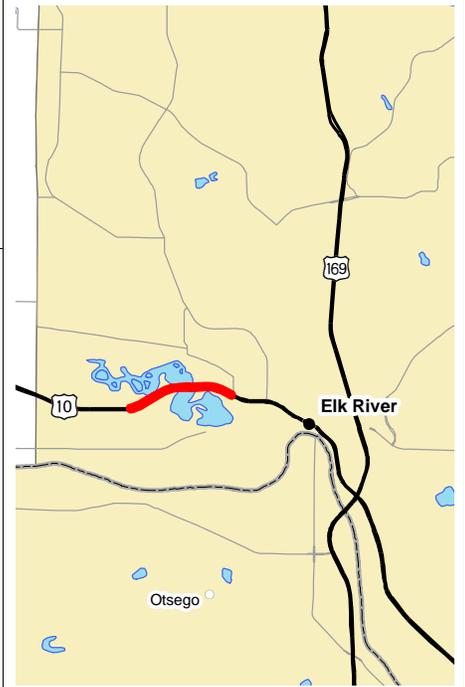
Minnesota Department of Transportation
District 3
7694 Industrial Boulevard
(218) 828-5700

District Engineer: Dan Anderson
Project Manager: Eric Schiller

Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 10
Bridge over Lake Orono in Elk River
Bridge 5955
State Project No. 7102-127



Primary Purpose

Performance-based Need: Bridge Condition

Investment Category

Project Description

This project replaces the bridge on US 10 over the Elk River (Lake Orono) in Elk River. Planned work also includes the reconstruction of the highway from Joplin Street to Xenia Avenue.

Recent Changes and Updates

Minor revisions were made to the project limits.

Project History

This bridge is District 3's last structurally deficient bridge. Addressing these deficiencies will require full replacement of the bridge. The project cost has been adjusted due to bridge approach work and highway realignment associated with the replacement of the bridge. \$10 million in state bonding is provided to this project. The city of Elk River recently was awarded funding for bike trail improvements to be coordinated with this project. The project was advanced from FY 2018 to FY 2017 due to the availability of state bond proceeds.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2014

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 10.0	\$ 13.2
Other Construction Elements:	\$ 0.0	\$ 0.0
Engineering:	\$ 2.0	\$ 2.0
Right of Way:	\$ 0.1	\$ 0.1
Total:	\$ 12.1	\$ 15.1

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The baseline estimate and current estimate values are based on estimated quantities of average bid prices. Additional concrete pavement replacement was added, which is reflected in the current estimate.

Project Risks

If the project disrupts traffic along the travel corridor, the District may have to take steps to improve traffic flow. Timely utility relocations are needed to avoid impacts to the schedule.

Schedule

Environmental Approval Date: Pending
Municipal Consent Approval Date: Not Needed
Geometric Layout Approval Date: 8/03/2015
Construction Limits Established Date: Pending
Original Letting Date: 2/25/2017
Current Letting Date: 5/19/2017
Construction Season: 2017-2018
Estimated Substantial Completion: Fall 2018



Minnesota Department of Transportation
District 3
7694 Industrial Boulevard
(218) 828-5700

District Engineer: Dan Anderson
Project Manager: Claudia Dumont

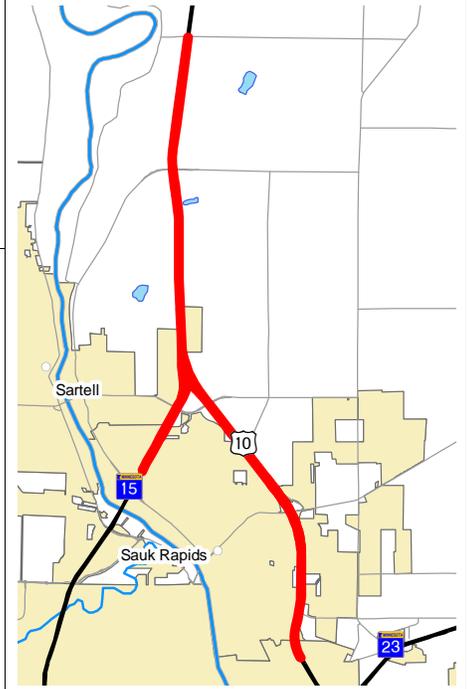
Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 10

From Benton CR 4 to railroad crossing near St. Germain St. in St. Cloud; and, on Hwy 15 from Hwy 10 for one mile south
State Project No. 0502-103

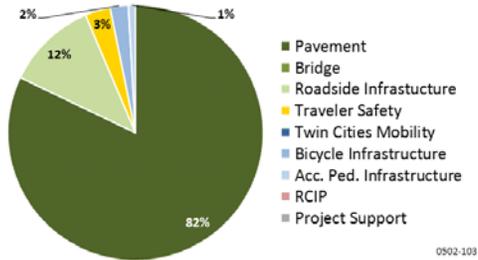
Substantially Complete



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

The project consisted of a concrete overlay on Hwy 10 from Benton CR 4 to just west of the railroad crossing near St. Germain St. in St. Cloud and reconstruction on Hwy 15 from Hwy 10 to 1 mile south.

Recent Changes and Updates

Project construction was completed in July 2015.

Project History

The cost estimate changed due to project complexity, which required more reconstruction, additional signage replacement, and erosion control, and had construction staging issues. The letting date changed due to a delayed Corps of Engineers Permit.

Several concrete pavement rehabilitation projects have been performed on this roadway. The concrete pavement has reached the end of its useful life and must be overlaid. Extra federal funds (under the NHPP program in MAP-21) were used for additional work on the Hwy 15 segment.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2011

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 11.9	\$ 20.1
Other Construction Elements:	\$ 0.0	\$ 0.0
Engineering:	\$ 2.4	\$ 2.8
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 14.3	\$ 22.9

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The baseline estimate is based on estimated quantities and average bid prices. Additional costs in current estimate reflect work added on Highway 15. The current estimate reflects the amount encumbered amount.

Project Risks

There are no remaining risks.

Schedule

Environmental Approval Date: 04/07/2014
Municipal Consent Approval Date: Not Needed
Geometric Layout Approval Date: Not Needed
Construction Limits Established Date: Unknown
Original Letting Date: 01/24/2014
Current Letting Date: 06/06/2014
Construction Season: 2014 & 2015
Estimated Substantial Completion: July 2015



Minnesota Department of Transportation
District 3
7694 Industrial Boulevard
(218) 828-5700

District Engineer: Dan Anderson
Project Manager: Claudia Dumont

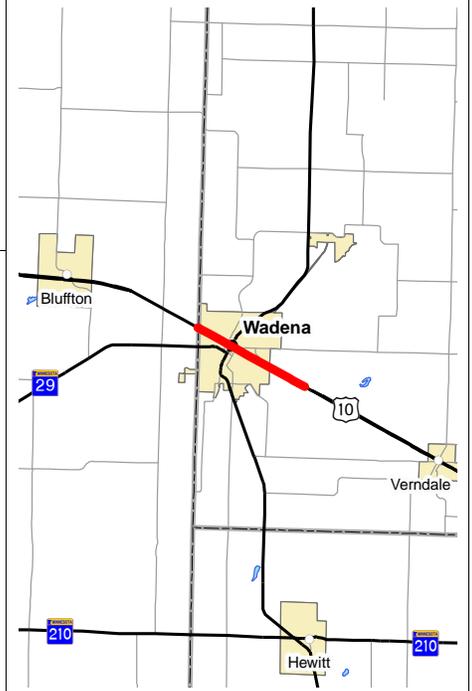
Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 10

End of 4-Lane west of Wadena easterly to Oink Joint Rd

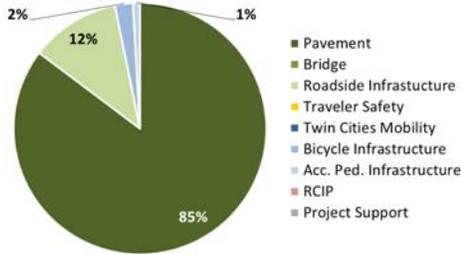
State Project No. 8001-40



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

The project is for resurfacing of the rural segments of Hwy 10 east and west of Wadena and for reconstruction of the urban section from 3rd St NW to 2nd St NE within the city limits of Wadena. Work includes replacement of curb, gutter, sidewalks and railroad signal upgrades.

Recent Changes and Updates

The geometric layout was approved. The project received municipal consent. The environmental document was approved. Road plans are underway, as is the right of way acquisition.

Project History

Several pavement rehabilitation projects have been done on this roadway. The pavement has reached the end of its expected life in the urban area of Wadena and requires full reconstruction. The rural segments require milling and filling.

Funding for this project is provided jointly by District 3 and District 4.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2014

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 9.6	\$ 9.6
Other Construction Elements:	\$ 0.0	\$ 0.0
Engineering:	\$ 1.9	\$ 1.9
Right of Way:	\$ 5.0	\$ 5.0
Total:	\$ 16.5	\$ 16.5

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The baseline estimate is based on estimated quantities and average bid prices. The current estimate is based on bids and design changes that reduced costs. Project includes work in District 4.

Project Risks

The lack of detour routes may complicate the replacement of storm sewer.

Schedule

Environmental Approval Date: 09/08/2016
 Municipal Consent Approval Date: 01/12/2016
 Geometric Layout Approval Date: 11/16/2015
 Construction Limits Established Date: Pending
 Original Letting Date: 12/15/2017
 Current Letting Date: 12/15/2017
 Construction Season: 2018
 Estimated Substantial Completion: Fall 2018



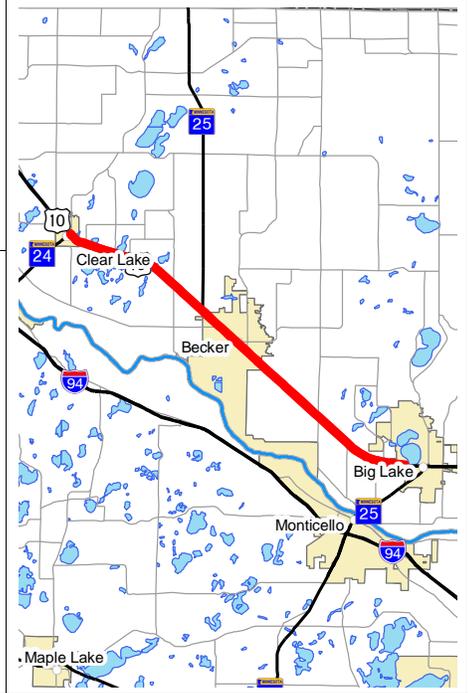
Minnesota Department of Transportation
 District 3
 7694 Industrial Boulevard
 (218) 828-5700

District Engineer: Dan Anderson
Project Manager: Claudia Dumont

Revised Date: 12/15/2016

PROJECT SUMMARY

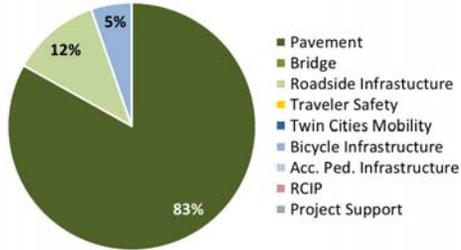
Hwy 10
Clear Lake to Big Lake
State Project No. 7102-133



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

The project performs resurfacing of eastbound lanes of 4-lane expressway between Clear Lake and Big Lake. A reduced conflict intersection (RCI) will be constructed to improve safety at Sherburne Co. Hwy 23 in Becker with the project.

Recent Changes and Updates

District coordinated with City of Becker and Sherburne County to address safety concerns and review design alternatives for the Sherburne Co. Hwy 23 intersection. Proposed improvements involve a revision of the intersection to be reflected in the design plans.

Project History

The project was selected to address deteriorating pavement.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2015

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 5.7	\$ 5.7
Other Construction Elements:	\$ 0.0	\$ 0.0
Engineering:	\$ 1.1	\$ 1.1
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 6.8	\$ 6.8

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The baseline estimate is based on estimated quantities and average bid prices.

Project Risks

There will be a need to determine if additional right of way will be needed at Sherburne Co. Hwy 23 and other planned right-turn lane extensions.

Schedule

Environmental Approval Date: Not Started
Municipal Consent Approval Date: Not Needed
Geometric Layout Approval Date: 08/26/16
Construction Limits Established Date: Not Started
Original Letting Date: 11/16/2018
Current Letting Date: 4/27/2018
Construction Season: 2018
Estimated Substantial Completion: 2018



Minnesota Department of Transportation
District 3
7694 Industrial Boulevard
(218) 828-5700

District Engineer: Dan Anderson
Project Manager: Eric Schiller

Revised Date: 12/15/2016

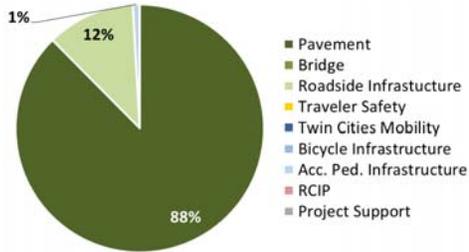
PROJECT SUMMARY

Hwy 15
Kimball to St. Augusta
State Project No. 7303-50

Primary Purpose

Performance-based Need: Pavement condition

Investment Category



Project Description

This project is to repair pavement from the railroad crossing in Kimball to 66th Avenue in St. Augusta.

Recent Changes and Updates

This is a new project.

Project History

The project was selected to address deteriorating pavement.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2016

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 6.2	\$ 6.2
Other Construction Elements:	\$ 0.0	\$ 0.0
Engineering:	\$ 1.2	\$ 1.2
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 7.4	\$ 7.4

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The estimate is based on estimated quantities and average bid prices for similar projects.

Project Risks

No significant risks are anticipated.

Schedule

Environmental Approval Date: Not Started
Municipal Consent Approval Date: Not Needed
Geometric Layout Approval Date: Not Needed
Construction Limits Established Date: Not Started
Original Letting Date: 2/28/2020
Current Letting Date: 2/28/2020
Construction Season: 2020
Estimated Substantial Completion: Summer 2020



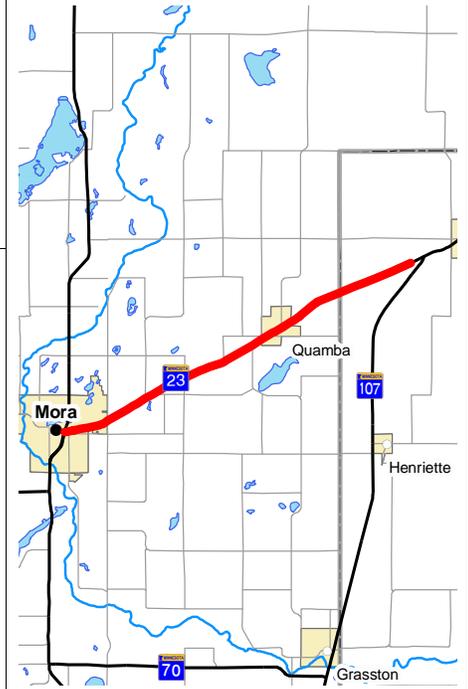
Minnesota Department of Transportation
District 3
1000 Hwy 10 W
(218) 846-3600

District Engineer: Dan Anderson
Project Manager: Claudia Dumont

Revised Date: 12/15/2016

PROJECT SUMMARY

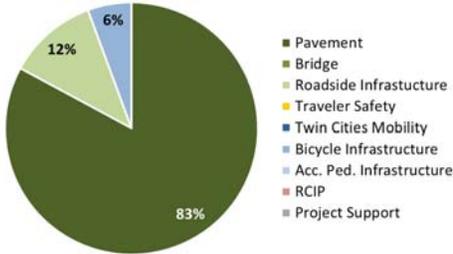
Hwy 23
 From Hwy 65 in Mora east to Hwy 107
 State Project No. 3302-16



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

This project is for road resurfacing from the north junction with Hwy 65 in Mora east to Hwy 107.

Recent Changes and Updates

This project was reviewed, and there are currently no programming changes to report.

Project History

The project was selected to address deteriorating pavement.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2015

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 4.7	\$ 4.7
Other Construction Elements:	\$ 0.0	\$ 0.0
Engineering:	\$ 0.9	\$ 0.9
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 5.6	\$ 5.6

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The baseline estimate is based on estimated quantities and average bid prices.

Project Risks

No significant risks are anticipated.

Schedule

Environmental Approval Date: Not Unknown
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: Not Needed
 Construction Limits Established Date: Not Needed
 Original Letting Date: 1/25/2019
 Current Letting Date: 1/25/2019
 Construction Season: 2019
 Estimated Substantial Completion: 2019



Minnesota Department of Transportation
 District 3
 7694 Industrial Boulevard
 (218) 828-5700

District Engineer: Dan Anderson
Project Manager: Matt Indihar

Revised Date: 12/15/2016

PROJECT SUMMARY

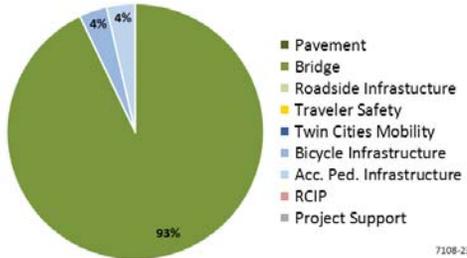
Hwy 24
 Bridge over Mississippi River in Clearwater
 Bridge 6557
 State Project No. 7108-23



Primary Purpose

Performance-based Need: Bridge Condition

Investment Category



Project Description

The project replaces the bridge over the Mississippi River at Clearwater with a new one.

Recent Changes and Updates

The project is presently under construction. The replacement bridge is expected to be completed and open for traffic in 2017. The demolition and removal of the existing bridge along with other minor work will follow and will be completed in 2018.

Project History

The bridge deck and girders required replacement. The decision was made to construct a new bridge parallel to the existing structure to minimize traffic impacts. The project was let in May 2015. The bid amount was considerably lower than the engineer's estimate due to a generous construction schedule. The extra funding available due to the lower bid/award was shifted to other construction projects. Demolition of the existing bridge will be completed in 2018, after traffic is switched to the new bridge.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2012

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 20.0	\$ 17.4
Other Construction Elements:	\$ 0.0	\$ 0.0
Engineering:	\$ 4.4	\$ 3.5
Right of Way:	\$ 5.0	\$ 0.5
Total:	\$ 29.4	\$ 21.4

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The baseline estimate is based on estimated quantities and average bid prices for similar projects. The current estimate is based on the actual bid amount.

Project Risks

One consideration is in maintaining traffic, primarily summer recreation traffic, during construction. Since existing bridge will remain in place during construction of new bridge, the risk is largely mitigated.

Schedule

Environmental Approval Date: 12/22/2014
 Municipal Consent Approval Date: 9/15/14
 Geometric Layout Approval Date: 5/05/2014
 Construction Limits Established Date: 9/15/2014
 Original Letting Date: 5/15/2015
 Current Letting Date: 5/15/2015
 Construction Season: 2015-2018
 Estimated Substantial Completion: Fall 2017



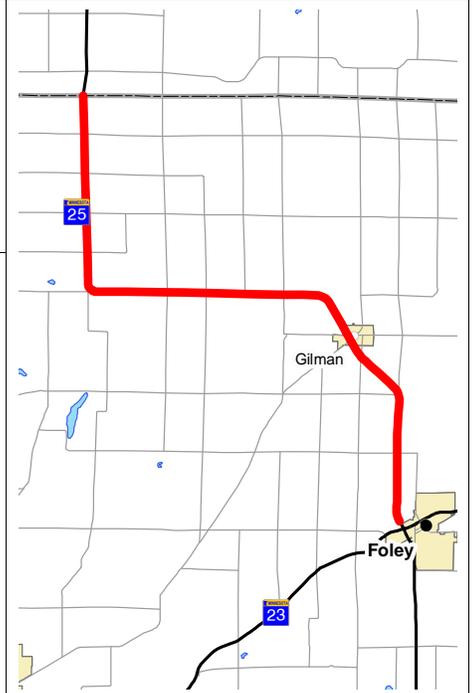
Minnesota Department of Transportation
 District 3
 7694 Industrial Boulevard
 (218) 828-5700

District Engineer: Dan Anderson
Project Manager: Claudia Dumont

Revised Date: 12/15/2016

PROJECT SUMMARY

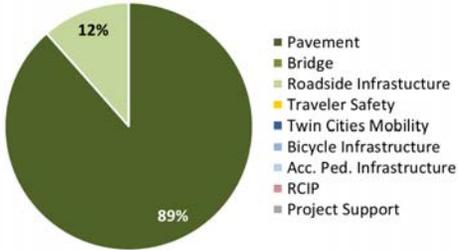
Hwy 25
From Foley to south of Genola
State Project No. 0508-13



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

The current project combined two resurfacing projects from Foley to the Benton/Morrison County line and from the Benton/Morrison County line to south of Genola. The project includes accessibility, hydraulic and safety improvements in addition to the pavement rehabilitation.

Recent Changes and Updates

The project was advanced one fiscal year and tied to another mill and overlay project on MN Hwy 25 (SP 4910-29). The project is of similar work type and adjoins SP 4910-29. Costs reflect both projects in the current estimate.

Project History

Deteriorating pavement condition requires resurfacing of this segment. This project was advanced one fiscal year due to savings in the program. A new cost estimate was prepared using updated bid prices for this kind of work. Letting date was moved up to allow for earlier construction.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2014

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 6.6	\$ 9.5
Other Construction Elements:	\$ 0.0	\$ 0.0
Engineering:	\$ 1.3	\$ 1.9
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 7.9	\$ 11.4

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The estimate is based on construction cost per mile of similar projects, adjusted for inflation.

Project Risks

No significant risks are anticipated.

Schedule

Environmental Approval Date: 09/13/16
Municipal Consent Approval Date: Not Required
Geometric Layout Approval Date: Not Required
Construction Limits Established Date: Not Needed
Original Letting Date: 10/27/2017
Current Letting Date: 2/24/2017
Construction Season: 2017
Estimated Substantial Completion: Fall 2017



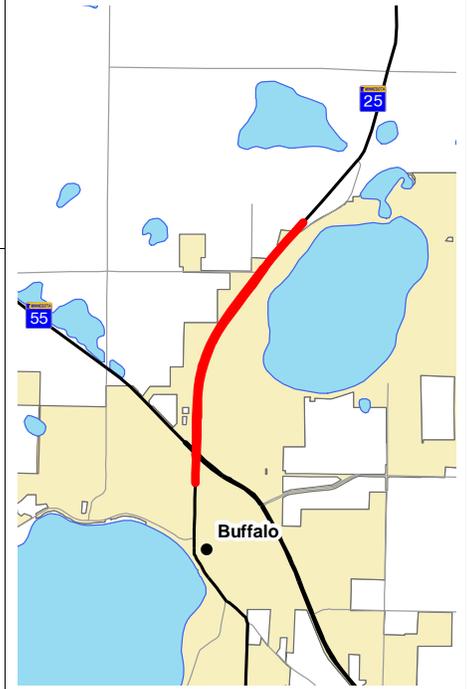
Minnesota Department of Transportation
District 3
7694 Industrial Boulevard
(218) 828-5700

District Engineer: Dan Anderson
Project Manager: Eric Schiller

Revised Date: 12/15/2016

PROJECT SUMMARY

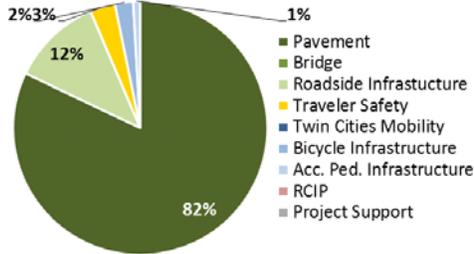
Hwy 25
From 7th St. to Catlin St. in Buffalo
State Project No. 8605-49



Primary Purpose

Performance-based Need: Pavement Condition and Safety Improvements

Investment Category



Project Description

This project is for reconstruction from Hwy 55 to Catlin St. in Buffalo, including traffic signal upgrades and widening to accommodate four lanes.

Recent Changes and Updates

This project was let and is presently under construction. Local participation for signal upgrades added to the cost. The letting date changed to allow for the completion of the municipal utilities plan. This project was previously adjusted to accommodate local urban reconstruction of Hwy 25 through the downtown area that was funded in part by Corridor Investment Management System program.

Project History

Funding for the project was previously delayed one fiscal year to accommodate changes to the construction program.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2012

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 5.0	\$ 6.7
Other Construction Elements:	\$ 0.0	\$ 0.2
Engineering:	\$ 1.9	\$ 1.9
Right of Way:	\$ 0.0	\$ 0.2
Total:	\$ 6.9	\$ 7.3

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The baseline estimate is based on estimated quantities and average bid prices. The current estimate is based on actual bid prices and letting of this project, which includes estimated local costs totaling \$1.2 million.

Project Risks

Cooperation issues with utility relocation has caused significant delay and added cost to the project. The utility response will cause the project to carry over into 2017. All costs associated with this delay are being tracked and will be assessed back to the utility.

Schedule

Environmental Approval Date: 8/24/2015
Municipal Consent Approval Date: 4/20/2015
Geometric Layout Approval Date: 8/20/2013
Construction Limits Established Date: 9/8/2014
Original Letting Date: 3/28/2014
Current Letting Date: 1/29/2016
Construction Season: 2016-2017
Estimated Substantial Completion: 2017



Minnesota Department of Transportation
District 3
7694 Industrial Boulevard
(218) 828-5700

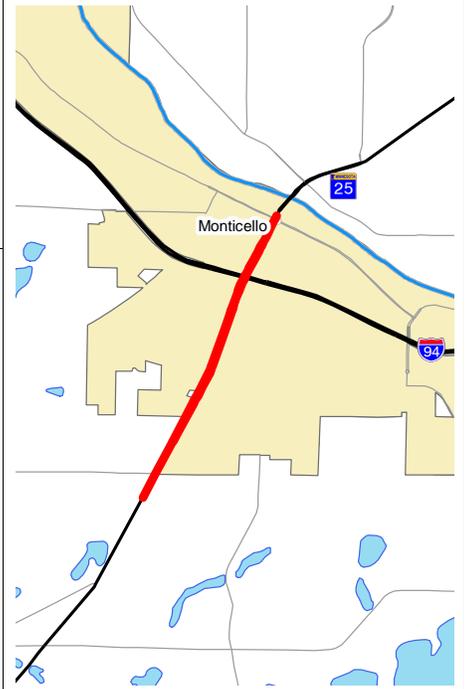
District Engineer: Dan Anderson
Project Manager: Claudia Dumont

Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 25
 Monticello
 State Project No. 8605-50

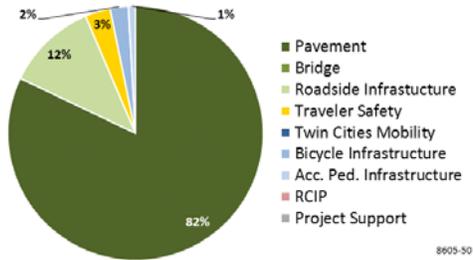
Substantially Complete



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

This project reconstructed Hwy 25 in Monticello from 0.5 miles south of Wright CR 106 to south of School Boulevard in Monticello, and performed resurfacing from south of School Boulevard to I-94. This included traffic signal installation at County Road 106.

Recent Changes and Updates

Construction is completed on this project.

Project History

The project was selected to address deteriorating pavement and traffic concerns at the intersection of Hwy 25 and Wright CR 106. Funding of the project was delayed one fiscal year to accommodate changes to the construction program. This project received additional federal funds (under NHPP in MAP-21) to lengthen project limits to include resurfacing work from School Blvd to I-94, which was not included in original estimate.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2012

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 5.0	\$ 5.7
Other Construction Elements:	\$ 0.0	\$ 0.0
Engineering:	\$ 1.0	\$ 1.1
Right of Way:	\$ 0.4	\$ 0.4
Total:	\$ 6.4	\$ 7.2

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The baseline estimate used an estimate of quantities and average bid prices. The current estimate is based on actual bid prices and reflects additional resurfacing from School Blvd to I-94 and local cost participation.

Project Risks

Project is complete.

Schedule

Environmental Approval Date: 10/28/2014
 Municipal Consent Approval Date: 1/28/2013
 Geometric Layout Approval Date: 11/30/2012
 Construction Limits Established Date: Unknown
 Original Letting Date: 3/28/2014
 Current Letting Date: 11/21/2014
 Construction Season: 2015
 Estimated Substantial Completion: Fall 2015



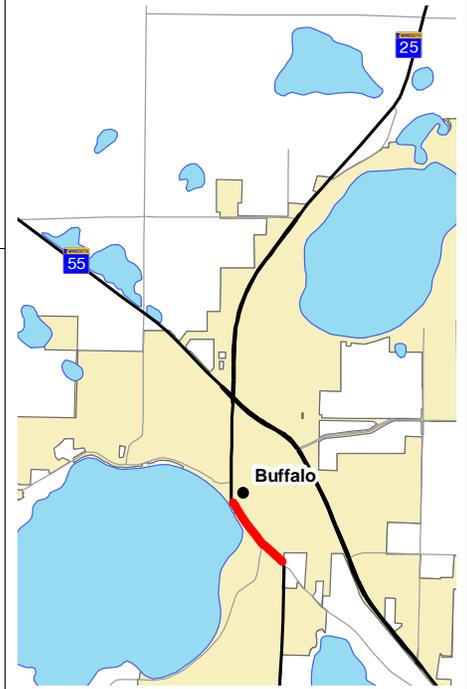
Minnesota Department of Transportation
 District 3
 7694 Industrial Boulevard
 (218) 828-5700

District Engineer: Dan Anderson
Project Manager: Claudia Dumont

Revised Date: 12/15/2016

PROJECT SUMMARY

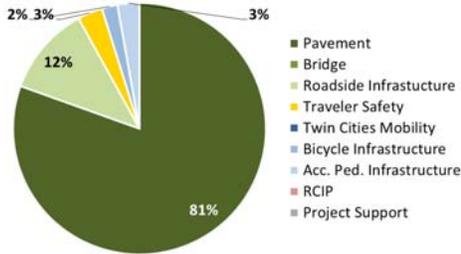
Hwy 25
Buffalo
State Project No. 8604-37



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

This project is for reconstruction of the roadway south of 1st Street to north of Wright CR 147 in Buffalo, including pedestrian improvements, lighting, and curb and gutter.

Recent Changes and Updates

A new cost estimate was prepared using updated bid prices for typical work and to account for inflation. Project funding will be provided in fiscal years 2019 and 2020.

Project History

The project was selected to address deteriorating pavement.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2015

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 5.3	\$ 5.5
Other Construction Elements:	\$ 0.0	\$ 0.0
Engineering:	\$ 1.1	\$ 1.1
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 6.4	\$ 6.6

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The baseline estimate used estimated quantities and average bid prices.

Project Risks

The City of Buffalo plans to replace underground utilities, which needs to be coordinated with the project development and construction plans. Addressing pedestrian accessibility needs could result in additional right of way needs and impacts to properties. The city recently requested improvements at the intersection of TH 25 and Wright County Highway 12, which would require additional right of way and construction budget. The district has not yet determined if this intersection work will be included in this project, or be constructed separately.

Schedule

Environmental Approval Date: Not Started
Municipal Consent Approval Date: Not Needed
Geometric Layout Approval Date: Not Started
Construction Limits Established Date: Not Started
Original Letting Date: 12/21/2018
Current Letting Date: 12/21/2018
Construction Season: 2019
Estimated Substantial Completion: 2019



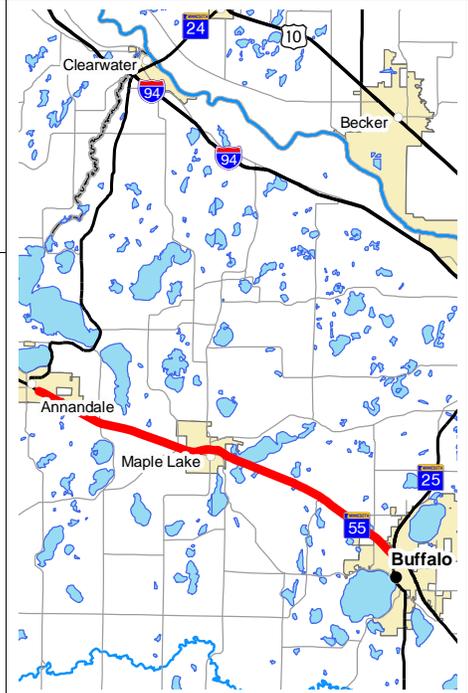
Minnesota Department of Transportation
District 3
7694 Industrial Boulevard
(218) 828-5700

District Engineer: Dan Anderson
Project Manager: Claudia Dumont

Revised Date: 12/15/2016

PROJECT SUMMARY

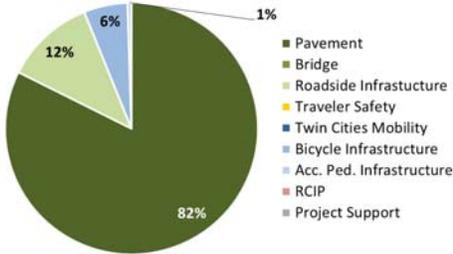
Hwy 55
Annandale to Buffalo
State Project No. 8606-60



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

This project is for resurfacing from Poplar Ave. in Annandale to the Hwy 55 junction in Buffalo, and includes paving the shoulders.

Recent Changes and Updates

There was a minor letting date change due to a correction in the letting schedule.

Project History

The project was selected to address deteriorating pavement.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2015

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 5.6	\$ 5.6
Other Construction Elements:	\$ 0.0	\$ 0.0
Engineering:	\$ 1.1	\$ 1.1
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 6.7	\$ 6.7

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The baseline estimate used estimated quantities and average bid prices.

Project Risks

This is a routine rural resurfacing project, so no significant risks are anticipated.

Schedule

Environmental Approval Date: Not started
Municipal Consent Approval Date: Not Needed
Geometric Layout Approval Date: Not Needed
Construction Limits Established Date: Not started
Original Letting Date: 10/19/2018
Current Letting Date: 10/26/2018
Construction Season: 2019
Estimated Substantial Completion: 2019



Minnesota Department of Transportation
District 3
7694 Industrial Boulevard
(218) 828-5700

District Engineer: Dan Anderson
Project Manager: Claudia Dumont

Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 55

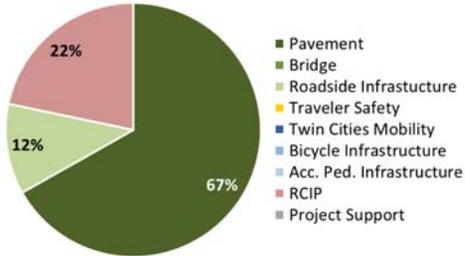
Kandiyohi/Stearns Co line to I-94 and Kandiyohi/Stearns Co line to Paynesville
State Project No. 7301-38



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

The project encompasses road resurfacing in two locations: on Hwy 4 from the junction with Hwy 55 to I-94 and on Hwy 55 from Kandiyohi/Stearns Co line to east limits of Paynesville.

Recent Changes and Updates

The project recently entered the STIP.

Project History

The project was selected to address deteriorating pavement.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2016

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 5.7	\$ 5.7
Other Construction Elements:	\$ 0.0	\$ 0.0
Engineering:	\$ 1.1	\$ 1.1
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 6.8	\$ 6.8

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The estimate is based on estimated quantities and average bid prices for similar projects.

Project Risks

No significant risks are anticipated.

Schedule

Environmental Approval Date: Not Started
Municipal Consent Approval Date: Not Needed
Geometric Layout Approval Date: Not Needed
Construction Limits Established Date: Not Needed
Original Letting Date: 4/26/2019
Current Letting Date: 4/26/2019
Construction Season: 2019
Estimated Substantial Completion: Summer 2019



Minnesota Department of Transportation
District 3
7694 Industrial Boulevard
(218) 828-5700

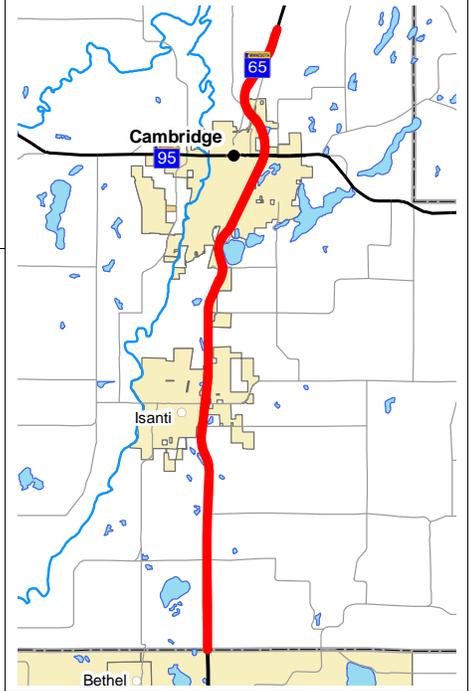
District Engineer: Dan Anderson
Project Manager: Claudia Dumont

Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 65

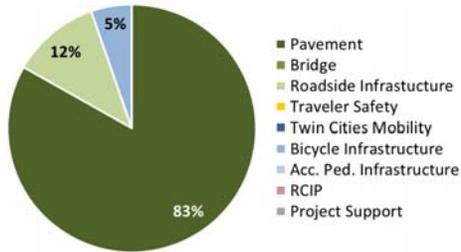
Anoka/Isanti County line to end of 4-lane road north of Cambridge
State Project No. 3003-47N/47P



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

The project provides for road rehabilitation and resurfacing, on segments covering a total of 14.3 miles from the Anoka/Isanti County line to north of Cambridge. It includes resurfacing of segments from the county line to south of the Cambridge bypass, as well as a concrete overlay on a segment from north of County Highway 19 to the end of the 4-lane stretch north of Cambridge.

Recent Changes and Updates

A new cost estimate was prepared using updated bid prices for typical work and to account for inflation.

Project History

The project was selected to address deteriorating pavement. It includes placement of a white-topping concrete overlay on top of the existing asphalt instead of just asphalt, in order to improve the useful life of the pavement.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2015

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 11.7	\$ 12.8
Other Construction Elements:	\$ 0.0	\$ 0.0
Engineering:	\$ 2.3	\$ 2.6
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 14.0	\$ 15.4

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The baseline estimate used estimated quantities and average bid prices.

Project Risks

Bid prices for placing a concrete overlay on top of bituminous are difficult to predict and slight variations could result in impacts to the district's construction budget.

Schedule

Environmental Approval Date: 3/01/16
Municipal Consent Approval Date: Not Needed
Geometric Layout Approval Date: Not Needed
Construction Limits Established Date: 8/15/16
Original Letting Date: 6/29/2018
Current Letting Date: 6/29/2018
Construction Season: 2018
Estimated Substantial Completion: 2018



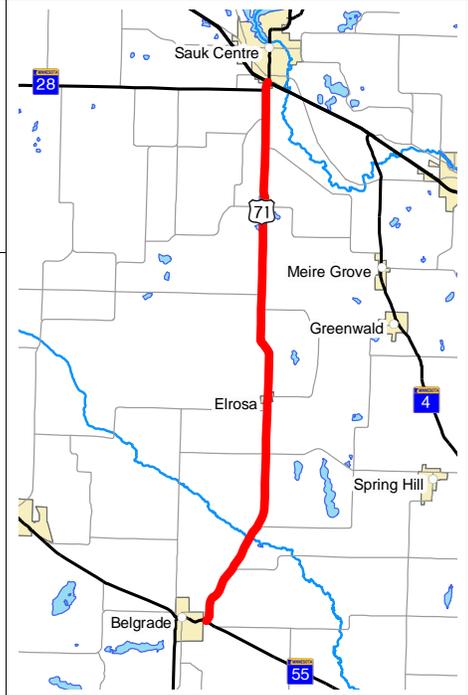
Minnesota Department of Transportation
District 3
7694 Industrial Boulevard
(218) 828-5700

District Engineer: Dan Anderson
Project Manager: Eric Schiller

Revised Date: 12/15/2016

PROJECT SUMMARY

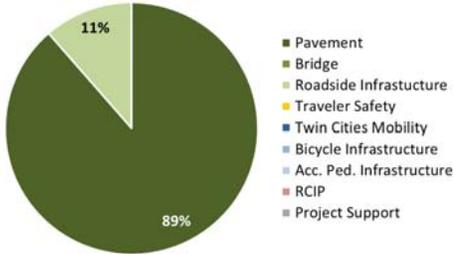
Hwy 71
Belgrade to Sauk Centre
State Project No. 7318-39



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

The project is for resurfacing from the east junction at Hwy 55 in Belgrade to I-94 in Sauk Centre.

Recent Changes and Updates

Construction of this project is nearly completed.

Project History

The project was selected to address deteriorating pavement. The letting date changed to keep a balanced letting schedule. This project was funded with extra National Highway Performance Program funding that was provided to the district for improving pavement conditions on the National Highway System

The decision was made to remove the urban segment of this project through the City of Elrosa and to address pedestrian accessibility needs separately without delaying work on the rural segment. The Elrosa segment will retain its original project number (e.g., SP 7318-38) and was delayed to FY 2017 while the rural segment was identified as SP 7318-39. This project was completed in August 2016.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2013

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 6.2	\$ 4.3
Other Construction Elements:	\$ 0.0	\$ 0.0
Engineering:	\$ 1.2	\$ 0.9
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 7.4	\$ 5.2

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The baseline estimate is based on estimated quantities and average bid prices. The current estimate is based on actual bid prices and letting of the project.

Project Risks

No project risks are remaining.

Schedule

Environmental Approval Date: 12/04/2015
Municipal Consent Approval Date: Not Needed
Geometric Layout Approval Date: Not Needed
Construction Limits Established Date: Not Needed
Original Letting Date: 12/18/2015
Current Letting Date: 3/18/2016
Construction Season: 2016
Estimated Substantial Completion: August 2016



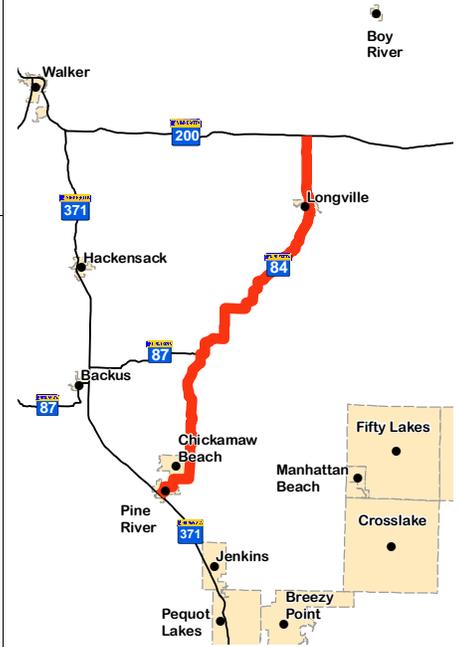
Minnesota Department of Transportation
District 3
7694 Industrial Boulevard
(218) 828-5700

District Engineer: Dan Anderson
Project Manager: Claudia Dumont

Revised Date: 12/15/2016

PROJECT SUMMARY

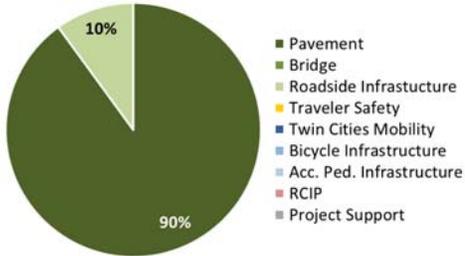
Hwy 84
Pine River to Hwy 200
State Project No. 1110-14



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

The project is for resurfacing from Cass Co Hwy 1 in Pine River north to Hwy 200 north of Longville.

Recent Changes and Updates

This is a newly added project. It was advanced to FY 2017 with program savings. The project was selected for advancement because of the condition of the current roadway surface and ease of implementation.

Project History

The project was selected to address deteriorated pavement.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2016

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 4.9	\$ 4.9
Other Construction Elements:	\$ 0.0	\$ 0.0
Engineering:	\$ 1.0	\$ 1.0
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 5.9	\$ 5.9

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The estimate is based on estimated quantities and average bid prices for similar projects.

Project Risks

No significant risks are anticipated.

Schedule

Environmental Approval Date: Not Started
Municipal Consent Approval Date: Not Required
Geometric Layout Approval Date: Not Required
Construction Limits Established Date: Not Needed
Original Letting Date: 4/28/2017
Current Letting Date: 4/28/2017
Construction Season: 2017
Estimated Substantial Completion: Summer 2017



Minnesota Department of Transportation
District 3
7694 Industrial Boulevard
(218) 828-5700

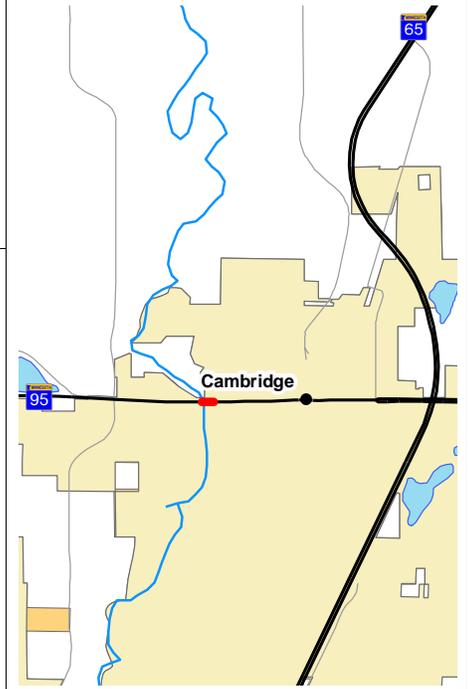
District Engineer: Dan Anderson
Project Manager: Eric Schiller

Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 95
Rum River Bridge in Cambridge
Bridge 9173
State Project No. 3006-36

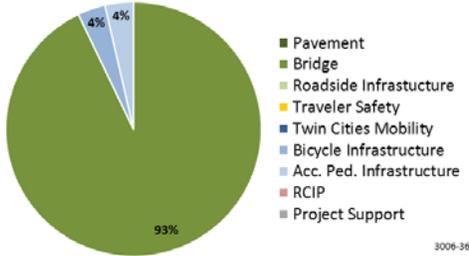
Substantially Complete



Primary Purpose

Performance-based Need: Bridge Condition

Investment Category



Project Description

This project replaced a bridge with a new one (#30001) over the Rum River a bit west of Cambridge.

Recent Changes and Updates

Construction of this project is completed.

Project History

The replaced bridge (#9173) was built in 1963. It had a substandard engineering design and was due for replacement. The replacement bridge design was reviewed to ensure the new structure could be expanded to a four-lane bridge, if needed, in the future.

The letting date changed due to federal project review and development requirements. Construction cost was reduced due to an exceptionally low bid.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2010

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 7.3	\$ 6.0
Other Construction Elements:	\$ 0.0	\$ 0.1
Engineering:	\$ 1.5	\$ 1.2
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 8.8	\$ 7.3

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The baseline estimate is based on actual estimated quantities and average bid prices. The current estimate is based on actual bid and letting.

Project Risks

There are no remaining risks.

Schedule

Environmental Approval Date: 2/28/2014
Municipal Consent Approval Date: Not Needed
Geometric Layout Approval Date: Not Needed
Construction Limits Established Date: Unknown
Original Letting Date: 2/22/2013
Current Letting Date: 3/28/2014
Construction Season: 2014 - 2015
Estimated Substantial Completion: Spring 2015



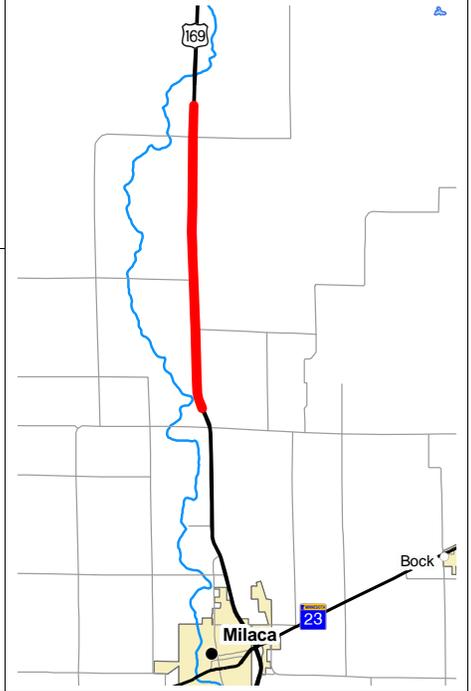
Minnesota Department of Transportation
District 3
7694 Industrial Boulevard
(218) 828-5700

District Engineer: Dan Anderson
Project Manager: Claudia Dumont

Revised Date: 12/15/2016

PROJECT SUMMARY

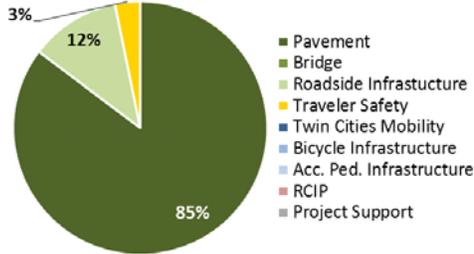
Hwy 169
Mille Lacs County Hwy 11 to Rum River Rest Area
State Project No. 4812-86



Primary Purpose

Performance-based Need: Pavement Condition & District Safety Plan

Investment Category



Project Description

The project is to reconstruct the northbound lane, including turn lane extensions, on Hwy 169 north of Milaca, from Mille Lacs County Hwy 11/190th St. to the Rum River Rest Area.

Recent Changes and Updates

The project was let and is under construction. The award was higher than the engineer's estimate. Federal Highway Safety Improvement Program safety funds for the turn lane extension were removed. Turn lane work will now be funded with National Highway Performance Program funds, which is the same source used for the reconstruction work.

Project History

The pavement condition along this heavily traveled corridor is deteriorating. Routine resurfacing of this segment is no longer a viable option. A full reconstruction is necessary. The project received \$5 million in extra National Highway Performance Program funding to enable the district to reconstruct this section of roadway.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2012

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 7.2	\$ 8.1
Other Construction Elements:	\$ 0.0	\$ 0.0
Engineering:	\$ 1.4	\$ 1.6
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 8.6	\$ 9.6

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The baseline estimate used estimated quantities and average bid prices. The current estimate is based on actual bid and letting.

Project Risks

No significant risks are anticipated.

Schedule

Environmental Approval Date: Pending
Municipal Consent Approval Date: Not Required
Geometric Layout Approval Date: Pending
Construction Limits Established Date: 8/11/2014
Original Letting Date: 3/27/2015
Current Letting Date: 6/26/2015
Construction Season: 2015-2016
Estimated Substantial Completion: Fall 2016



Minnesota Department of Transportation
District 3
7694 Industrial Boulevard
(218) 828-5700

District Engineer: Dan Anderson
Project Manager: Jim Hallgren

Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 169

Mille Lacs County Hwy 19 south of Onamia to Vineland

State Project No. 4812-84

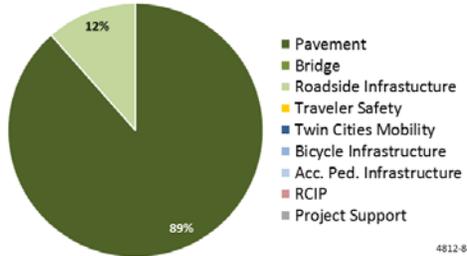
Substantially Complete



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

This project is for resurfacing from Mille Lacs County Hwy 19 to just south of Wagidaaki Rd in Vineland, including turn lane improvements at various intersections and other safety improvements.

Recent Changes and Updates

Construction is complete. The award was lower than engineer's estimate. Minor adjustments were made to the project construction limits to reflect deteriorating pavement conditions.

Project History

The project was selected to address deteriorating pavement.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2012

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 4.1	\$ 3.3
Other Construction Elements:	\$ 0.0	\$ 0.0
Engineering:	\$ 0.8	\$ 0.7
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 4.9	\$ 4.0

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The baseline estimate used estimated quantities and average bid prices. The current estimate is based on actual bid price and letting.

Project Risks

Coordination of the project with the Mille Lacs Band of Ojibwe is important so that state/tribal relationships are not negatively impacted.

Schedule

Environmental Approval Date: 2/13/2015
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: Not Needed
 Construction Limits Established Date: Not Needed
 Original Letting Date: 2/26/2016
 Current Letting Date: 11/20/2015
 Construction Season: 2016
 Estimated Substantial Completion: 2016



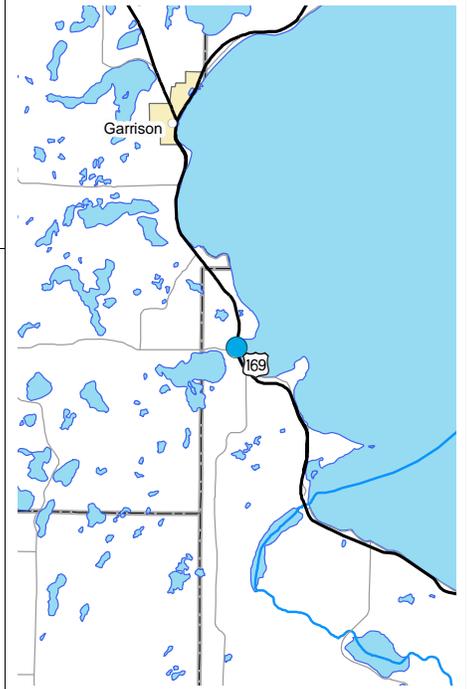
Minnesota Department of Transportation
 District 3
 7694 Industrial Boulevard
 (218) 828-5700

District Engineer: Dan Anderson
Project Manager: Jim Hallgren

Revised Date: 12/15/2016

PROJECT SUMMARY

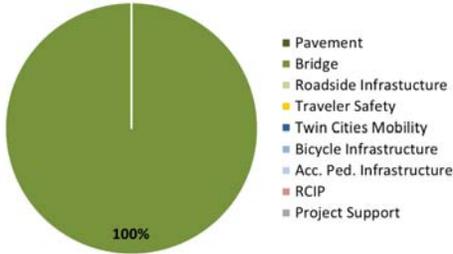
Hwy 169
 Bridge over Whitefish Creek near Wigwam Bay at Lake Mille Lacs
 Bridge 3355
 State Project No. 4814-3355A



Primary Purpose

Performance-based Need: Bridge Condition

Investment Category



Project Description

This project consists of rehabilitating the historic bridge (#3355) over Whitefish Creek near Wigwam Bay at Lake Mille Lacs.

Recent Changes and Updates

A minor letting date change was made due to a correction in the letting schedule. The district is currently finalizing the historic bridge rehabilitation plan and is entering final design. The district is not far enough in the process to decrease the current estimate given the risks that have been identified on the project.

Project History

The project was selected to address the deteriorating bridge. The bridge was originally constructed in 1921 and widened in the 1930s by the Civilian Conservation Corps. The bridge is a designated property on the National Register of Historic Places. Further study of the bridge condition and the need to preserve and maintain historical qualities of the structure resulted in a higher cost estimate than traditional bridge rehabilitation projects.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2011

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 4.8	\$ 4.8
Other Construction Elements:	\$ 0.0	\$ 0.0
Engineering:	\$ 1.0	\$ 1.0
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 5.8	\$ 5.8

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The baseline estimate used estimated quantities and average bid prices.

Project Risks

Structural/historical rehabilitation report findings could result in potential archeological issues and mitigation.

Schedule

Environmental Approval Date: Need Unknown
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: Not Needed
 Construction Limits Established Date: Not Needed
 Original Letting Date: 6/5/2015
 Current Letting Date: 9/28/2018
 Construction Season: 2019
 Estimated Substantial Completion: 2019



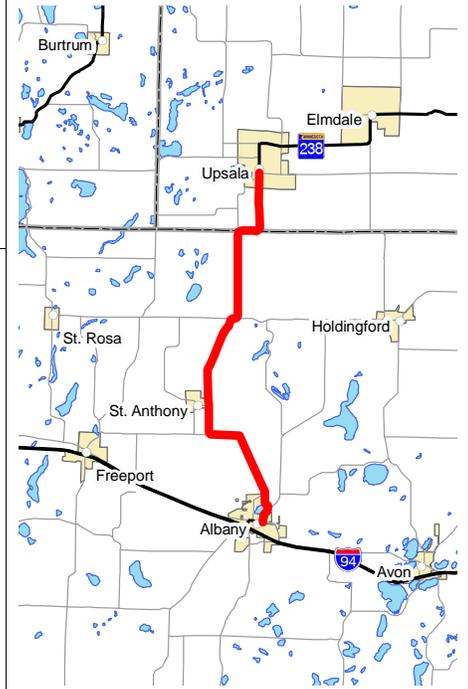
Minnesota Department of Transportation
 District 3
 7694 Industrial Boulevard
 (218) 828-5700

District Engineer: Dan Anderson
Project Manager: Eric Schiller

Revised Date: 12/15/2016

PROJECT SUMMARY

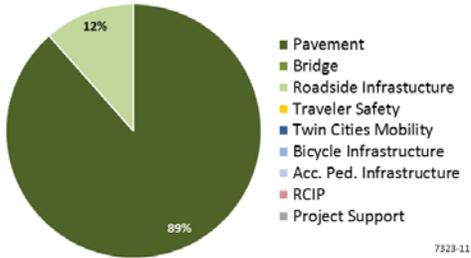
Hwy 238
Albany to Upsala
State Project No. 7323-12



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



7323-11

Project Description

This is a pavement project from Albany to Upsala, which includes widening the road.

Recent Changes and Updates

This project was modified, removing an urban segment in Albany from the original project and changing the project number (from SP 7323-11 to SP 7323-12). The former project (SP 7323-11) is being retained with the Albany urban portion, which will be completed in 2018 following completion of this project. The cost estimate was updated to reflect splitting the project into two phases. Previously, the scope and project cost were modified to add shoulder improvements for improved safety. The cost estimate had been adjusted for right of way costs associated with pedestrian accessibility improvements in Albany.

Project History

The project was selected to address deteriorated pavement. A layout is not required for rural resurfacing, nor are construction limits.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2013

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 7.2	\$ 6.3
Other Construction Elements:	\$ 0.0	\$ 0.0
Engineering:	\$ 1.4	\$ 1.3
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 8.6	\$ 7.6

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The baseline estimate is based on estimated quantities and average bid prices. There is a possibility of including new turn lanes.

Project Risks

If the detour route is seen as too long, then the District may have to change the detour route.

Schedule

Environmental Approval Date: Pending
Municipal Consent Approval Date: Not Needed
Geometric Layout Approval Date: Not Needed
Construction Limits Established Date: Not Needed
Original Letting Date: 12/16/2016
Current Letting Date: 12/16/2016
Construction Season: 2017
Estimated Substantial Completion: Fall 2017



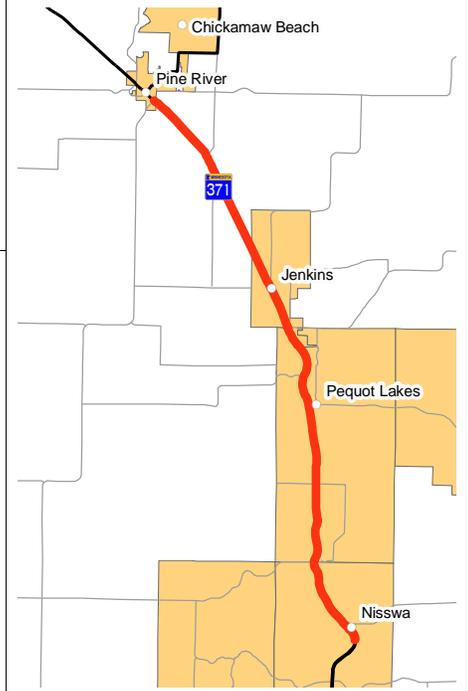
Minnesota Department of Transportation
District 3
7694 Industrial Boulevard
(218) 828-5700

District Engineer: Dan Anderson
Project Manager: Claudia Dumont

Revised Date: 12/15/2016

PROJECT SUMMARY

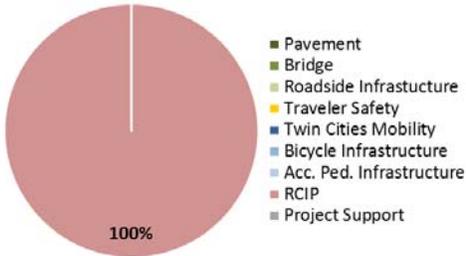
Hwy 371
Nisswa to Jenkins
State Project No. 1810-92



Primary Purpose

Regional & Community Improvement Priority

Investment Category



Project Description

This project is for major construction to convert two-lane highway to a four-lane expressway, from just north of Crow Wing County Hwy 18 in Nisswa to just north of County Hwy 16 in Jenkins. Work includes the replacement of Cullen Brook Bridge and construction of a new interchange at Crow Wing County Hwy 11.

Recent Changes and Updates

The project is presently under construction.

Project History

The project was recently let with the best value bidder identified. It was originally funded as a MnDOT Major Regional & Community Improvement Priority (RCIP) commitment. In 2014, the project was advanced to 2016 through the Corridors of Commerce program, with funding made possible by cost savings and other efficiencies at MnDOT. The District anticipates construction to be completed in 2017. The project was identified as a design-build contract.

Phase 2 of Hwy 371 North Environmental Impact Statement received municipal consent in Pequot Lakes in December 2010. Nisswa provided their municipal consent in February 2011. Municipal Consent was received in Jenkins on March 2015. A re-evaluation of the Environmental Document was completed on 6/16/15.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2014

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 58.0	\$ 49.9
Other Construction Elements:	\$ 0.0	\$ 1.9
Engineering:	\$ 11.6	\$ 0.0
Right of Way:	\$ 7.7	\$ 5.0
Total:	\$ 77.3	\$ 56.8

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The baseline estimate used estimated quantities and average bid prices. The current estimate is based on the actual bid for the design-build contract. The engineering costs were included in the construction letting total.

Project Risks

The City of Pequot Lakes wastewater spray field mitigation plan could delay construction of this project if it is not completed before August 1, 2016. Other potential areas of concern are in traffic control and managing congestion during construction.

Schedule

Environmental Approval Date: 10/21/2010
Municipal Consent Approval Date: 2/16/2011
Geometric Layout Approval Date: 10/19/2010
Construction Limits Established Date: 12/15/2014
Original Letting Date: 7/24/2009
Current Letting Date: 10/14/2015
Construction Season: 2016-2017
Estimated Substantial Completion: Fall 2017



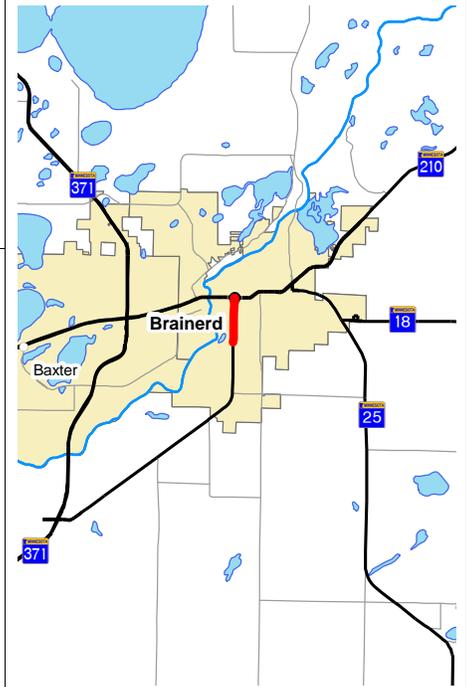
Minnesota Department of Transportation
District 3
7694 Industrial Boulevard
(218) 828-5700

District Engineer: Dan Anderson
Project Manager: Jim Hallgren

Revised Date: 12/15/2016

PROJECT SUMMARY

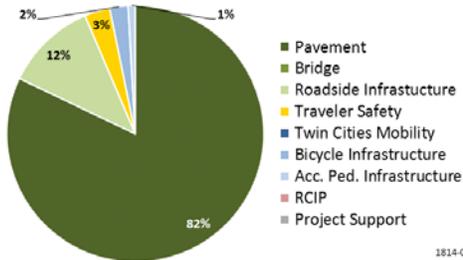
Hwy 371B
Brainerd
State Project No. 1814-06



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

The project consists of road reconstruction in Brainerd, including bicycle and pedestrian accommodations and curb and gutter, from Hwy 210 (Washington St.) to Joseph St. MnDOT partnered with the city to extend the trail from Joseph St. to Buffalo Hills Lane.

Recent Changes and Updates

This project was delayed one fiscal year from 2017 to 2018 in order to advance a Hwy 25 project (SP 0508-13) so that it could be tied to other work planned on Hwy 25 for 2017. The District is currently developing proposals to address pedestrian concerns and minimize right of way impacts. The current cost estimate includes cost for right of way.

The City of Brainerd provided the preferred alternative. Geometric Layout has been submitted for approval.

Project History

The project was selected to replace deteriorated pavement and city utilities.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2013

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 7.5	\$ 7.5
Other Construction Elements:	\$ 0.0	\$ 0.0
Engineering:	\$ 1.5	\$ 1.5
Right of Way:	\$ 0.1	\$ 0.3
Total:	\$ 9.1	\$ 9.3

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The baseline estimate is based on estimated quantities and average bid prices for similar projects.

Project Risks

Risks associated with accommodating pedestrian accessibility needs were retired under the design alternatives being considered. The city wanted to install a signal at Willow St., which could result in a delay of municipal consent for the project.

Schedule

Environmental Approval Date: 6/15/2016
Municipal Consent Approval Date: 12/7/2016
Geometric Layout Approval Date: 12/8/2016
Construction Limits Established Date: 4/1/2016
Original Letting Date: 2/26/2016
Current Letting Date: 8/25/2017
Construction Season: 2017-2018
Estimated Substantial Completion: Fall 2018



Minnesota Department of Transportation
District 3
7694 Industrial Boulevard
(218) 828-5700

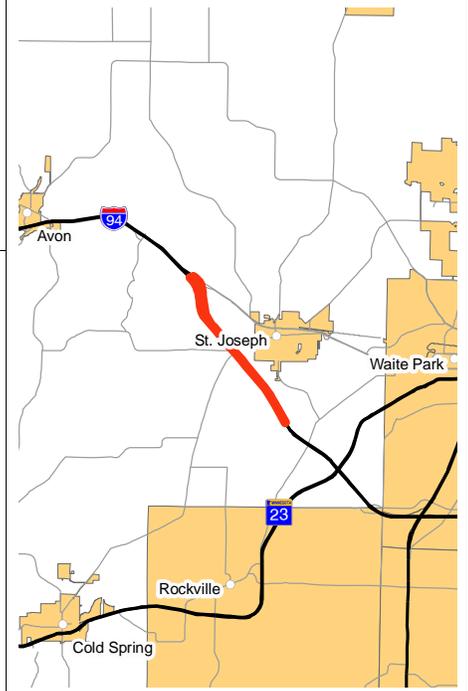
District Engineer: Dan Anderson
Project Manager: Jim Hallgren

Revised Date: 12/15/2016

PROJECT SUMMARY

I-94

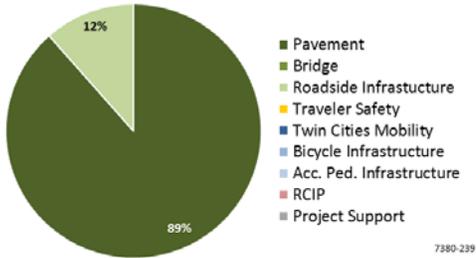
Stearns County Hwy 75 to bridge over Sauk River
State Project No. 7380-239



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

This project is a concrete overlay from Stearns County Hwy 75 west of St. Joseph to the west end of the bridge (#73865 and #73866) over Sauk River. The project also includes road resurfacing from Stearns County Rd 159 at Collegeville to Stearns County Hwy 75.

Recent Changes and Updates

This project was let and is under construction. The award was \$2.9 million less than the current estimate shown in last year's report.

Project History

The project was originally selected as a bituminous overlay to address deteriorating pavement. It received additional funds to construct an unbonded concrete overlay, which is a longer term fix. The project received an additional \$3 million in federal funds (under the National Highway Performance Program) to pursue a longer term pavement fix in the unbonded concrete overlay section. This project was combined with SP 7380-223 in 2014. This project was expanded to include an adjacent section of I-94, which was set for the same year (7380-223), resulting in an increase to the original baseline estimate. Combining the projects will result in better bid prices, better construction staging and more efficient construction administration.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2012

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 10.0	\$ 12.6
Other Construction Elements:	\$ 0.0	\$ 0.0
Engineering:	\$ 2.0	\$ 2.5
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 12.0	\$ 15.1

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The baseline estimate is based on estimated quantities and average bid prices. The estimate had increased to account for the change in type of repair work to include an unbonded concrete overlay. The current estimate is based on actual bid amount and letting.

Project Risks

If the project significantly reduces good traffic flow during construction, MnDOT may have to modify the project's schedule and deal with increased costs.

Schedule

Environmental Approval Date: 04/06/15
Municipal Consent Approval Date: NA
Geometric Layout Approval Date: NA
Construction Limits Established Date: 08/18/15
Original Letting Date: 2/26/2016
Current Letting Date: 2/26/2016
Construction Season: 2016
Estimated Substantial Completion: Fall 2016



Minnesota Department of Transportation
District 3
7694 Industrial Boulevard
(218) 828-5700

District Engineer: Dan Anderson
Project Manager: Eric Schiller

Revised Date: 12/15/2016

PROJECT SUMMARY

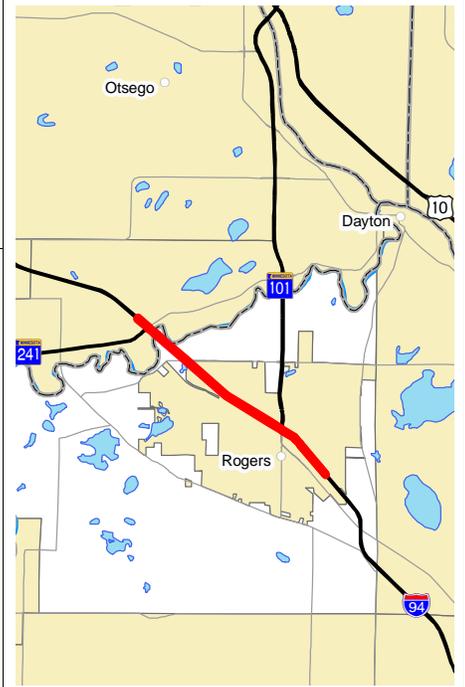
I-94

Rogers to St. Michael

State Project No. 2780-66

<http://www.dot.state.mn.us/d3/i94/index.html>

Substantially Complete



Primary Purpose

Regional & Community Improvement Priority

Investment Category

Project Description

This project constructed an auxiliary lane in the eastbound direction from Hwy 241 in St. Michael to Hwy 101 in Rogers, including an extension of the westbound exit ramp at Hwy 101, widening of bridges over the Crow River, and the construction of a westbound third lane from Hwy 101 to Hwy 241.

Recent Changes and Updates

The project was completed and opened to traffic in October 2015. A full accounting of the project engineering costs are now reflected in the substantially complete estimate. This addition, of the actual engineering costs, created the increase shown.

Project History

The project was announced in September 2014 to be funded under the Corridors of Commerce program. The project was amended into the STIP on 5/14/2014. The design-build process was used to expedite construction.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 5/14/2014

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 40.0	\$ 28.3
Other Construction Elements:	\$ 0.0	\$ 0.9
Engineering:	\$ 0.0	\$ 3.8
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 40.0	\$ 33.0

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Since this project followed a design-build process, the construction letting total includes construction, design and construction oversight costs. The current estimate is based on actual estimated amount.

Project Risks

No significant risks are remaining.

Schedule

Environmental Approval Date: 1/27/2014
Municipal Consent Approval Date: 4/22/2014
Geometric Layout Approval Date: 2/14/2014
Construction Limits Established Date: 2/14/2014
Original Letting Date: 5/14/2014
Current Letting Date: 5/14/2014
Construction Season: 2014-2015
Estimated Substantial Completion: October 2015



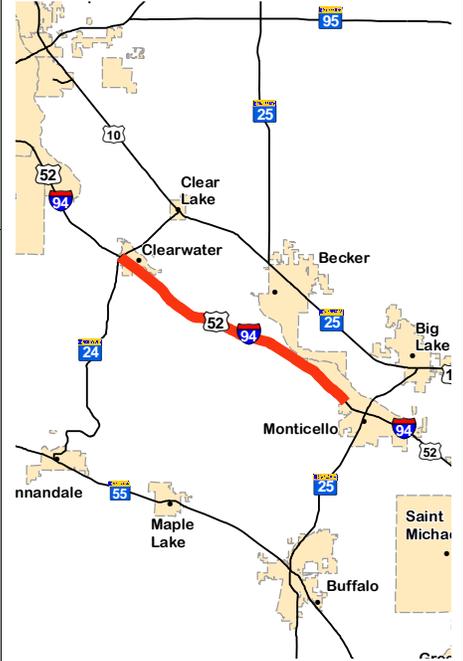
Minnesota Department of Transportation
District 3
7694 Industrial Boulevard
(218) 828-5700

District Engineer: Dan Anderson
Project Manager: Claudia Dumont

Revised Date: 12/15/2016

PROJECT SUMMARY

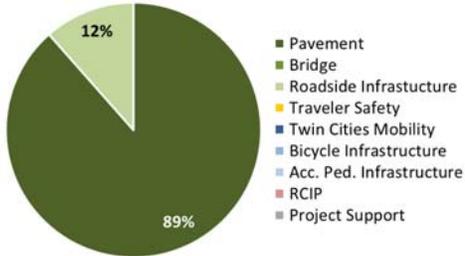
I-94
 Monticello to Clearwater
 State Project No. 8680-173



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

The project is for pavement rehabilitation and replacement from the Wright County Hwy 39 overpass at Monticello to Hwy 24 in Clearwater.

Recent Changes and Updates

This is a new project.

Project History

The project was selected to address deteriorating pavement.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2016

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 16.0	\$ 16.0
Other Construction Elements:	\$ 0.0	\$ 0.0
Engineering:	\$ 3.2	\$ 3.2
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 19.2	\$ 19.2

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The estimate is based on estimated quantities and average bid prices for similar projects.

Project Risks

A potential risk is in costs due to maintenance of traffic during construction.

Schedule

Environmental Approval Date: Need Unknown
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: Not Needed
 Construction Limits Established Date: Not Needed
 Original Letting Date: 6/21/2019
 Current Letting Date: 6/21/2019
 Construction Season: 2019/2020
 Estimated Substantial Completion: BLANK



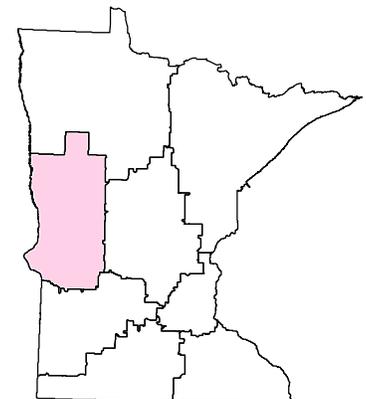
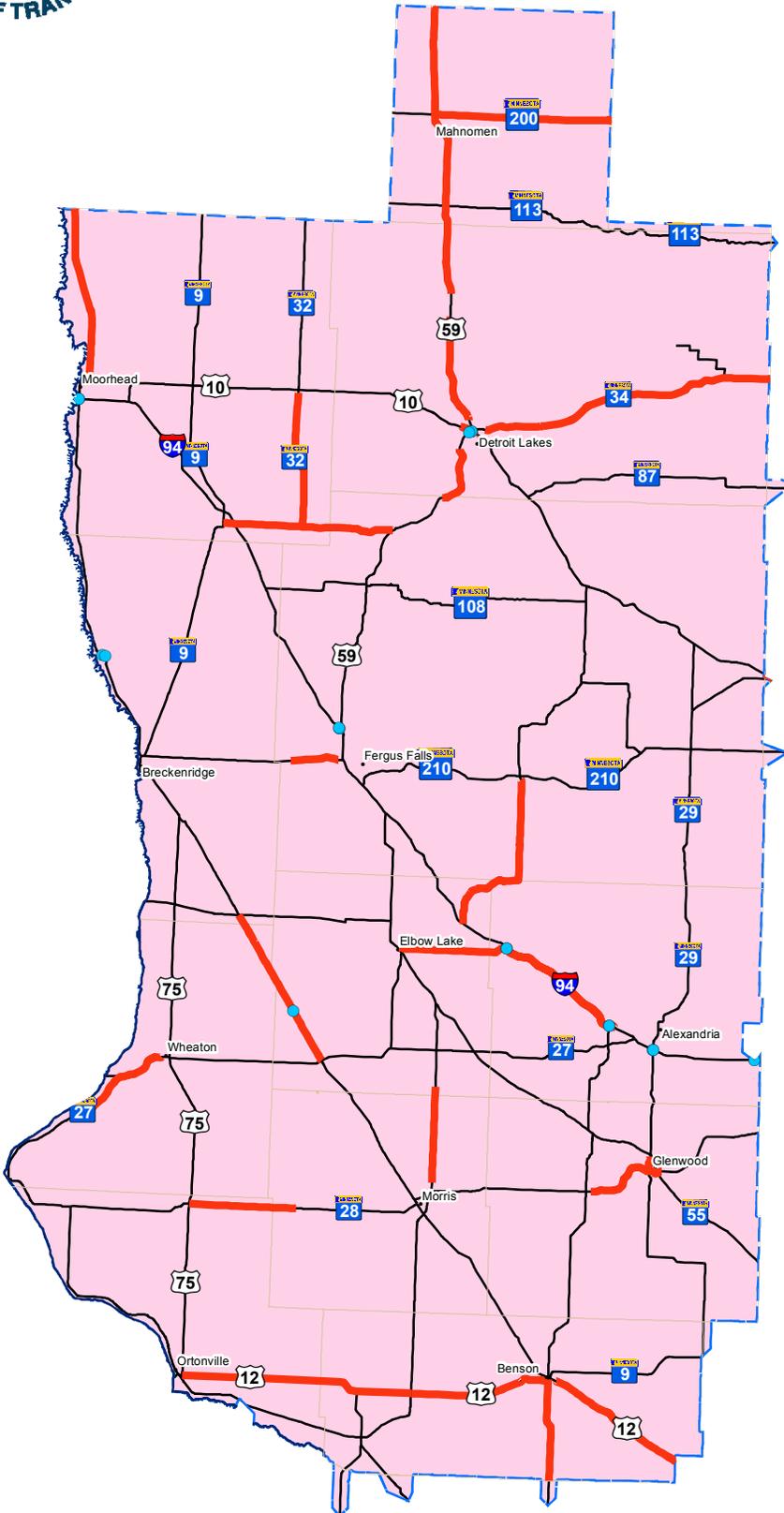
Minnesota Department of Transportation
 District 3
 7694 Industrial Boulevard
 (218) 828-5700

District Engineer: Dan Anderson
Project Manager: Matt Indihar

Revised Date: 12/15/2016



Major Highway Projects 2016 D4-DETROIT LAKES



Major Highway Projects

- Bridge Projects
- Roadway Projects
- State Boundary
- County Line
- - - Construction District

District Project Summary

District 4

Route	State Project #	Project Location	Page
Hwy 9	2601-19	Herman to Hwy 55	D 2
Hwy 10	0301-60	Detroit Lakes	D 3
Hwy 10	0301-63	Jct. TH 59 to Summit Ave. in Detroit Lakes	D 4
Hwy 12	7604-22	Hwy 59 to City of Benson	D 5
Hwy 12	7605-89	Benson to Kerkhoven	D 6
Hwy 12	0603-16	Hwy 75 in Ortonville to Hwy 59	D 7
Hwy 27	7802-33	On Hwy 27 from CSAH 6 to Wheaton and on Hwy 75 from Dumont to the Mustinka River bridge	D 8
Hwy 28	6103-32	Hwy 28, Hwy 29, Hwy 104 - Glenwood	D 9
Hwy 28	0606-11	Hwy 75 to Chokio	D 10
Hwy 28	6103-34	Starbuck to Glenwood	D 11
Hwy 29	2102-58	50th Avenue in Alexandria to County Road 28	D 12
Hwy 29	7607-29	Hwy 40 to Benson	D 13
Hwy 32	1402-19	Hwy 34 to Hwy 10	D 14
Hwy 34	1404-17	Hwy 9 in Barnesville to Hwy 59 at Dunvilla	D 15
Hwy 34	0303-64	Various Passing Lanes from Detroit Lakes to Akeley	D 16
Hwy 59	0305-31	North of Hwy 34 in Detroit Lakes to south of the Buffalo River	D 17
Hwy 59	7506-17	From the junction of Hwy 28 to the north of the Stevens County line	D 18
Hwy 59	4404-13	South of the Buffalo River Bridge to Winger	D 19
Hwy 59	0304-37	North of CSAH 20 to south of Willow Street	D 20
Hwy 75	8408-44	Near Kent	D 21
Hwy 75	1407-25	Hwy 10 to north Clay County line	D 22
Hwy 78	5619-11	I-94 to Battle Lake	D 23
Hwy 79	2613-18	Elbow Lake to Hwy 94	D 24
Hwy 200	4402-19	Hwy 59 to east Mahnommen County line	D 25
Hwy 210	5601-33	1.8 miles East of Wilkin County Line to 0.4 miles West of I-94	D 26
I-94	1406-66	I-94 and Hwy 75 interchange	D 27
I-94	2180-109	At various locations on I-94 from Fergus Falls to Osakis	D 28

PROJECT SUMMARY

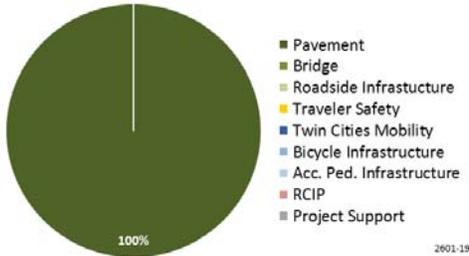
Hwy 9
 Herman to Hwy 55
 Bridge 6686
 State Project No. 2601-19



Primary Purpose

Performance-based Need: Pavement condition

Investment Category



Project Description

Resurface 18.5 miles between Herman and the junction of Hwy 55 with three-inch mill and three-inch inlay. Updated work at bridge location. Curb ramps in Tintah and Norcross will be brought up to standards. Several poor culverts will be repaired or replaced. Sidewalk replacement in Herman.

Recent Changes and Updates

Finished plans were completed in December 2015. Project has been submitted for letting on 9/23/2016.

Project History

Final scoping approval was February 2013. The scoping report is complete. The ADA requirements were reviewed with the ADA section in St. Paul. The pavement was deteriorating rapidly and would drop below the statewide average by 2016 or 2017. There are ADA non-compliant pedestrian ramps and sidewalks. Culverts were in poor condition.

Plans 60% complete in July 2015. 100% of the plans will be complete in December 2015. Added sidewalk replacement in Herman.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2013

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 4.2	\$ 4.6
Other Construction Elements:	\$ 0.5	\$ 0.5
Engineering:	\$ 0.8	\$ 1.0
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 5.6	\$ 6.1

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

ADA work in Tintah, Norcross and Herman will be included in the transition plan. Date of estimate is 5-5-16. A 6% inflation rate was used. The estimate increased because the estimated bituminous price increased and dewatering costs for work on culverts were added.

Project Risks

Contaminated soils in Herman. This project was selected to be a Flexible Project for 2016. A consultant was selected to do the advanced design so that this project could be ready to let early.

Schedule

Environmental Approval Date: Not Needed
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: Not Needed
 Construction Limits Established Date: 05/15/2015
 Original Letting Date: 02/26/2016
 Current Letting Date: 09/23/2016
 Construction Season: 2017
 Estimated Substantial Completion: Oct. 2017



Minnesota Department of Transportation
 District 4
 1000 Hwy 10 W
 (218) 846-3600

District Engineer: Jody Martinson
Project Manager: Brian Bausman

Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 10
 Detroit Lakes
 Bridge 03001
 State Project No. 0301-60
<http://www.dot.state.mn.us/d4/projects/dlfrontageroad/>

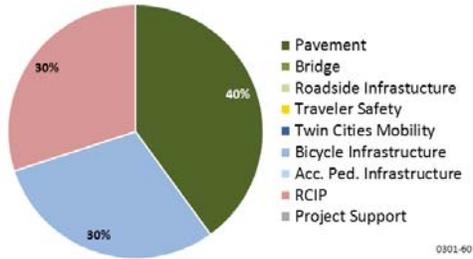
Substantially Complete



Primary Purpose

Regional & Community Improvement Priority
 Performance-based Need: Pavement Condition

Investment Category



Project Description

The project is located on Hwy 10 from Airport Road to Hwy 59 and on Hwy 59 from Hwy 10 to Holmes Street. A bridge on Hwy 59 was constructed, as well as a city street running under the bridge. From the city street, a frontage road and trail system were constructed along both Hwy 59 and Hwy 10. Pavement has been rehabilitated between Hwy 59 and Hwy 10 with ADA improvements, signals and lighting.

Recent Changes and Updates

Project is complete short of final punch list items. We are starting the process to turn back the constructed frontage roads to the City of Detroit Lakes.

Project History

The recommendations of a transportation planning study completed in June 2011 were incorporated into the Hwy 10 pavement project.

The project will provide safe and controlled access to Hwy 10 with the development of a frontage road system that allows vehicular/ bike/pedestrian travel from downtown Detroit Lakes to facilities west of Hwy 59 without having to travel on Hwy 10.

Project is under construction with substantial completion in fall 2015. Clean up of swamp area on frontage road will be done in 2016.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2011

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 14.0	\$ 14.3
Other Construction Elements:	\$ 0.7	\$ 0.0
Engineering:	\$ 2.8	\$ 1.8
Right of Way:	\$ 0.0	\$ 0.6
Total:	\$ 17.4	\$ 16.7

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Hwy 10 will be concrete on the existing alignment (airport to Hwy 59). The new frontage road south of Hwy 10 (Wal-Mart Property to DL Auto), and the underpass at Main Morrow with the city project on Thomas Avenue will be bituminous. The current cost estimate is the amount that the project was let for.

Project Risks

Swamp settlement of newly built sections of frontage road.

Schedule

Environmental Approval Date: 05/21/2013
 Municipal Consent Approval Date: 07/09/2013
 Geometric Layout Approval Date: 05/31/2013
 Construction Limits Established Date: 08/01/2013
 Original Letting Date: 01/23/2015
 Current Letting Date: 02/27/2015
 Construction Season: May 2015 - November 2015
 Estimated Substantial Completion: November/2015



Minnesota Department of Transportation
 District 4
 1000 Hwy 10 W
 (218) 846-3600

District Engineer: Jody Martinson
Project Manager: Tom Lundberg

Revised Date: 12/15/2016

PROJECT SUMMARY

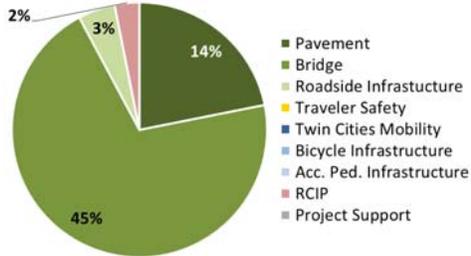
Hwy 10
 Jct. TH 59 to Summit Ave. in Detroit Lakes
 Bridge 03011, &, 03004
 State Project No. 0301-63



Primary Purpose

Performance-based Need: Pavement and Bridge Condition

Investment Category



Project Description

Mill of existing bituminous and place back concrete pavement. Replace bridges with new Bridge.

Recent Changes and Updates

Final design will be completed Fall 2016.

Project History

This project was programmed to correct poor pavement and match up similar concrete sections on either side.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2014

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 0.9	\$ 4.6
Other Construction Elements:	\$ 0.3	\$ 0.6
Engineering:	\$ 0.3	\$ 1.1
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 1.5	\$ 6.2

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Project was changed from a bridge overlay to a bridge replacement and extended to Summit Ave. with 7" concrete, complex staging, preliminary bridge estimate. 6% inflation rate was used.

Project Risks

Complex staging and compressed timeline could affect bid costs. Bridge work over active rail line. Public patience with another long construction project in the area.

Schedule

Environmental Approval Date: 8/10/2016
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: Not Needed
 Construction Limits Established Date: Not Needed
 Original Letting Date: 2/24/2017
 Current Letting Date: 1/27/2017
 Construction Season: 2017
 Estimated Substantial Completion: November 2017



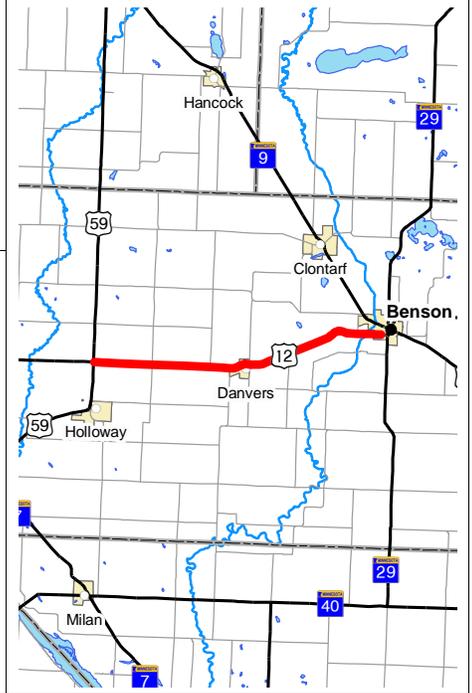
Minnesota Department of Transportation
 District 4
 1000 Hwy 10 W
 (218) 846-3600

District Engineer: Jody Martinson
Project Manager: Tom Lundberg

Revised Date: 12/15/2016

PROJECT SUMMARY

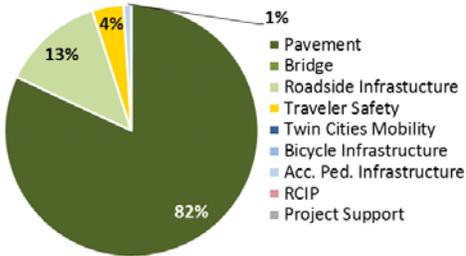
Hwy 12
 Hwy 59 to City of Benson
 State Project No. 7604-22



Primary Purpose

Performance-based Need: Pavement condition

Investment Category



Project Description

15 mile pavement rehabilitation project from Hwy 59 to the City of Benson. The project also includes shoulder work, side culverts, snow drift control, and end posts on Bridge #76001.

Recent Changes and Updates

Ditch grading for snow drift control will be done with this project. Living snow fence will be implemented as a stand alone project in the Spring of 2018.

Project History

The existing bituminous needs resurfacing, and shoulders need to be graded in a few areas. Seven areas of snow drifting are being evaluated. A combination of ditch grading and snow fence is being proposed.

This project was moved to an earlier letting date.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2014

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 5.7	\$ 5.7
Other Construction Elements:	\$ 0.7	\$ 0.7
Engineering:	\$ 1.1	\$ 1.1
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 7.5	\$ 7.5

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Date of estimate is 6-28-2016. 10% inflation rate used.

Project Risks

Municipal consent risk is retired because the property that is needed for snow drift control is not within the city limits of Danvers. Truck lanes are being considered by the railroad crossing west of Benson. Other risks include completing railroad crossing agreement, and incorporating erosion prevention measures at bridges. Contingency was included in the estimate for these risks.

Schedule

Environmental Approval Date: 06/20/2016
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: Not Needed
 Construction Limits Established Date: 08/15/2015
 Original Letting Date: 02/23/2018
 Current Letting Date: 03/24/2017
 Construction Season: 2017
 Estimated Substantial Completion: October/2017



Minnesota Department of Transportation
 District 4
 1000 Hwy 10 W
 (218) 846-3600

District Engineer: Jody Martinson
Project Manager: Thomas Pace

Revised Date: 12/15/2016

PROJECT SUMMARY

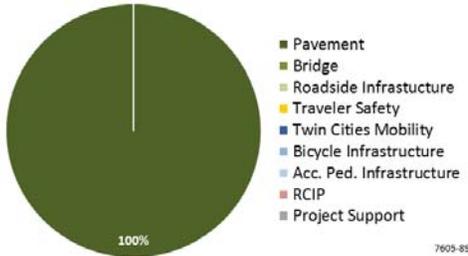
Hwy 12
 Benson to Kerkhoven
 State Project No. 7605-89



Primary Purpose

Performance-based Need: Pavement condition

Investment Category



Project Description

Mill and overlay from County Road 25 east of Benson to Kerkhoven. Sidewalk and pedestrian ramp replacement in DeGraff, Murdock and Kerkhoven.

Recent Changes and Updates

Project was let on 04/22/2016 as an ELLA. Scheduled to be complete by 10/01/2016.

Project History

Final scoping approval in February 2013. Scoping report complete. Scheduled field walk to evaluate ADA needs.

Resurface Hwy 12 from Benson to Kerkhoven to restore ride quality.

ADA needs identified and are included in design. Failing culverts, non-compliant sidewalks and pedestrian ramps in DeGraff, Murdock and Kerkhoven were identified.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2013

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 5.4	\$ 3.2
Other Construction Elements:	\$ 0.5	\$ 0.5
Engineering:	\$ 1.0	\$ 0.8
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 6.9	\$ 4.5

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Job was let and awarded and is being constructed. The current estimate reflects low bid amount for the project. The bid price for bituminous was low.

Project Risks

Subgrade issue, which may include poor soils under the pavement, and a low area in Murdock.
 ADA in DeGraff, Murdock & Kerkhoven considerations.

Schedule

Environmental Approval Date: Not needed
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: Not Needed
 Construction Limits Established Date: 08/15/2015
 Original Letting Date: 01/26/2018
 Current Letting Date: 04/22/2016
 Construction Season: 2016
 Estimated Substantial Completion: 10/01/2016



Minnesota Department of Transportation
 District 4
 1000 Hwy 10 W
 (218) 846-3600

District Engineer: Jody Martinson
Project Manager: Brian Bausman

Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 12
Hwy 75 in Ortonville to Hwy 59
Bridge 794, 1060, 1121, 76012
State Project No. 0603-16



Primary Purpose

Performance-based Need: Pavement condition

Investment Category

Project Description

Mill and inlay on Hwy 12 from Hwy 75 in Ortonville to the junction of Hwy 59. Replace box culverts and bridge improvements over the Pomme de Terre River.

Recent Changes and Updates

This project scoping document was completed in April 2016. Areas are being reviewed for possible snow trap mitigation.

Project History

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2017

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 8.5	\$ 8.5
Other Construction Elements:	\$ 0.8	\$ 0.8
Engineering:	\$ 1.6	\$ 1.6
Right of Way:	\$ 0.1	\$ 0.1
Total:	\$ 10.9	\$ 10.9

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Date of estimate is 4-11-16. A 19% inflation rate was used. Pavement width will be widened with this project, which will result in the gravel shoulders being paved. This is an advanced construction project which means that \$2M of this project cost will be paid back in 2021. This allows construction to be done sooner.

Project Risks

Identification of additional snow trap areas, possible contamination at the NW quadrant of Hwy 12 and Hwy 59, superelevation of the curve at the east end of the project, and possible additional drainage work. A benefit/cost analysis is being completed on the regrading for each snow trap location.

Schedule

Environmental Approval Date:
Municipal Consent Approval Date:
Geometric Layout Approval Date:
Construction Limits Established Date:
Original Letting Date: 11/22/2019
Current Letting Date: 11/22/2019
Construction Season: 2020
Estimated Substantial Completion: Oct. 2020



Minnesota Department of Transportation
District 4
1000 Hwy 10 W
(218) 846-3600

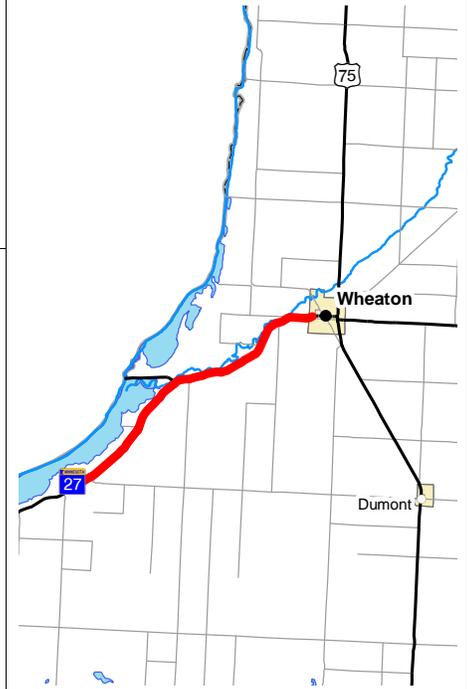
District Engineer: Jody Martinson
Project Manager: Brian Bausman

Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 27

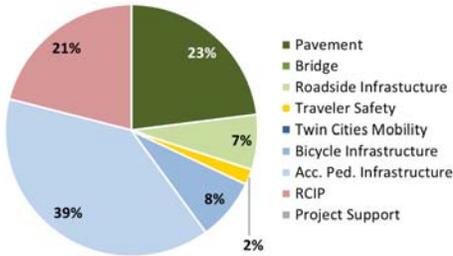
On Hwy 27 from CSAH 6 to Wheaton and on Hwy 75 from Dumont to the Mustinka River bridge
State Project No. 7802-33



Primary Purpose

Performance-based Need: Pavement condition

Investment Category



Project Description

Pavement will be rehabilitated for 12 miles on Hwy 27 from CSAH 6 to Wheaton and Hwy 75 from Dumont to the Mustinka River bridge.

Recent Changes and Updates

This project on Hwy 27 was combined with a project that was planned on Hwy 75 (SP 7805-33) and will be done as one project. Accessibility work in Wheaton will be done as a separate, stand alone project (SP 7802-35).

Project History

This project includes ADA work, pedestrian ramps and sidewalks in Wheaton. Bituminous milling and overlay will be done on the pavement. Existing bituminous needs resurfacing on Hwy 27 and Hwy 75. Accessibility work will be done in Wheaton.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2015

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 4.4	\$ 6.0
Other Construction Elements:	\$ 0.5	\$ 0.6
Engineering:	\$ 0.9	\$ 1.2
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 5.8	\$ 7.8

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

New estimate increased because it includes work on Hwy 75 that was previously a separate project (SP 7805-33). Estimate was done in 2016 using a 15% inflation rate for 2019.

Project Risks

Right of way for culvert work. Contingency for culvert work included in the estimate.

Schedule

Environmental Approval Date: Pending Approval
Municipal Consent Approval Date: Not Needed
Geometric Layout Approval Date: Not Needed
Construction Limits Established Date: Pending Approval
Original Letting Date: 1/25/2019
Current Letting Date: 01/25/2019
Construction Season: 2019
Estimated Substantial Completion: October/2019



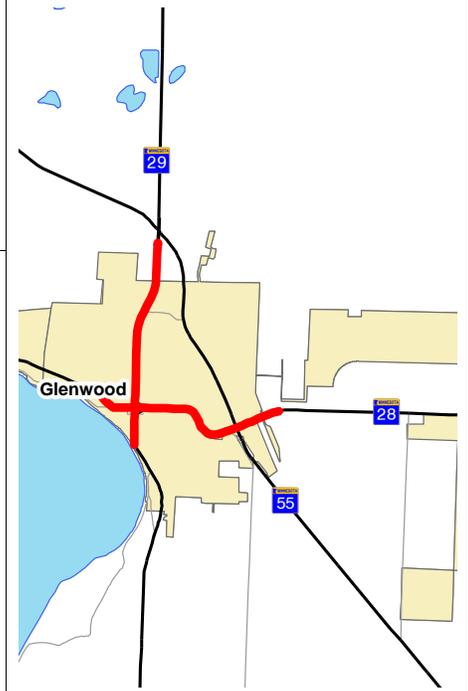
Minnesota Department of Transportation
District 4
1000 Hwy 10 W
(218) 846-3600

District Engineer: Jody Martinson
Project Manager: Thomas Pace

Revised Date: 12/15/2016

PROJECT SUMMARY

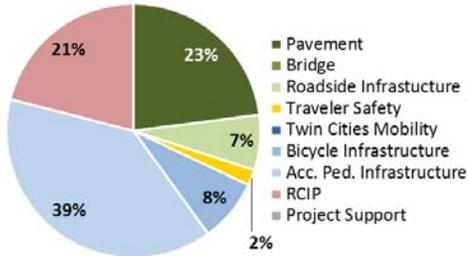
Hwy 28
 Hwy 28, Hwy 29, Hwy 104 - Glenwood
 State Project No. 6103-32
<http://www.dot.state.mn.us/D4/projects/Glenwood>



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

4 miles of bituminous rehabilitation on Hwy 28, Hwy 29 & Hwy 104 in the City of Glenwood. The project also includes: ADA pedestrian ramps, sidewalk, signal system, 6 blocks of Complete Streets improvements and a realignment to address a flooding issue on Hwy 28 near the fairgrounds. Complete Streets is an approach to road planning and design that considers and balances the needs of all transportation users. In Glenwood this includes improvements and facilities for bicycles and pedestrians.

Recent Changes and Updates

Municipal consent and the geometric layout for the project have been approved. Six blocks of Complete Streets improvements will be done in Glenwood.

Project History

This project includes ADA, Complete Streets, bituminous overlay, and hydraulic flooding issues that need to be resolved.

Complete Streets portion of the project was approved, which includes improvements and facilities for bicycles and pedestrians. Hydraulic flooding issue mitigation design was approved. Predesign contract is complete. Final design contract is initiated. A project that was awarded Transportation Alternatives Program funding will be constructed in conjunction with this project.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2014

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 7.3	\$ 7.1
Other Construction Elements:	\$ 0.5	\$ 1.8
Engineering:	\$ 1.4	\$ 1.7
Right of Way:	\$ 0.0	\$ 0.1
Total:	\$ 9.2	\$ 10.7

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Estimate dated 6-28-16. Used 10% inflation for 2018. \$1M City of Glenwood Complete Streets participation. \$100,000 City of Glenwood participation for grade raise for flooding issues. The grade raise by the fairgrounds has increased the cost of the project.

Project Risks

Consultants will be used for predesign and final design. Predesign contract for Complete Streets could exceed scope. Hydraulic/flooding area could result in Hwy 28 realignment. City participation costs, ADA, sidewalk, access control.

Schedule

Environmental Approval Date: Pending Approval
 Municipal Consent Approval Date: 6/29/2016
 Geometric Layout Approval Date: 7/19/2016
 Construction Limits Established Date: 6/3/2016
 Original Letting Date: 02/16/2018
 Current Letting Date: 10/27/2017
 Construction Season: 2018
 Estimated Substantial Completion: October/2018



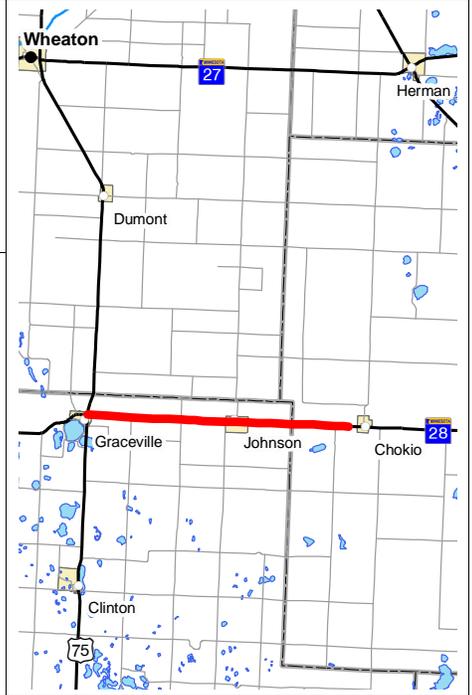
Minnesota Department of Transportation
 District 4
 1000 Hwy 10 W
 (218) 846-3600

District Engineer: Jody Martinson
Project Manager: Thomas Pace

Revised Date: 12/15/2016

PROJECT SUMMARY

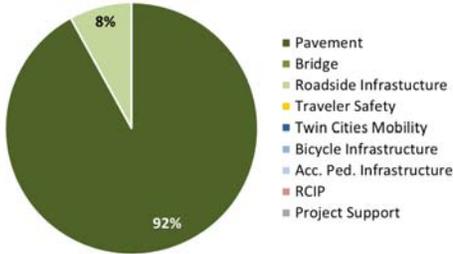
Hwy 28
Hwy 75 to Chokio
State Project No. 0606-11



Primary Purpose

Performance-based Need: Pavement condition

Investment Category



Project Description

Milling, paving and hydraulic improvements of 12 miles from Hwy 75 in Graceville to Chokio.

Recent Changes and Updates

This project is an Early Let Late Award project. Early let late award allows advanced design time and early completion. The previously reported 4" of standing water at one location on Hwy 28 has not been confirmed according to MnDOT Maintenance personnel so it was removed as a risk from the estimate.

Project History

This project includes bituminous resurfacing. In place bituminous needs resurfacing.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2015

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 3.5	\$ 3.9
Other Construction Elements:	\$ 0.5	\$ 0.5
Engineering:	\$ 0.7	\$ 0.8
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 4.7	\$ 5.2

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Cost estimate was done in 2016 using a 15% inflation rate. Aggregate shoulder depth was increased from 1.5" to 2.0". Bituminous costs were increased to reflect current market condition.

Project Risks

Box culverts may need to be lengthened. This risk is accounted for in the contingency in the estimate.

Schedule

Environmental Approval Date: Pending Approval
Municipal Consent Approval Date: Not Needed
Geometric Layout Approval Date: Not Needed
Construction Limits Established Date: Pending Approval
Original Letting Date: 3/22/2018
Current Letting Date: 03/23/2018
Construction Season: 2018
Estimated Substantial Completion: October/2018



Minnesota Department of Transportation
District 4
1000 Hwy 10 W
(218) 846-3600

District Engineer: Jody Martinson
Project Manager: Thomas Pace

Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 28
Starbuck to Glenwood
State Project No. 6103-34



Primary Purpose

Performance-based Need: Pavement condition

Investment Category

*This project was designed and scoped before the current highway investment plan MnSHIP was developed, which breaks projects into investment categories.

Project Description

The project consists of 8 miles of bituminous milling, reclamation, and surfacing. Project also includes hydraulic work and shoulder widening on Hwy 28.

Recent Changes and Updates

Bypass lane added at CSAH 24.

Hydraulic Design required on the north side of TH 28 at Silver Beach road to temporarily store water during large rain events to reduce flooding which occurs on TH 28.

Project History

This project includes bituminous milling, roadway reclamation, bituminous surfacing, shoulder widening and center left turn lane construction.

Multiple locations along the project to include off take ditches and centerline culverts need to be reviewed to correct hydraulic issues if possible.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2015

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 6.8	\$ 6.5
Other Construction Elements:	\$ 1.4	\$ 1.4
Engineering:	\$ 1.4	\$ 1.4
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 9.6	\$ 9.3

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Cost estimate was done in 2016 using a 15% inflation rate for 2019. A reduced inflation rate and lower contingency percentage accounts for a reduction in the estimate.

Project Risks

Environmental approval, right of way acquisition, detour agreement. Hydraulic risks are accounted for in the cost estimate as best as possible. The right of way acquisition will be necessary depending on the hydraulic design on the North side of TH 28 near Silver beach road.

Schedule

Environmental Approval Date: Pending Approval
Municipal Consent Approval Date: Not Needed
Geometric Layout Approval Date: Pending Approval
Construction Limits Established Date: Pending Approval
Original Letting Date: 2020
Current Letting Date: 2/22/2019
Construction Season: 2019
Estimated Substantial Completion: October/2019



Minnesota Department of Transportation
District 4
1000 Hwy 10 W
(218) 846-3600

District Engineer: Jody Martinson
Project Manager: Justin Knopf

Revised Date: 12/15/2016

PROJECT SUMMARY

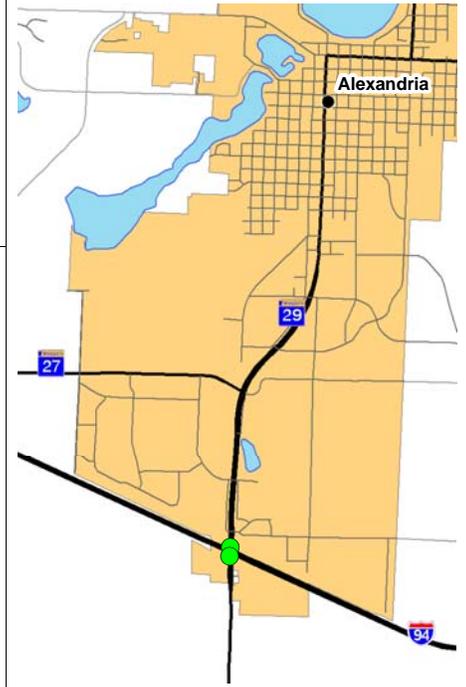
Hwy 29

50th Avenue in Alexandria to County Road 28

Bridge 21813, 21814

State Project No. 2102-58

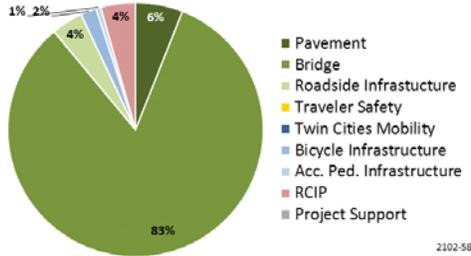
<http://www.dot.state.mn.us/d4/projects/alexi94hwy29/index.html>



Primary Purpose

Performance-based Need: Bridge Condition

Investment Category



2102-58

Project Description

The project will replace Bridges 21813 and 21814, which are part of the interchange in Alexandria for 2 miles on Hwy 29 over I-94. The project will replace the interchange and construct a four-lane expansion of Hwy 29 from 500 feet north of 50th Ave. to 0.4 miles south of County Road 28. This project is being done in collaboration with the city and county. A roundabout will be constructed on the south end of the project to improve safety.

Recent Changes and Updates

In second year of construction. Set to finish Fall of 2016. Working on protection of utility line with Magellan Pipeline which may carry over into 2017.

Project History

The bridges were built in 1965 and are considered Structurally Deficient. The width and railings on the bridges are substandard. A value engineering study is complete. Bridges 21813 and 21814 are part of Chapter 152.

This project will help economic development, mobility and safety. Geometric layout was complete and signed. The right of way acquisition has begun. Design plans are 50 percent complete. Traffic and noise studies are complete. Website is live. Public meeting in October 2012.

90% of the project plans were completed in August 2014.

Construction started July 2015 and will finish fall 2016.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2012

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 16.2	\$ 14.9
Other Construction Elements:	\$ 1.1	\$ 1.2
Engineering:	\$ 3.0	\$ 3.3
Right of Way:	\$ 0.1	\$ 2.0
Total:	\$ 20.5	\$ 21.4

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Job has been let and awarded and is being constructed. The current estimate reflects low bid amount for the project. Two-span steel girder structure with tall abutments. Bituminous typical section assumed. Right of way process will be tight. Increased cost for consultant design and required right of way resulted in an increase in the cost estimate

Project Risks

Utility impacts currently being resolved with Magellan Gas Company dealing with major distribution line.

Schedule

Environmental Approval Date: Not needed
 Municipal Consent Approval Date: 05/28/2013
 Geometric Layout Approval Date: 9/6/2013
 Construction Limits Established Date: 09/06/2013
 Original Letting Date: 01/22/2016
 Current Letting Date: 02/27/2015
 Construction Season: 2015/2016
 Estimated Substantial Completion: November 2016



Minnesota Department of Transportation
 District 4
 1000 Hwy 10 W
 (218) 846-3600

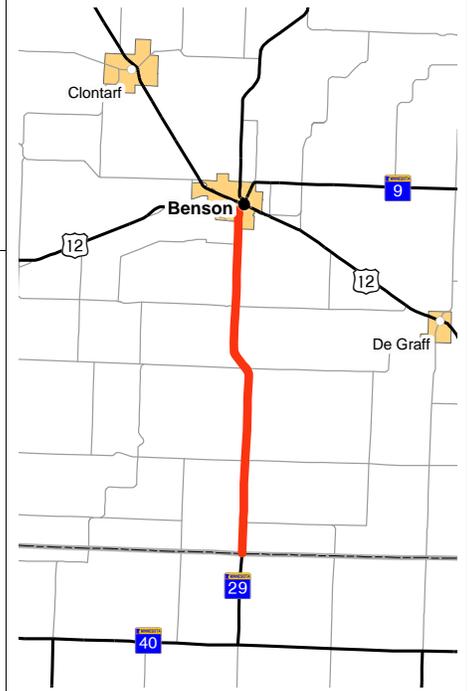
District Engineer: Jody Martinson
Project Manager: Bradley Cegla

Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 29
 Hwy 40 to Benson
 Bridge 6550, 6551, and, 6552
 State Project No. 7607-29

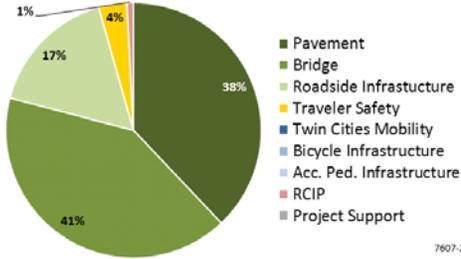
Substantially Complete



Primary Purpose

Performance-based Need: Bridge & Pavement Condition

Investment Category



Project Description

Bituminous resurfacing for 14 miles from Benson to Hwy 40. Bridges 6550, 6551 & 6552 will be replaced and grading will be done to tie into the bridges. Culverts that are in poor condition will be replaced.

Recent Changes and Updates

Project is substantially complete as of fall 2014.

Project History

Because bridge widening is needed to bring the bridges up to current standards, replacement is the only feasible option. Pavement deterioration rates exceeded historic declines. Bridge Replacement 6552 is part of Chapter 152. A consultant was hired and is starting to work on the design plans. Bridges 6550 and 6551 were evaluated and replaced with box culverts. Bridge 6552 will be replaced with a bridge.

The winter was extremely hard on the pavement condition. The letting was moved up to address this issue.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2011

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 7.3	\$ 6.6
Other Construction Elements:	\$ 0.9	\$ 0.5
Engineering:	\$ 1.5	\$ 0.4
Right of Way:	\$ 0.1	\$ 0.0
Total:	\$ 9.8	\$ 7.6

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Project is substantially complete as of fall 2014. The bid price for the culverts and bridge were less than expected resulting in cost savings.

Project Risks

No remaining risks.

Schedule

Environmental Approval Date: 03/13/2014
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: Not Needed
 Construction Limits Established Date: 10/18/2013
 Original Letting Date: 03/24/2006
 Current Letting Date: 05/16/2014
 Construction Season: 2014
 Estimated Substantial Completion: November/ 2014



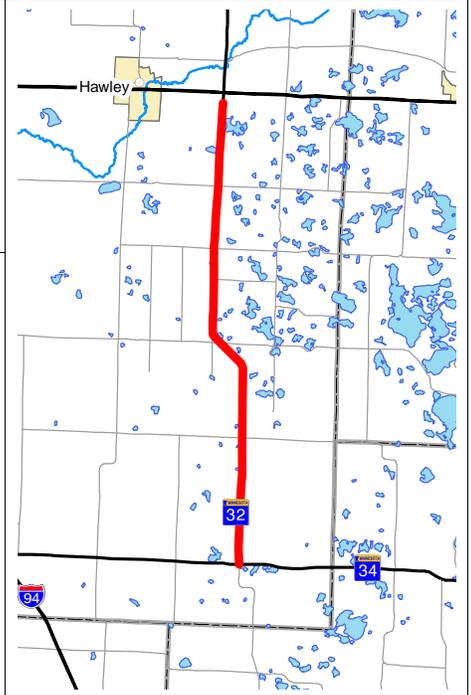
Minnesota Department of Transportation
 District 4
 1000 Hwy 10 W
 (218) 846-3600

District Engineer: Jody Martinson
Project Manager: Dan Kuhn/Bradley Cegla

Revised Date: 12/15/2016

PROJECT SUMMARY

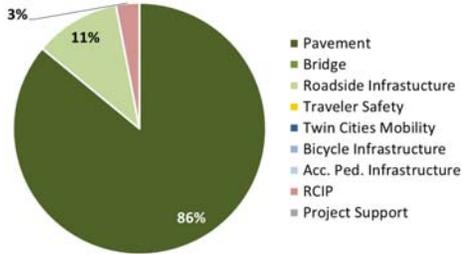
Hwy 32
Hwy 34 to Hwy 10
State Project No. 1402-19



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

16 mile project from the junction of Hwy 34 to the junction of Hwy 10. Pavement will be rehabilitated, center line culverts and entrance pipes will be lined.

Recent Changes and Updates

The pipes have been inspected and some will be lined rather than replaced.

Project History

Pavement needs resurfacing and various center line pipes need to be replaced or lined.

Project is being designed, limits established, and the right of way acquisition process is beginning.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2014

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 4.5	\$ 4.7
Other Construction Elements:	\$ 0.6	\$ 0.6
Engineering:	\$ 0.9	\$ 1.0
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 6.0	\$ 6.3

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Project is 60% designed. Cost estimate was updated in 2016 using a 6% inflation rate. Bituminous prices were increased due to market conditions, which increased the estimate. A 19% inflation rate was used for the baseline estimate.

Project Risks

Potential pedestrian box culvert addition near Rollag, which is currently not funded.

Schedule

Environmental Approval Date: Pending Approval
Municipal Consent Approval Date: Not Needed
Geometric Layout Approval Date: Not Needed
Construction Limits Established Date: 8/26/2016
Original Letting Date: 3/24/2017
Current Letting Date: 03/24/2017
Construction Season: 2017
Estimated Substantial Completion: October/2017



Minnesota Department of Transportation
District 4
1000 Hwy 10 W
(218) 846-3600

District Engineer: Jody Martinson
Project Manager: Thomas Pace

Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 34

Hwy 9 in Barnesville to Hwy 59 at Dunvilla

State Project No. 1404-17

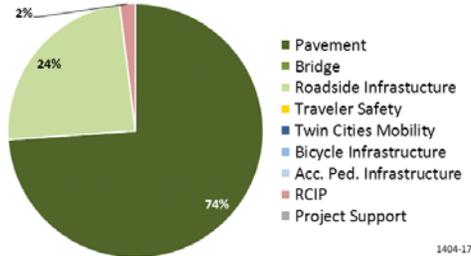
Substantially Complete



Primary Purpose

Performance-based Need: Pavement condition

Investment Category



Project Description

19 mile pavement rehabilitation project from Hwy 9 in Barnesville to Hwy 59 at Dunvilla. The project also includes shoulder work, installing rumble strips and culvert replacement.

Recent Changes and Updates

Project is substantially complete.

Project History

This project was initiated because intense annual maintenance was required to repair cracks, rutting and other deficiencies. It also appears that gravel truck traffic increased from Hwy 32 west, resulting in more rapid deterioration of the roadway. The project was scoped in May 2011. The project scope was expanded to include from I-94 to Hwy 9 in Barnesville so that this last stretch of highway 34 would be rehabilitated along with highway 34 to the east.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2011

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 8.1	\$ 6.6
Other Construction Elements:	\$ 0.8	\$ 1.1
Engineering:	\$ 1.7	\$ 0.5
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 10.6	\$ 8.2

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The baseline estimate was adjusted to 2015 year of construction using an inflation rate of 5%. The current estimate is substantial completion of the project.

Project Risks

Project risks include subgrade corrections for poor soils beneath the pavement that cause frost heaves and pavement problems at culvert locations.

Schedule

Environmental Approval Date: 01/31/2014
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: Not Needed
 Construction Limits Established Date: 06/07/2015
 Original Letting Date: 05/20/2011
 Current Letting Date: 02/27/2015
 Construction Season: 2015
 Estimated Substantial Completion: August/2015



Minnesota Department of Transportation
 District 4
 1000 Hwy 10 W
 (218) 846-3600

District Engineer: Jody Martinson
Project Manager: Tom Lundberg

Revised Date: 12/15/2016

PROJECT SUMMARY

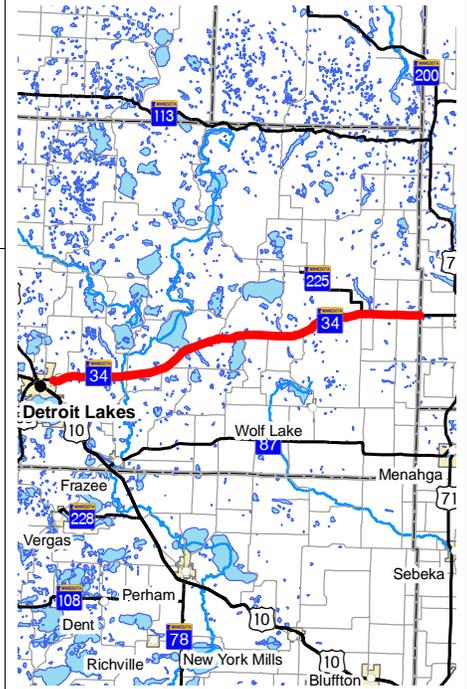
Hwy 34

Various Passing Lanes from Detroit Lakes to Akeley

State Project No. 0303-64

www.dot.state.mn/d4/projects/hwy34

Substantially Complete



Primary Purpose

Performance-based Need: Interregional Corridor Mobility

Investment Category

*This project was designed and scoped before the current highway investment plan MnSHIP was developed, which breaks projects into investment categories.

Project Description

The project includes spot improvements, passing lane improvements, and intersection improvements on Hwy 34 from Detroit Lakes to Akeley.

Recent Changes and Updates

Project is substantially complete. Poor soils led to increases in cost over the estimated.

Project History

This project is part of the Corridors of Commerce Program and was fast tracked starting November 2013 with design and passing lanes completed in fall 2015.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2013

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 6.8	\$ 7.9
Other Construction Elements:	\$ 0.6	\$ 0.7
Engineering:	\$ 1.5	\$ 1.3
Right of Way:	\$ 0.0	\$ 0.1
Total:	\$ 8.9	\$ 10.0

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Project is substantially complete.

Project Risks

Short turn around for design and letting. Permits acquired in time due to compressed time schedule. Hydraulics, poor soils beneath the pavement and possible existing contamination of soil on the project.

Schedule

Environmental Approval Date: 03/10/2014
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: Dec 2013
 Construction Limits Established Date: 12/01/2013
 Original Letting Date: 06/06/2014
 Current Letting Date: 06/27/2014
 Construction Season: 2014/2015
 Estimated Substantial Completion: October/2015



Minnesota Department of Transportation
 District 4
 1000 Hwy 10 W
 (218) 846-3600

District Engineer: Jody Martinson
Project Manager: Tom Lundberg

Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 59

North of Hwy 34 in Detroit Lakes to south of the Buffalo River

State Project No. 0305-31

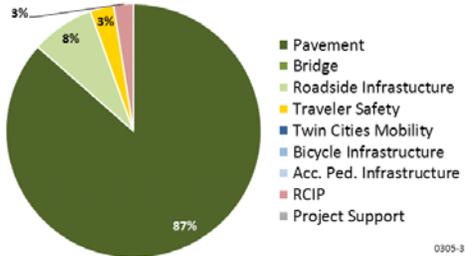
Substantially Complete



Primary Purpose

Performance-based Need: Pavement condition

Investment Category



Project Description

14 miles of mill and bituminous overlay from Detroit Lakes to north of Callaway. Culverts in poor condition will be replaced. The ride will be improved along with improved drainage along the corridor. The project will also address safety by adding centerline rumbles. Accessibility ramps in Callaway will be brought up to current standards.

Recent Changes and Updates

Project is substantially complete.

Project History

Existing pavement conditions were below standard and substantial maintenance work was required for pavement patching. Scoping was completed in spring 2010. The scope was amended to decrease the pavement fix and to include paving and ADA work in Callaway.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2010

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 8.1	\$ 4.8
Other Construction Elements:	\$ 0.7	\$ 0.0
Engineering:	\$ 1.6	\$ 0.6
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 10.4	\$ 5.4

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Project is substantially complete. Project was previously let and awarded. This project was originally scoped as a 4" overlay but was changed to a 3" mill and overlay, which resulted in a cost decrease.

Project Risks

Condition of pavement at time of construction.

Schedule

Environmental Approval Date: 08/07/2013
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: Not Needed
 Construction Limits Established Date: 10/01/2012
 Original Letting Date: 03/23/2014
 Current Letting Date: 11/22/2013
 Construction Season: Summer 2014
 Estimated Substantial Completion: Sept. 2014



Minnesota Department of Transportation
 District 4
 1000 Hwy 10 W
 (218) 846-3600

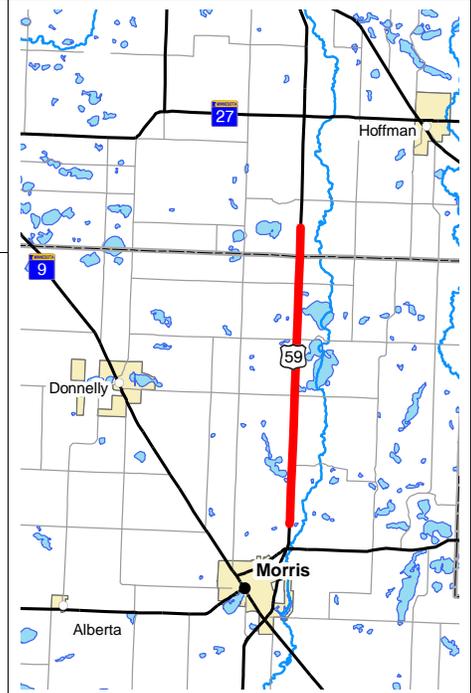
District Engineer: Jody Martinson
Project Manager: Seth Yliniemi

Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 59

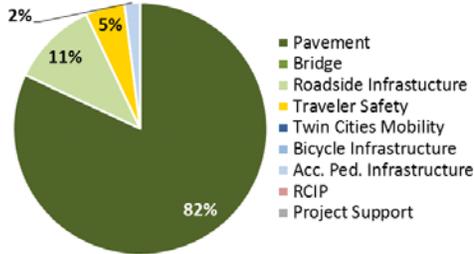
From the junction of Hwy 28 to the north of the Stevens County line
State Project No. 7506-17



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

The project consists of a concrete overlay from the junction of Hwy 28 to north of the Stevens County line and at the intersection of Hwy 59/28.

Recent Changes and Updates

Project is set to be complete Fall of 2016.

Project History

This project was programmed to correct joints in the pavement that were deteriorating faster than anticipated and will support the implementation of a thin concrete overlay as an innovative fix. The letting was advanced from 2018 to 2016.

Project designs are almost done. Testing found contaminated material at the Hwy 28/59 intersection.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2014

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 6.3	\$ 5.3
Other Construction Elements:	\$ 0.6	\$ 0.6
Engineering:	\$ 1.2	\$ 1.2
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 8.1	\$ 7.1

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Job was let and awarded and is being constructed. The current estimate reflects low bid amount for the project.

Project Risks

The concrete overlays are a new process and problems may be encountered after completion.

Schedule

Environmental Approval Date: Pending Approval
Municipal Consent Approval Date: Not Needed
Geometric Layout Approval Date: 04/30/2015
Construction Limits Established Date: 04/30/2015
Original Letting Date: 03/23/2018
Current Letting Date: 01/18/2015
Construction Season: 2016
Estimated Substantial Completion: 10/01/2016



Minnesota Department of Transportation
District 4
1000 Hwy 10 W
(218) 846-3600

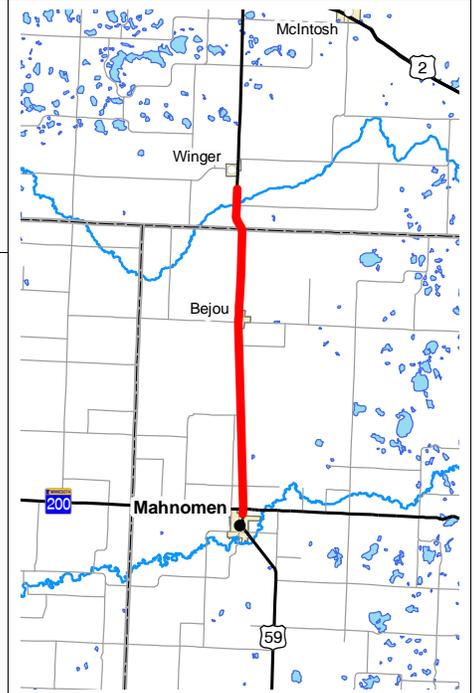
District Engineer: Jody Martinson
Project Manager: Brad Cegla

Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 59

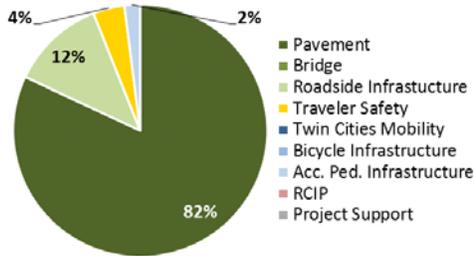
South of the Buffalo River Bridge to Winger
State Project No. 4404-13, 0305-34, &, 6008-15



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

36 mile project from south of the Buffalo River bridge to Winger. Pavement will be rehabilitated, centerline culverts will be replaced and centerline and edgeline rumble stripes will be installed. ADA work in Ogema will be done. One mile of continuous center left turn lane will be constructed in Mahanomen along with a trail from Washington Ave. to the Shooting Star Casino entrance.

Recent Changes and Updates

Design is 100% complete. One mile of continuous left turn lane was added in Mahanomen along with a half mile of trail to accommodate pedestrians.

Project History

Pavement needs resurfacing, and hydraulic pipes need to be replaced. Frost heaves and rip rap at various areas to be corrected. District 2 coordination.

Hwy 200 turn lanes to be constructed under SP 0305-34.

Two projects, SP 0305-34 and SP 4404-13, on Hwy 59 were combined into one project for construction in 2017. This project extends into District 2 under SP 6008-15. Design is 30% complete. One mile of continuous left turn lane was added in Mahanomen.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2014

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 4.7	\$ 11.9
Other Construction Elements:	\$ 0.5	\$ 1.1
Engineering:	\$ 1.0	\$ 2.6
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 6.2	\$ 15.6

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The estimate increased dramatically because two projects, SP 0305-34 and SP 4404-13, on Hwy 59 were combined into one project for construction in 2017. Estimate dated 4-6-16. 6% inflation rate. Tribal Employment Rights Ordinance is included in estimate. Cost estimate went down slightly due to favorable bituminous prices.

Project Risks

All permits are obtained.

Schedule

Environmental Approval Date: 7/15/2016
Municipal Consent Approval Date: Not Needed
Geometric Layout Approval Date: 8/25/2016
Construction Limits Established Date: 1/20/2016
Original Letting Date: 02/16/2018
Current Letting Date: 12/16/2016
Construction Season: 2017
Estimated Substantial Completion: October 2017



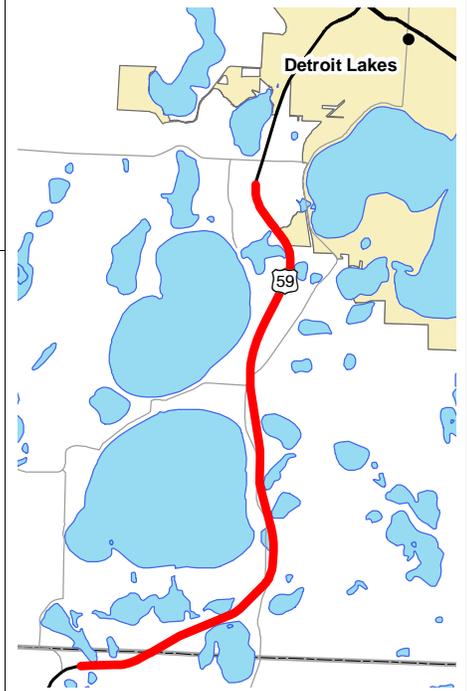
Minnesota Department of Transportation
District 4
1000 Hwy 10 W
(218) 846-3600

District Engineer: Jody Martinson
Project Manager: Shiloh Wahl

Revised Date: 12/15/2016

PROJECT SUMMARY

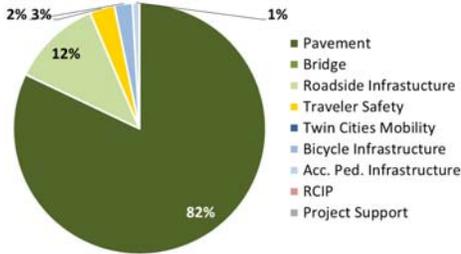
Hwy 59
North of CSAH 20 to south of Willow Street
State Project No. 0304-37



Primary Purpose

Performance-based Need: Pavement condition

Investment Category



Project Description

Resurfacing and safety improvement project from CSAH 20 in Otter Tail County to Willow Street in Detroit Lakes. Left turn lanes will be added at CSAH 17 in Becker County.

Recent Changes and Updates

Geometric layout is complete and construction limits established.

Project History

Project needed as a result of low ride quality and above average crash history. Yearly spending for patching and crack filling will grow if project is not completed.

Working on geometric layout and other pre-design activities. Letting date revised from 2020 to 2018 construction.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2015

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 3.7	\$ 3.4
Other Construction Elements:	\$ 0.3	\$ 0.3
Engineering:	\$ 0.7	\$ 0.7
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 4.7	\$ 4.4

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Estimate was done in 2016 using a 10% inflation rate. Moving the construction of this project to two years sooner resulted in cost savings due to a lower inflation rate.

Project Risks

Project risks include additional aggregate shouldering, ADA update at CR 6, ADA at Sauer Lake Rest Area, upgrades to the pedestrian push button on the signal system at CR 6 and additional hydraulics issues. These risks were accounted for as contingencies in the estimate.

Schedule

Environmental Approval Date: Pending Approval
Municipal Consent Approval Date: Not Needed
Geometric Layout Approval Date: 12/22/2015
Construction Limits Established Date: 12/22/2015
Original Letting Date: 9/21/2018
Current Letting Date: 12/15/2017
Construction Season: May 2018 to October 2018
Estimated Substantial Completion: October/2018



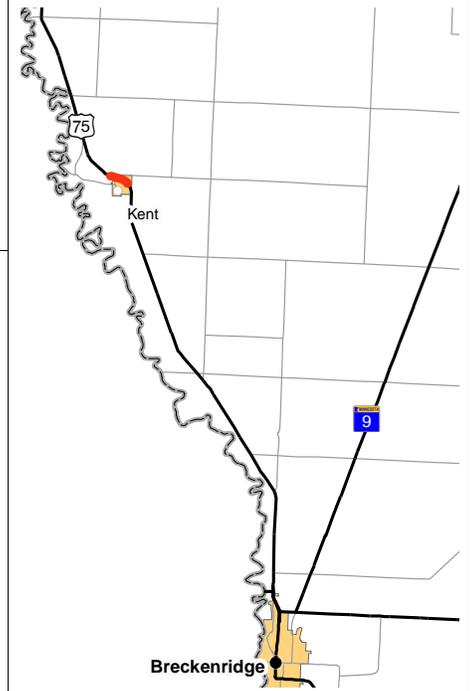
Minnesota Department of Transportation
District 4
1000 Hwy 10 W
(218) 846-3600

District Engineer: Jody Martinson
Project Manager: Brian Bausman

Revised Date: 12/15/2016

PROJECT SUMMARY

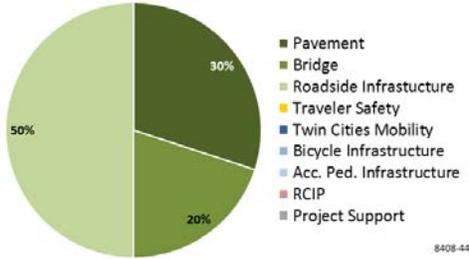
Hwy 75
Near Kent
Bridge 5185, &, 5186
State Project No. 8408-44
<http://www.dot.state.mn.us/D4/Projects/Hwy75kent/>



Primary Purpose

Performance-based Need: Bridge & Roadside Infrastructure Condition

Investment Category



Project Description

Hwy 75 will be realigned away from the flood plain. A new bridge over Whiskey Creek will be constructed. Additionally, a new bridge over BNSF railroad will be constructed. MnDOT has excess right of way that will be released.

Recent Changes and Updates

Project is designed, let and currently being constructed.

Project History

Bridge 5186 is in poor condition and needs to be replaced. Annual flooding due to spring melt and large rain events caused Hwy 75 to be detoured. This project will address safety and mobility issues caused by flooding.

Letting moved up from 2016 to 2015. The current estimate has increased due to longer bridge lengths for both bridges as well as turnback costs for a portion of the existing Hwy 75. Environmental issues are being addressed, including ponding, which also increased costs.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2012

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 7.6	\$ 9.7
Other Construction Elements:	\$ 0.6	\$ 0.7
Engineering:	\$ 1.5	\$ 1.8
Right of Way:	\$ 0.7	\$ 0.7
Total:	\$ 10.4	\$ 12.9

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Project is let and being constructed. Construction completion on time and within budget.

Project Risks

If there is 2016 Fall flooding, project completion could be delayed.

Schedule

Environmental Approval Date: 11/05/2014
Municipal Consent Approval Date: 06/09/2013
Geometric Layout Approval Date: 4/24/2013
Construction Limits Established Date: 04/14/2013
Original Letting Date: 03/28/2000
Current Letting Date: 02/27/2015
Construction Season: 2015/2016
Estimated Substantial Completion: Oct. 2016



Minnesota Department of Transportation
District 4
1000 Hwy 10 W
(218) 846-3600

District Engineer: Jody Martinson
Project Manager: Thomas Pace

Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 75
Hwy 10 to north Clay County line
State Project No. 1407-25

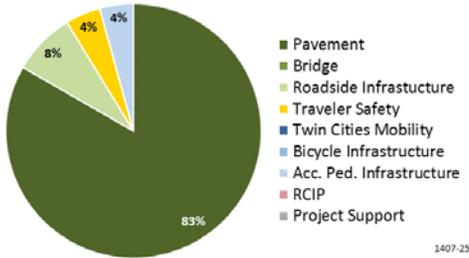
Substantially Complete



Primary Purpose

Performance-based Need: Pavement condition

Investment Category



Project Description

This project consists of pavement resurfacing, culvert replacement and turn lane construction for 19 miles from Hwy 10 in Moorhead to the Clay/Norman County line.

Recent Changes and Updates

Project is substantially complete.

Project History

In place pavement needs resurfacing and was moved forward due to rapid decline of pavement conditions. Hydraulic/drainage concerns need to be addressed. Project is designed, let and currently being constructed. Four miles were added to the south limits of the original project, which resulted in additional cost.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2013

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 5.2	\$ 7.1
Other Construction Elements:	\$ 0.7	\$ 0.0
Engineering:	\$ 1.2	\$ 0.9
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 7.1	\$ 8.0

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Project is substantially complete.

Project Risks

Risks retired.

Schedule

Environmental Approval Date: 02/24/2014
Municipal Consent Approval Date: Not Needed
Geometric Layout Approval Date: 3/21/2013
Construction Limits Established Date: 03/21/2013
Original Letting Date: 02/19/2016
Current Letting Date: 04/25/2014
Construction Season: 2014
Estimated Substantial Completion: August 2014



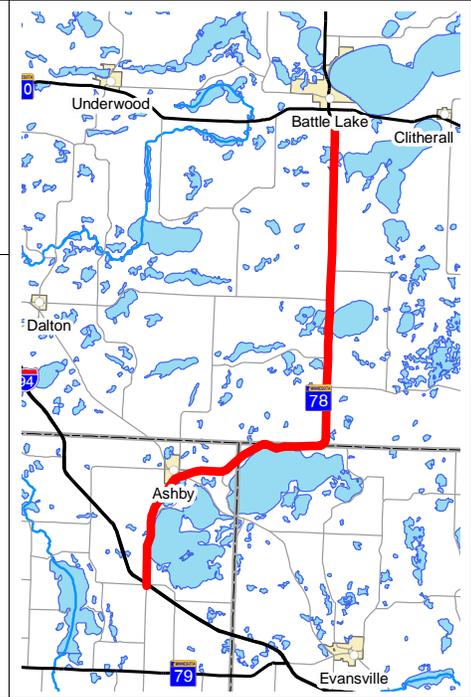
Minnesota Department of Transportation
District 4
1000 Hwy 10 W
(218) 846-3600

District Engineer: Jody Martinson
Project Manager: Thomas Pace

Revised Date: 12/15/2016

PROJECT SUMMARY

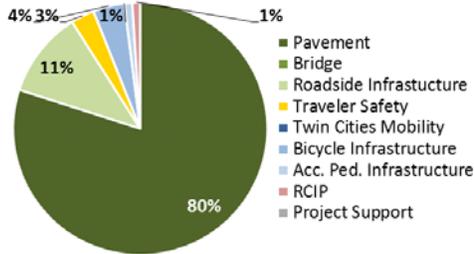
Hwy 78
I-94 to Battle Lake
State Project No. 5619-11



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

Mill and overlay project on Hwy 78 from I-94 to Battle Lake.

Recent Changes and Updates

Working on right of way process and starting design of project.

Project History

This project was designed to correct deteriorating road surface.
Scoping document approved February 2014.

Coordinating with Battle Lake and Ashby on a possible trail between the two communities.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2014

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 7.4	\$ 7.5
Other Construction Elements:	\$ 0.9	\$ 0.9
Engineering:	\$ 1.4	\$ 1.5
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 9.7	\$ 9.9

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Estimate dated 2-10-16. 10% inflation rate used.

Project Risks

No major risks noted.

Schedule

Environmental Approval Date: Pending Approval
Municipal Consent Approval Date: Not Needed
Geometric Layout Approval Date: Not Needed
Construction Limits Established Date: Pending Approval
Original Letting Date: 11/01/2017
Current Letting Date: 11/01/2017
Construction Season: 2018
Estimated Substantial Completion: October/2018



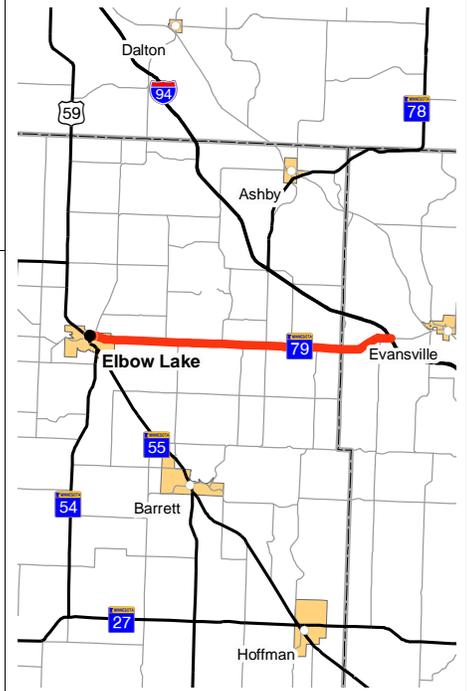
Minnesota Department of Transportation
District 4
1000 Hwy 10 W
(218) 846-3600

District Engineer: Jody Martinson
Project Manager: Tom Lundberg

Revised Date: 12/15/2016

PROJECT SUMMARY

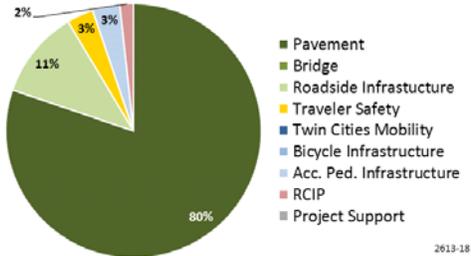
Hwy 79
 Elbow Lake to Hwy 94
 Bridge 21801, &, 21802
 State Project No. 2613-18



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

Resurfacing project for 12 miles from Hwy 59 in Elbow Lake to I-94. The project also includes ADA work, replacing culverts, updating guardrail, and installing rumble strips.

Recent Changes and Updates

Project will be complete Fall of 2016.

Project History

The western limit was extended to include a section of Hwy 59. ADA work will be included in the project. Elbow Lake street lighting may be added to the project.
 The county could include a bike trail, which would add environmental impacts and possibly effect timing. Utilities will handle hydraulics prior to the project start date.
 Paving was added on TH 55 in the City of Elbow Lake and later removed along with work on Hwy 59 and a portion of TH 79 due to accessibility work needed in Elbow Lake.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2012

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 4.5	\$ 3.3
Other Construction Elements:	\$ 0.5	\$ 0.4
Engineering:	\$ 0.9	\$ 0.8
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 5.9	\$ 4.5

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Job was let and awarded and is being constructed. The current estimate reflects low bid amount for the project.

Project Risks

Risks retired.

Schedule

Environmental Approval Date: 12/3/2014
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: Not Needed
 Construction Limits Established Date: 07/29/2015
 Original Letting Date: 03/28/2016
 Current Letting Date: 11/20/2015
 Construction Season: 2016
 Estimated Substantial Completion: Oct. 2016



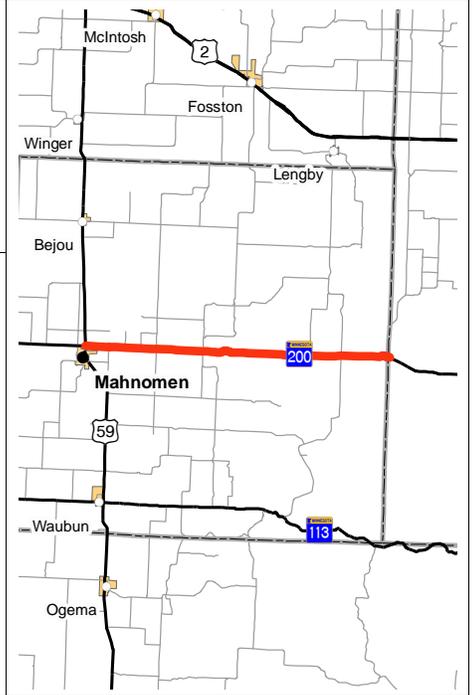
Minnesota Department of Transportation
 District 4
 1000 Hwy 10 W
 (218) 846-3600

District Engineer: Jody Martinson
Project Manager: Lori Vanderhider

Revised Date: 12/15/2016

PROJECT SUMMARY

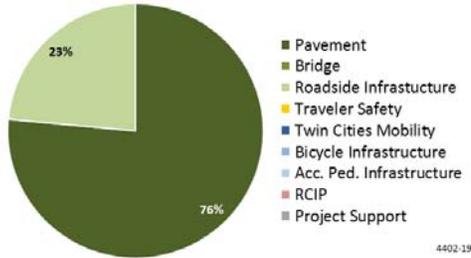
Hwy 200
 Hwy 59 to east Mahnomen County line
 State Project No. 4402-19



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



4402-19

Project Description

20 mile project from Hwy 59 in Mahnomen to the Mahnomen/Clearwater County line. Pavement will be rehabilitated, centerline culverts will be replaced, flood-prone areas regraded, guardrail replaced and edge rumbles replaced.

Recent Changes and Updates

Project is designed, let and currently being constructed. Project is 75% constructed.

Project History

In place pavement needs resurfacing. Segment has overland flooding due to spring melt and heavy rains. A raised grade to mitigate flooding was added, which resulted in increased project costs.

Drainage areas west of Hwy 59 require ditch cleaning and pipe work. District 2 is doing the design and will do the contract administration for this project.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2012

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 6.2	\$ 5.6
Other Construction Elements:	\$ 0.4	\$ 0.6
Engineering:	\$ 1.2	\$ 1.3
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 7.8	\$ 7.4

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Job was let and awarded and is being constructed. The current estimate reflects low bid amount for the project.

Project Risks

Flood areas pose some risk during construction.

Schedule

Environmental Approval Date: Pending Approval
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: Not Needed
 Construction Limits Established Date: 06/08/2014
 Original Letting Date: 03/25/2016
 Current Letting Date: 12/18/2015
 Construction Season: 2016
 Estimated Substantial Completion: Oct. 2016



Minnesota Department of Transportation
 District 4
 1000 Hwy 10 W
 (218) 846-3600

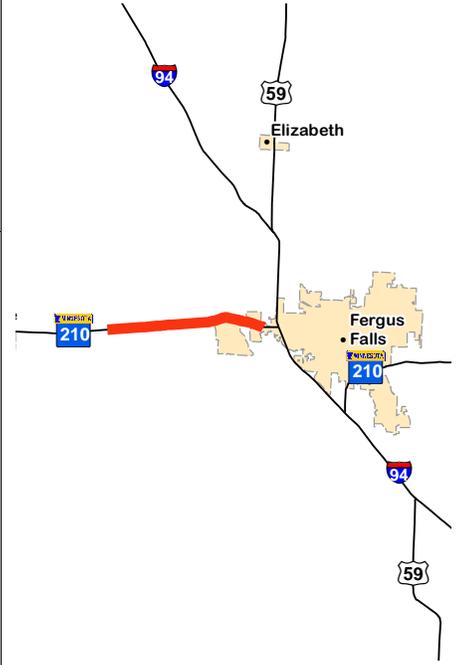
District Engineer: Jody Martinson
Project Manager: Thomas Pace

Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 210

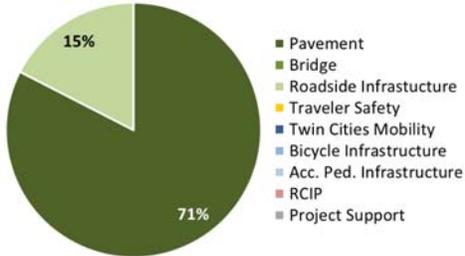
1.8 miles East of Wilkin County Line to 0.4 miles West of I-94
State Project No. 5601-33



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

Thick bituminous mill and overlay. May extend turnlane and guardrail lengths for recent increase in speed limit. Possible snow fence needed.

Recent Changes and Updates

Project scoping was completed December 2015.

Project History

This project is needed to address higher than normal maintenance patching (3 times per year compared to once every 5 years).

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2016

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 4.4	\$ 4.4
Other Construction Elements:	\$ 0.5	\$ 0.5
Engineering:	\$ 0.9	\$ 0.9
Right of Way:	\$ 1.0	\$ 1.0
Total:	\$ 6.8	\$ 6.8

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Estimate completed in 2015 using inflation rate of 19% for construction year 2020.

Project Risks

Snow fence / snow sloping, subgrade treatments, paving local roads to RR, relocation of road closure gate.

Schedule

Environmental Approval Date: Pending Approval
Municipal Consent Approval Date: Not Needed
Geometric Layout Approval Date: Not Needed
Construction Limits Established Date: Pending Approval
Original Letting Date: 11/22/2019
Current Letting Date: 11/22/2019
Construction Season: 2020
Estimated Substantial Completion: November 2020



Minnesota Department of Transportation
District 4
1000 Hwy 10 W
(218) 846-3600

District Engineer: Jody Martinson
Project Manager: Lori Vanderhider

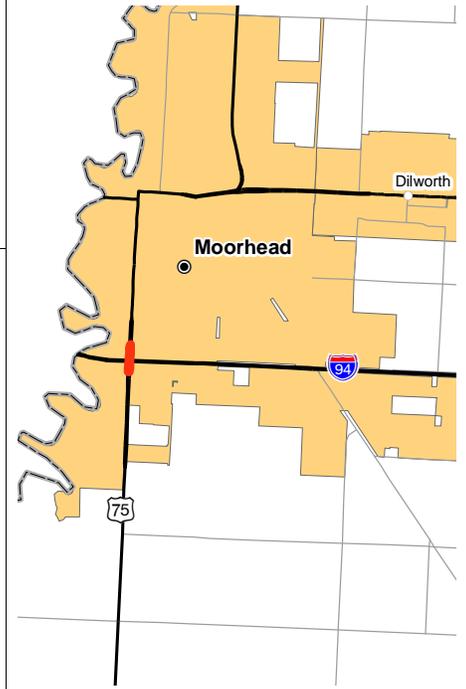
Revised Date: 12/15/2016

PROJECT SUMMARY

I-94

I-94 and Hwy 75 interchange
 Bridge 14813, 14814, 14X11, 14X12
 State Project No. 1406-66

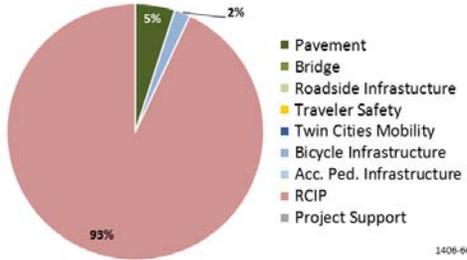
<http://www.dot.state.mn.us/d4/projects/moorhead/>



Primary Purpose

Regional & Community Improvement Priority

Investment Category



Project Description

Reconstruct the Hwy 75 interchange over I-94 in Moorhead. Both eastbound and westbound auxiliary lanes on I-94 will be extended to 20th Street. Bike and pedestrian traffic will be addressed with the bridge construction. ADA and guardrail will meet standards. Signals will be installed and hydraulic issues addressed.

Recent Changes and Updates

Project was let on 09-25-2015 and after low bid was rejected because it did not meet DBE goals. All bids were rejected and the project was relet on 01-29-2016. Bid amount was nearly \$2M over Engineers Estimate but was awarded and approved.

Construction began in April 2016 and is currently behind schedule. Large Liquidated Damages are anticipated. Currently working with Contractor to adjust staging to open as soon as possible.

Project History

Final Design was complete in July 2015 and is now is pending Federal Approval for letting. The southerly project limits were shortened from 40th Ave to 35th Ave, which eliminated the new signal at 37th Ave. That section is now programmed under SP 1406-74 with a letting in 2017. Cooperative Agreement is pending with the City of Moorhead for signals, lighting and multiuse trail. Utility Agreements are pending due to relocations within Interstate Right of Way

Letting moved to September 2015.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2012

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 15.0	\$ 13.6
Other Construction Elements:	\$ 1.2	\$ 2.2
Engineering:	\$ 3.0	\$ 2.5
Right of Way:	\$ 0.2	\$ 0.0
Total:	\$ 19.4	\$ 18.3

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Job was let and awarded and is being constructed. The current estimate reflects low bid amount for the project.

Project Risks

Constructing under traffic may increase costs. Staging was developed to expedite construction.

Schedule

Environmental Approval Date: 8/3/2015
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: 10/23/2015
 Construction Limits Established Date: 10/23/2015
 Original Letting Date: 6/24/2016
 Current Letting Date: 1/29/2016
 Construction Season: May - Oct 2016
 Estimated Substantial Completion: Oct. 2016



Minnesota Department of Transportation
 District 4
 1000 Hwy 10 W
 (218) 846-3600

District Engineer: Jody Martinson
Project Manager: Seth Yliniemi

Revised Date: 12/15/2016

PROJECT SUMMARY

I-94

At various locations on I-94 from Fergus Falls to Osakis
 Bridge 21801, 21802, 21803, 21804, 9691, 9692, 21821
 State Project No. 2180-109, 2180-108, 5680-138



Primary Purpose

Performance-based Need: Pavement and Bridge Condition

Investment Category

Project Description

Replace the bridge decks on bridges over I-94 at County Road 88 near Fergus Falls (SP 5680-138), Highway 79 near Evansville, and Highway 114 near Alexandria (SP 2180-105) and replace the bridge deck on Highway 27 over Interstate 94 near Osakis (SP 2180-108). Provide new concrete pavement surface in east bound and west bound directions from Highway 114 to 79 (SP 2180-109 & SP 2180-110).

Recent Changes and Updates

The seven bridges were in 3 different areas, Fergus Falls, Evansville and Osakis. Project split into 3 separate projects, 2 bridges near Fergus Falls, 1 bridge near Osakis and the 4 bridges near Evansville with a concrete overlay on both EB and WB I94 between the bridge locations. The bridges near Fergus Falls were completed in 2016. The bridge near Osakis will be let fall 2016 with construction in 2017. The other 4 bridges and overlay, the plans are 95% complete and are waiting for funding. We are still anticipating the reduced impact to the traveling public by combining the 4 bridges and concrete overlay as one project.

Project History

Combining these six projects into one will limit the impact to the traveling public to 2 construction seasons.

The bridge decks and concrete paving projects were originally to be completed in 6 separate contracts over multiple years. Combining all bridge deck replacements and the new concrete pavement into one project for 2 construction seasons will minimize the impacts to the traveling

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 11-01-2015

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 42.0	\$ 42.0
Other Construction Elements:	\$ 2.5	\$ 2.5
Engineering:	\$ 3.8	\$ 3.8
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 48.3	\$ 48.3

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Project design is nearly complete, the project risks below are not accounted for in the estimate.

Project Risks

We are reducing the impact to the cable median guardrail in the area of the concrete overlay. This may be difficult as the guardrail is close to the pavement and limits the contractor's working area. The major portion of the work (4 bridges and the concrete overlay) is not funded. Delaying the funding will impact the estimate due to inflation.

Schedule

Environmental Approval Date: 6/15/2016
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: Not Needed
 Construction Limits Established Date: Not Needed
 Original Letting Date: 3/16/2016
 Current Letting Date: 3/16/2016
 Construction Season: May 2016 - November 2017
 Estimated Substantial Completion: Fall/2017



Minnesota Department of Transportation
 District 4
 1000 Hwy 10 W
 (218) 846-3600

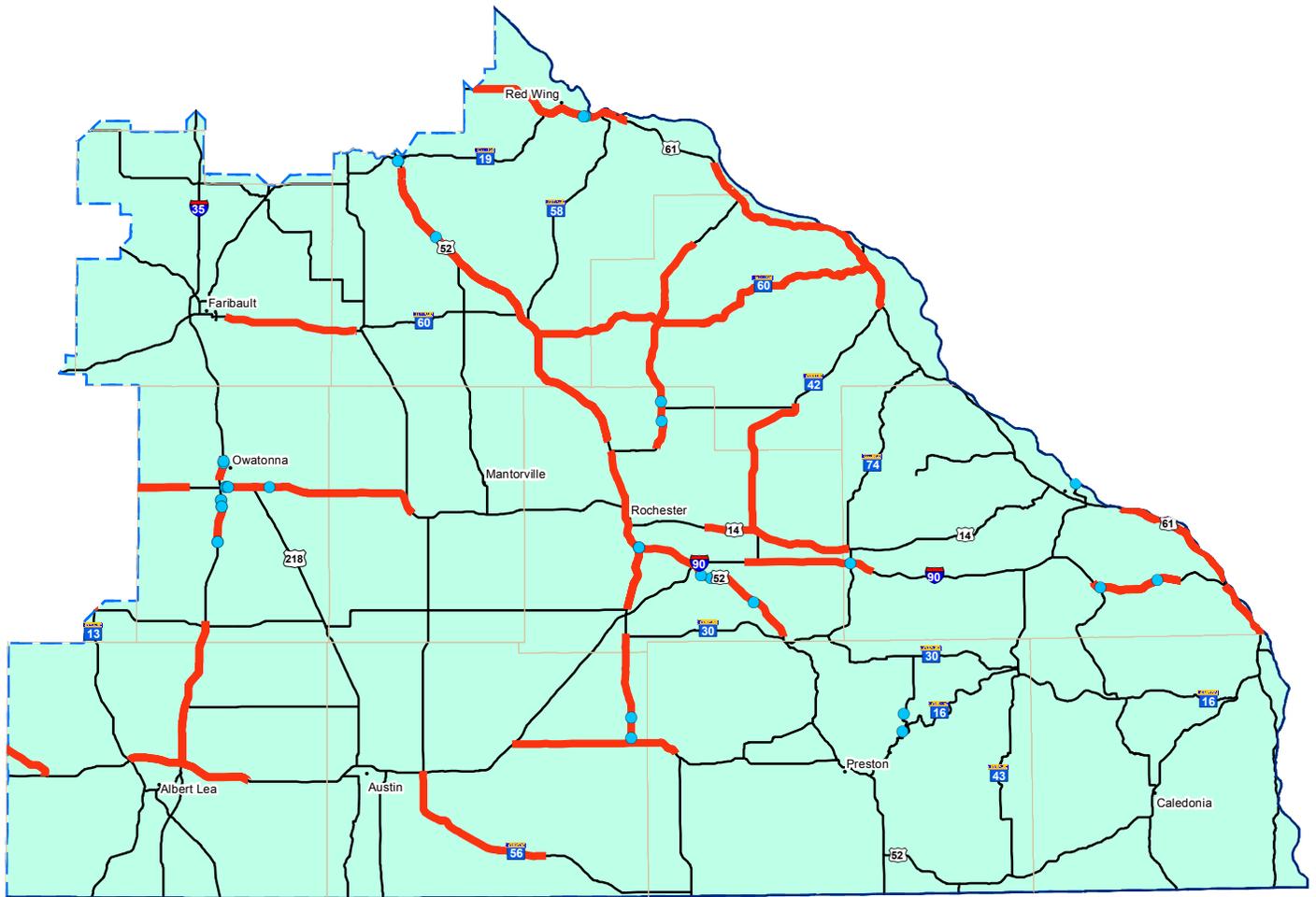
District Engineer: Jody Martinson
Project Manager: Chris Roy

Revised Date: 12/15/2016



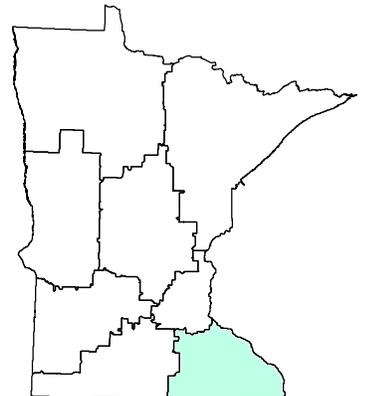
Major Highway Projects 2016

D6-ROCHESTER



Major Highway Projects

- Bridge Projects
- ▬ Roadway Projects
- ▬ State Boundary
- ▬ County Line
- ▬ Construction District



District Project Summary

District 6

Route	State Project #	Project Location	Page
Hwy 52	5507-64	Hwy 52 from I-90 (Marion) to Chatfield	E 2
Hwy 14	7402-30	Hwy 14 from Hwy 218 to CR 180 in Steele County	E 3
Hwy 14	2001-36	Hwy 14 from I-35 to Dodge Center	E 4
Hwy 14	5503-45	Hwy 14 from Chester to St Charles	E 5
Hwy 16	5003-17	Hwy 16 from I-90 to Tracy Road Spring Valley	E 6
Hwy 42	5506-22	Hwy 14 to north of Hwy 247	E 7
Hwy 43	8503-46	Winona Bridge over Mississippi River	E 8
Hwy 52	2506-72	Hwy 1 to south of Hwy 9 in Goodhue County	E 9
Hwy 52	2506-52	Cannon Falls interchange	E 10
Hwy 52	2506-77	Hwy 52 from Hwy 7 to 2 miles south of Hwy 19	E 11
Hwy 52	2506-79	Hwy 52 bridges over Little Cannon River	E 12
Hwy 52	5507-63	Hwy 52 over Hwy 63	E 13
Hwy 52	2506-75	Rochester to Cannon Falls	E 14
Hwy 52	5507-69	Hwy 63 to just south of I-90	E 15
Hwy 56	5005-62	Hwy 56 from Maple St. in Taopi to Hwy 46 in Mower County	E 16
Hwy 60	7902-25	Hwy 60 from Hwy 52 to Zumbro Falls	E 17
Hwy 60	6607-49	Faribault to Kenyon	E 18
Hwy 60	7903-54	Hwy 63 in Zumbro Falls to Hwy 61 in Wabasha	E 19
Hwy 61	2514-120	Ready Mix entrance in Red Wing to Hwy 19	E 20
Hwy 61	2514-119	Hwy 19 to Hwy 316	E 21
Hwy 61	2514-122	Hwy 61 from Potter St. to Old West Main Street	E 22
Hwy 61	2514-121	Hwy 61 in Red Wing	E 23
Hwy 61	7906-96	Hwy 42 to just north of Lake City limits	E 24
Hwy 61	8504-79	I-90 to Hwy 15 in Homer	E 25
Hwy 63	5006-19	Hwy 16 to south end of Root River Bridge (Stewartville)	E 26
Hwy 63	5509-79	Hwy 30 to 28th Street SE in Rochester	E 27
Hwy 63	2515-21	Hwy 63 bridge over the Mississippi river and Hwy 61	E 28
Hwy 63	5509-80	County Road 16 interchange	E 29
Hwy 63 and Hwy 60	7908-35	Hwy 63 from Hwy 60 to CR 78 and Hwy 60 in Zumbro Falls	E 30
Hwy 250	2319-16	Bridges on Hwy 250 in Lanesboro	E 31
I-35	2480-104	Freeborn/Steele	E 32
I-35	7480-113	5 miles south of Owatonna to Faribault	E 33
I-35	7480-124	Straight River Rest Area NB	E 34
I-35	7480-126	6 bridges on I-35 and 4 bridges on Hwy 14	E 35
I-90	8580-163	West of Hwy 76 to west of County Road 12	E 36
I-90	8580-165	Winona	E 37
I-90	5580-90	East of County Road 19 to East of Hwy 74	E 38
I-90	2482-74	I-90 WB Lanes from Hwy13 to Hwy 46 (Petran)	E 39
I-90	8580-149	Mississippi River Bridges - Dresbach	E 40
I-90	8580-167	Both westbound and eastbound lanes of I-90 in Winona County	E 41

PROJECT SUMMARY

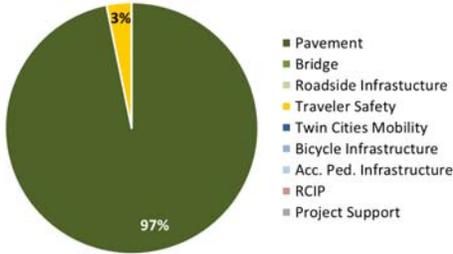
Hwy 52
 Hwy 52 from I-90 (Marion) to Chatfield
 Bridge 6124, 8182, and, 8183
 State Project No. 5507-64



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

This is a bituminous mill and overlay with ADA improvements, and the replacement of bridges 6124, 8182, and 8183 on Hwy 52 from I-90 through Chatfield.

Recent Changes and Updates

The project changed from a regrade to a mill and overlay based on district priorities and funding issues. The project includes bridge replacements originally part of SP 5507-65. This project is also associated with SP 2311-31.

Project History

The purpose of this project is to preserve the existing roadway structure, extend pavement life, and improve ride quality.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2016

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 4.8	\$ 8.4
Other Construction Elements:	\$ 0.0	\$ 1.4
Engineering:	\$ 1.0	\$ 1.2
Right of Way:	\$ 0.0	\$ 1.6
Total:	\$ 5.8	\$ 12.5

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

20% engineering estimate used to arrive at total cost estimate. Estimates will be updated when bids are let.

Current estimate reflects the SP cost of SP5507-64, 557-65 & 2344-31 being combined.

Project Risks

Competitive bid may be higher or lower than expected.

Schedule

Environmental Approval Date: TBD
 Municipal Consent Approval Date: TBD
 Geometric Layout Approval Date: TBD
 Construction Limits Established Date: 06/07/2015
 Original Letting Date: 10/26/2018
 Current Letting Date: 10/26/2018
 Construction Season: 2019
 Estimated Substantial Completion: 11/2019



Minnesota Department of Transportation
 District 6
 2900 48th Street NW
 (507) 286-7500

District Engineer: Jeff Vlamincik
Project Manager: Heather Lukes

Revised Date: 12/15/2016

PROJECT SUMMARY

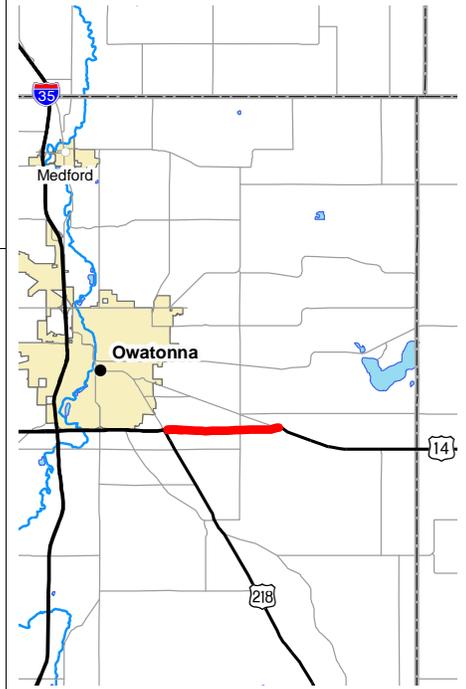
Hwy 14

Hwy 14 from Hwy 218 to CR 180 in Steele County

Bridge 74X02

State Project No. 7402-30

Substantially Complete



Primary Purpose

Regional & Community Improvement Priority:
Corridors of Commerce funding

Investment Category

*This project was designed and scoped before the current highway investment plan MnSHIP was developed, which breaks projects into investment categories.

Project Description

This project expands Hwy 14 from 2 lanes to 4 lanes from Hwy 218 to CR 180. The roadway project also includes grading, concrete and bituminous paving, lighting and bridge No. 74X02.

Recent Changes and Updates

This project was substantially completed in October 2015 and the new 4-lane section opened to traffic. Right of way acquisition was significantly greater than had been estimated in the planning phase, which also increase the complexity and engineering costs on the project.

Project History

Construction includes expanding Hwy 14 from a 2-lane to a 4-lane concrete roadway. Hwy 14 westbound was constructed during 2014 and Hwy 14 eastbound will be reconstructed during 2015. Another construction item includes the construction of a box culvert.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2013

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 15.5	\$ 12.0
Other Construction Elements:	\$ 0.0	\$ 0.0
Engineering:	\$ 3.1	\$ 5.6
Right of Way:	\$ 0.0	\$ 5.6
Total:	\$ 18.6	\$ 23.2

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The Current Estimate reflects the awarded bid amount. Current estimates was higher than baseline because baseline was based on a planning level estimate completed at the time environmental documentation was done.

Project Risks

There are currently no outstanding risks on this project.

Schedule

Environmental Approval Date: 11/30/2010
Municipal Consent Approval Date: Not Needed
Geometric Layout Approval Date: 10/03/2013
Construction Limits Established Date: 09/27/2013
Original Letting Date: 04/25/2014
Current Letting Date: 04/25/2014
Construction Season: 2014 & 15
Estimated Substantial Completion: 10/2015



Minnesota Department of Transportation
District 6
2900 48th Street NW
(507) 286-7500

District Engineer: Jeff Vlamincik
Project Manager: Heather Lukes

Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 14
Hwy 14 from I-35 to Dodge Center
State Project No. 2001-36

Substantially Complete



Primary Purpose

Performance-based Need: Pavement & District Safety Plan

Investment Category

*This project was designed and scoped before the current highway investment plan MnSHIP was developed, which breaks projects into investment categories.

Project Description

This project includes bituminous resurfacing, drainage improvements and traffic safety improvements over 16 miles from I-35 to Dodge Center.

Recent Changes and Updates

This project was substantially completed in October 2015 and opened up to traffic. A favorable bid related to material costs led to a lower estimate.

Project History

The Ride Quality Index (RQI) for this segment of Hwy 14 and the Remaining Service Life (RSL) indicate the need for improvement in the short-term.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2011

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 5.9	\$ 4.1
Other Construction Elements:	\$ 0.2	\$ 0.9
Engineering:	\$ 1.2	\$ 0.4
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 7.3	\$ 5.4

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Standard practices were used to develop the base-line cost estimate for this project. Right of way was not required.

Project Risks

No detour agreements are anticipated for this project; however, recommended drainage improvements may lead to the need for a detour.

Schedule

Environmental Approval Date: 5/20/2014
Municipal Consent Approval Date: Not Needed
Geometric Layout Approval Date: Not Needed
Construction Limits Established Date: Unknown
Original Letting Date: 11/21/2014
Current Letting Date: 01/23/2015
Construction Season: 2015
Estimated Substantial Completion: 10/2015



Minnesota Department of Transportation
District 6
2900 48th Street NW
(507) 286-7500

District Engineer: Jeff Vlamincik
Project Manager: Heather Lukes

Revised Date: 12/15/2016

PROJECT SUMMARY

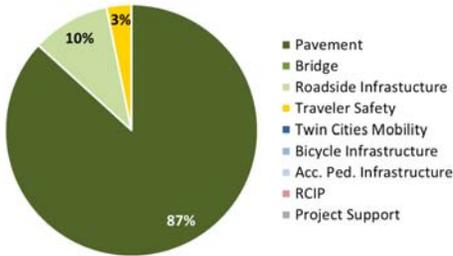
Hwy 14
 Hwy 14 from Chester to St Charles
 State Project No. 5503-45



Primary Purpose

Performance Based Need: pavement condition

Investment Category



Project Description

This project on Hwy 14 is a grading and mill and overlay from east of Hwy 19 to the west junction of Hwy 74.

Recent Changes and Updates

Project will be completed in October 2016.

Project History

This segment of Hwy 14 is a two-lane rural highway. The pavement is starting to show signs of deterioration, which is expected to accelerate in the upcoming years. The project is needed to extend pavement life.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2014

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 6.5	\$ 5.5
Other Construction Elements:	\$ 0.5	\$ 0.4
Engineering:	\$ 0.9	\$ 0.9
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 7.9	\$ 7.8

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The baseline cost estimate is from the project scoping report of 4/18/14 and based on a FY18 letting.

The construction letting estimate for current estimate is based on the district's engineers estimate for letting. Winning bid was \$4.9 million for construction at letting.

Project Risks

Competitive bid may be higher or lower than expected.

Schedule

Environmental Approval Date: 04/29/2015
 Municipal Consent Approval Date: NA
 Geometric Layout Approval Date: NA
 Construction Limits Established Date: NA
 Original Letting Date: 11/17/2017
 Current Letting Date: 12/18/2015
 Construction Season: 2016
 Estimated Substantial Completion: 10/2016



Minnesota Department of Transportation
 District 6
 2900 48th Street NW
 (507) 286-7500

District Engineer: Jeff Vlamnick
Project Manager: Heather Lukes

Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 16

Hwy 16 from I-90 to Tracy Road Spring Valley

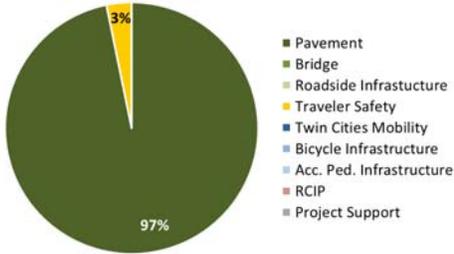
State Project No. 5003-17



Primary Purpose

Performance Based Need: Pavement Condition

Investment Category



Project Description

This project is a 16 mile mill and overlay from I-90 to Spring Valley.

Recent Changes and Updates

No recent changes.

Project History

This segment of Hwy 16 is a rural 2-lane roadway. The pavement is beginning to deteriorate, which is expected to accelerate over the upcoming years. The project is needed to extend service life and improve ride quality. It includes safety and other improvements.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2015

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 7.0	\$ 7.0
Other Construction Elements:	\$ 0.6	\$ 0.6
Engineering:	\$ 0.9	\$ 0.9
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 8.5	\$ 8.5

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The cost estimates are from the project scoping report of 7/16/15.

Project Risks

Competitive bids may be higher or lower than expected

Schedule

Environmental Approval Date: TBD
 Municipal Consent Approval Date: NA
 Geometric Layout Approval Date: TBD
 Construction Limits Established Date: TBD
 Original Letting Date: 01/25/2019
 Current Letting Date: 01/25/2019
 Construction Season: 2019
 Estimated Substantial Completion: 11/2019



Minnesota Department of Transportation
 District 6
 2900 48th Street NW
 (507) 286-7500

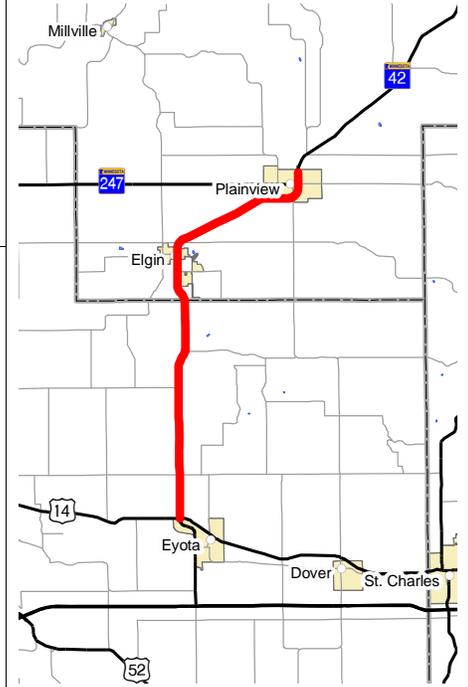
District Engineer: Jeff Vlamnick
Project Manager: Heather Lukes

Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 42
 Hwy 14 to north of Hwy 247
 State Project No. 5506-22

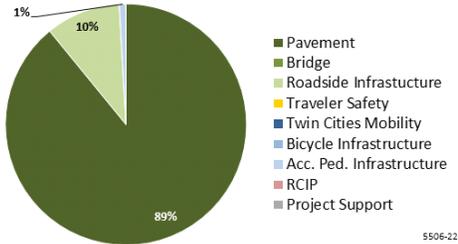
Substantially Complete



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

This project is a bituminous resurfacing of 15 miles from Hwy 14 to Hwy 247 from outside Eyota, through Elgin and Plainview.

Recent Changes and Updates

This project was completed in October 2015 and opened to traffic.

Project History

The purpose of the project is to preserve the existing roadway structure, improve pavement life and improve ride quality.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2014

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 5.8	\$ 5.8
Other Construction Elements:	\$ 0.0	\$ 0.0
Engineering:	\$ 1.2	\$ 1.2
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 7.0	\$ 7.0

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The current estimate reflects the bid amount.

Project Risks

There are no remaining risks.

Schedule

Environmental Approval Date: 12/08/2014
 Municipal Consent Approval Date: NA
 Geometric Layout Approval Date: NA
 Construction Limits Established Date: NA
 Original Letting Date: 11/18/2016
 Current Letting Date: 04/24/2015
 Construction Season: 2015
 Estimated Substantial Completion: 10/2015



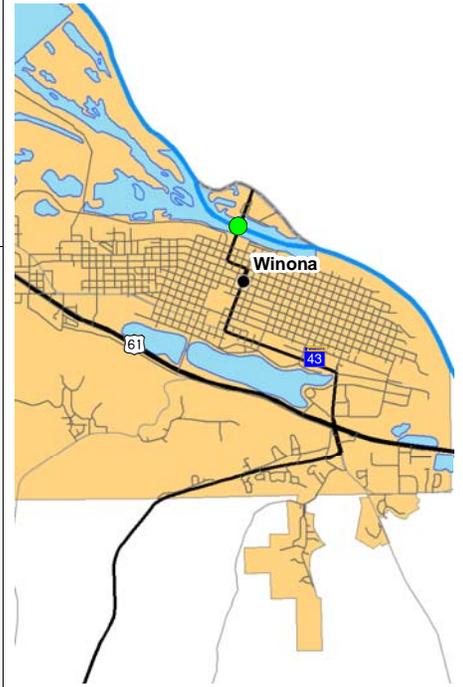
Minnesota Department of Transportation
 District 6
 2900 48th Street NW
 (507) 286-7500

District Engineer: Jeff Vlamincik
Project Manager: Kyle Lake

Revised Date: 12/15/2016

PROJECT SUMMARY

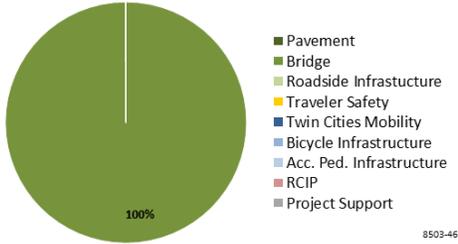
Hwy 43
 Winona Bridge over Mississippi River
 Bridge 5900
 State Project No. 8503-46
<http://www.dot.state.mn.us/d6/projects/winobridge/>



Primary Purpose

Performance-based Need: Bridge Condition

Investment Category



Project Description

Construct a new bridge and rehabilitate the existing bridge, along with associated roadway work.

Recent Changes and Updates

Since moving forward using the Construction Manager / General Contractor (CMGC) approach, the risks and contingencies are more fully understood.

Recent cost projections indicate the need for about \$30M in additional project funding in order to complete the project because the original project scope was for a new four-lane bridge, yet now there is a new bridge and a rehab; the old bridge has deteriorated more than expected recently; and, the current design will provide a structural design that meets current traffic requirements with no load postings.

Project History

The Winona Bridge was built in 1941, and recent inspections indicate the need for rehabilitation/replacement. Bridge inspections revealed corrosion issues. The existing bridge was closed to all traffic for one week in 2008 for emergency repairs. It is also considered eligible for the National Register of Historic Places. Because of this, MnDOT recommended rehabilitation of the existing bridge, along with building a new bridge parallel to the old bridge.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2010

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 140.0	\$ 145.0
Other Construction Elements:	\$ 0.0	\$ 2.0
Engineering:	\$ 25.2	\$ 27.0
Right of Way:	\$ 16.2	\$ 14.0
Total:	\$ 181.4	\$ 188.0

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The environmental impacts with bridge and roadway approach work will not be significant. Contamination issues will not be cost prohibitive. The project has a maximum price cap of \$142 million from Chapter 152 funding for engineering and construction with an additional \$20 million for right of way acquisition. Recent cost projections indicate the need for about \$30M in additional project funding in order to complete the project because the original project scope was for a new four-lane bridge, yet now there is a new bridge and a rehab; the old bridge has deteriorated more than expected recently; and, the current design will provide a structural design that meets current traffic requirements with no load postings.

Project Risks

The close proximity of this bridge to the downtown business district of Winona presents unique challenges. The current bridge is eligible for placement on the NRHP. Numerous environmental permits are required. This project is the first CMGC project for the department.

Schedule

Environmental Approval Date: January 2014
 Municipal Consent Approval Date: 08/19/2013
 Geometric Layout Approval Date: 07/01/2013
 Construction Limits Established Date: Unknown
 Original Letting Date: 01/24/2014
 Current Letting Date: 07/01/2014
 Construction Season: 2014 to 2019
 Estimated Substantial Completion: 12/01/2019



Minnesota Department of Transportation
 District 6
 2900 48th Street NW
 (507) 286-7500

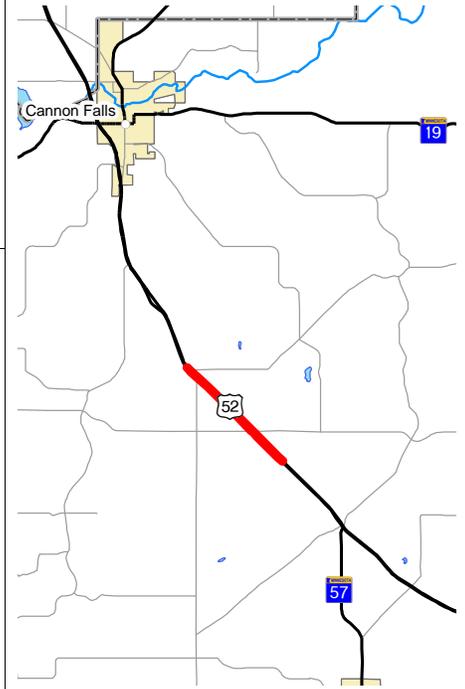
District Engineer: Jeff Vlamincik
Project Manager: Terry Ward

Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 52
 Hwy 1 to south of Hwy 9 in Goodhue County
 Bridge 25030
 State Project No. 2506-72

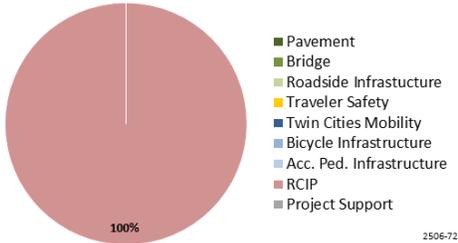
Substantially Complete



Primary Purpose

Performance-based Need: District Safety Plan
 Regional & Community Improvement Priority

Investment Category



Project Description

This is for the design and construction of an interchange at the intersection of Hwy 52 and Hwy 9. The project also includes safety improvements, such as turn lane extensions and center median removals. The project generally consists of grading, surfacing, bridge work, drainage, stormwater management, lighting and signing. The project is primarily located in Goodhue County (Leon Township) between Zumbrota and Cannon Falls.

Recent Changes and Updates

The project was let as a low-bid design-build construction letting in December 2013. The project was completed in November 2014.

Project History

This intersection is one of the most dangerous rural intersections in the state. This intersection had 88 crashes recorded from 2000 - 2012. Eleven of the crashes involved a serious injury or a fatality. The area was identified in previous corridor studies for location of an interchange for many reasons, including safety and mobility of both trunk highway and county road traffic.

MnDOT and Goodhue County received funding to construct an interchange and complete other corridor safety improvements.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2013

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 7.2	\$ 6.7
Other Construction Elements:	\$ 0.4	\$ 0.5
Engineering:	\$ 0.3	\$ 0.2
Right of Way:	\$ 1.0	\$ 1.0
Total:	\$ 8.9	\$ 8.4

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

BASELINE ESTIMATE: Construction Cost includes scoping level estimate for Design-Build delivery. This cost would include a contractor's project management, engineering and construction costs cost as part of a bid package. Other Construction Elements was assumed contract amount for construction oversight. Engineering was based on assumed contract amount for D-B RFP development.

CURRENT ESTATE: Construction cost includes awarded letting cost for Design-Build delivery. This cost included the contractor's project management, engineering and construction costs. Other Construction Elements was for contract amount for construction oversight.

Project Risks

There are currently no outstanding risks on this project. Right of way offers were made in October 2013, allowing for construction to proceed in May 2014.

Schedule

Environmental Approval Date: 07/01/2013
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: 8/7/2013
 Construction Limits Established Date: 08/07/2013
 Original Letting Date: Unknown
 Current Letting Date: 12/18/2013
 Construction Season: 2014
 Estimated Substantial Completion: 11/01/2014



Minnesota Department of Transportation
 District 6
 2900 48th Street NW
 (507) 286-7500

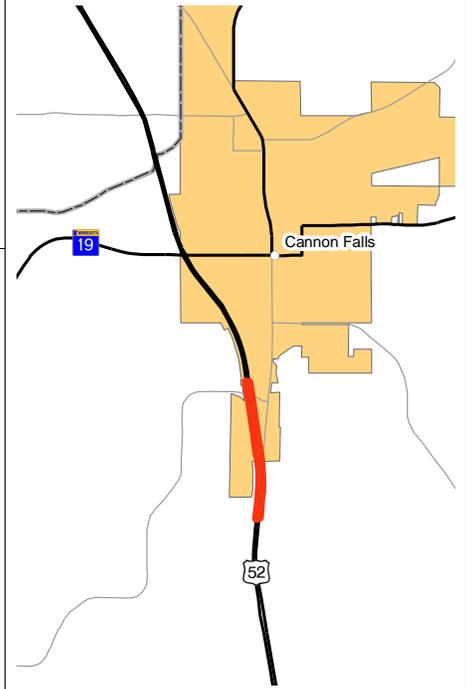
District Engineer: Jeffrey Vlamincik
Project Manager: Heather Lukes

Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 52
Cannon Falls interchange
State Project No. 2506-52

Substantially Complete



Primary Purpose

Regional & Community Improvement Priority

Investment Category

*This project was designed and scoped before the current highway investment plan MnSHIP was developed, which breaks projects into investment categories.

Project Description

This constructs a diamond interchange and a second overpass to replace the two signalized intersections on Hwy 52 in Cannon Falls. The project will also construct a frontage/backage road system to maintain access to existing streets and businesses. Goodhue CR 24 will be re-routed from its current location at the northern most signalized intersection to the new interchange.

Recent Changes and Updates

The project is substantially complete.

Project History

The project was awarded funding through the Safety and Mobility Program (SaM) in January 2011. This funding, along with funding from MnDOT District 6, Goodhue County and Cannon Falls has accelerated the project schedule. Final design of Phase 1 began in June 2011. This intersection is located within the Hwy 52 segment, which connects the Twin Cities Metro area and Rochester. Original estimates were high due to the uncertainty of the extent of the project.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2011

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 38.1	\$ 14.3
Other Construction Elements:	\$ 0.0	\$ 0.0
Engineering:	\$ 3.7	\$ 3.7
Right of Way:	\$ 10.2	\$ 5.0
Total:	\$ 52.0	\$ 23.0

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The Current Estimate is the construction bid amount. Original estimates were high due to the uncertainty of the extent of the project.

Project Risks

The risks include traffic accommodation during construction, right of way acquisition, and funding.

Schedule

Environmental Approval Date: 12/02/2009
Municipal Consent Approval Date: 07/19/2011
Geometric Layout Approval Date: Unknown
Construction Limits Established Date: Unknown
Original Letting Date: 07/06/2015
Current Letting Date: 02/22/2013
Construction Season: 2013/2014
Estimated Substantial Completion: 11/2014



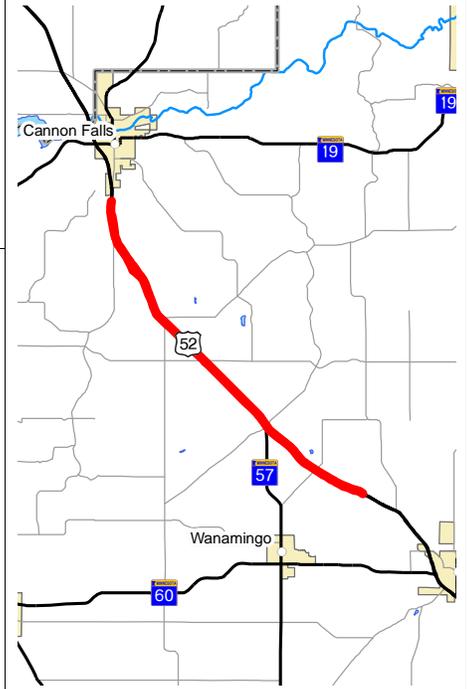
Minnesota Department of Transportation
District 6
2900 48th Street NW
(507) 286-7500

District Engineer: Jeff Vlamincik
Project Manager: Jeff Bunch

Revised Date: 12/15/2016

PROJECT SUMMARY

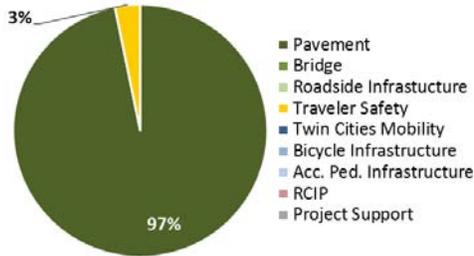
Hwy 52
 Hwy 52 from Hwy 7 to 2 miles south of Hwy 19
 State Project No. 2506-77



Primary Purpose

Performance Based: Pavement Condition

Investment Category



Project Description

This is a bituminous overlay project in Goodhue County on the southbound lanes of Hwy 52.

Recent Changes and Updates

This project has no updates or changes at this time, but will be let in the fall for bids.

Project History

The purpose of this project is to preserve existing roadway structure, extend pavement life and improve ride quality. This is a high priority interregional corridor on the National Highway System.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2015

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 5.7	\$ 5.7
Other Construction Elements:	\$ 0.4	\$ 0.4
Engineering:	\$ 0.8	\$ 0.8
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 6.9	\$ 6.9

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Final hydraulics recommendations were made in 2016, which fits within the existing budget.

Project Risks

Competitive bids may be higher or lower than expected.

Schedule

Environmental Approval Date: TBD
 Municipal Consent Approval Date: Not needed
 Geometric Layout Approval Date: Not needed
 Construction Limits Established Date: TBD
 Original Letting Date: 10/27/2017
 Current Letting Date: 10/27/2017
 Construction Season: 2018
 Estimated Substantial Completion: 11/2018



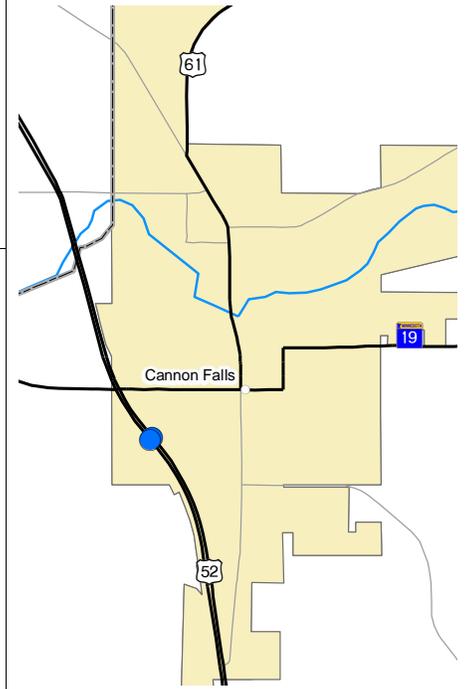
Minnesota Department of Transportation
 District 6
 2900 48th Street NW
 (507) 286-7500

District Engineer: Jeff Vlamincik
Project Manager: Chad Hanson

Revised Date: 12/15/2016

PROJECT SUMMARY

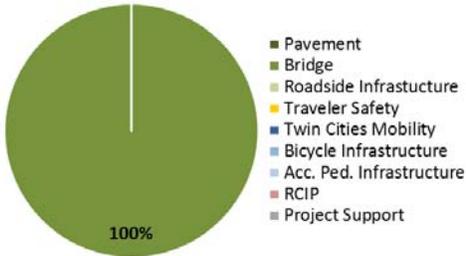
Hwy 52
Hwy 52 bridges over Little Cannon River
Bridge 9485, &, 9486
State Project No. 2506-79



Primary Purpose

Performance-based Need: Bridge Condition

Investment Category



Project Description

The project replaces two bridges, 9485 & 9486, over the Little Cannon River on Hwy 52.

Recent Changes and Updates

This project entered the STIP in 2014. An environmental document is needed, but is not completed yet.

Project History

The bridge abutments have cracking, substandard bridge railings, and the overall deterioration is increasing.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2015

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 5.2	\$ 3.6
Other Construction Elements:	\$ 0.2	\$ 0.2
Engineering:	\$ 1.0	\$ 0.8
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 6.4	\$ 4.6

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The Current Estimate is lower than the Baseline because there was no right of way cost, larger beams were used in the design allowing for single span bridges and fewer beams, and raising roadway profiles was kept to a minimum so there were fewer grading and pavement replacements.

Project Risks

Competitive bids may be higher or lower than expected.

Schedule

Environmental Approval Date: Pending
Municipal Consent Approval Date: Not Needed
Geometric Layout Approval Date: 02/08/2016
Construction Limits Established Date: 02/08/2016
Original Letting Date: 02/01/2018
Current Letting Date: 2/24/2017
Construction Season: 2017
Estimated Substantial Completion: November 2017



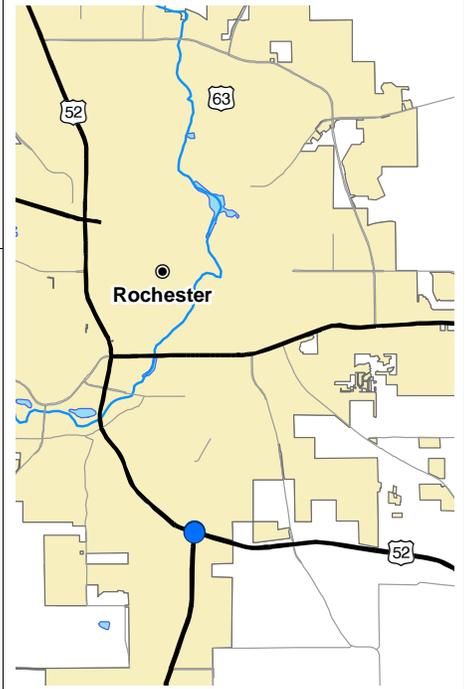
Minnesota Department of Transportation
District 6
2900 48th Street NW
(507) 286-7500

District Engineer: Jeff Vlainick
Project Manager: Kjersti Anderson

Revised Date: 12/15/2016

PROJECT SUMMARY

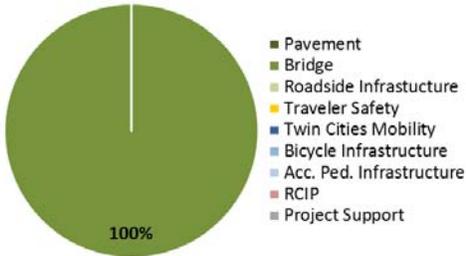
Hwy 52
Hwy 52 over Hwy 63
Bridge 55009, &, 55010
State Project No. 5507-63



Primary Purpose

Performance-based Need: Bridge

Investment Category



Project Description

This project is for the replacement of two bridge decks on Hwy 52 over Hwy 63 in Rochester. The deck surface conditions on these Hwy 52 bridges have deteriorated. Deck replacement is the objective of the project. The northbound Hwy 52 lane extension will be included along with bridge beam painting as a preservation measure.

Recent Changes and Updates

The project is scoped. The bridge project will be bid and built in 2016. The two bridge decks on this project are deteriorating and are in need of replacement.

Project History

This project will improve the conditions of Hwy 52 bridges, a principal arterial route on the National Highway System.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2014

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 4.0	\$ 3.9
Other Construction Elements:	\$ 0.2	\$ 0.1
Engineering:	\$ 0.7	\$ 0.7
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 4.9	\$ 4.7

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Bridge redecking costs are estimated at \$90/S.F.

Project Risks

Competitive bid may be higher or lower than expected.

Schedule

Environmental Approval Date: Not Needed
Municipal Consent Approval Date: Not Needed
Geometric Layout Approval Date: Not Needed
Construction Limits Established Date: 10/15/2013
Original Letting Date: 01/27/2017
Current Letting Date: 01/29/2016
Construction Season: 2016
Estimated Substantial Completion: 11/2017



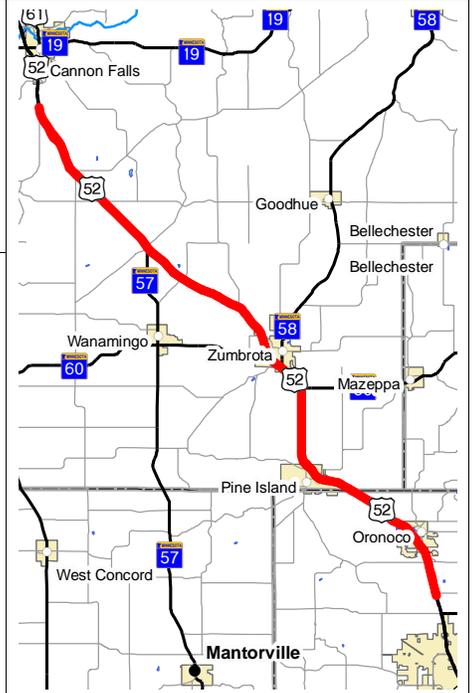
Minnesota Department of Transportation
District 6
2900 48th Street NW
(507) 286-7500

District Engineer: Jeff Vlamincik
Project Manager: Richard Augustin

Revised Date: 12/15/2016

PROJECT SUMMARY

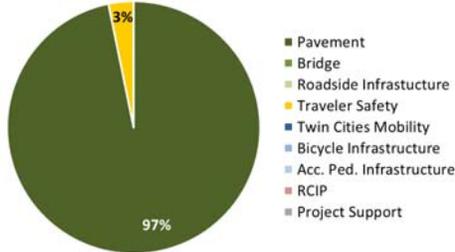
Hwy 52
 Rochester to Cannon Falls
 State Project No. 2506-75



Primary Purpose

Performance Based Need: Pavement Condition

Investment Category



Project Description

This project is a mill and overlay of the northbound lanes on Hwy 52 from Rochester to Cannon Falls. The project covers about 27 miles. It also includes hydraulic improvements and turn lane extensions. Additionally Highway Safety Improvement Program funding was received in 2016 to install high tension cable median barrier from Oronoco to Zumbrota.

Recent Changes and Updates

The project estimate was updated in March 2016 to include HSIP funds for the installation of high tension cable median barrier and for ramp pavement preservation work on Hwy 60 east.

Project History

In 2008, the Ride Quality Index (RQI) was below average and has decreased since that time. This segment of Hwy 52 is still in fair condition; however, it is starting to show signs of deterioration, which is expected to accelerate in the upcoming years. The project is needed to extend pavement life. This mill and overlay will include traffic safety and other improvements.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2013

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 10.4	\$ 12.5
Other Construction Elements:	\$ 0.6	\$ 0.9
Engineering:	\$ 1.4	\$ 2.6
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 12.4	\$ 16.0

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The Current Estimate is from Project Change Request #1 approved on 3/1/2016 for additional work the installation of high tension cable median barrier and for ramp pavement preservation work on Hwy 60 east.

Project Risks

Competitive bid may be higher or lower than expected

Schedule

Environmental Approval Date: 7/18/2016
 Municipal Consent Approval Date: NA
 Geometric Layout Approval Date: NA
 Construction Limits Established Date: TBD
 Original Letting Date: 10/28/2016
 Current Letting Date: 10/28/2016
 Construction Season: 2017
 Estimated Substantial Completion: 11/2017



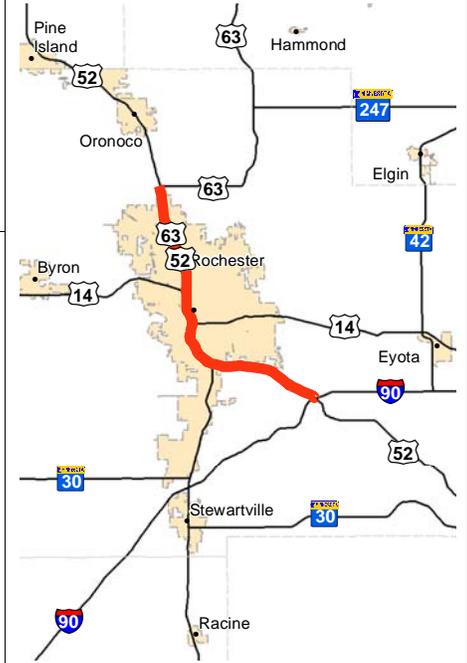
Minnesota Department of Transportation
 District 6
 2900 48th Street NW
 (507) 286-7500

District Engineer: Jeff Vlamnick
Project Manager: Heather Lukes

Revised Date: 12/15/2016

PROJECT SUMMARY

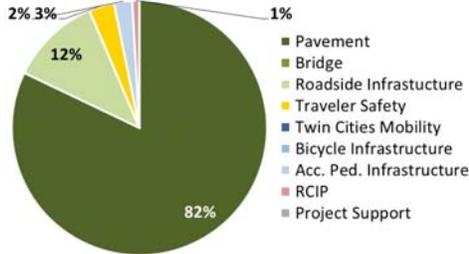
Hwy 52
 Hwy 63 to just south of I-90
 State Project No. 5507-69



Primary Purpose

Performance Based Need: Pavement Condition

Investment Category



Project Description

This project is 11.8 mile bituminous overlay of Hwy 52 from Hwy 63 to I90 in Olmsted County. Other work will include overlay of ramps at CSAH 1 and CSAH 11 and hydraulic improvements.

Recent Changes and Updates

The purpose of this project is to extend pavement service life and improve joint structures to reduce maintenance costs and improve safety.

Project History

The pavement along Hwy 52 from Hwy 63 to I-90 is starting to show signs of deterioration and has seen accelerating deterioration in recent years. This segment of Hwy 52 is a 4-lane divided, rural expressway.

The ride quality index (RQI) has dropped in both directions from 2010 to 2015. Potholes are starting to develop at the transverse joints in the concrete from damage caused by freezing and thawing, which creates maintenance and safety issues.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2016

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 6.4	\$ 6.4
Other Construction Elements:	\$ 0.5	\$ 0.5
Engineering:	\$ 1.2	\$ 1.2
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 8.1	\$ 8.1

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Project costs are from the project scoping report from 4/14/2016.

Project Risks

If the final project cost estimate comes in high then the project could be pushed out into a future letting date if funds are not available to cover the estimate.

Schedule

Environmental Approval Date: Pending
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: Not Needed
 Construction Limits Established Date: Pending
 Original Letting Date: 11/22/2019
 Current Letting Date: 11/22/2019
 Construction Season: 2020
 Estimated Substantial Completion: October 2020



Minnesota Department of Transportation
 District 6
 2900 48th Street NW
 (507) 286-7500

District Engineer: Jeff Vlamincik
Project Manager: Heather Lukes

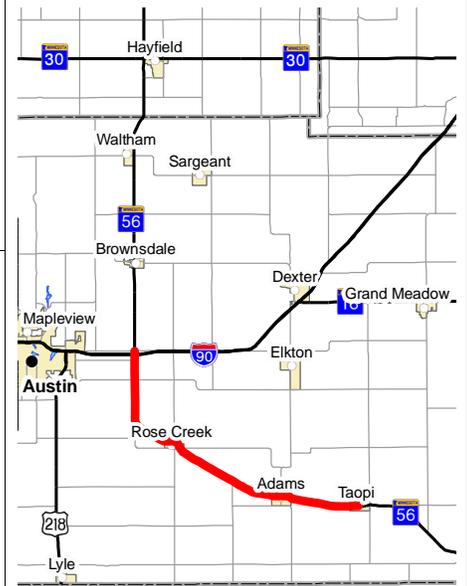
Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 56

Hwy 56 from Maple St. in Taopi to Hwy 46 in Mower County

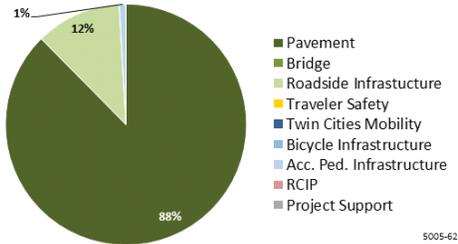
State Project No. 5005-62



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

This is a bituminous mill and overlay project on Hwy 56 in Taopi to Hwy 46.

Recent Changes and Updates

Project prioritization factors delayed this project for several years. This project was originally proposed to be let in 2013.

One major change was the conversion from an ELLA to a 'non-ELLA' project. (A million dollars was added to the project). We also had a letting change from the original 12/18/2015 to 11/18/2016).

Another major change was the removal of the rural culvert replacements which resulted in a budget change from \$6,831,00 to \$6,214,000 (removal of \$617,000). We then had a letting change in June from 11/18/2016 to 1/27/2017.

Finally, one last major change was the decision to regrade adding what we had previously estimated as an additional roughly \$120,000. We then had a letting change in August from 1/27/2017 to 3/24/2017.

Project History

The purpose of this project is to preserve existing roadway structure, extend pavement life and improve ride quality.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2015

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 5.7	\$ 7.7
Other Construction Elements:	\$ 0.3	\$ 0.3
Engineering:	\$ 1.0	\$ 1.2
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 7.0	\$ 7.5

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

15 percent engineering cost estimated. Standard practices were used to develop cost estimate.

Project Risks

Competitive bid may be higher or lower than expected. Soil conditions are unknown. Contaminated soil assessment currently being conducted in the city of Adams.

Schedule

Environmental Approval Date: 11/1/2016
 Municipal Consent Approval Date: Unknown
 Geometric Layout Approval Date: Unknown
 Construction Limits Established Date: 05/07/2015
 Original Letting Date: 01/25/2013
 Current Letting Date: 03/24/2017
 Construction Season: 2017
 Estimated Substantial Completion: 11/2017



Minnesota Department of Transportation
 District 6
 2900 48th Street NW
 (507) 286-7500

District Engineer: Jeffrey L Vlaininck
Project Manager: Kyle Lake

Revised Date: 12/15/2016

PROJECT SUMMARY

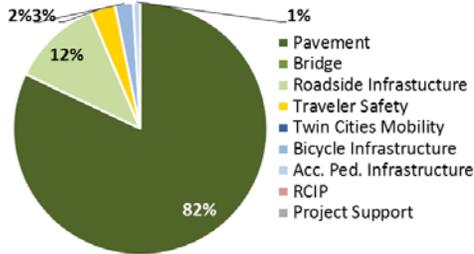
Hwy 60
 Hwy 60 from Hwy 52 to Zumbro Falls
 State Project No. 7902-25



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

The project consists of a 12.1 mile bituminous mill and overlay, hydraulic improvements, and ADA improvements from Hwy 52 to Appledale Drive in Zumbro Falls.

Recent Changes and Updates

Due to funding constraints and prioritizing District pavement improvements, this project was moved to FY22. The project will be rescoped in 2017.

Project History

This project will preserve existing roadway structure, extend pavement life, and improve ride quality. ADA facilities will be brought into compliance.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2015

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 5.2	
Other Construction Elements:	\$ 0.0	
Engineering:	\$ 1.0	
Right of Way:	\$ 0.0	
Total:	\$ 6.2	

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The Baseline Estimate is a pre-scoping level cost estimate only. The project will be re-scoped in 2017 and a new baseline estimate established.

Project Risks

Competitive bid may be higher or lower than expected.

Schedule

Environmental Approval Date: Pending
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: Not Needed
 Construction Limits Established Date: Pending
 Original Letting Date: 11/17/2017
 Current Letting Date: TBD
 Construction Season: 2022
 Estimated Substantial Completion: 11/2022



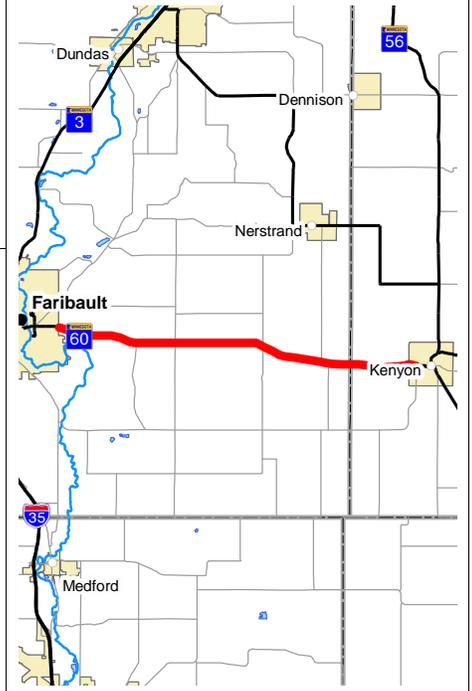
Minnesota Department of Transportation
 District 6
 2900 48th Street NW
 (507) 286-7500

District Engineer: Jeff Vlaminck
Project Manager: Heather Lukes

Revised Date: 12/15/2016

PROJECT SUMMARY

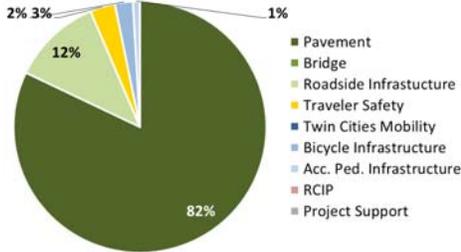
Hwy 60
Faribault to Kenyon
State Project No. 6607-49



Primary Purpose

Performance Based Need: Pavement Condition

Investment Category



Project Description

This project is a mill and overlay of about 13 miles from the east end of the Straight River Bridge in Faribault to Huseth Ave in Kenyon.

Recent Changes and Updates

Project Scoping Report 7/16/15. No other recent changes.

Project History

Hwy 60 is a 2-lane minor arterial roadway. Pavement on this segment is deteriorating, which is expected to accelerate in the upcoming years. In 2013, the pavement was determined to be in poor condition. This project is needed to extend service life. This project will improve ride quality, service life and will include safety and other improvements.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2015

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 5.6	\$ 5.6
Other Construction Elements:	\$ 0.5	\$ 0.5
Engineering:	\$ 0.8	\$ 0.8
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 6.9	\$ 6.9

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The cost estimates are from the project scoping report of 7/16/15.

Project Risks

Competitive bid may be higher or lower than expected.

Schedule

Environmental Approval Date: TBD
Municipal Consent Approval Date: NA
Geometric Layout Approval Date: TBD
Construction Limits Established Date: TBD
Original Letting Date: 12/21/2018
Current Letting Date: 12/21/2018
Construction Season: 2019
Estimated Substantial Completion: Nov 2019



Minnesota Department of Transportation
District 6
2900 48th Street NW
(507) 286-7500

District Engineer: Jeff Vlamnick
Project Manager: David Tsang

Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 60

Hwy 63 in Zumbro Falls to Hwy 61 in Wabasha

State Project No. 7903-54



Primary Purpose

Performance Based Need: Pavement Condition

Investment Category

*This project was designed and scoped before the current highway investment plan MnSHIP was developed, which breaks projects into investment categories.

Project Description

The project is a 24.2 mile bituminous overlay of Hwy 60 from Hwy 63 to Hwy 61 in Wabasha County. Other work includes culvert improvement and replacements, guardrail improvements, and installation of rural lighting at CSAH 2 and CSAH 4.

Recent Changes and Updates

The purpose of this project is to extend pavement service life and provide a safer roadway.

Project History

Within the project limits, Hwy 60 is a 2-lane undivided, rural highway. The pavement along Hwy 60 is showing signs of deterioration. A majority of Hwy 60 has a ride quality index (RQI) of fair but the roadway pavement does have a poor remaining service life of 0-3 years due to condition and age. There are also sections of roadway that have safety concerns, especially within the areas CSAH 2 and CSAH 4. These sections need safety improvements as indicated in the Highway Safety Plan. The Plan also noted 13 curves as high risk.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2016

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 10.9	\$ 10.9
Other Construction Elements:	\$ 0.9	\$ 0.9
Engineering:	\$ 2.0	\$ 2.0
Right of Way:	\$ 0.1	\$ 0.1
Total:	\$ 13.9	\$ 13.9

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Project costs are from the project scoping report from 4/14/2016.

Project Risks

If the final project cost estimate comes in high then the project could be pushed out into a future letting date if funds are not available to cover the estimate.

Schedule

Environmental Approval Date: Pending
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: Pending
 Construction Limits Established Date: Pending
 Original Letting Date: 10/26/2019
 Current Letting Date: 10/26/2019
 Construction Season: 2020
 Estimated Substantial Completion: October 2020



Minnesota Department of Transportation
 District 6
 2900 48th Street NW
 (507) 286-7500

District Engineer: Jeff Vlamincik
Project Manager: Heather Lukes

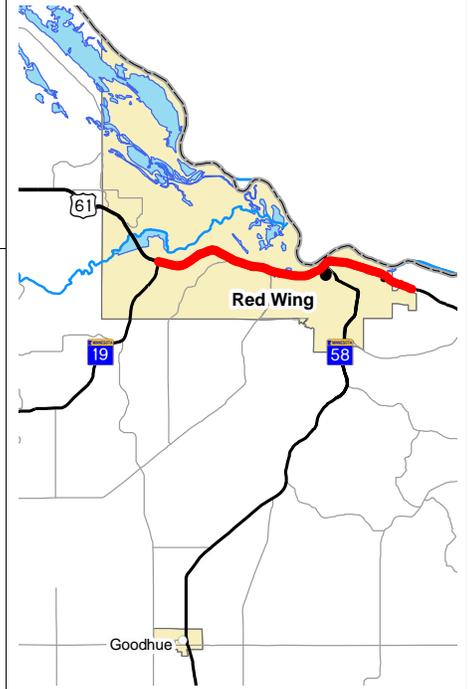
Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 61

Ready Mix entrance in Red Wing to Hwy 19

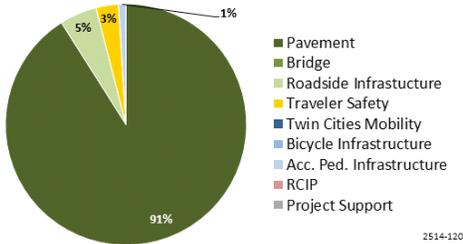
State Project No. 2514-120



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

This project on Hwy 61 from the Ready Mix entrance in Red Wing to Hwy 19 is a bituminous mill and overlay in the rural sections and a mill and fill on the urban sections. The project will also include drainage and traffic safety improvements. Several mediums will be closed and an acceleration lane will be constructed on the north end of the project.

Recent Changes and Updates

This project was let in 2015 and construction is nearly complete.

Project History

The last bituminous overlay was placed in 1996 and followed up in 1998 with crack repair. As of 2011, the Ride Quality Index (RQI) was rated as fair, but has continued to deteriorate. The project was proposed in 2012.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2012

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 4.5	\$ 4.5
Other Construction Elements:	\$ 0.4	\$ 0.4
Engineering:	\$ 0.9	\$ 0.9
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 5.7	\$ 5.7

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

No right of way was required and no environmental mitigation was needed.

Project Risks

All risks have been retired.

Schedule

Environmental Approval Date: 06/07/2015
 Municipal Consent Approval Date: NA
 Geometric Layout Approval Date: 2014
 Construction Limits Established Date: 06/07/2015
 Original Letting Date: 12/19/2014
 Current Letting Date: 12/19/2014
 Construction Season: 2015
 Estimated Substantial Completion: 11/2015



Minnesota Department of Transportation
 District 6
 2900 48th Street NW
 (507) 286-7500

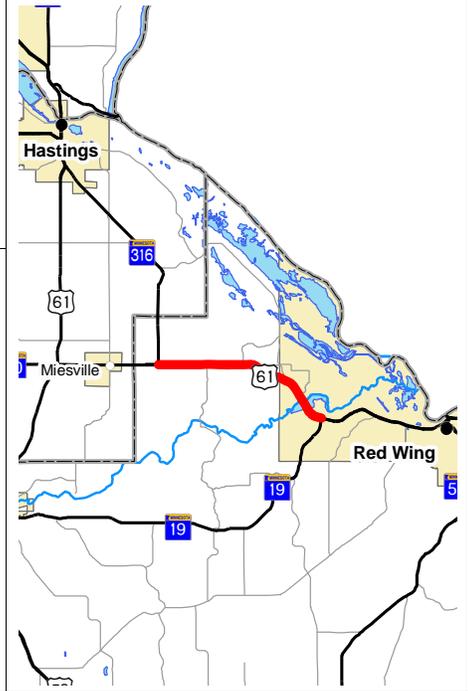
District Engineer: Jeff Vlamincik
Project Manager: Chad Hanson

Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 61
Hwy 19 to Hwy 316
State Project No. 2514-119

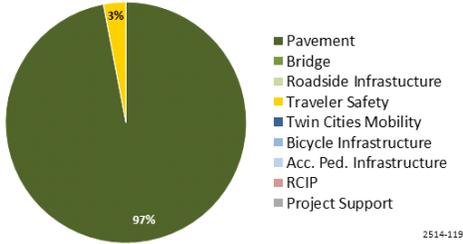
Substantially Complete



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

This project resurfaces 8.5 miles of both the northbound and the southbound lanes on Hwy 61 from Hwy 19 to Hwy 316. The project will also include traffic safety improvements.

Recent Changes and Updates

This project includes traffic safety improvements, such as a northbound right turn lane at CR 18, and northbound and southbound left turn lanes at Hwy 19. The traffic safety improvements are funded by FHWA Highway Safety Improvement Program funds. Costs exceeded estimates.

Project History

The four-lane section from Hwy 19 to CR 18 was graded in 1994. The remaining northbound four-lane section from CR 18 to Hwy 316 was graded in 1996 and the southbound was graded in 1997. This section of Hwy 61 is in fair condition, but with significant cracking. As of 2011, the northbound and southbound Ride Quality Index (RQI) was rated as fair and has seen increasing deterioration since then.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2011

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 4.4	\$ 4.5
Other Construction Elements:	\$ 0.4	\$ 0.6
Engineering:	\$ 0.8	\$ 0.3
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 5.6	\$ 5.4

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

No right of way was required. No environmental mitigation was needed.

Project Risks

No project risks remain.

Schedule

Environmental Approval Date: Unknown
Municipal Consent Approval Date: Need Unknown
Geometric Layout Approval Date: Unknown
Construction Limits Established Date: Unknown
Original Letting Date: 11/22/2013
Current Letting Date: 12/20/2013
Construction Season: 2014
Estimated Substantial Completion: 11/2014



Minnesota Department of Transportation
District 6
2900 48th Street NW
(507) 286-7500

District Engineer: Jeff Vlamincik
Project Manager: Jacob Gasper

Revised Date: 12/15/2016

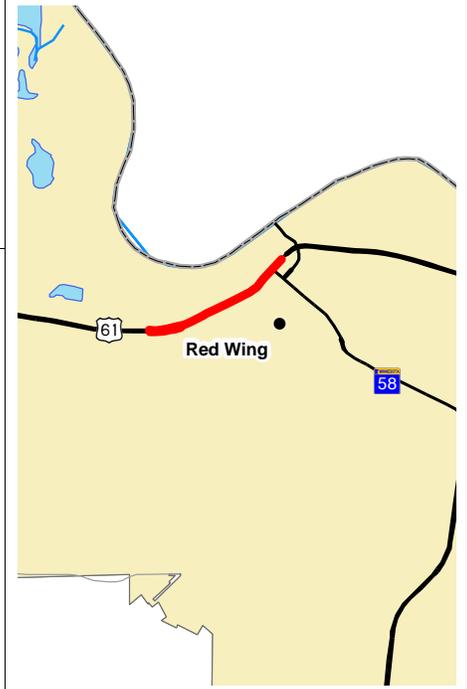
PROJECT SUMMARY

Hwy 61

Hwy 61 from Potter St. to Old West Main Street

State Project No. 2514-122

www.red-wing.org/th61home.html



Primary Purpose

Performance-based Need: Pavement & District Safety Plan

Investment Category

*This project was designed and scoped before the current highway investment plan MnSHIP was developed, which breaks projects into investment categories.

Project Description

This project is a reconstruction of Hwy 61 in Red Wing from Potter Street to Old West Main Street. This includes the replacement of city utilities, signal replacement at Old West Main Street and pedestrian and accessibility improvements.

Recent Changes and Updates

The project only has minor elements yet to complete.

Project History

This project started as a pedestrian safety project. The city of Red Wing applied for Municipal Agreements Program funding through District 6 and received funding to convert this to a mill and overlay along with enhanced pedestrian improvements. In 2013, the city applied for Corridor Investment Management Strategy (CIMS) funding and was selected to turn this project into a complete reconstruction.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2013

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 6.8	\$ 9.5
Other Construction Elements:	\$ 0.3	\$ 0.4
Engineering:	\$ 1.4	\$ 1.9
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 8.5	\$ 11.8

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Bids came in in excess of \$1 million higher than the original estimate. MnDOT participation was capped, per the cooperative agreement, and the city understood that they were responsible for any costs overages. Due to the higher bid prices, MnDOT agreed to add \$500,000 to their original agreement amount.

Project Risks

The project only has minor elements yet to complete with major risks retired.

Schedule

Environmental Approval Date: N/A
 Municipal Consent Approval Date: 06/07/2015
 Geometric Layout Approval Date: 2014
 Construction Limits Established Date: 06/07/2015
 Original Letting Date: 2/1/2014
 Current Letting Date: 2/15/2015
 Construction Season: 2015/2016
 Estimated Substantial Completion: 8/2016



Minnesota Department of Transportation
 District 6
 2900 48th Street NW
 (507) 286-7500

District Engineer: Jeff Vlamincik
Project Manager: Chad Hanson

Revised Date: 12/15/2016

PROJECT SUMMARY

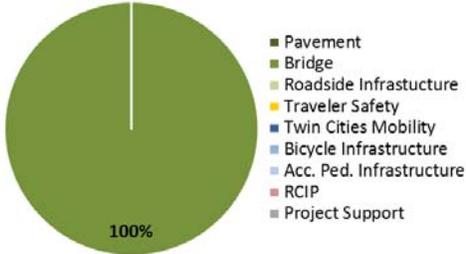
Hwy 61
Hwy 61 in Red Wing
Bridge 6483, &, 6482
State Project No. 2514-121



Primary Purpose

Performance-based Need: Bridge Condition

Investment Category



Project Description

This project replaces bridge #6483 over the abandoned C&NW Railroad on Hwy 61 and plugs bridge #6482 in Red Wing.

Recent Changes and Updates

The District 6 work plan indicates that the current construction estimate is \$7.5M, \$0.8M less than the baseline estimate. The project was scoped and moved to FY 2025, (per 2016-2025 HIP dated 8/10/15).

Project History

The project calls for the replacement of bridge #6483 because of its age and condition, along with reconstruction of the approaches to the bridge. It also plugs bridge #6482 in Red Wing.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2014

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 8.3	\$ 7.5
Other Construction Elements:	\$ 0.4	\$ 0.4
Engineering:	\$ 1.7	\$ 1.5
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 10.4	\$ 9.4

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

No right of way costs will be required.

Project Risks

Competitive bids may be higher or lower than expected.

Schedule

Environmental Approval Date: Not Needed
Municipal Consent Approval Date: pending
Geometric Layout Approval Date: pending
Construction Limits Established Date: 10/11/2013
Original Letting Date: 01/27/2017
Current Letting Date: pending
Construction Season: 2025
Estimated Substantial Completion: pending



Minnesota Department of Transportation
District 6
2900 48th Street NW
(507) 286-7500

District Engineer: Jeff Vlamincik
Project Manager: BLANK

Revised Date: 12/15/2016

PROJECT SUMMARY

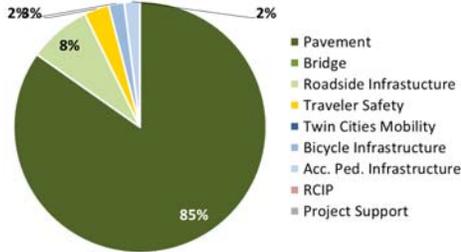
Hwy 61
Hwy 42 to just north of Lake City limits
State Project No. 7906-96



Primary Purpose

Performance Based Need: Pavement Condition

Investment Category



Project Description

This is a mill and overlay of northbound and southbound lanes of Hwy 61 from Hwy 42 to the north of Lake City, except 1.7 miles of TH 61 within the city limits of Lake City. The portion within the city limits will likely be designed by the city and maybe a complete reconstruct or part of it could be a mill & overlay. Details are still being worked out between MnDOT and the city.

Recent Changes and Updates

The City of Lake City will be converting a portion of TH 61 to a 3 lane section within the city limits in 2020. At this time it appears that the city will be leading the design and MnDOT will let the project and do the contract administration. Details in regards to this are still being worked out. As a result, a portion of this project will be excepted out.

Project History

For this section of roadway, the Ride Quality Index ranges from 3.4 to 2.8. This project is needed to improve pavement and shoulder ride quality and extend pavement life. The project will include rehabilitation and replacement of deficient storm sewers and culverts. The project will also include low cost safety improvements, reconstruction of curb ramps, sidewalks and crosswalks, and median improvements along the north segment of Lake City.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2015

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 11.5	\$ 13.3
Other Construction Elements:	\$ 1.5	\$ 1.0
Engineering:	\$ 1.2	\$ 2.4
Right of Way:	\$ 0.0	\$ 0.1
Total:	\$ 14.2	\$ 16.8

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The current estimate includes the entire project from TH 42 to the north of Lake City. This estimate will be reduced when it is officially determined what portion of the city will take the lead on. That will be a separate project.

Project Risks

Competitive bid may be higher or lower than expected.

Schedule

Environmental Approval Date: Need Unknown
Municipal Consent Approval Date: Need Unknown
Geometric Layout Approval Date: Not Needed
Construction Limits Established Date: Need Unknown
Original Letting Date: 10/19/2018
Current Letting Date: 10/19/2018
Construction Season: 2019
Estimated Substantial Completion: November 2019



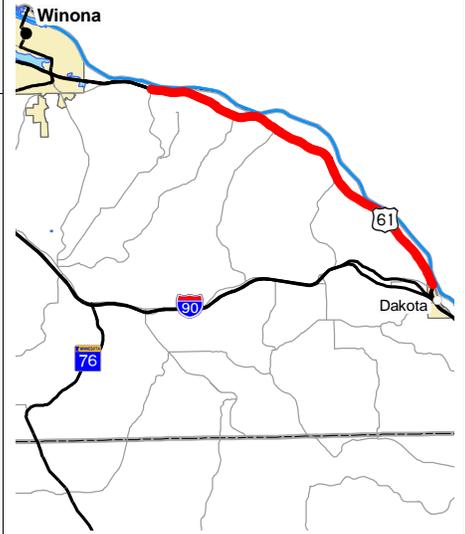
Minnesota Department of Transportation
District 6
2900 48th Street NW
(507) 286-7500

District Engineer: Jeff Vlamnick
Project Manager: Chad Hanson

Revised Date: 12/15/2016

PROJECT SUMMARY

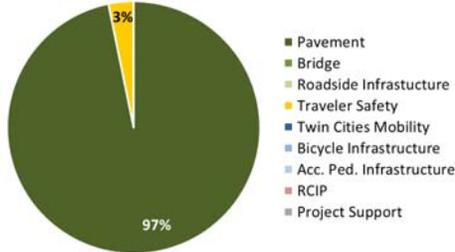
Hwy 61
I-90 to Hwy 15 in Homer
State Project No. 8504-79



Primary Purpose

Performance Based Need: Pavement Condition

Investment Category



Project Description

This project is a mill and overlay on the northbound and southbound lanes of about 13 miles of Hwy 61 from north of I-90 to Hwy 15 in Homer.

Recent Changes and Updates

The scoping report informed the Baseline Estimate and Current Estimate. The final hydraulics recommendations will be made in 2016, which will affect the project cost estimate.

Project History

This segment of Hwy 61 is a four lane divided highway, mostly rural with some small urban segments. The pavement is starting to show signs of deterioration, which is expected to accelerate in the upcoming years. The project is needed to address the deterioration and to extend service life. The project will also include safety and other improvements.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2016

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 12.4	\$ 12.4
Other Construction Elements:	\$ 1.0	\$ 1.0
Engineering:	\$ 1.6	\$ 1.6
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 15.0	\$ 15.0

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The Baseline and Current Estimates are from the project cost estimates in the scoping document dated 4/27/15.

Project Risks

Competitive bid may be higher or lower than expected. 3.1 miles of frontage roads are currently owned by MnDOT. Discussions will occur over the coming year to determine if there is a possibility of turning these roads back to local jurisdiction.

Schedule

Environmental Approval Date: NA
Municipal Consent Approval Date: NA
Geometric Layout Approval Date: NA
Construction Limits Established Date: NA
Original Letting Date: 12/21/2018
Current Letting Date: 12/21/2018
Construction Season: 2019
Estimated Substantial Completion: 2019



Minnesota Department of Transportation
District 6
2900 48th Street NW
(507) 286-7500

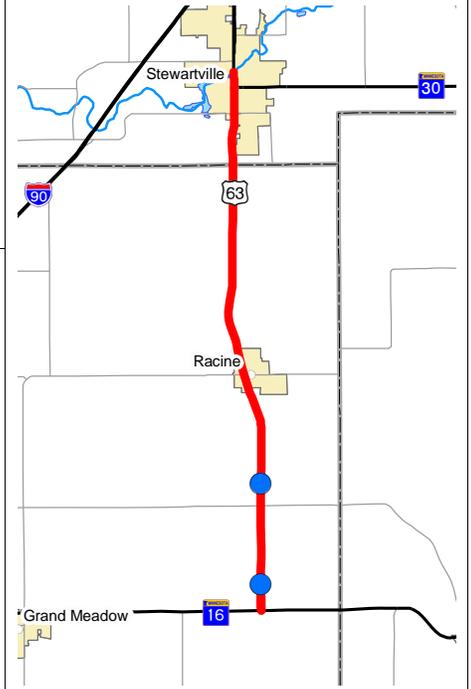
District Engineer: Jeff Vlamnick
Project Manager: Chad Hanson

Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 63
 Hwy 16 to south end of Root River Bridge (Stewartville)
 Bridge 50001, &, 50002
 State Project No. 5006-19

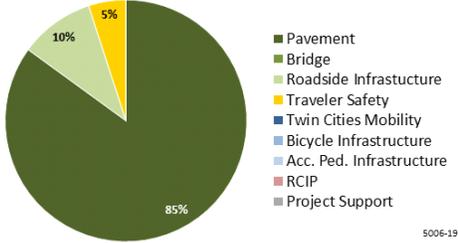
Substantially Complete



Primary Purpose

Performance-based Need: Pavement, Bridge & District Safety Plan

Investment Category



Project Description

This project consists of a mill and overlay for 10 miles on Hwy 63 from Hwy 16 to Stewartville. Additionally, the project includes bridge rehabilitations at Deer Creek and Bear Creek, culvert replacements, a pedestrian ramp reconstruction in Stewartville, and safety improvements in Racine.

Recent Changes and Updates

This project was merged with two other projects: a safety improvement project and a bridge rehabilitation project within the same corridor. The Current Estimate reflects the bid amount. Design risks were removed from 'Risks' as project construction is complete.

Project History

The urban section in Stewartville was regraded in 1993 and then overlaid in 2006. The current pavement condition for this segment indicates a need for improvement.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2010

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 4.7	\$ 5.3
Other Construction Elements:	\$ 0.0	\$ 0.0
Engineering:	\$ 0.9	\$ 1.0
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 5.6	\$ 6.3

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The Current Estimate reflects the bid amount.

Project Risks

There are currently no outstanding risks on this project.

Schedule

Environmental Approval Date: 10/10/2013
 Municipal Consent Approval Date: N/A
 Geometric Layout Approval Date: 9/27/2014
 Construction Limits Established Date: 07/01/2014
 Original Letting Date: 01/24/2014
 Current Letting Date: 01/24/2014
 Construction Season: 2014
 Estimated Substantial Completion: 08/01/2014



Minnesota Department of Transportation
 District 6
 2900 48th Street NW
 (507) 286-7500

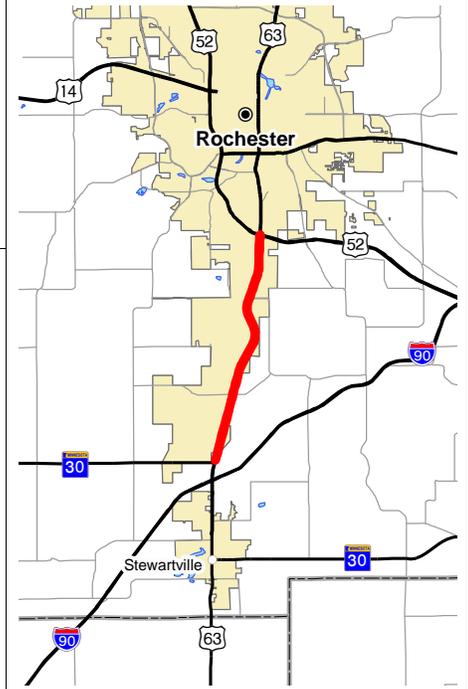
District Engineer: Jeffrey Vlaminc
Project Manager: Kjersti Anderson

Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 63
 Hwy 30 to 28th Street SE in Rochester
 State Project No. 5509-79

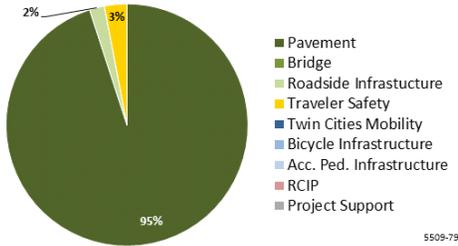
Substantially Complete



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

This project is a bituminous resurfacing of 6 miles on Hwy 63 near Rochester.

Recent Changes and Updates

The Current Estimate is the bid amount. The letting date changed to reflect the optimized letting schedule.

Project History

This project is needed to address pavement deterioration and extend pavement life.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2014

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 4.8	\$ 4.1
Other Construction Elements:	\$ 0.0	\$ 0.0
Engineering:	\$ 1.0	\$ 1.0
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 5.7	\$ 5.1

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The Current Estimate reflects the bid amount, which came in lower than the Baseline Estimate.

Project Risks

No risks remain.

Schedule

Environmental Approval Date: 07/25/2014
 Municipal Consent Approval Date: NA
 Geometric Layout Approval Date: NA
 Construction Limits Established Date: NA
 Original Letting Date: 12/19/2014
 Current Letting Date: 11/21/2014
 Construction Season: 2015
 Estimated Substantial Completion: 7/2015



Minnesota Department of Transportation
 District 6
 2900 48th Street NW
 (507) 286-7500

District Engineer: Jeff Vlamincik
Project Manager: Kjersti Anderson

Revised Date: 12/15/2016

PROJECT SUMMARY

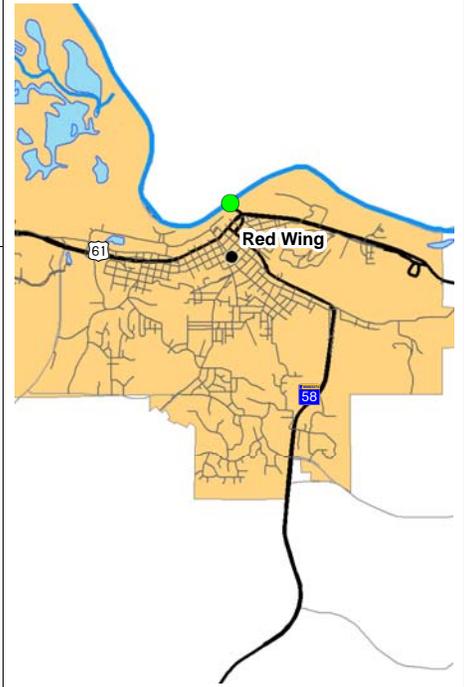
Hwy 63

Hwy 63 bridge over the Mississippi river and Hwy 61

Bridge 9040, &, 9103

State Project No. 2515-21

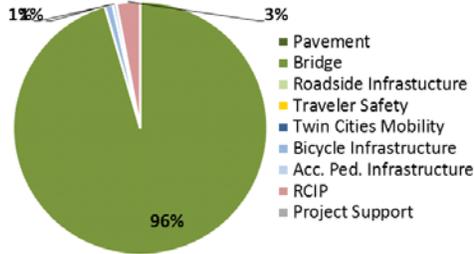
www.dot.state.mn.us/d6/projects/redwing-bridge



Primary Purpose

Performance-based Need: Bridge Condition & Traffic Mobility Deficiencies

Investment Category



Project Description

The recommended alternative for this project is to replace both the Hwy 63 bridge over the Mississippi River and replace the Hwy 63 bridge over the Hwy 61 bridge in Red Wing. The recommended approach roadway alternative in Red Wing is the buttonhook design that will create a new signalized intersection with Hwy 61 and Hwy 63. A jughandle design will be constructed on the Wisconsin approach.

Recent Changes and Updates

A steel box girder structure over the Mississippi river was selected as the recommended bridge type. A buttonhook approach, along with replacement of the bridge over Hwy 61, has been selected as the recommended Minnesota roadway alternative. Construction phasing will use performance-based design and only construct a two-lane structure to meet the immediate needs for capacity while preserving the right of way for a future four-lane when it is warranted rather than with this project.

The letting date was moved from 2/24/17 to 3/8/17 to allow for a 6 week advertise period due to the size of the project.

Project History

This river bridge is fracture critical and was put on the Chapter 152 Bridge list in 2008. The bridge over Hwy 61 is on the National Register. The original primary needs were to provide structurally sound crossings of the Mississippi River and Hwy 61; however, after significant traffic analysis, it was determined that traffic mobility in downtown Red Wing should also be a primary

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2015

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 80.0	\$ 55.0
Other Construction Elements:	\$ 8.0	\$ 5.0
Engineering:	\$ 10.0	\$ 8.0
Right of Way:	\$ 2.0	\$ 2.0
Total:	\$ 100.0	\$ 70.0

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The cost includes the Minnesota portion only.

MnDOT originally evaluated constructing a four lane structure to provide adequate capacity for long-term traffic growth. However, it was decided to use performance-based construction and to construct two lanes initially to provide adequate capacity for the 20 year forecast. Then MnDOT will preserve the existing right-of-way so that when traffic volumes warrant it the project will be set up to construct two additional lanes at that time. The cost savings to the project was estimated to be over \$25 million. This is the reason for the large cost change from the baseline estimate to the current estimate.

Project Risks

There is contamination on the Minnesota approach that will be impacted by construction. These properties will need to be acquired. There are poor soils on the Wisconsin approach that will require a surcharge and muck excavation, resulting in higher costs for WisDOT. Additional concerns remain around environmental document review schedule.

Schedule

Environmental Approval Date: 4/21/16
 Municipal Consent Approval Date: 11/23/15
 Geometric Layout Approval Date: 2015
 Construction Limits Established Date: 07/07/2015
 Original Letting Date: 11/01/2017
 Current Letting Date: 3/8/17
 Construction Season: 2017-2020
 Estimated Substantial Completion: 11/2020



Minnesota Department of Transportation
 District 6
 2900 48th Street NW
 (507) 286-7500

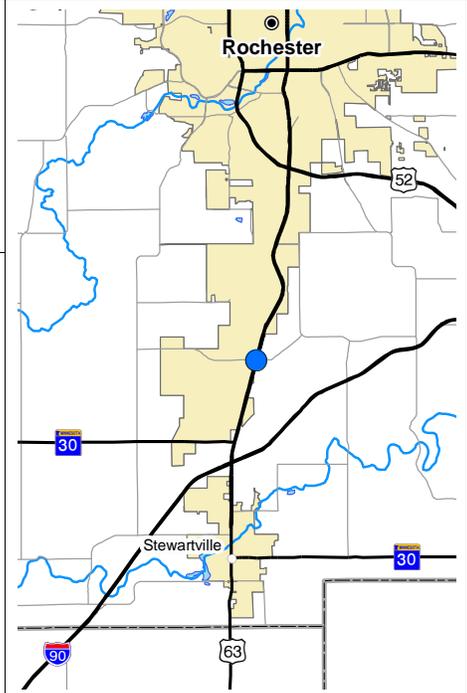
District Engineer: Jeff Vlamincik
Project Manager: Chad Hanson

Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 63
 County Road 16 interchange
 Bridge 55040
 State Project No. 5509-80

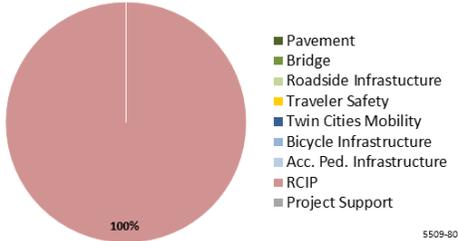
<http://www.co.olmsted.mn.us/planning/trnsprtng/plng/2015airportinterchange/Pa>



Primary Purpose

Performance-based Need: District Safety Plan, TED Project

Investment Category



Project Description

This project will reconstruct the interchange of Hwy 16 and Hwy 63 in Olmsted county to address existing functional deficiencies. This design includes addressing inadequate sight distance, a narrow bridge deck, lack of turn lanes at ramp junctions, limited accommodation for non-motorized travel and poor access management within the interchange area.

The bridge reconstruction will also incorporate space for pedestrians and bicyclists to enhance safety on Hwy 16.

Recent Changes and Updates

The project is under construction.

The current estimate (letting estimate) varies from the baseline estimate because the baseline estimate carried risk and contingencies that were not realized or avoided during plan development.

Project History

The project was let on 6/2/15. Olmsted County is lead agency.

The purpose of the project is to address existing functional deficiencies including: inadequate sight distance, a narrow bridge deck, lack of turn lanes at ramp junctions, limited accommodation for non-motorized travel and poor access management within the interchange area. Olmsted County was awarded a TED grant in July 2013 for \$2.224 million. MnDOT District 6 design staff will provide oversight. Project will be locally let.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2013

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 8.9	\$ 7.0
Other Construction Elements:	\$ 0.1	\$ 0.1
Engineering:	\$ 2.2	\$ 2.2
Right of Way:	\$ 0.4	\$ 0.4
Total:	\$ 11.6	\$ 9.7

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The Current Estimate reflects the bid amount. See Recent Changes section for further explanation.

Project Risks

No further project risks are anticipated at this time

Schedule

Environmental Approval Date: 09/09/2013
 Municipal Consent Approval Date: 1/5/15
 Geometric Layout Approval Date: 10/07/2014
 Construction Limits Established Date: 03/11/2014
 Original Letting Date: 02/16/2015
 Current Letting Date: 5/15/2015
 Construction Season: 2015/2016
 Estimated Substantial Completion: 11/2016



Minnesota Department of Transportation
 District 6
 2900 48th Street NW
 (507) 286-7500

District Engineer: Jeff Vlamincik
Project Manager: Paul Schauer

Revised Date: 12/15/2016

PROJECT SUMMARY

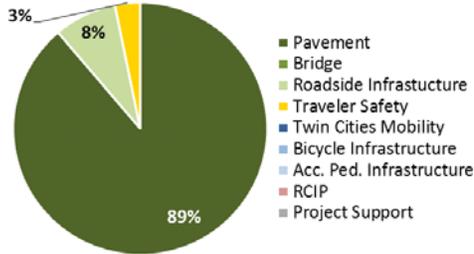
Hwy 63 and Hwy 60
 Hwy 63 from Hwy 60 to CR 78 and Hwy 60 in Zumbro Falls
 State Project No. 7908-35



Primary Purpose

Performance-based: Pavement Condition

Investment Category



Project Description

This project is a bituminous mill and overlay on Hwy 63 from Hwy 60 to CR 78. The project includes reconstruction of Hwy 60 and ADA compliant pedestrian ramps and sidewalks.

Recent Changes and Updates

Project limits previously were from 75th Street in Olmsted County to Wabasha County Road 78. In 2015, the limit was changed to begin at the intersection of Hwy 60 in Zumbro Falls but still end at CR78.

This project will now be associated with another roadway project Hwy 60 (SP7902-26). Hwy 60 will be reconstructed in Zumbro Falls in order to provide ADA compliant facilities.

NOTE:
 he remaining section of Hwy 63 from 75th Street to Hwy 60 will now be a white-topping project under SP5510-84.

Project History

This section of Hwy 63 is a two lane rural highway. The ride quality index is low and starting to show signs of deterioration, which will be addressed to extend pavement life.

The section of TH 60 in Zumbro Falls will be reconstructed to provide ADA compliant facilities.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2015

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 8.6	\$ 4.8
Other Construction Elements:	\$ 0.0	\$ 0.4
Engineering:	\$ 1.7	\$ 1.0
Right of Way:	\$ 0.0	\$ 0.1
Total:	\$ 10.3	\$ 6.3

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The current estimate reflects the original project limits being modified. (See Recent Changes and Updates for detailed explanation). The current estimate is a scoping level estimate reflecting the new project limits of Hwy 63 from Hwy 60 to CR78 and Hwy 60 from Appledale Drive to Hwy 63 in Zumbro Falls.

Project Risks

If the final project cost estimate comes in high then the project could be pushed out into a future letting date if funds are not available to cover the estimate.

Schedule

Environmental Approval Date: Need Unknown
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: Pending
 Construction Limits Established Date: 09/01/2016
 Original Letting Date: 01/01/2018
 Current Letting Date: 01/25/2018
 Construction Season: 2018
 Estimated Substantial Completion: 11/01/2018



Minnesota Department of Transportation
 District 6
 2900 48th Street NW
 (507) 286-7500

District Engineer: Jeff Vlamincik
Project Manager: Heather Lukes

Revised Date: 12/15/2016

PROJECT SUMMARY

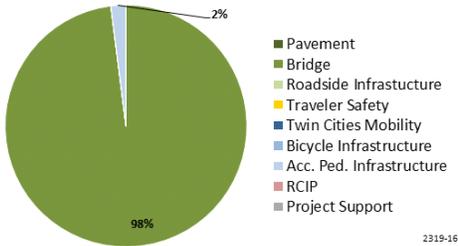
Hwy 250
 Bridges on Hwy 250 in Lanesboro
 Bridge 6975, 6977
 State Project No. 2319-16
mndot.gov/d6/projects/hwy250-bridge/



Primary Purpose

Performance-based Need: Bridge Condition

Investment Category



Project Description

The project replaces bridges over the north and south branches of the Root River in and to the north of Lanesboro.

Recent Changes and Updates

The Current Estimate is based on updated information in the District 6 work plan (10 year HIP). Letting date changed based upon the optimized letting schedule.

Project History

Bridge #6975 was built in 1931 and bridge #6977 was built in 1924. Both structures are classified as functionally obsolete.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2013

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 9.0	\$ 5.7
Other Construction Elements:	\$ 0.0	\$ 0.0
Engineering:	\$ 1.7	\$ 1.1
Right of Way:	\$ 0.3	\$ 0.3
Total:	\$ 11.0	\$ 7.1

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The environmental impacts of roadway approach work will not be significant. Traffic will be detoured during construction for bridge #6975.

Project Risks

The risks have been removed or mitigated.

Schedule

Environmental Approval Date: pending
 Municipal Consent Approval Date: 8/3/15
 Geometric Layout Approval Date: 05/14/2015
 Construction Limits Established Date: 05/14/2015
 Original Letting Date: 01/22/2016
 Current Letting Date: 02/26/2016
 Construction Season: 2016
 Estimated Substantial Completion: 11/2016



Minnesota Department of Transportation
 District 6
 2900 48th Street NW
 (507) 286-7500

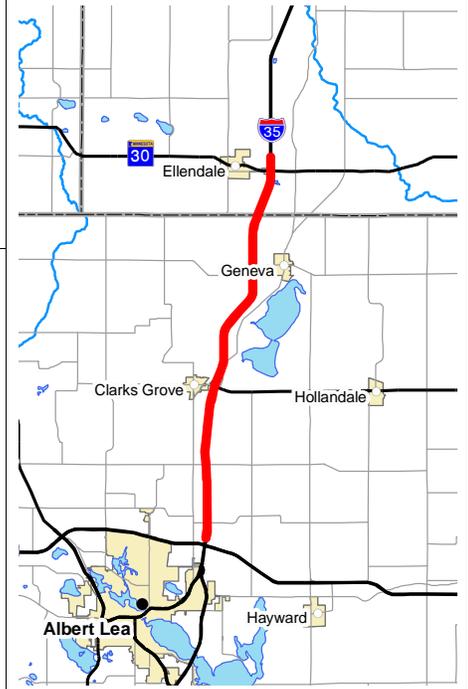
District Engineer: Jeff Vlamincik
Project Manager: Kjersti Anderson

Revised Date: 12/15/2016

PROJECT SUMMARY

I-35
Freeborn/Steele
State Project No. 2480-104

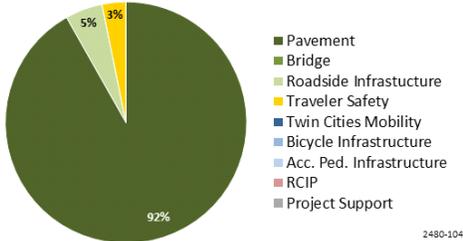
Substantially Complete



Primary Purpose

Performance-based Need: Pavement & Roadside Infrastructure Condition

Investment Category



Project Description

This project will add a new layer of concrete roadway and replace drainage structures and guard rail for 14 miles along I-35 from Hwy 23 to Hwy 30.

Recent Changes and Updates

No recent changes noted. Competitive bid lower than estimated. Due to lower material costs.

Project History

The purpose of the project is to replace the existing bituminous on the concrete roadway structure, extend pavement life and improve ride quality.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2012

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 17.7	\$ 17.5
Other Construction Elements:	\$ 0.0	\$ 0.6
Engineering:	\$ 3.5	\$ 0.9
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 21.2	\$ 19.0

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Standard practices were used to develop cost estimates. These estimates were taken from the most recent District 6 work plan.

Project Risks

Competitive bid lower than expected.

Schedule

Environmental Approval Date: 07/31/2014
Municipal Consent Approval Date: NA
Geometric Layout Approval Date: NA
Construction Limits Established Date: 05/01/2014
Original Letting Date: 11/20/2015
Current Letting Date: 09/26/2014
Construction Season: 2015
Estimated Substantial Completion: 11/2015



Minnesota Department of Transportation
District 6
2900 48th Street NW
(507) 286-7500

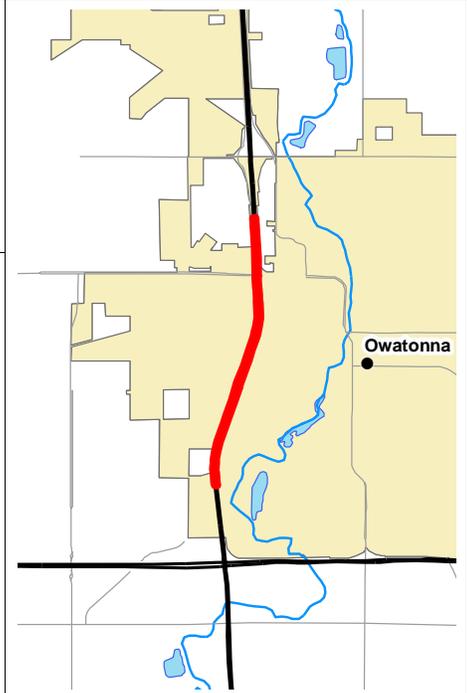
District Engineer: Jeffrey Vlamincik
Project Manager: David Tsang

Revised Date: 12/15/2016

PROJECT SUMMARY

I-35

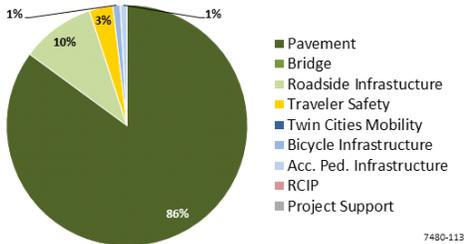
5 miles south of Owatonna to Faribault
 Bridge 74815, 74816, 74817, &, 74818
 State Project No. 7480-113



Primary Purpose

Performance-based Need: Pavement & Bridge Condition

Investment Category



Project Description

This project will replace four bridges over I-35 in Owatonna. It will also reconstruct the pavement on northbound and southbound I-35 and construct an auxiliary lane on northbound and southbound I-35 from Bridge Street to old Hwy 14 west.

Recent Changes and Updates

The Current Estimate is based on a new project scope. The paving portion of the original project on I-35 from Owatonna to Faribault has been removed and is a separate project now.

Project History

Each of the four bridges over I-35 in Owatonna are approximately 45 years old, functionally obsolete and have various structural deficiencies. Two of the four bridges also span the Canadian Pacific Railroad. Traffic safety issues exist on I-35 for traffic entering from Hwy 14 west and to Bridge Street due to existing geometrics. Letting date pushed back to accommodate revisions necessary for best results and other priorities in the transportation system.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2010

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 34.1	\$ 24.1
Other Construction Elements:	\$ 0.0	\$ 1.0
Engineering:	\$ 6.8	\$ 4.8
Right of Way:	\$ 0.5	\$ 0.5
Total:	\$ 41.4	\$ 30.4

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The remainder of the project will be completed under traffic. Traffic will be one lane in each direction (head-to-head) in Owatonna.

Project Risks

Railroad agreement with CPRR will be required for bridge replacement.

Schedule

Environmental Approval Date: 12/26/2013
 Municipal Consent Approval Date: NA
 Geometric Layout Approval Date: 8/7/2013
 Construction Limits Established Date: 08/02/2013
 Original Letting Date: 01/23/2009
 Current Letting Date: 02/28/2014
 Construction Season: 2014
 Estimated Substantial Completion: Fall 2015



Minnesota Department of Transportation
 District 6
 2900 48th Street NW
 (507) 286-7500

District Engineer: Jeffrey Vlamincik
Project Manager: David Tsang

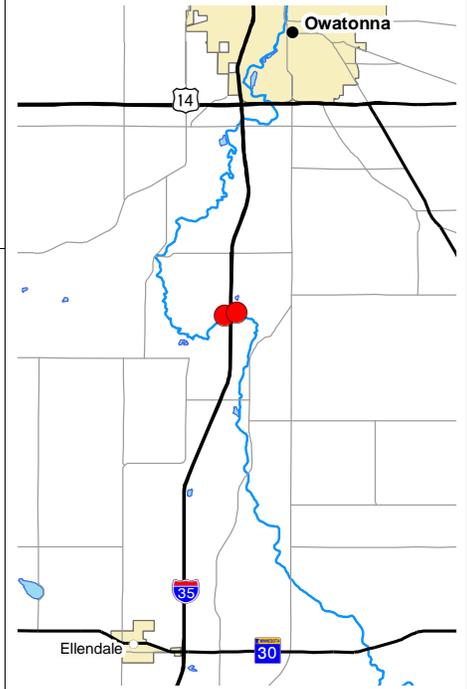
Revised Date: 12/15/2016

PROJECT SUMMARY

I-35

Straight River Rest Area NB

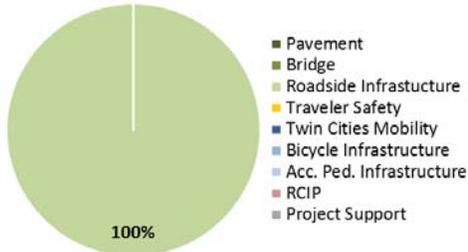
State Project No. 7480-124



Primary Purpose

Performance-based Need: Roadside Infrastructure Condition

Investment Category



Project Description

This project is for the replacement of the I-35 Straight River Rest Area.

Recent Changes and Updates

Original letting was 2/2016. Design delays caused letting date to be moved. This project was let on 6/2/2016 and is under construction. Project had one bidder.

Project History

The Straight River Rest Area located on northbound I-35 is currently rated as the poorest rest area in District 6. The truck parking was designed using outdated semi-truck turning radius standards and is now considered inadequate. The building is deteriorating and the facility does not meet current ADA requirements.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2015

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 4.7	\$ 5.0
Other Construction Elements:	\$ 0.0	\$ 0.0
Engineering:	\$ 0.6	\$ 1.0
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 5.4	\$ 6.0

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Project construction letting cost was \$4.98 million. 20% engineering used in current estimate.

Project Risks

There are currently no outstanding risks on this project.

Schedule

Environmental Approval Date: 03/01/2016
 Municipal Consent Approval Date: NA
 Geometric Layout Approval Date: NA
 Construction Limits Established Date: NA
 Original Letting Date: 02/26/2016
 Current Letting Date: 06/02/2016
 Construction Season: 2016
 Estimated Substantial Completion: 10/2016



Minnesota Department of Transportation
 District 6
 2900 48th Street NW
 (507) 286-7500

District Engineer: Jeff Vlamincik
Project Manager: Kyle Lake

Revised Date: 12/15/2016

PROJECT SUMMARY

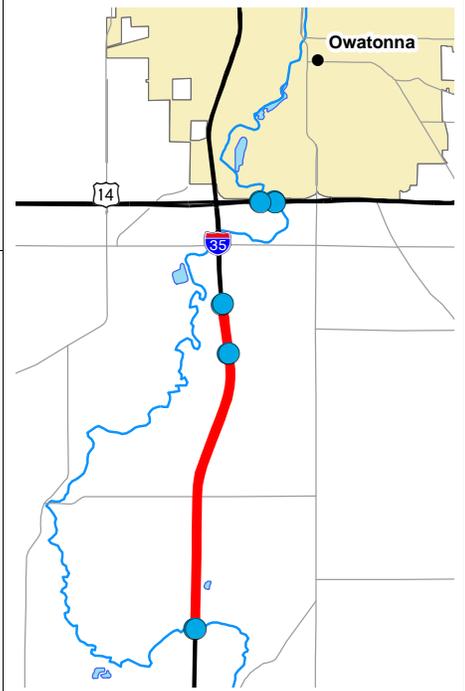
I-35

6 bridges on I-35 and 4 bridges on Hwy 14

Bridge 74807,74808,74823,74824,74804,74803,74001,74002,74003,74004

State Project No. 7480-126

<http://www.dot.state.mn.us/designbuild/steele-county-bridges/index.html>



Primary Purpose

Performance Based Need: Bridge Condition

Investment Category

*This project was designed and scoped before the current highway investment plan MnSHIP was developed, which breaks projects into investment categories.

Project Description

This project will be a design-build for replacement of 6 bridges on I-35 between Owatonna and Hope. The project also includes replacement of 4 bridges on Hwy 14 near Owatonna between I-35 and CR 45.

Recent Changes and Updates

This project was let on 3/16/2016 and is under construction.

Project History

This project is being funded with additional state appropriation money. The project was initially funded at \$30M to reconstruct all 10 bridges. The price for 9 bridges came in at \$29.6M. The district identified a 10th bridge to include for a cost of a little over \$3M, which will be funded with district money.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2015

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 27.3	\$ 29.6
Other Construction Elements:	\$ 1.9	\$ 4.0
Engineering:	\$ 4.3	\$ 4.3
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 33.5	\$ 37.9

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The Baseline Estimate assumed steel bridges on I-35 and Hwy 14 over the Union Pacific Railroad. The cost of these bridges may decrease if we can reduce the portal opening and optimize the design. The assumptions also included reconstructing Hwy 14 between the Union Pacific Railroad, the Straight River and approximately 250 feet of approach work at all of the other bridges.

Project Risks

There is a medium risk of delay with getting design approval with Union Pacific Railroad.

Schedule

Environmental Approval Date: 8/ 2010 EIS
 Municipal Consent Approval Date: NA
 Geometric Layout Approval Date: 12/2015
 Construction Limits Established Date: 10/2015
 Original Letting Date: 04/08/2016
 Current Letting Date: 3/16/2016
 Construction Season: 2016-2018
 Estimated Substantial Completion: 11/2018



Minnesota Department of Transportation
 District 6
 2900 48th Street NW
 (507) 286-7500

District Engineer: Jeff Vlamincik
Project Manager: Tory Thompson

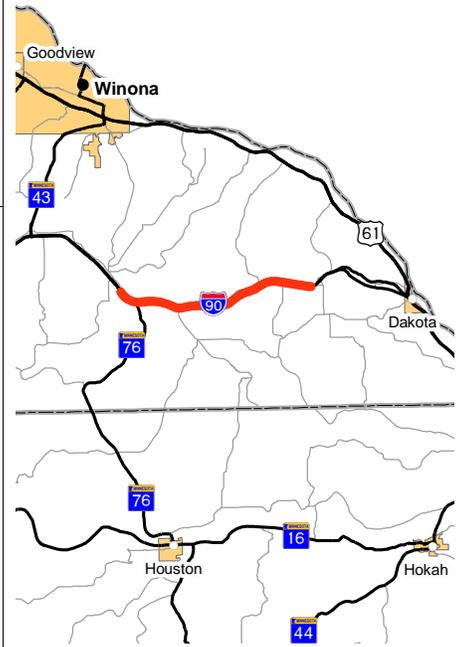
Revised Date: 12/15/2016

PROJECT SUMMARY

I-90

West of Hwy 76 to west of County Road 12
State Project No. 8580-163

Substantially Complete



Primary Purpose

Performance-based Need: Pavement & District Safety Plan

Investment Category

*This project was designed and scoped before the current highway investment plan MnSHIP was developed, which breaks projects into investment categories.

Project Description

This project is a mill and overlay of 8 miles of I-90 from Hwy 76 to Hwy 12. The weigh station ramps will also be overlaid and drainage and safety improvements will be made.

Recent Changes and Updates

This project will preserve existing roadway structure, extend pavement life, and improve ride quality.

Project History

This section of I-90 was originally graded in 1971 and last overlaid in 1997 and 1998. In 2009 the pavement was rated in good condition with a Ride Quality Index (RQI) from 2.8 to 3.6. Project tied with SP 8502-33 (TH 43).

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2011

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 5.3	\$ 5.6
Other Construction Elements:	\$ 0.4	\$ 0.4
Engineering:	\$ 0.6	\$ 0.6
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 6.3	\$ 6.6

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

It was assumed there will be no right of way costs, a 1.5-inch mill and 3-inch overlay and that traffic will be maintained during construction. No crossovers or detour costs were included.

Project Risks

Coordination will be needed to address maintenance of traffic issues at the Hwy 76 interchange. The project plans do not include replacing the approach panels, which will only be replaced on the bridges; however, the approach panels could be added at a later time.

Schedule

Environmental Approval Date: Not Needed
Municipal Consent Approval Date: Not Needed
Geometric Layout Approval Date: Unknown
Construction Limits Established Date: Unknown
Original Letting Date: 01/24/2014
Current Letting Date: 6/7/2013
Construction Season: 2015
Estimated Substantial Completion: 11/2015



Minnesota Department of Transportation
District 6
2900 48th Street NW
(507) 286-7500

District Engineer: Jeff Vlamincik
Project Manager: Richard Augustin

Revised Date: 12/15/2016

PROJECT SUMMARY

I-90
 Winona
 Bridge 85830, 85844
 State Project No. 8580-165

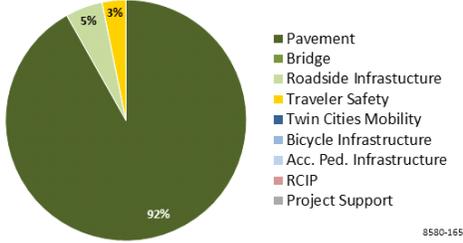
Substantially Complete



Primary Purpose

Performance-based Need: Pavement & Roadside Infrastructure Condition

Investment Category



Project Description

This project will resurface the eastbound lanes of Hwy 90 with a concrete unbonded overlay. The ramps will be re-graded and several existing culverts will be replaced or repaired as a part of the project. Repairs will also include fixing separating pipes and aprons.

Recent Changes and Updates

The project is substantially complete.

Project History

The project changed from a bituminous mill and overlay to a concrete unbonded overlay. I-90 eastbound is in poor condition and needs repair. The purpose of the project is to improve ride quality and reduce maintenance costs.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2014

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 8.4	\$ 10.0
Other Construction Elements:	\$ 0.0	\$ 0.9
Engineering:	\$ 1.7	\$ 0.5
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 10.1	\$ 11.4

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The Current Estimate reflects the bid amount, which had less competitive bids for the overlay.

Project Risks

The risks have been removed.

Schedule

Environmental Approval Date: 9/27/2013
 Municipal Consent Approval Date: NA
 Geometric Layout Approval Date: NA
 Construction Limits Established Date: 08/15/2013
 Original Letting Date: 11/22/2013
 Current Letting Date: 11/22/2013
 Construction Season: 2014
 Estimated Substantial Completion: 2015



Minnesota Department of Transportation
 District 6
 2900 48th Street NW
 (507) 286-7500

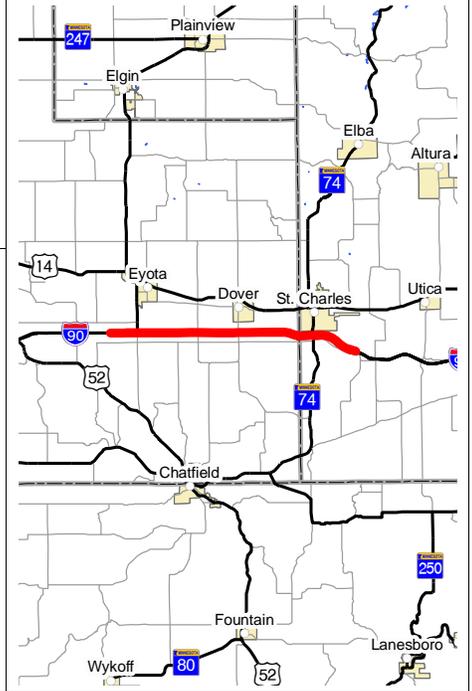
District Engineer: Jeff Vlamincik
Project Manager: David Tsang

Revised Date: 12/15/2016

PROJECT SUMMARY

I-90
 East of County Road 19 to East of Hwy 74
 Bridge 85817
 State Project No. 5580-90

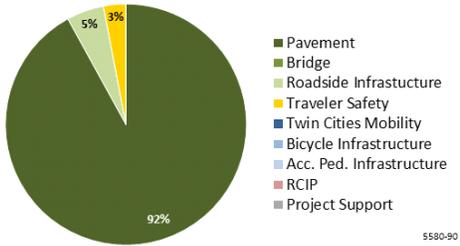
Substantially Complete



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

This project will resurface 12 miles of the westbound lanes on I-90 from 2 miles east of Hwy 19 to 2 miles east of Hwy 74. The resurfacing will consist of an unbonded concrete overlay. The project also includes culvert repairs and improvements.

Recent Changes and Updates

No recent changes noted.

Project History

This section of the westbound lanes of I-90 was built in 1971 and overlaid in 1998. This highway segment is starting to deteriorate. The purpose of the project is to improve ride quality and reduce maintenance costs.

Bridge rehabilitation on bridge #85817 was added to the project. The bridge rehabilitation includes new bridge railings, end posts and resurfacing.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2014

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 13.5	\$ 17.0
Other Construction Elements:	\$ 0.0	\$ 0.8
Engineering:	\$ 2.7	\$ 0.5
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 16.2	\$ 18.3

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The engineering estimate and higher anticipated concrete costs increased the Current Estimate. The Current Estimate includes bridge rehabilitation and is the bid amount.

Project Risks

No project risks remain.

Schedule

Environmental Approval Date: Unknown
 Municipal Consent Approval Date: Need Unknown
 Geometric Layout Approval Date: Unknown
 Construction Limits Established Date: Unknown
 Original Letting Date: 12/19/2014
 Current Letting Date: 11/21/2014
 Construction Season: 2015
 Estimated Substantial Completion: 11/2015



Minnesota Department of Transportation
 District 6
 2900 48th Street NW
 (507) 286-7500

District Engineer: Jeff Vlamincik
Project Manager: Jacob Gasper

Revised Date: 12/15/2016

PROJECT SUMMARY

I-90

I-90 WB Lanes from Hwy13 to Hwy 46 (Petran)

State Project No. 2482-74



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category

*This project was designed and scoped before the current highway investment plan MnSHIP was developed, which breaks projects into investment categories.

Project Description

This project will resurface 12 miles of the westbound lanes on I-90 from Hwy 13 to CR 46. The resurfacing will consist of a medium bituminous overlay. The project also includes guardrail replacements, culvert repairs and improvements.

Recent Changes and Updates

This project was delayed and moved from a 2018 project to a 2019 project. This project includes patching of the existing bituminous, which will take place prior to the overlay.

Project History

This segment of I-90 is a 4-lane divided, rural highway. The pavement is starting to show signs of deterioration. This project will improve ride quality and reduce maintenance costs.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2015

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 4.9	\$ 4.9
Other Construction Elements:	\$ 0.3	\$ 0.3
Engineering:	\$ 0.7	\$ 0.7
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 5.9	\$ 5.9

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

20% engineering cost was used to arrive at total Current Estimate. It is assumed that 9 westbound ramps will be milled and overlaid similar to the mainline.

Project Risks

Competitive bids may be higher or lower than expected. Final pavement recommendations will be made during the project development process. Final hydraulics recommendations will be made during project development, which could affect the overall cost estimate and traffic control.

Schedule

Environmental Approval Date: Not Needed
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: Not Needed
 Construction Limits Established Date: 05/12/2014
 Original Letting Date: 11/17/2017
 Current Letting Date: 1/19/19
 Construction Season: 2019
 Estimated Substantial Completion: 11/2019



Minnesota Department of Transportation
 District 6
 2900 48th Street NW
 (507) 286-7500

District Engineer: Jeff Vlamincik
Project Manager: Chad Hanson

Revised Date: 12/15/2016

PROJECT SUMMARY

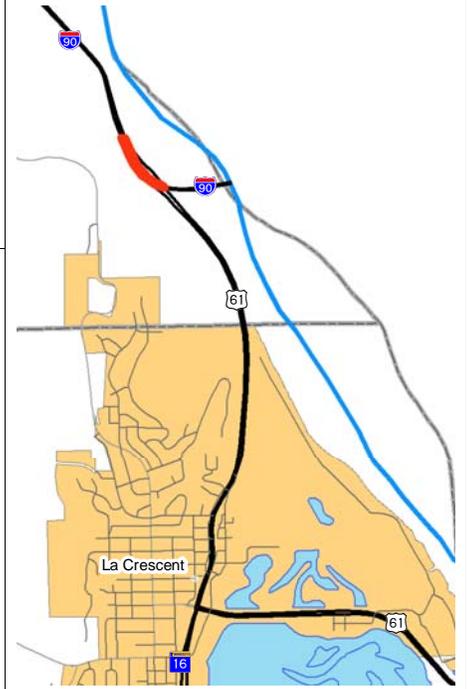
I-90

Mississippi River Bridges - Dresbach

Bridge 85801, &, 85802

State Project No. 8580-149

<http://www.dot.state.mn.us/dresbachbridge/index.html>



Primary Purpose

Performance-based Need: Bridge Condition

Investment Category

Project Description

This project will construct a new I-90 river bridge, which will include a reconstructed interchange that improves traffic safety, capacity and access on and between Hwy 61 and Hwy 14, as well as I-90. The project includes grading, concrete surfacing and bridge replacement. New and enhanced bicycle and pedestrian facilities will be provided along Hwy 61 and provisions for future bike/ped facilities are incorporated into the plans. Additionally, Wisconsin is funding a portion of the bridge replacement, including 100 percent of the Wisconsin approach costs.

Recent Changes and Updates

The initial estimate was considerably higher because there were higher cost contingencies built into the preliminary level cost estimate. The project included a unique performance based construction staging and some maintenance of traffic provisions to bring contractor innovation. Since the project has moved forward, there is a much better view of the risks and contingencies. The Current Estimate reflects the bid amount.

Due to overruns and contract changes, including the State Line Prevailing Wage Change, the anticipated cost for the project is approximately \$193M.

Project History

The primary purpose of the project is to provide a new bridge on I-90 for an important regional river crossing, and to provide a reconstructed interchange that improves traffic safety, capacity and access on and between Hwy 61/Hwy 14 and I-90. The project will address identified bridge structural deficiencies, roadway operational problems, capacity needs, traffic safety concerns and riverfront access issues.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2009

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 265.5	\$ 187.5
Other Construction Elements:	\$ 0.0	\$ 0.0
Engineering:	\$ 28.1	\$ 24.8
Right of Way:	\$ 0.0	\$ 0.5
Total:	\$ 293.6	\$ 212.8

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Environmental impacts with the bridge and the roadway approach work are not significant. The US Fish and Wildlife Services agrees to the right of way swap.

Project Risks

The close proximity of this bridge to Hwy 61, the railroad tracks and the Minnesota rest area make roadway and bridge geometry challenging. Numerous environmental permits will be required.

Although the project is coming to a close, the contractor is working to remove the old bridge and the embankments at both abutments. The contractor also has to remove a temporary causeway and bridge that was used for access to the island and to facilitate bridge removal.

Schedule

Environmental Approval Date: unknown
Municipal Consent Approval Date: Not Needed
Geometric Layout Approval Date: 12/7/2011
Construction Limits Established Date: 06/14/2011
Original Letting Date: 01/24/2012
Current Letting Date: 10/19/2012
Construction Season: 2013/2016
Estimated Substantial Completion: 11/2017



Minnesota Department of Transportation
District 6
2900 48th Street NW
(507) 286-7500

District Engineer: Jeff Vlamincik
Project Manager: Mark Anderson

Revised Date: 12/15/2016

PROJECT SUMMARY

I-90

Both westbound and eastbound lanes of I-90 in Winona County
State Project No. 8580-167



Primary Purpose

Performance Based Need: Pavement Condition

Investment Category

*This project was designed and scoped before the current highway investment plan MnSHIP was developed, which breaks projects into investment categories.

Project Description

This project is a mill and overlay of both westbound and eastbound lanes on I-90 in Winona County. It involves various segments in each direction of I-90, including where it runs together with US 61. The overall project length is 5.9 miles.

Recent Changes and Updates

The scoping report indicates the Baseline and Current Estimate. Final hydraulics recommendations will be made in 2016, which will affect the project cost estimate.

Project History

This is a 4 lane interstate highway with reasonably high traffic volumes and a 70 mph speed limit. The pavement is starting to show signs of deterioration, which is expected to accelerate in the upcoming years. The project is needed to address the deterioration and to extend service life. The project will also include safety and other improvements.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2015

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 4.2	\$ 4.2
Other Construction Elements:	\$ 0.3	\$ 0.3
Engineering:	\$ 0.5	\$ 0.5
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 5.0	\$ 5.0

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The Baseline and Current Estimates are scoping level cost estimates only. Final hydraulics recommendations in the final pavement determination will be paid during project development, which could affect the overall project cost. Bituminous cost increases could also affect the overall project estimate.

Project Risks

If the final project cost estimate comes in high then the project could be pushed out into a future letting date if funds are not available to cover the estimate.

Schedule

Environmental Approval Date: TBD
Municipal Consent Approval Date: Not needed
Geometric Layout Approval Date: Not needed
Construction Limits Established Date: TBD
Original Letting Date: 10/18/2019
Current Letting Date: 10/18/2019
Construction Season: 2020
Estimated Substantial Completion: November 2020



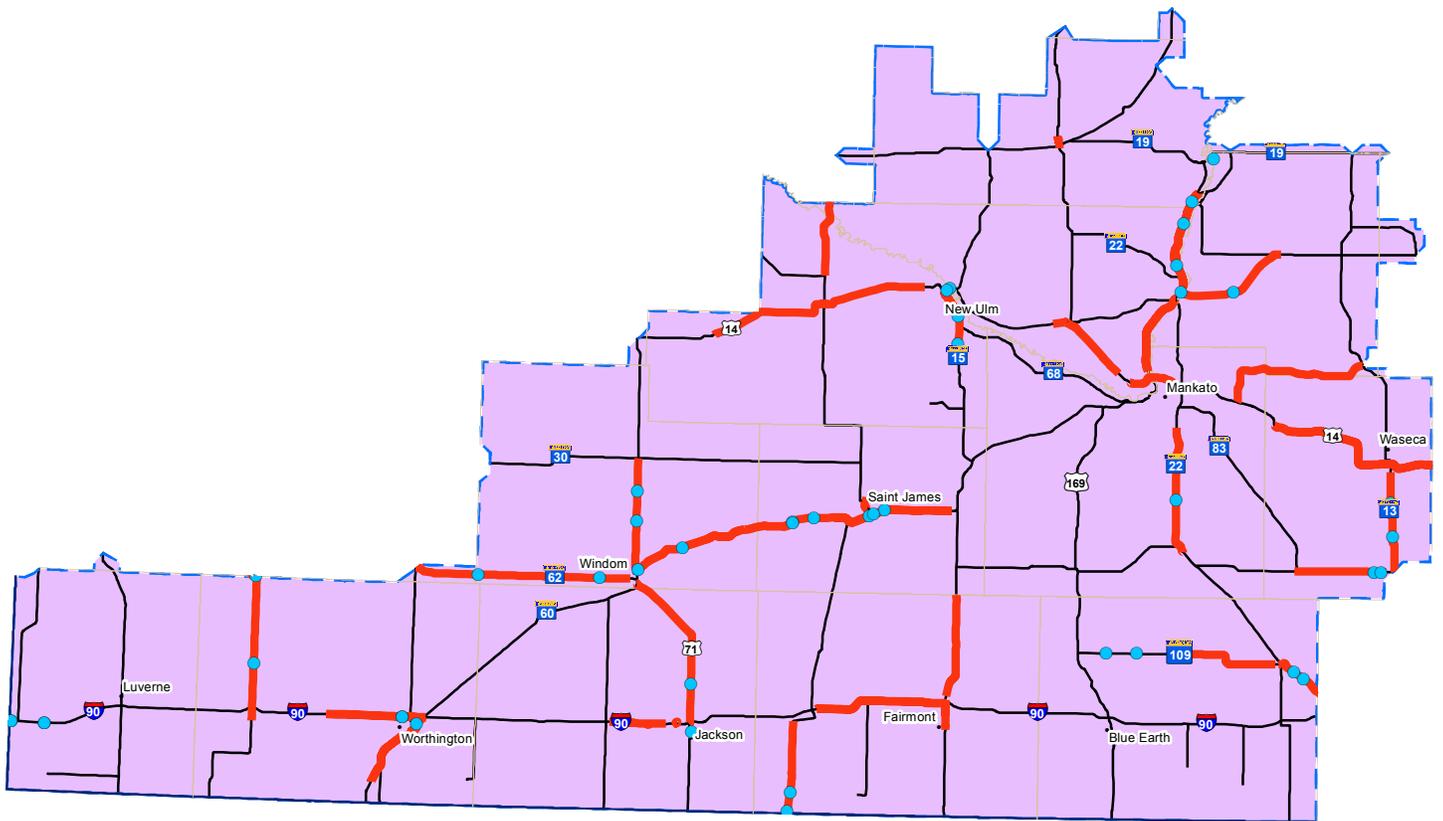
Minnesota Department of Transportation
District 6
2900 48th Street NW
(507) 286-7500

District Engineer: Jeff Vlamincik
Project Manager: Chad Hanson

Revised Date: 12/15/2016

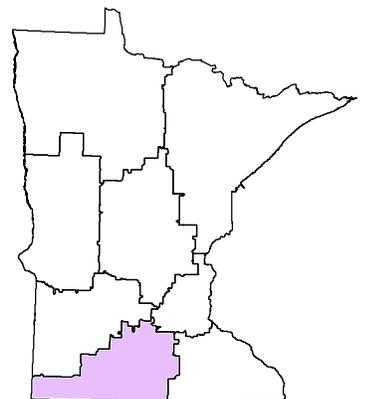


Major Highway Projects 2016 D7-MANKATO



Major Highway Projects

-  Bridge Projects
-  Roadway Projects
-  State Boundary
-  County Line
-  Construction District



District Project Summary

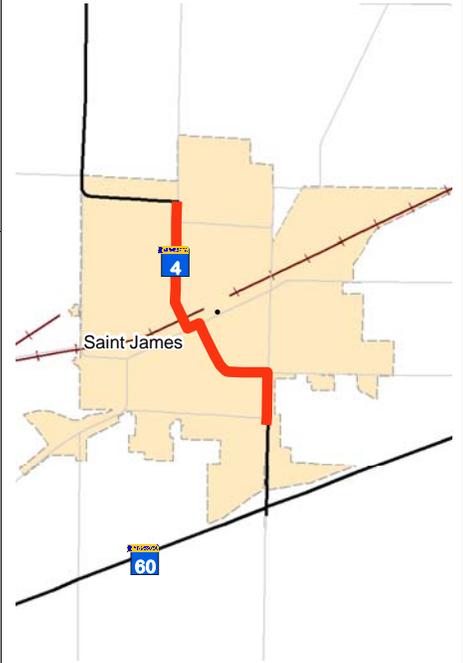
District 7

Route	State Project #	Project Location	Page
Hwy 4	8302-38	South of 10th Ave to 11th Ave in St. James	F 2
Hwy 4	4601-32	Iowa border to Martin CSAH 26	F 3
Hwy 13	8101-57	Waseca to Hwy 30 in New Richland	F 4
Hwy 14	0804-81	New Ulm and junction with Hwy 15	F 5
Hwy 14	0803-38	Sleepy Eye	F 6
Hwy 14	5203-104	West of Nicollet to North Mankato	F 7
Hwy 14	0804-113	East limits of Sleepy Eye to west limits of New Ulm	F 8
Hwy 14	0702-125	North Mankato to Mankato	F 9
Hwy 15	0805-113	South of Searles to New Ulm	F 10
Hwy 15	4603-45	Fairmont	F 11
Hwy 15	4604-32	I-90 to Hwy 54 in Truman & county line to Hwy 24	F 12
Hwy 19	4004-112	Over the Union Pacific railroad, east of Sibley/LeSueur county line	F 13
Hwy 22	0704-88	Mankato, from Hwy 83 to County Road 26	F 14
Hwy 22	0704-100	Hwy 7 to Hwy 15	F 15
Hwy 22, Hwy 5, Hwy 19	7207-20	Gaylord	F 16
Hwy 30	8105-21	From Hwy 83 to New Richland	F 17
Hwy 60	1703-69	Windom to west of Mountain Lake	F 18
Hwy 60	5305-51	Bigelow to Worthington	F 19
Hwy 60	1703-70	Mountain Lake to Butterfield	F 20
Hwy 60	8308-44	Butterfield to St. James	F 21
Hwy 60	8309-52	Between St. James and Hwy 4 to Hwy 14	F 22
Hwy 60	4006-35	Hwy 14 to Hwy 13 in Waterville	F 23
Hwy 62	1704-27	Fulda to Windom	F 24
Hwy 71	3205-29	Over the Des Moines River in Jackson	F 25
Hwy 71	3206-20	Jackson to Windom	F 26
Hwy 71	1706-29	Windom to Hwy 30	F 27
Hwy 91	5308-29	Adrian to Nobles/Murray county line	F 28
Hwy 99	4008-25	Over the Minnesota River in St Peter	F 29
Hwy 99	4008-28	St. Peter to Le Center	F 30
Hwy 109	2212-28	Winnebago to Wells	F 31
Hwy 109	2206-13	Hwy 22 in Wells to I-90 in Alden	F 32
Hwy 169	5209-74	Hwy 22 in St Peter to Hwy 93 at Le Sueur	F 33
Hwy 169	5209-66	St. Peter to Le Sueur, south of the Minnesota River Bridge	F 34
Hwy 169	5211-59	Hwy 14 in Mankato to St. Peter	F 35
Hwy 169	5211-61	Hwy 14 in Mankato to St. Peter	F 36
I-90	3280-126	Eastbound Hwy 86 to Hwy 4 & westbound Hwy 5 to Hwy 4	F 37
I-90	4680-126	Sherburn to Fairmont	F 38
I-90	5380-133	Worthing to Rushmore	F 39
I-90	6780-105	South Dakota border to east of Hwy 23	F 40
I-90	3280-130	Des Moines Rest Area	F 41
I-90	3280-129	Clear Lake Rest Area	F 42
Old Hwy 14	8103-113	West of Janesville to Owatonna city limits	F 43
Old Hwy 14	8103-114	Janesville	F 44

PROJECT SUMMARY

Hwy 4

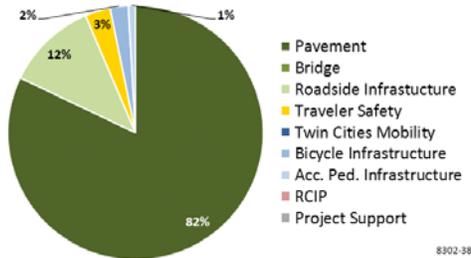
South of 10th Ave to 11th Ave in St. James
 State Project No. 8302-38
 mndot.gov/stjames



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

This is a roadway reconstruction project for 1.6 miles in St James from south of 10th Ave S. to 11th Ave N.

The sidewalk will be replaced and constructed to meet ADA standards. In addition, the storm sewer, sanitary sewer and water main will be replaced. Mini-roundabouts will be built to replace the existing signals in town to optimize the flow of traffic.

Recent Changes and Updates

The project was first let in February 2016 and all bids were rejected, with the lowest being \$18.8M. The reasons for the bids being well over the estimate include tight staging requirements, specifications for contaminated soil handling, and a less competitive bidding environment. Staging was revised and the project was re-bid in May 2016 giving contractors an additional year for construction work. The low bid was at \$15.7M.

Project History

The city approved the geometric layout. A consultant was procured for the final design work. The letting date changed to align with a scheduled letting date after the project was programmed. Some temporary easements will be needed in the process of making the sidewalks ADA compliant.

The existing 1951 concrete throughout the corridor is in very poor condition. Multiple city utility breaks occur each winter due to poor utilities below the roadway.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2012

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 5.3	\$ 15.7
Other Construction Elements:	\$ 0.4	\$ 0.7
Engineering:	\$ 1.0	\$ 1.5
Right of Way:	\$ 0.2	\$ 0.2
Total:	\$ 6.9	\$ 18.1

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The construction cost breakdown is: MnDOT's share - \$8.1 million; city share - \$6.9 million; and county share - \$0.6 million. The current estimate is based on the awarded contract from the May 2016 letting.

Project Risks

Local funding of needs on the project because there was no transportation funding package from the state legislature where the city was in the bill for funding. They have not pursued financing by selling bonds. This is moving forward.

Schedule

Environmental Approval Date: 11/23/2015
 Municipal Consent Approval Date: 12/02/2014
 Geometric Layout Approval Date: 4/10/2015
 Construction Limits Established Date: Summer 2015
 Original Letting Date: 6/30/2016
 Current Letting Date: 5/22/2016
 Construction Season: 2016-2018
 Estimated Substantial Completion: Dec. 2018



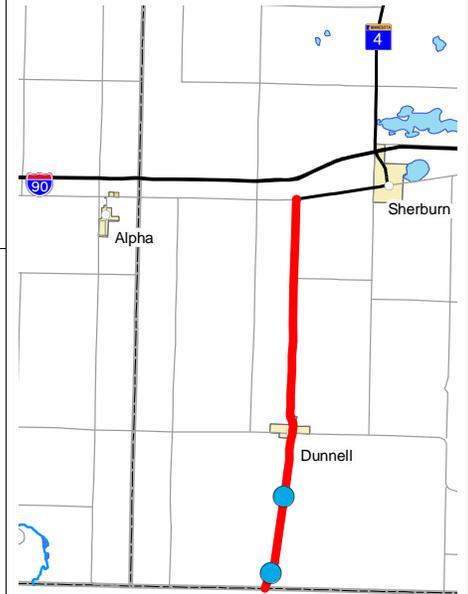
Minnesota Department of Transportation
 District 7
 2151 Bassett Drive
 (507) 304-6100

District Engineer: Greg Ous
Project Manager: Zachary Tess

Revised Date: 12/15/2016

PROJECT SUMMARY

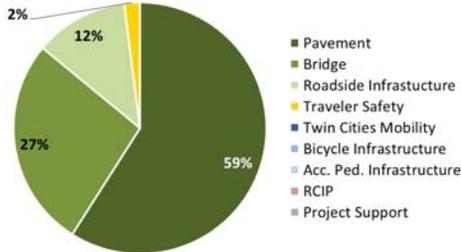
Hwy 4
Iowa border to Martin CSAH 26
Bridge 3572, &, 3878
State Project No. 4601-32



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

The project consists of a mill and overlay for the rural section of Hwy 4 in Martin County, from the Iowa border to the west junction of Martin CSAH 26, located southwest of Sherburn. It will also replace two bridges with new box culverts. The project length is about 10.1 miles.

Recent Changes and Updates

The project was shifted from Fiscal Year 2018 to 2019 as a ripple effect of projects coming in over estimate in 2016.

Project History

This project will resurface the pavement to achieve a smooth riding surface and improve the ride quality index (RQI). The project also includes replacing two bridges (#3572 and #3878) with new box culverts. In 2013, the pavement was near the end of its service life and the ride quality was poor. Both bridges need replacement.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2015

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 6.1	\$ 6.1
Other Construction Elements:	\$ 0.5	\$ 0.5
Engineering:	\$ 1.1	\$ 1.1
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 7.7	\$ 7.7

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

It is assumed that the project is a mill and overlay. The current estimate is in 2014 dollars inflated to 2019.

Project Risks

Due to the letting move in order to balance program funding, the type of roadway work for this project is being reconsidered. A decision is expected in September or October 2016. If the project is modified, a new estimate would need to be performed

The life cycle cost analysis may show an alternate fix has the lowest life cycle cost. If a more substantial fix is required that requires raising the road grade or includes subgrade corrections, the costs may increase significantly.

There is no contingence left on the project cost estimate for these major risks.

Schedule

Environmental Approval Date: Pending Approval
Municipal Consent Approval Date: Not Needed
Geometric Layout Approval Date: Need Unknown
Construction Limits Established Date: Pending Approval
Original Letting Date: 1/26/2018
Current Letting Date: 1/25/2019
Construction Season: 2019
Estimated Substantial Completion: Fall 2019



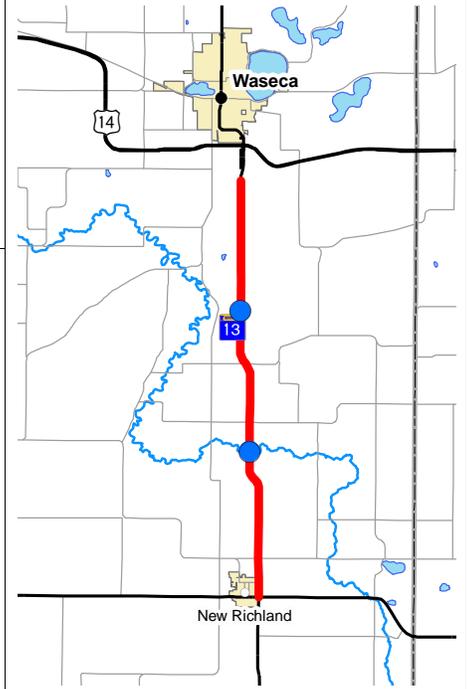
Minnesota Department of Transportation
District 7
2151 Bassett Drive
(507) 304-6100

District Engineer: Greg Ous
Project Manager: Tom Wiener

Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 13
 Waseca to Hwy 30 in New Richland
 Bridge 81001, &, 81002
 State Project No. 8101-57



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

This project is a mill and overlay on Hwy 13 from south of Waseca to Hwy 30 in New Richland, a length of about 11 miles. The project also includes bridge rehabilitation work on bridges and some ADA updates to the county trail on the east side of New Richland.

Recent Changes and Updates

There will be additional culverts that will be replaced or lined during the bridge rehabilitations. The detour route will follow trunk highways.

Project History

This project combines mill and overlay pavement preservation and bridge rehabilitation. It will also address some ADA concerns on the county trail on the east side of New Richland. The project reached 95% design with no significant changes.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2013

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 4.8	\$ 6.4
Other Construction Elements:	\$ 0.5	\$ 0.6
Engineering:	\$ 1.0	\$ 1.3
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 6.3	\$ 8.3

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The cost estimate is from 2013, which was modified in 2014 with the 2017 inflation factor. The increase in cost is due to the late identification of more culverts to replace.

Project Risks

The project risks include: ADA compliance on trail in New Richland, the limited use permit with the county, and the lighting agreements and/or permits.

Schedule

Environmental Approval Date: Pending Approval
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: Not Needed
 Construction Limits Established Date: Not Needed
 Original Letting Date: 12/16/2016
 Current Letting Date: 12/16/2016
 Construction Season: 2017
 Estimated Substantial Completion: 07/09/2017



Minnesota Department of Transportation
 District 7
 2151 Bassett Drive
 (507) 304-6100

District Engineer: Greg Ous
Project Manager: Robert Jones

Revised Date: 12/15/2016

PROJECT SUMMARY

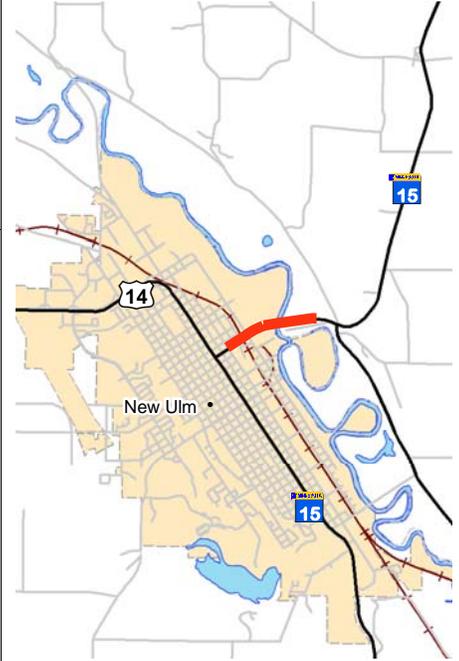
Hwy 14

New Ulm and junction with Hwy 15

Bridge 9200, &, 9294

State Project No. 0804-81

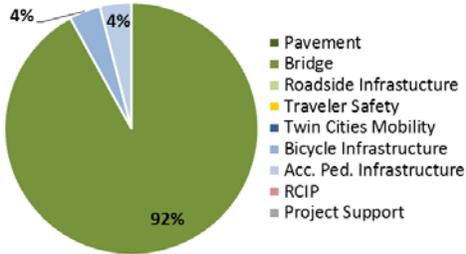
<http://www.dot.state.mn.us/d7/projects/14newulmtonmankato/>



Primary Purpose

Performance-based Need: Bridge Condition

Investment Category



Project Description

This project will be constructing two-lane bridges over the Minnesota River and Front St., reconstructing the in-town section of Hwy 14 from Front St. to the signal at Broadway St., and constructing an interchange at the junction at Hwy 14/Hwy 15/CR 21 east of New Ulm.

Recent Changes and Updates

The preliminary design and geometric layout for the project were completed in May 2016. The letting date was moved to September 2017 because the Department believes a better bid will be obtained with a fall letting over an early summer letting.

Project History

This project was scoped for bridge replacement, but the area was then reviewed for other improvements that should be made while the bridges are out.

A special task force commissioned by the Commissioner of Transportation was brought together to review priorities in the corridor and to discuss how best to apply current funding. The task force issued a recommendation for the inclusion of the Hwy 14/Hwy 15 interchange in the project, while revising the scope of the existing bridges to be 2-lane bridge structures. MnDOT reviewed the recommendation and concurred with the revised scope of work.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2014

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 42.7	\$ 42.7
Other Construction Elements:	\$ 7.0	\$ 7.0
Engineering:	\$ 7.0	\$ 7.0
Right of Way:	\$ 0.1	\$ 0.1
Total:	\$ 56.8	\$ 56.8

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The cost estimate is based on 2012 dollars inflated to 2018 dollars. The estimate is based on the complete replacement of both bridges with four lane structures. The task force recommendations that were accepted reduce the bridge width to two lanes to free up budget for the interchange and other components of the scope. This forms the maximum project budget. As additional design is completed, if the budget is likely to be exceeded, components will be eliminated from the scope to stay within budget.

Project Risks

A moderate amount of poor soils is included in the baseline estimate, but poor soils in the bridge fill areas could increase project costs substantially. A multi-year detour will be required for this work to be completed.

Schedule

Environmental Approval Date: Pending Approval
 Municipal Consent Approval Date: Pending Approval
 Geometric Layout Approval Date: 5/11/2016
 Construction Limits Established Date: 5/11/2016
 Original Letting Date: 5/01/2017
 Current Letting Date: 9/22/2017
 Construction Season: 2017-2019
 Estimated Substantial Completion: December 2019



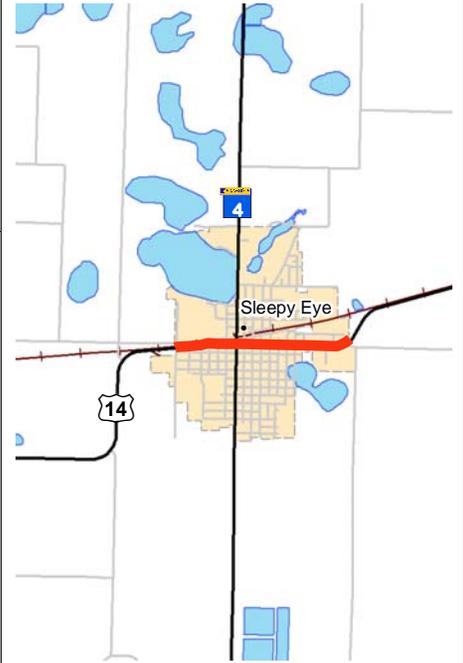
Minnesota Department of Transportation
 District 7
 2151 Bassett Drive
 (507) 304-6100

District Engineer: Greg Ous
Project Manager: Zachary Tess

Revised Date: 12/15/2016

PROJECT SUMMARY

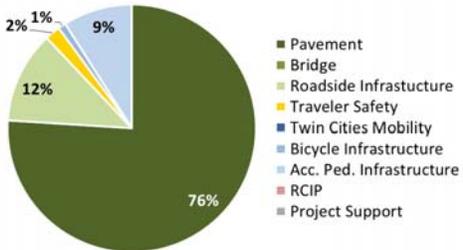
Hwy 14
Sleepy Eye
State Project No. 0803-38



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

This project is for pavement work on Hwy 14 in Sleepy Eye as well as ADA improvements and the addition of turn lanes in Sleepy Eye.

Recent Changes and Updates

The scope of the project was amended to include turn lanes and additional ADA work in the city of Sleepy Eye. This work will require some additional right of way acquisition.

The rural portion has been dropped from this project such that the project now only covers 1.5 miles of in-town work.

Project History

Originally, this project was the combination of two project scopes into one (SP 0804-114 and SP 0803-38). The project was a pavement and bridge rehabilitation project, which included ADA improvements. However, the bridge work (for bridges #08002 and #08004) was done under another project (SP 0804-114) and was removed from this one. The rural portion has been dropped from this project and is a potential shelf project (under SP 0803-43).

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2014

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 7.1	\$ 2.1
Other Construction Elements:	\$ 0.4	\$ 0.2
Engineering:	\$ 1.5	\$ 0.4
Right of Way:	\$ 0.0	\$ 0.4
Total:	\$ 9.0	\$ 2.7

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Costs had increased in 2014 due the additional length at the east end of the project. The current estimate reflects rural portion being dropped from this project.

Project Risks

The project risks include the following: additional city utility work within the city limits of Sleepy Eye; additional ADA compliant work, which may include sidewalks; signal removal; left turn lanes, additional right of way purchase of several parcels within Sleepy Eye's city limits and other traffic calming initiatives. Another potential cost would come from adding the original rural portion back to this project.

Schedule

Environmental Approval Date: Pending Approval
Municipal Consent Approval Date: Pending Approval
Geometric Layout Approval Date: Pending Approval
Construction Limits Established Date: Pending Approval
Original Letting Date: 1/26/2018
Current Letting Date: 1/26/2018
Construction Season: 2018
Estimated Substantial Completion: Fall 2018



Minnesota Department of Transportation
District 7
2151 Bassett Drive
(507) 304-6100

District Engineer: Greg Ous
Project Manager: Robert Jones

Revised Date: 12/15/2016

PROJECT SUMMARY

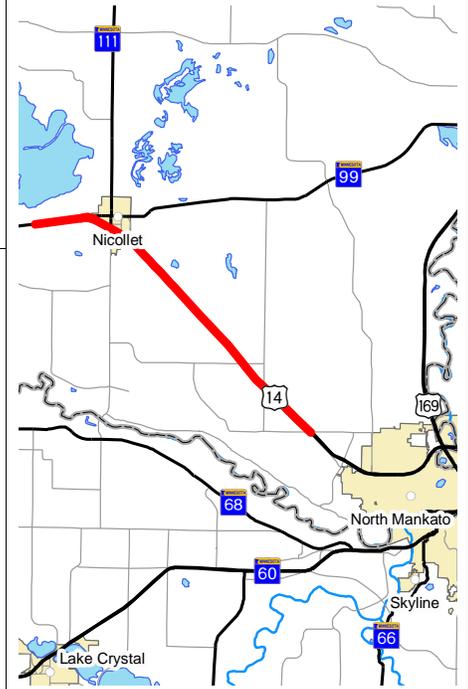
Hwy 14

West of Nicollet to North Mankato

Bridge 52005

State Project No. 5203-104

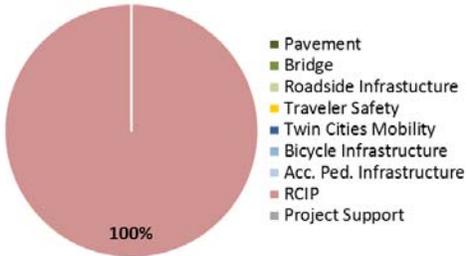
<http://www.dot.state.mn.us/d7/projects/14newulmtonmankato/>



Primary Purpose

Regional & Community Improvement Priority

Investment Category



Project Description

This project expands Hwy 14 from a 2-lane to a 4-lane expressway to improve safety, capacity, and enhance the corridor's interregional trade function.

This project goes from west of Nicollet to North Mankato for a distance of over 9 miles. Hwy 14 will bypass Nicollet. The project includes the construction of an interchange with roundabouts at Hwy 14 and Hwy 111.

Recent Changes and Updates

The project is under construction and is expected to be substantially complete by December 2016 with some potential for clean up work in 2017.

Project History

This project was let in May 2015. The current estimate is the actual let amount.

The project was in the final design stage. The public hearing for Municipal Consent from the city of Nicollet was on August 11, 2014. The project cost was updated to reflect a more detailed cost estimate, and many risks have been retired. There was also substantially less poor soils than originally anticipated. The project was scoped after its inclusion in the Corridors of Commerce program in November 2013. Coordination with the community of Nicollet occurred in determining the intersection solution at the new Hwy 14 and Hwy 111.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2014

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 38.3	\$ 31.7
Other Construction Elements:	\$ 2.3	\$ 2.0
Engineering:	\$ 7.5	\$ 5.0
Right of Way:	\$ 3.4	\$ 5.0
Total:	\$ 51.5	\$ 43.7

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The project was let in May 2015; the current estimate was updated to reflect awarded contract price.

Project Risks

The project risks include the following: turnbacks to local jurisdictions of existing Hwy 14 and existing Hwy 99; areas with poor soils; and potential for additional private agricultural tile impacts.

Schedule

Environmental Approval Date: 9/01/2012
 Municipal Consent Approval Date: 8/18/2014
 Geometric Layout Approval Date: 5/19/2014
 Construction Limits Established Date: 1/15/2014
 Original Letting Date: 5/15/2015
 Current Letting Date: 5/22/2015
 Construction Season: July 2015-December 2016
 Estimated Substantial Completion: December 2016



Minnesota Department of Transportation
 District 7
 2151 Bassett Drive
 (507) 304-6100

District Engineer: Greg Ous
Project Manager: Zachary Tess

Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 14

East limits of Sleepy Eye to west limits of New Ulm

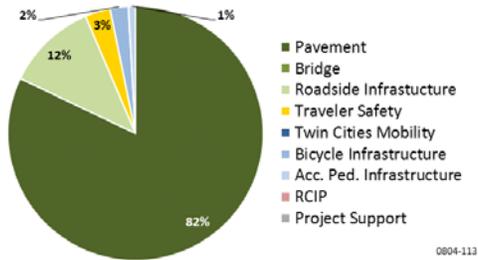
State Project No. 0804-113



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

This project is a mill and overlay on Hwy 14 from the east of Hwy 27 in Sleepy Eye to the west side of New Ulm, a length of almost 10 miles.

Recent Changes and Updates

The scope was amended to shorten the length of the project, which reduced the current cost estimate as well.

The letting date changed in order to balance the district lettings schedule.

Project History

The purpose of this project is to provide a smooth ride by resurfacing the roadway. The project was scoped and a detour should not be necessary. In 2016, the scope was changed to reflect a thin mill and overlay.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2013

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 4.3	\$ 2.3
Other Construction Elements:	\$ 0.4	\$ 0.4
Engineering:	\$ 0.8	\$ 0.5
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 5.5	\$ 3.2

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The baseline estimate is based on bituminous pavement. The estimate had decreased slightly (to \$4.8 million) due to the project limits decreasing. Some contingency included was based on additional pipe replacements and detour needs. This was estimated in 2012 dollars, then inflated to 2017 dollars. For the current estimate, the scope was changed in 2016 to reflect a thin mill and overlay through the entire corridor reducing the overall cost.

Project Risks

There may be a need to replace a few culverts within the project limits and perform additional hydraulics work. There is a possibility that the project may be changed to a concrete overlay rather than bituminous, which would increase project costs. The project could be changed back to a medium mill and overlay (but this is not likely).

Schedule

Environmental Approval Date: Need Unknown
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: Not Needed
 Construction Limits Established Date: Not Needed
 Original Letting Date: 11/18/2016
 Current Letting Date: 2/24/2017
 Construction Season: 2017
 Estimated Substantial Completion: Fall 2017



Minnesota Department of Transportation
 District 7
 2151 Bassett Drive
 (507) 304-6100

District Engineer: Greg Ous
Project Manager: Robert Jones

Revised Date: 12/15/2016

PROJECT SUMMARY

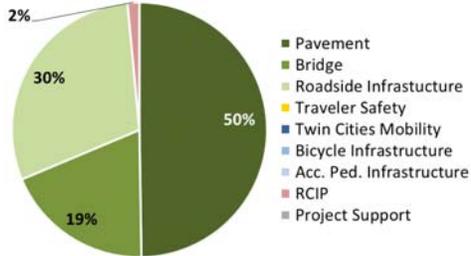
Hwy 14
North Mankato to Mankato
Bridge 91387
State Project No. 0702-125



Primary Purpose

Permanenced Based Need: Pavement Condition

Investment Category



Project Description

This is a resurfacing project from west of Lookout Drive in North Mankato to Hwy 22 in Mankato. Repairs will be made to a bridge.

Recent Changes and Updates

Project scoping was completed and the project was selected for work.

Project History

The project is driven by poor and rapidly deteriorating pavement and by corrosion on a bridge (#91387).

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2016

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 7.1	\$ 7.1
Other Construction Elements:	\$ 0.6	\$ 0.6
Engineering:	\$ 1.3	\$ 1.3
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 9.0	\$ 9.0

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Costs are inflated to 2020.

Project Risks

Additional pavement investigation may determine alternate and more costly pavement fixes. The costs for the bridge rehabilitation are not easily estimated due to the bridge configuration. Costs were not included for bridge end post work because a more extensive bridge project is planned for the future.

Schedule

Environmental Approval Date: Pending
Municipal Consent Approval Date: Not Needed
Geometric Layout Approval Date: Not Needed
Construction Limits Established Date: Pending
Original Letting Date: 3/19/2019
Current Letting Date: 3/19/2019
Construction Season: 2019
Estimated Substantial Completion: Fall 2019



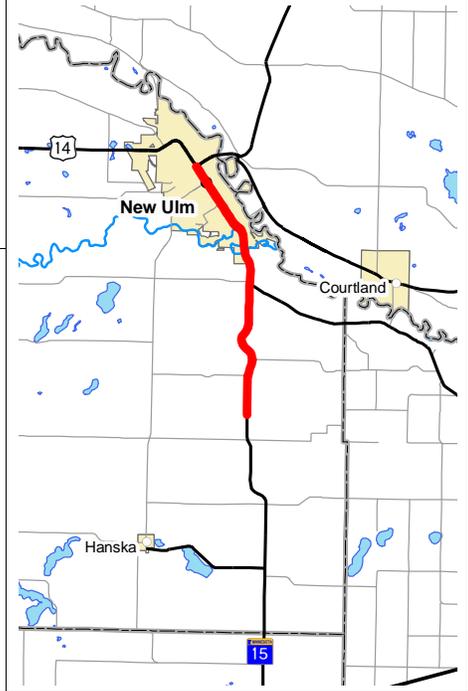
Minnesota Department of Transportation
District 7
2151 Bassett Drive
(507) 304-6100

District Engineer: Greg Ous
Project Manager: Peter Harff

Revised Date: 12/15/2016

PROJECT SUMMARY

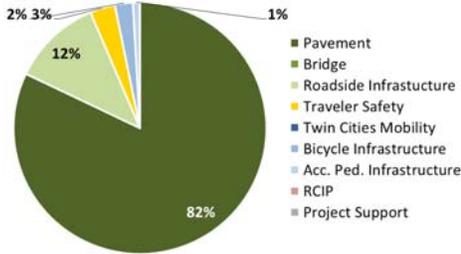
Hwy 15
 South of Searles to New Ulm
 Bridge 08010, 08011
 State Project No. 0805-113



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

This project is a mill and overlay on Hwy 15 from Township Road 46 on the south side of Searles to the junction of Hwy 14 and Hwy 15 in New Ulm, for a distance of 8.5 miles. This project also improves sidewalks and curb ramps in New Ulm to bring them up to ADA standards. Three signal systems will also be replaced.

Recent Changes and Updates

The project scope was modified to include three traffic signal upgrades due to age of the current structures. A continuous two way left turn lane was added on the south end of New Ulm to accommodate left turners and to make this section of road safer.

Project History

The purpose of this project is to provide a smooth riding surface and reconstruct the failing sidewalk and pedestrian ramps in New Ulm to meet ADA guidelines. The project was scoped and a minimal amount of risks were identified. The project scope was modified to bring the sidewalk up to current ADA standards in addition to the pedestrian ramps. The letting was changed to align with a scheduled letting date after the project was selected.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2013

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 7.2	\$ 7.7
Other Construction Elements:	\$ 0.6	\$ 0.6
Engineering:	\$ 1.3	\$ 1.5
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 9.1	\$ 9.5

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The estimate is based on bituminous pavement, ADA work and bridge repairs. It includes a contingency based on additional ADA work, possible turn lane extensions and detour staging due to pipe work. This is estimated in 2012 dollars then inflated to 2017 dollars.

Project Risks

Detours will be needed for bridge repairs in the rural section of the project and the spot pavement replacements in the urban area. Easements will be needed in some areas where there is sidewalk replacement in New Ulm. Tree removals will need to be done prior to June 1st, for environmental reasons.

Schedule

Environmental Approval Date: Pending
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: Not Needed
 Construction Limits Established Date: 7/27/2015
 Original Letting Date: 1/01/2017
 Current Letting Date: 2/24/2017
 Construction Season: 2017
 Estimated Substantial Completion: Fall 2017



Minnesota Department of Transportation
 District 7
 2151 Bassett Drive
 (507) 304-6100

District Engineer: Greg Ous
Project Manager: Forrest Hasty

Revised Date: 12/15/2016

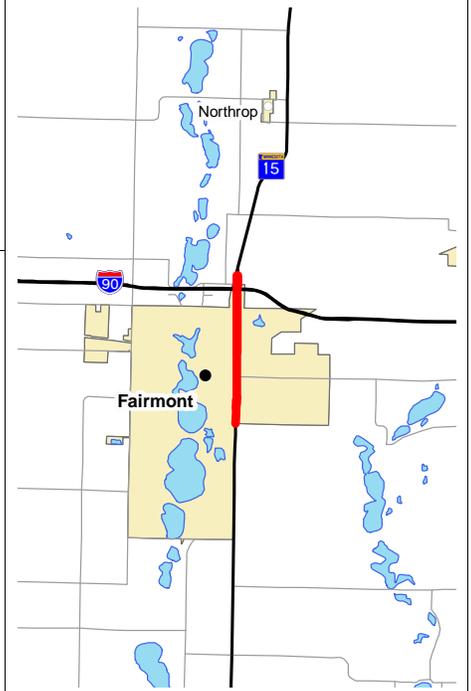
PROJECT SUMMARY

Hwy 15

Fairmont

State Project No. 4603-45

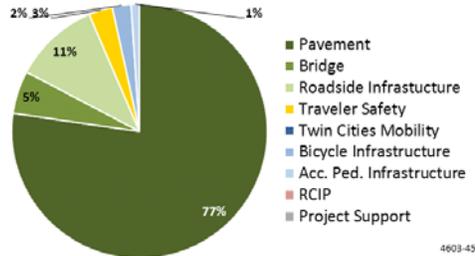
<http://www.dot.state.mn.us/d7/projects/hwy15fairmont/>



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

This section of Hwy 15 includes the urban section of roadway in Fairmont, from the south end of the project at Johnson Street to the north end at Goemann Road. The roadway work will consist of a mill and overlay. Updates to signals and pedestrian ramps to meet ADA requirements will also be completed, along with performing spot repairs of the existing storm sewer system and underground utilities.

Recent Changes and Updates

In coordination with the City of Fairmont and Martin County, traffic signals at four of the seven signalized intersections within the project limits will be replaced. This is due to age and repair costs associated with ADA and flashing yellow arrow upgrades.

Spot repairs to the storm sewer system and city underground utilities have been identified for inclusion under the project. Where feasible, the City is repairing their utilities in advance of the project.

Project History

There is project coordination with the city of Fairmont to review sidewalks and review intersection control. The preliminary design work and final design began in 2015. Additional scoping yet to be completed includes the city's utilities needs and the life cycle cost analysis. Rehabilitation of the bridge over Center Creek was re-evaluated and this work is no longer planned as part of this project.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2013

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 6.1	\$ 6.1
Other Construction Elements:	\$ 0.6	\$ 0.6
Engineering:	\$ 1.1	\$ 1.1
Right of Way:	\$ 0.1	\$ 0.1
Total:	\$ 7.9	\$ 7.9

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

It is assumed the project will include a mill and overlay without the need to fully close the roadway to traffic. Short term detours utilizing the City of Fairmont street systems may be needed to perform spot repairs of the underground utilities. The current estimate is in 2013 dollars inflated to 2017 dollars.

Project Risks

There are two railroad companies with crossings to Highway 15. The timelines of when the railroads will make their crossing repairs could impact the construction staging and impact traffic to businesses. If after milling the top surface of the pavement the condition of the underlying pavement is found to be in worse condition than expected, there could be additional pavement repair costs. If upon televising and cleaning of the storm sewer there are additional areas needing spot repairs, there could be additional repair and pavement costs.

Schedule

Environmental Approval Date: 07/01/2016
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: Not Needed
 Construction Limits Established Date: 1/27/2016
 Original Letting Date: 1/01/2017
 Current Letting Date: 1/27/2017
 Construction Season: 2017
 Estimated Substantial Completion: Fall 2017



Minnesota Department of Transportation
 District 7
 2151 Bassett Drive
 (507) 304-6100

District Engineer: Greg Ous
Project Manager: Glen Coudron

Revised Date: 12/15/2016

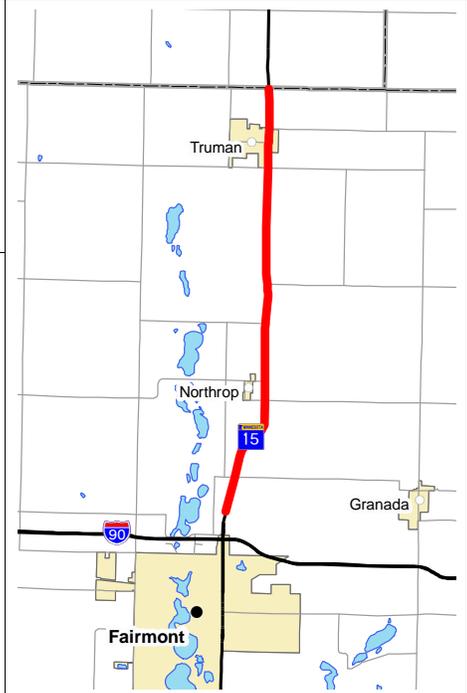
PROJECT SUMMARY

Hwy 15

I-90 to Hwy 54 in Truman & county line to Hwy 24

State Project No. 4604-32, &, 0805-112

Substantially Complete



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category

*This project was designed and scoped before the current highway investment plan MnSHIP was developed, which breaks projects into investment categories.

Project Description

This project is a bituminous overlay for about 11 miles from I-90 to Hwy 54 in Truman. It also includes ADA improvements in Truman. The project overlays 7 miles from Watonwan/Brown county line to a bit south of Hwy 24.

Recent Changes and Updates

The project is now substantially complete.

Project History

Another project, SP 0805-112, was tied to this project.

The road surface is rough and deteriorating. This project will resurface the pavement to achieve a smooth riding surface.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2013

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 5.1	\$ 6.8
Other Construction Elements:	\$ 0.2	\$ 0.1
Engineering:	\$ 1.0	\$ 0.4
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 6.3	\$ 7.3

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The estimate was based on mill and bituminous overlay costs with ADA work. The current estimate construction cost is the awarded bid.

Project Risks

There are no remaining risks identified.

Schedule

Environmental Approval Date: 12/16/2013
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: Not Needed
 Construction Limits Established Date: 08/08/2013
 Original Letting Date: 03/28/2014
 Current Letting Date: 03/28/2014
 Construction Season: 2014
 Estimated Substantial Completion: Fall 2014



Minnesota Department of Transportation
 District 7
 2151 Bassett Drive
 (507) 304-6100

District Engineer: Greg Ous
Project Manager: Kent Purrier

Revised Date: 12/15/2016

PROJECT SUMMARY

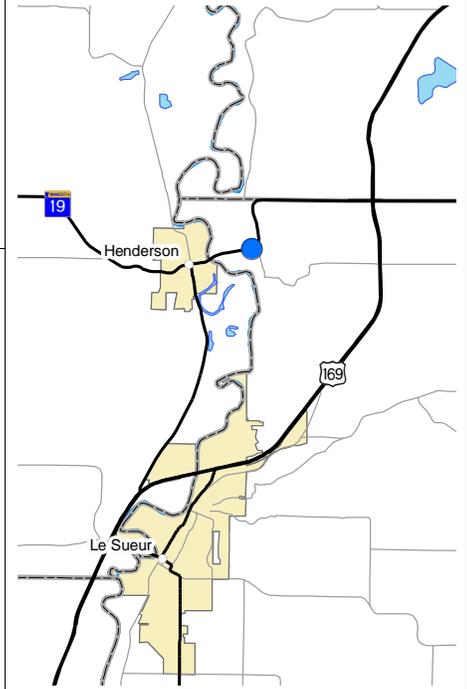
Hwy 19

Over the Union Pacific railroad, east of Sibley/LeSueur county line

Bridge 5369

State Project No. 4004-112

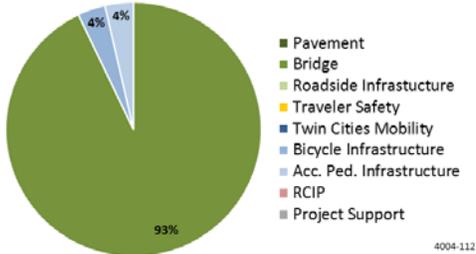
<http://www.dot.state.mn.us/d7/projects/hwy19henderson/index.html>



Primary Purpose

Performance-based Need: Bridge Condition

Investment Category



4004-112

Project Description

This project will replace a bridge over Union Pacific Railroad track east of Henderson. The project includes associated grading and paving on the ends of the bridge.

Recent Changes and Updates

The letting date was pushed back because the railroad was not timely in approving the agreement.

This project is under construction and is anticipated to open to traffic late in Fall 2016.

Project History

The existing bridge is failing. The sight distance is poor at the county road intersection. The project will replace the bridge with a structure that minimizes maintenance and provides improved sight distance for the local road connection.

Railroad requirements necessitate a longer and taller bridge than the current one. Constructing the larger embankments required for this bridge led to significant geotechnical issues as well as wetland, floodplain and wildlife refuge impacts.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2011

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 3.0	\$ 5.2
Other Construction Elements:	\$ 0.5	\$ 0.6
Engineering:	\$ 0.6	\$ 1.0
Right of Way:	\$ 0.1	\$ 0.0
Total:	\$ 4.2	\$ 6.8

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The project was let; the current estimate costs reflect the awarded contract price.

In early 2014, a switch was made to the project to use a reinforced-soil slope (RSS) embankment, which allows steeper slopes and in turn has a smaller construction footprint. This change eliminated permanent wetland, floodplain and wildlife refuge impacts on the project and reduced construction costs by \$1.7M.

Project Risks

Railroad coordination may pose a schedule risk, both in design and construction.

Schedule

Environmental Approval Date: 12/11/2015
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: 7/08/2014
 Construction Limits Established Date: 6/18/2014
 Original Letting Date: 2/28/2014
 Current Letting Date: 3/18/2016
 Construction Season: 2016
 Estimated Substantial Completion: Nov. 2016



Minnesota Department of Transportation
 District 7
 2151 Bassett Drive
 (507) 304-6100

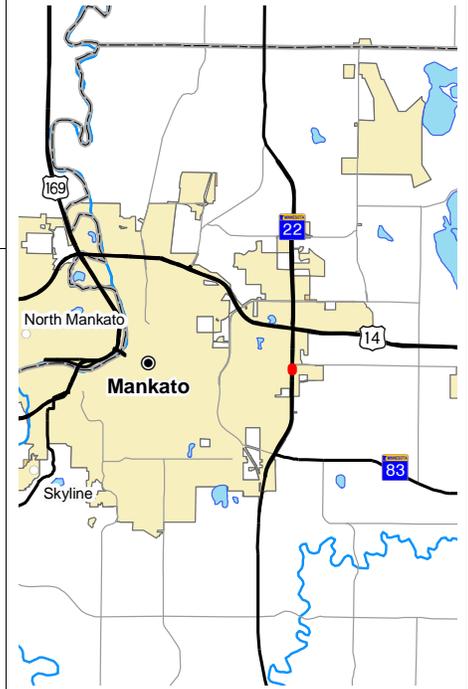
District Engineer: Greg Ous
Project Manager: Dan Franta

Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 22
Mankato, from Hwy 83 to County Road 26
State Project No. 0704-88

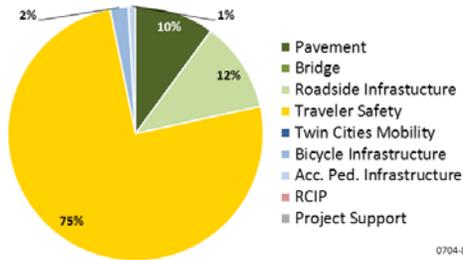
Substantially Complete



Primary Purpose

Performance-based Need: District Safety Plan

Investment Category



Project Description

The project consisted of constructing roundabouts on Hwy 22 at the intersections of Madison Avenue and Adams Street, rehabilitating concrete pavement, and installing flashing yellow arrows at intersecting side roads.

Recent Changes and Updates

Project construction is substantially complete.

Project History

MnDOT partnered with the city and county to optimize construction staging, and to minimize the duration of impacts to businesses with an accelerated construction schedule. The project limits were extended to address traffic signal modifications at the surrounding intersections. Constructing the roundabouts will improve safety and reduce signal delay. The signalized intersections of Hwy 22 with Madison Avenue and Adams Street had the highest crash rating in District 7, so this project will greatly enhance safety.

An extensive educational campaign was implemented to educate drivers on navigating multilane roundabouts. Construction began in May 2014 and the roadway was open to traffic at the end of August 2014.

The bids came in somewhat over the estimate likely due to the timing requirements put on the contractor.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2011

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 6.6	\$ 7.1
Other Construction Elements:	\$ 2.9	\$ 3.3
Engineering:	\$ 1.3	\$ 1.3
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 8.3	\$ 11.6

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The project's construction was accelerated, with completion in one construction season. The letting cost includes the city and county share of \$2.6 million for cost sharing on Madison Avenue and Adams Street. The construction letting was based on the low bid received.

Project Risks

There no remaining project risks identified.

Schedule

Environmental Approval Date: 11/15/2013
Municipal Consent Approval Date: Not Needed
Geometric Layout Approval Date: 6/10/2013
Construction Limits Established Date: 06/10/2013
Original Letting Date: 01/25/2014
Current Letting Date: 02/28/2014
Construction Season: 2014
Estimated Substantial Completion: Fall 2014



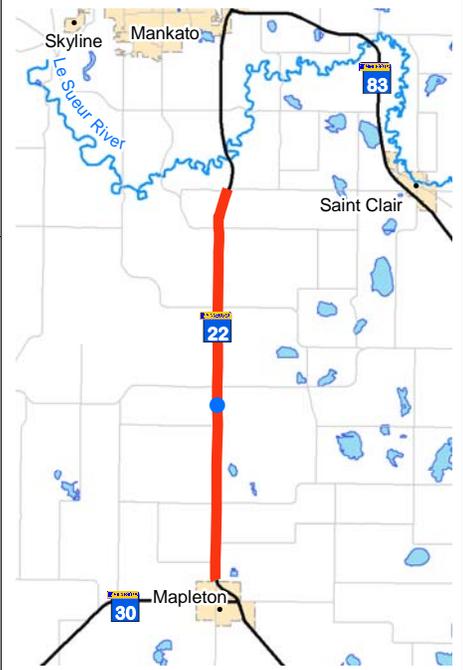
Minnesota Department of Transportation
District 7
2151 Bassett Drive
(507) 304-6100

District Engineer: Greg Ous
Project Manager: Glen Coudron

Revised Date: 12/15/2016

PROJECT SUMMARY

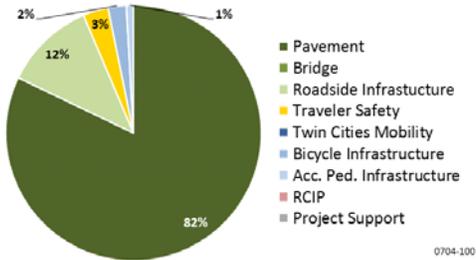
Hwy 22
 Hwy 7 to Hwy 15
 Bridge 5959
 State Project No. 0704-100
<http://www.dot.state.mn.us/d7/projects/hwy22mapleton/index.html>



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

This project consists of reconstructing 10.5 miles of pavement from Mapleton near CR 7 to CR 15, including the replacement of a bridge over the Big Cobb River. In addition, turn lanes will be constructed at several county roadways.

Recent Changes and Updates

Right of way acquisition is underway. Construction plans are nearly complete. Due to the significant costs and program limitations, the project may have to be staged over multiple years. Wetland and Public Waters Permit applications have been submitted.

Project History

The bridge over the Big Cobb River is scheduled to be replaced.

The condition of the pavement was investigated in 2014 and found to be too deteriorated, and therefore unsuited for an unbonded overlay. The project scope was amended to include pavement reconstruction. Project limits were adjusted and the north limit was scaled back to the intersection of Hwy 15. The section of Hwy 22, from Hwy 15 to Hwy 90, which includes bridge over the Le Sueur River, will not be included under this project. The letting date was changed to accommodate the bridge offices work load issues.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2013

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 25.9	\$ 23.3
Other Construction Elements:	\$ 2.9	\$ 2.9
Engineering:	\$ 4.6	\$ 4.6
Right of Way:	\$ 0.1	\$ 0.1
Total:	\$ 33.5	\$ 30.9

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The estimate is based on reconstructing the pavement with a similar pavement width and surfacing as the current roadway. This is estimated in 2011 dollars inflated to 2017 dollars. Project costs were adjusted to include bridge costs. The current estimate decreased because there is not enough funding to complete the project as originally scoped. The scope and project limits were adjusted to keep it under the budget shown in the current estimate.

Project Risks

The project will need to be constructed over two years.

Schedule

Environmental Approval Date: 8/26/2016
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: 1/26/2016
 Construction Limits Established Date: 6/04/2015
 Original Letting Date: 1/01/2017
 Current Letting Date: 1/27/2017
 Construction Season: 2017 - 2018
 Estimated Substantial Completion: Fall 2018



Minnesota Department of Transportation
 District 7
 2151 Bassett Drive
 (507) 304-6100

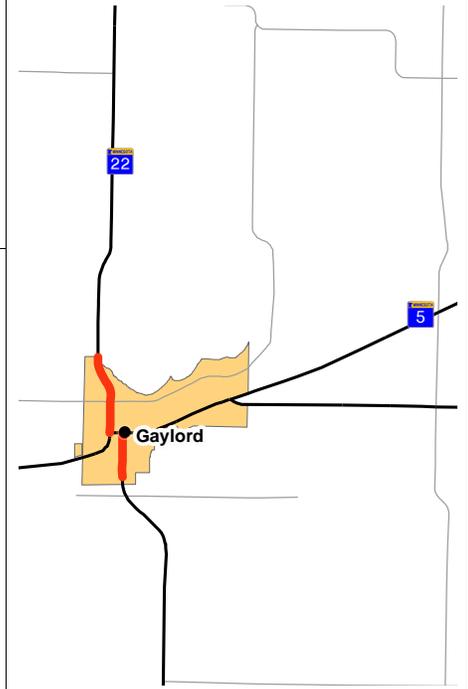
District Engineer: Greg Ous
Project Manager: Peter Harff

Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 22, Hwy 5, Hwy 19
Gaylord
State Project No. 7207-20

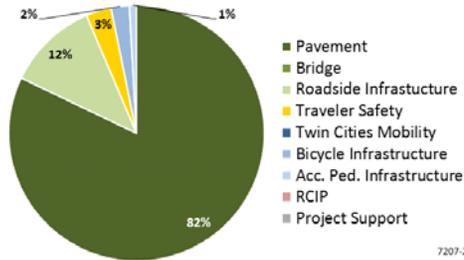
Substantially Complete



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

This project is in Gaylord, to reconstruct approximately 1.5 miles of Hwys 5, 19 and 22 and to overlay another 0.3 miles of Hwy 22. The project will also replace failing city utilities.

Recent Changes and Updates

Construction was completed in the fall of 2015.

Project History

The project was completed in the fall of 2015.

This project was first identified as a resurfacing project, but was ultimately revised to be primarily a full reconstruction to accommodate the replacement of failing city utilities. The portion of Hwy 22 south of the railroad tracks remains a mill and overlay section. The project letting was shifted by one month due to a large volume of project lettings at the central office.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2011

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 5.1	\$ 10.2
Other Construction Elements:	\$ 0.6	\$ 0.3
Engineering:	\$ 1.1	\$ 1.8
Right of Way:	\$ 0.3	\$ 0.8
Total:	\$ 7.1	\$ 13.0

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The current estimate is based on the awarded contract price, which includes concrete pavement in the downtown business area, combined with the original estimated costs for the other three categories. Local cost share adds an additional \$3.3 million to the construction letting costs estimate.

Project Risks

The project is complete so risks are retired.

Schedule

Environmental Approval Date: 01/07/2014
Municipal Consent Approval Date: 11/06/2013
Geometric Layout Approval Date: 1/23/2013
Construction Limits Established Date: 9/20/2012
Original Letting Date: 12/20/2013
Current Letting Date: 5/16/2014
Construction Season: 2014 - 2015
Estimated Substantial Completion: Fall 2015



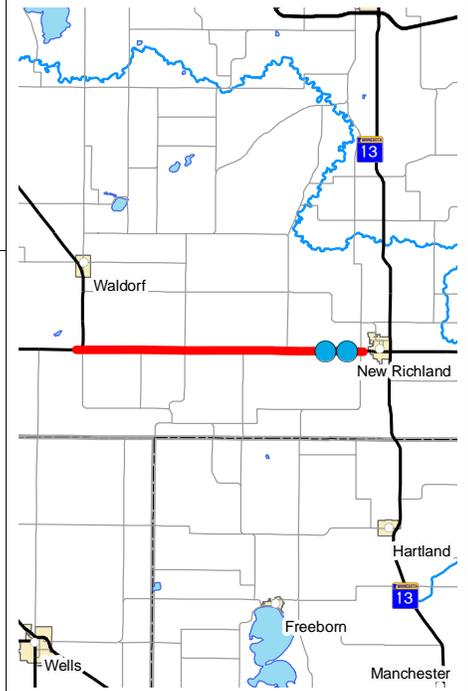
Minnesota Department of Transportation
District 7
2151 Bassett Drive
(507) 304-6100

District Engineer: Greg Ous
Project Manager: Steve Bowers

Revised Date: 12/15/2016

PROJECT SUMMARY

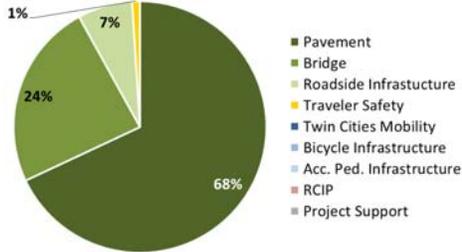
Hwy 30
From Hwy 83 to New Richland
Bridge 6789, &, 8131
State Project No. 8105-21



Primary Purpose

Performance-based Need: Pavement Condition and Bridge Condition

Investment Category



Project Description

This is a rural preservation project consisting of a mill and overlay of about 10 miles of Hwy 30. In addition, two bridges will be replaced.

Recent Changes and Updates

The bridges (#6789 and #8131) will be replaced and extended with right of way acquisition. The project letting date and the construction year moved to 2020 for district budget needs.

Project History

Bridge #6789 is scour critical and bridge #8131 is old. Both bridges are in need of replacement.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2015

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 5.7	\$ 5.9
Other Construction Elements:	\$ 0.4	\$ 0.4
Engineering:	\$ 1.0	\$ 1.0
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 7.1	\$ 7.3

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The cost was determined assuming a medium mill and overlay, two bridge replacements, right of way acquisition and culvert linings. Changing the construction year from 2019 - 2020 inflation raised the current estimate slightly.

Project Risks

The risks are the possibility of additional bridge rehabs, lengthening of culverts, right of way acquisition, scope or grade changes and possible detour needed.

Schedule

Environmental Approval Date: Pending Approval
Municipal Consent Approval Date: Not Needed
Geometric Layout Approval Date: Not Needed
Construction Limits Established Date: Pending Approval
Original Letting Date: 10/26/2018
Current Letting Date: 10/25/2019
Construction Season: 2020
Estimated Substantial Completion: Nov 2020



Minnesota Department of Transportation
District 7
2151 Bassett Drive
(507) 304-6100

District Engineer: Greg Ous
Project Manager: Robert Jones

Revised Date: 12/15/2016

PROJECT SUMMARY

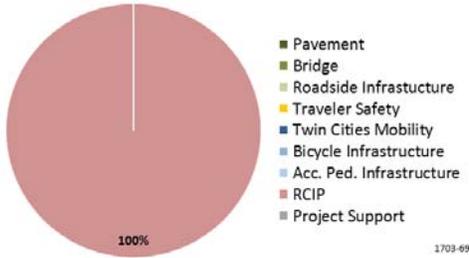
Hwy 60
 Windom to west of Mountain Lake
 Bridge 8260
 State Project No. 1703-69



Primary Purpose

Regional & Community Improvement Priority

Investment Category



Project Description

This project completes Hwy 60 as a four-lane divided roadway between the eastern edge of Windom and the west end of the existing four-lane section near Mountain Lake. It includes construction through Bingham Lake.

Recent Changes and Updates

Updated cost estimates identified the risk of a higher letting cost. In response to this issue, this project will be the first MnDOT highway project to utilize an Innovative Contracting technique called Additive Alternate Bidding. The project letting was changed to Feb 2017 to utilize a special letting.

Project History

The project received municipal consent on the layout from the city of Bingham Lake. The consultant that will do the final design was procured. The cost estimate was lowered because contingencies for poor soils and retaining walls were reduced.

The Final Scoping Report was completed in 2013. The development of the formal geometric layout is underway.

The work proposed under this project was originally addressed in an Environmental Impact Statement approved in 1983. Initial phases of the work identified in the 1983 EIS were completed. A supplemental final EIS was completed in 2012.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2013

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 27.1	\$ 26.8
Other Construction Elements:	\$ 3.0	\$ 2.3
Engineering:	\$ 4.9	\$ 4.6
Right of Way:	\$ 1.5	\$ 2.1
Total:	\$ 36.5	\$ 35.8

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Standard practices were used to develop the cost estimates for this project, as well as a contractor style estimate, and also a risk-based monte carlo style estimate.

Project Risks

All major project risks have been retired. Utilities continue to be a small risk but there is still ample time to mitigate. A Corps of Engineers permit has not yet been received.

Schedule

Environmental Approval Date: 11/23/2012
 Municipal Consent Approval Date: 05/04/2015
 Geometric Layout Approval Date: 7/27/2015
 Construction Limits Established Date: 4/22/2015
 Original Letting Date: 2/24/2017
 Current Letting Date: 2/08/2017
 Construction Season: 2017 - 2018
 Estimated Substantial Completion: Fall 2018



Minnesota Department of Transportation
 District 7
 2151 Bassett Drive
 (507) 304-6100

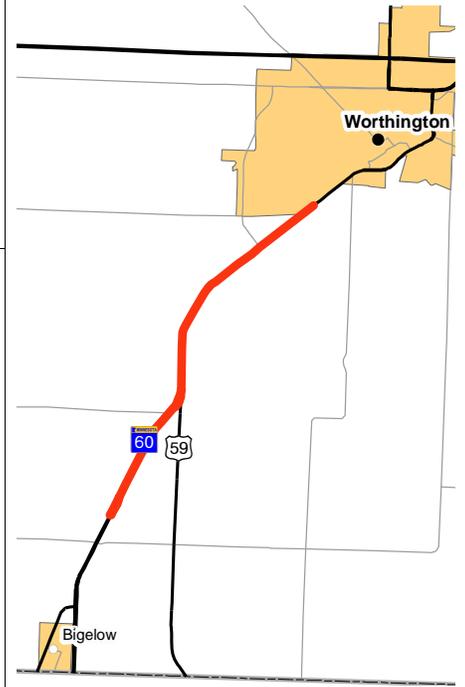
District Engineer: Greg Ous
Project Manager: Peter Harff

Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 60
Bigelow to Worthington
Bridge 53008
State Project No. 5305-51, 5305-56, 5305-58, 5305-59
<http://www.dot.state.mn.us/d7/projects/hwy60/index.html>

Substantially Complete



Primary Purpose

Regional & Community Improvement Priority

Investment Category

*This project was designed and scoped before the current highway investment plan MnSHIP was developed, which breaks projects into investment categories.

Project Description

This project constructed a 4-lane expressway along the existing alignment from Hwy 4 in Nobles County to I-90. The project also reduced access locations, removed skew at intersections, replaced a bridge (#53008) over the Union Pacific Railroad and has urban section area landscaping.

Recent Changes and Updates

The last roadway project was substantially complete in the fall of 2013, and the landscaping project was substantially complete in the fall of 2014. The actual costs were lower than the baseline estimate because many risks were successfully managed to reduce costs.

Project History

The existing road was constructed in the 1930s, and the corridor was identified for four-lane expansion in the 1960s. Initial baseline estimates did not include full scoping, soil investigations were not complete, and the alignment had not been set in the Worthington area. MnDOT constrained the construction limits, spent less than anticipated on right of way, and reduced other costs as the project was developed and contingencies were retired. In addition, using alternate bid pavement and breaking the corridor into smaller, low-risk, projects allowed better bids in a very competitive market. The EIS was approved on 3/23/2005 and re-evaluated on 3/31/2010.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2009

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 59.1	\$ 45.3
Other Construction Elements:	\$ 17.5	\$ 7.4
Engineering:	\$ 19.3	\$ 6.9
Right of Way:	\$ 22.7	\$ 13.1
Total:	\$ 118.6	\$ 84.4

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The current estimate costs reflect the awarded contract price.

Project Risks

Project risks were addressed.

Schedule

Environmental Approval Date: 3/31/2010
Municipal Consent Approval Date: 08/17/2009
Geometric Layout Approval Date: 2/5/2009
Construction Limits Established Date: 02/28/2009
Original Letting Date: 03/01/2010
Current Letting Date: 07/09/2010
Construction Season: 2010 / 2013
Estimated Substantial Completion: Fall 2014



Minnesota Department of Transportation
District 7
2151 Bassett Drive
(507) 304-6100

District Engineer: Greg Ous
Project Manager: Rolin Sinn

Revised Date: 12/15/2016

PROJECT SUMMARY

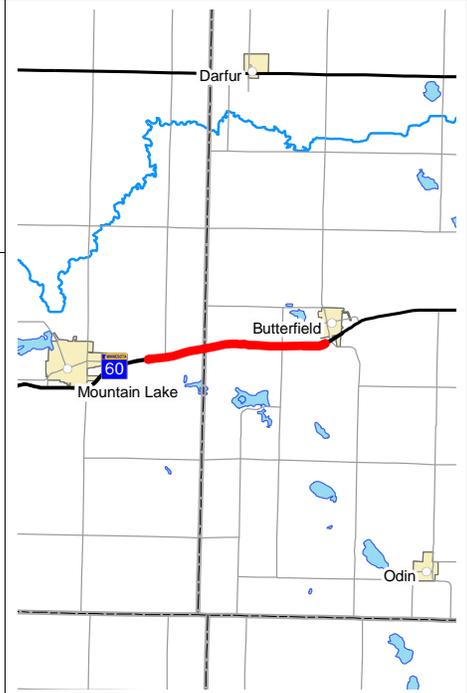
Hwy 60

Mountain Lake to Butterfield

State Project No. 1703-70

<http://www.dot.state.mn.us/d7/projects/hwy60stjames/index.html>

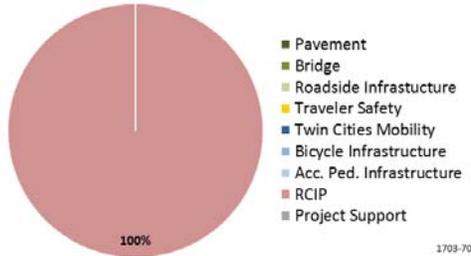
Substantially Complete



Primary Purpose

Regional & Community Improvement Priority

Investment Category



Project Description

This 4.5 mile project constructed a four-lane expressway along the existing alignment from Mountain Lake to Butterfield, by constructing two additional lanes, reducing access locations and reconstructing existing shoulders.

Recent Changes and Updates

The project construction is substantially complete. The project design was completed in 2014 and the project was bid in the fall of 2014.

Project History

The existing roadway, which served as the westbound lanes, required some concrete pavement rehabilitation and joint repair. This repair was done while the roadway was detoured for the construction of the new eastbound lanes.

The work proposed under this project was originally addressed in an environmental impact statement approved in 1983. The initial phases of the work identified in the 1983 EIS are completed.

As part of balancing project lettings, this project was let earlier than originally anticipated.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2011

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 13.8	\$ 11.2
Other Construction Elements:	\$ 2.1	\$ 2.1
Engineering:	\$ 2.8	\$ 2.8
Right of Way:	\$ 0.6	\$ 0.6
Total:	\$ 19.3	\$ 16.7

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The current estimate for construction is based on the low bid received for bituminous pavement.

Project Risks

Soil testing was completed. Substantial muck excavation may be encountered that would require correction and may elevate project costs. The project is being bid with different alternates for bituminous and concrete pavement surfacing.

Schedule

Environmental Approval Date: 2013
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: 8/14/2012
 Construction Limits Established Date: 3/15/2013
 Original Letting Date: 12/19/2014
 Current Letting Date: 11/21/2014
 Construction Season: 2015
 Estimated Substantial Completion: Late fall 2015



Minnesota Department of Transportation
 District 7
 2151 Bassett Drive
 (507) 304-6100

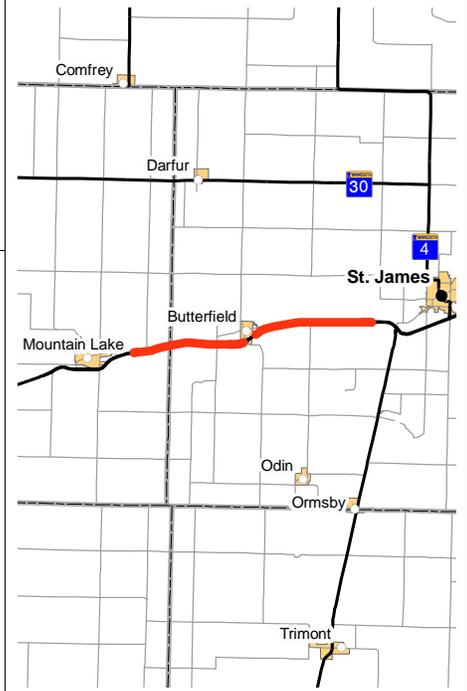
District Engineer: Greg Ous
Project Manager: Glen Coudron

Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 60
 Butterfield to St. James
 Bridge 83040, 83037, &, 93716
 State Project No. 8308-44

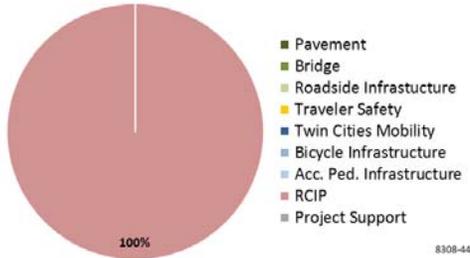
Substantially Complete



Primary Purpose

Regional & Community Improvement Priority

Investment Category



Project Description

This project completes Hwy 60 as a four-lane divided roadway between Butterfield and the existing four-lane section near St. James, which is about 5.9 miles.

Recent Changes and Updates

The project was let for 2013-2014 construction and is now substantially complete.

Project History

The project was let for 2013-2014 construction. The project letting costs were lower than the baseline estimate because contingency items were not retired until near plans-completion date (e.g. deciding not to include wick drains in the embankment). Also, good bid prices were obtained at the time of letting.

The work proposed under this project was originally addressed in an environmental impact statement approved in 1983. The initial phases of the work identified in the 1983 EIS were completed. A supplemental final EIS was completed in 2013.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2009

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 20.1	\$ 14.0
Other Construction Elements:	\$ 3.0	\$ 0.6
Engineering:	\$ 4.0	\$ 1.8
Right of Way:	\$ 1.5	\$ 1.6
Total:	\$ 28.6	\$ 18.0

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The current estimate is based on the actual construction letting costs combined with the original estimated cost for the other three categories.

Project Risks

There are no remaining risks since project construction is now substantially complete.

Schedule

Environmental Approval Date: 7/26/2012
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: 1/12/2010
 Construction Limits Established Date: 9/02/2011
 Original Letting Date: 5/17/2013
 Current Letting Date: 5/17/2013
 Construction Season: 2013 - 2014
 Estimated Substantial Completion: Fall 2014



Minnesota Department of Transportation
 District 7
 2151 Bassett Drive
 (507) 304-6100

District Engineer: Greg Ous
Project Manager: Steve Bowers

Revised Date: 12/15/2016

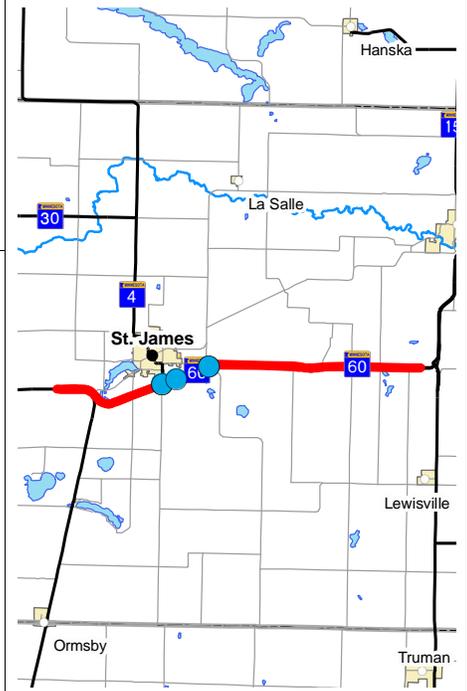
PROJECT SUMMARY

Hwy 60

Between St. James and Hwy 4 to Hwy 14

Bridge 83026, 91543, 83027

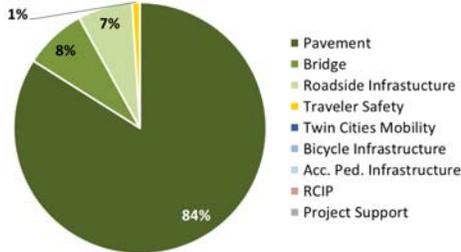
State Project No. 8309-52



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

The project will preserve about 13 miles of both the eastbound and westbound lanes of Hwy 60 from St. James and Hwy 4 to Hwy 14. The project includes the following: repairs to the existing concrete pavement, a bituminous mill and overlay for the existing bituminous areas, preservation work on the interchange at St. James, deck repairs and a mill and overlay to a bridge (#83026), repairs and updates to a bridge (#91543) and a deck milling and patchwork for another bridge (#83027).

Recent Changes and Updates

Pipe repair work is expected to be completed ahead of time (under SP 8827-271) in the 2017 construction season.

Project History

The project purpose is to resurface the pavement to provide an improved ride quality index (RQI) rating, a smooth riding surface, and to preserve pavement life. The pavement is in poor condition and will be at the end of its service life by 2019. The scope of the project includes preservation work on the interchange ramps and bridge rehabilitation work in St. James.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2016

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 12.4	\$ 13.9
Other Construction Elements:	\$ 1.2	\$ 1.2
Engineering:	\$ 2.4	\$ 2.4
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 16.0	\$ 17.5

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The baseline estimate of cost was created using an itemized cost for each section of repair with average bid prices for projects in the area. The estimate was inflated to a construction year of 2019. Project construction cost under the current estimate is \$1.5 million higher due to the inclusion of interchange ramp and bridge rehabilitation work in St. James.

Project Risks

There is a potential for Alkali-Silica Reactivity (ASR) in the existing concrete, which leads to abnormal expansion and cracking of the pavement. This could cause the project to be a bad candidate for pavement preservation work and would then need to be 'rescoped' for a different solution.

Schedule

Environmental Approval Date: Pending Approval
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: Not Needed
 Construction Limits Established Date: Pending Approval
 Original Letting Date: 10/26/2018
 Current Letting Date: 10/26/2018
 Construction Season: 2019
 Estimated Substantial Completion: November 2019



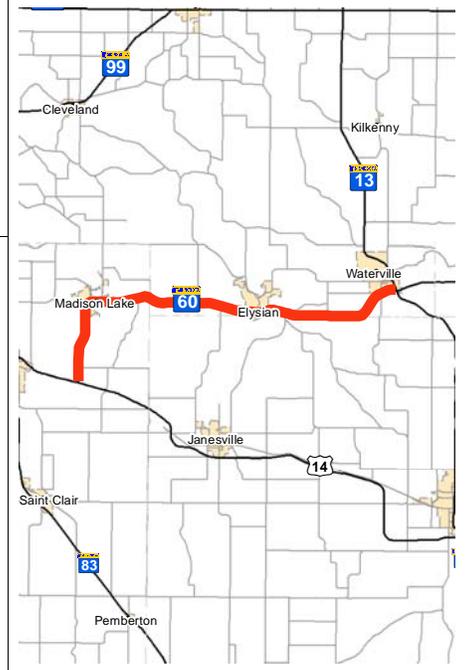
Minnesota Department of Transportation
 District 7
 2151 Bassett Drive
 (507) 304-6100

District Engineer: Greg Ous
Project Manager: Zachary Tess

Revised Date: 12/15/2016

PROJECT SUMMARY

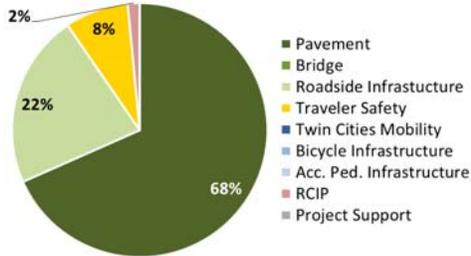
Hwy 60
Hwy 14 to Hwy 13 in Waterville
State Project No. 4006-35



Primary Purpose

Performance Based Need: Pavement Condition

Investment Category



Project Description

This projects involves resurfacing on Hwy 60, from the Intersection of Hwy 14 east of Eagle Lake to Hwy 13 in Waterville.

Recent Changes and Updates

The project was scoped and put in the STIP.

Project History

The project was scoped as a mill and overlay and excludes work in Madison Lake as the former city staff had stated that they needed to do utility work. This is being reviewed.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2016

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 11.0	\$ 11.0
Other Construction Elements:	\$ 0.9	\$ 0.9
Engineering:	\$ 2.0	\$ 2.0
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 13.9	\$ 13.9

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The cost estimate is based on a medium mill and overlay inflated to 2020.

Project Risks

The road has held up surprisingly well since the last thin overlay. It could deteriorate rapidly, requiring more extensive fix. It has not been decided if this will be a mill and overlay or a more extensive reclamation repair. The reclamation would raise costs and increase the risk of construction challenges due to poor underlying soils, but would increase the life of the pavement. Inclusion of turn lanes and other safety improvements have not been resolved. There is the possibility that work in Madison Lake may be added.

Schedule

Environmental Approval Date: Pending
Municipal Consent Approval Date: Not Needed
Geometric Layout Approval Date: Not Needed
Construction Limits Established Date: Pending
Original Letting Date: 12/20/2019
Current Letting Date: 12/20/2019
Construction Season: 2020
Estimated Substantial Completion: 2020



Minnesota Department of Transportation
District 7
2151 Bassett Drive
(507) 304-6100

District Engineer: Greg Ous
Project Manager: Caleb Fenske

Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 62
 Fulda to Windom
 Bridge 17X02, &, 17X03
 State Project No. 1704-27

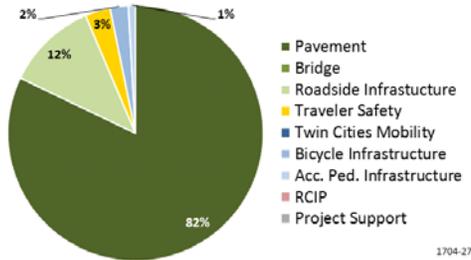
Substantially Complete



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

This project resurfaced the pavement with a bituminous overlay and paved two feet of the shoulders, for approximately 23 miles of Hwy 62 from Hwy 59 in Fulda to the western limits of Windom. Several culverts were also repaired.

Recent Changes and Updates

The project is substantially complete.

Project History

This is a pavement preservation project that was moved from FY 2015 to FY 2014. The cost change was due to the year of construction change and associated inflation factors. The current estimate is based on the actual letting costs.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2011

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 14.1	\$ 9.9
Other Construction Elements:	\$ 1.6	\$ 0.7
Engineering:	\$ 2.8	\$ 1.0
Right of Way:	\$ 0.1	\$ 0.2
Total:	\$ 18.6	\$ 11.8

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The current estimate is based on the awarded contract.

Project Risks

Any previous project risks were eliminated.

Schedule

Environmental Approval Date: 01/17/2014
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: Not Needed
 Construction Limits Established Date: 5/30/2012
 Original Letting Date: 3/22/2013
 Current Letting Date: 3/28/2014
 Construction Season: 2014
 Estimated Substantial Completion: Fall 2014



Minnesota Department of Transportation
 District 7
 2151 Bassett Drive
 (507) 304-6100

District Engineer: Greg Ous
Project Manager: Kent Purrier

Revised Date: 12/15/2016

PROJECT SUMMARY

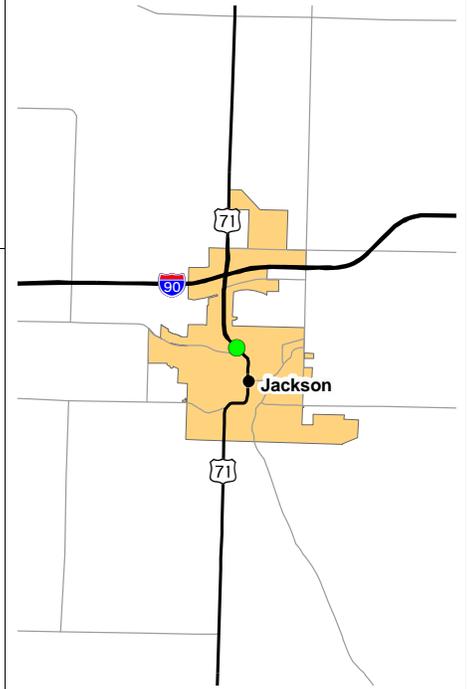
Hwy 71

Over the Des Moines River in Jackson

Bridge 6741, (old), 32011, (new)

State Project No. 3205-29

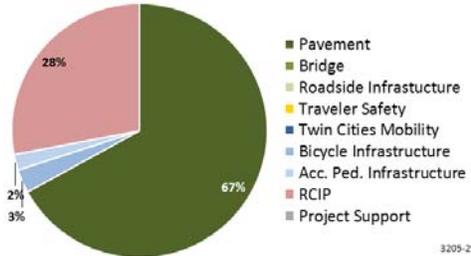
<http://www.dot.state.mn.us/roadwork/future>



Primary Purpose

Performance-based Need: Bridge Condition

Investment Category



Project Description

This project will replace a bridge over the Des Moines River, from Springfield Parkway to Industrial Boulevard in Jackson. It will also resurface the roadway on a hill with modified lane configuration, and add a trail with a pedestrian crossing indicator.

Recent Changes and Updates

After updating the 2004 layout that narrowed the width of the bridge, the planning cost estimate decreased, and a new baseline cost estimate was established. Some safety improvements that will be included are turn lanes, truck lanes, etc., and are in partnership with the city and county.

Project History

The project replaces an aging bridge. Plans were substantially complete in 2004, but the project was delayed due to reprioritizing needs vs. funding.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2011

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 5.0	\$ 5.0
Other Construction Elements:	\$ 1.0	\$ 1.0
Engineering:	\$ 1.0	\$ 1.0
Right of Way:	\$ 0.1	\$ 0.1
Total:	\$ 7.1	\$ 7.1

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The current estimate for construction letting is based on the awarded contract price.

Project Risks

The project is adjacent to a delisted Superfund site.

Schedule

Environmental Approval Date: 2/2015
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: 5/2014
 Construction Limits Established Date: 3/01/2013
 Original Letting Date: 11/15/2004
 Current Letting Date: 5/15/2015
 Construction Season: 2015-2016
 Estimated Substantial Completion: Fall 2016



Minnesota Department of Transportation
 District 7
 2151 Bassett Drive
 (507) 304-6100

District Engineer: Greg Ous
Project Manager: Robert Williams

Revised Date: 12/15/2016

PROJECT SUMMARY

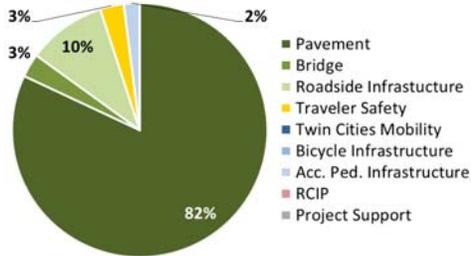
Hwy 71
 Jackson to Windom
 Bridge 8325
 State Project No. 3206-20



Primary Purpose

Performance Based Need: Pavement Condition

Investment Category



Project Description

This project is on Hwy 71 from CSAH 38 in Jackson to Hwy 60 in Windom, for a total of 17.8 miles. It includes replacement of a bridge and involves work with the city of Jackson on an addition to their bike trail system.

Recent Changes and Updates

The scope for this project is now being finalized. It will be a 2020 project.

Project History

The project will resurface the roadway to provide a smooth ride and extend the life of the road, using newer technique. It will also replace a bridge (#8325). Scoping is being completed in 2016.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2016

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 9.5	\$ 9.5
Other Construction Elements:	\$ 0.8	\$ 0.8
Engineering:	\$ 1.7	\$ 1.7
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 12.0	\$ 12.0

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The baseline estimate uses cost calculations for Cold Inplace Recycling form of resurfacing, along with bridge replacement and culvert removals and repairs, and additions to the bike trail system in Jackson.

Project Risks

A change in costs could result from changing the project scope on type of resurfacing ('downscoping' from a Cold Inplace Recycling to a medium mill and overlay).

Schedule

Environmental Approval Date: Pending
 Municipal Consent Approval Date: Not needed
 Geometric Layout Approval Date: Not needed
 Construction Limits Established Date: Pending
 Original Letting Date: 1/31/2020
 Current Letting Date: 1/31/2020
 Construction Season: 2020
 Estimated Substantial Completion: 2020



Minnesota Department of Transportation
 District 7
 2151 Bassett Drive
 (507) 304-6100

District Engineer: Greg Ous
Project Manager: Robert Jones

Revised Date: 12/15/2016

PROJECT SUMMARY

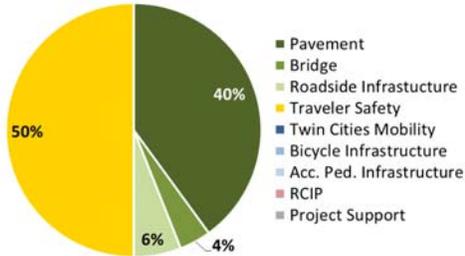
Hwy 71
 Windom to Hwy 30
 Bridge 8701, 8328, 5633
 State Project No. 1706-29



Primary Purpose

Performance Based Need: Pavement Condition

Investment Category



Project Description

This project is a micro mill and overlay from the north junction of Hwy 60 in Windom to Hwy 30. In addition, three bridges (8701, 8328 and 5633) will be rehabilitated.

Recent Changes and Updates

This project is a micro mill and micro-surface and the current TPCE is at \$3.95M.

Project History

The project was scoped in 2015.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2016

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 3.1	\$ 3.1
Other Construction Elements:	\$ 0.3	\$ 0.3
Engineering:	\$ 0.6	\$ 0.6
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 4.0	\$ 4.0

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The cost estimate is based on staying within the existing right of way, milling and overlaying the roadway and shoulders, and rehabbing three bridges (which are culverts).

Project Risks

There is potential that additional culverts or bridges may need rehabilitation. Additional right of way may be necessary for work on some of the culverts. The city has expressed an interest in realigning an intersection. The county has expressed an interest in some additional turn lanes.

Schedule

Environmental Approval Date: Pending
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: Not Needed
 Construction Limits Established Date: Not Needed
 Original Letting Date: 1/31/2020
 Current Letting Date: 1/31/2020
 Construction Season: 2020
 Estimated Substantial Completion: 2020



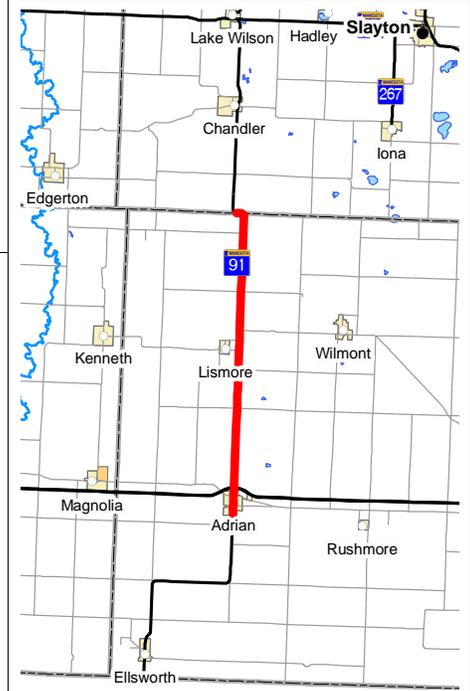
Minnesota Department of Transportation
 District 7
 2151 Bassett Drive
 (507) 304-6100

District Engineer: Greg Ous
Project Manager: Robert Jones

Revised Date: 12/15/2016

PROJECT SUMMARY

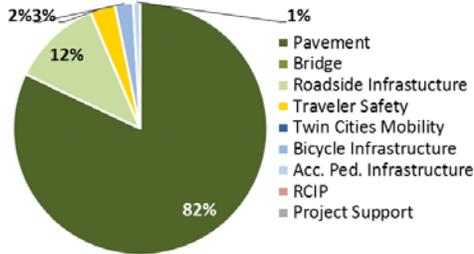
Hwy 91
 Adrian to Nobles/Murray county line
 Bridge 1503, &, 8793
 State Project No. 5308-29



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

This project is a bituminous mill and overlay of Hwy 91 from the southern Adrian city limits and north to the Nobles/Murray county line. This does not include a concrete pavement rehabilitation in downtown Adrian. The project includes the replacement of two box culverts/bridges.

Recent Changes and Updates

The project was moved to FY 2020 to free up funding for other projects in FY 2018. The replacement of two bridges (#1503 and #8793) were added to the scope. The scope was also revised to include sidewalks that are not ADA compliant.

The current estimate of cost changed to account for an additional year of inflation, added bridges and additional ADA work.

Project History

The project was identified for inclusion in the 2018 program and scoped.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2014

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 6.9	\$ 7.5
Other Construction Elements:	\$ 4.7	\$ 0.2
Engineering:	\$ 1.3	\$ 1.2
Right of Way:	\$ 0.0	\$ 0.1
Total:	\$ 8.7	\$ 9.0

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The baseline estimate assumes a medium mill and overlay, extensive ADA work, and the replacement of two box culverts. There is no work at other box culverts.

9/2016 - No change to Cost Estimate.

Project Risks

This project is a candidate for changing to a concrete overlay or bituminous reclaim. There are possible poor soils which could be encountered at the culvert replacement locations. There is the potential for adding additional work during the ADA fixes.

Schedule

Environmental Approval Date: Pending Approval
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: Not Needed
 Construction Limits Established Date: Pending Approval
 Original Letting Date: 12/15/2017
 Current Letting Date: 2/22/2019
 Construction Season: August 2019-November 2020
 Estimated Substantial Completion: Fall 2020



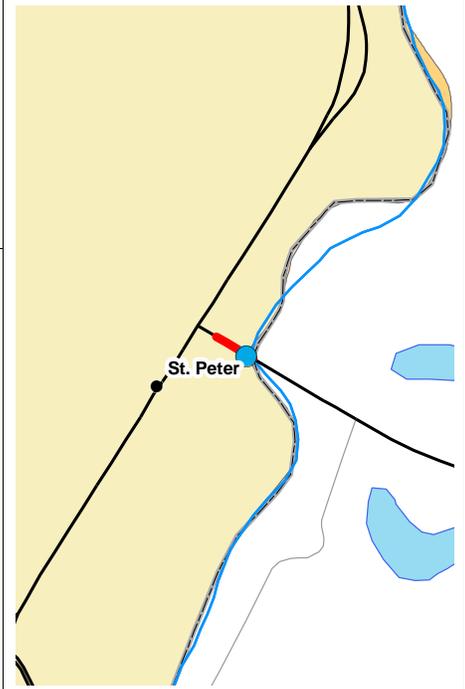
Minnesota Department of Transportation
 District 7
 2151 Bassett Drive
 (507) 304-6100

District Engineer: Greg Ous
Project Manager: Matthew Young

Revised Date: 12/15/2016

PROJECT SUMMARY

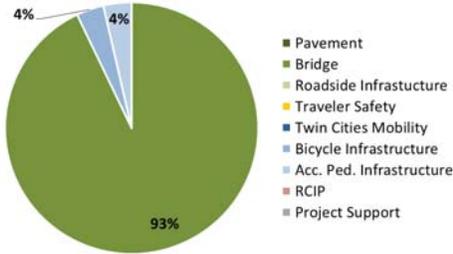
Hwy 99
Over the Minnesota River in St Peter
Bridge 4930
State Project No. 4008-25



Primary Purpose

Performance-based Need: Bridge Condition

Investment Category



Project Description

The project will rehabilitate a bridge (#4930) on Hwy 99 over the Minnesota River in St. Peter. The rehabilitation includes the following items: strengthening the truss floorbeams, adding a new concrete deck and sidewalk, rehabilitating the abutment and pier, completely repainting the bridge, and adding new lighting.

Hwy 99 will be detoured to Hwy 22 and CR 21 for the duration of the project.

Recent Changes and Updates

The project has been updated to the 2016 Standard Specifications and will be re-let on November 18, 2016 for construction in 2017.

Project History

The purpose and need for the project is to rehabilitate the in-place bridge while preserving its historical integrity and providing a safe crossing of the Minnesota River. The existing bridge was built in 1931 and has a National Bridge Inventory (NBI) structure evaluation rated at 5.

This project was let in 2014 but the low bidder was deemed non-responsible with regards to DBE goals. The project will be re-let to not conflict with other Saint Peter area work.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2011

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 4.9	\$ 4.9
Other Construction Elements:	\$ 0.3	\$ 0.3
Engineering:	\$ 0.5	\$ 0.5
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 5.7	\$ 5.7

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The project was previously bid and rejected. The low bid from that letting is used as the base cost estimate and inflated to 2017 dollars, which is when this will be constructed.

Project Risks

Major risks include substantial changes in the water elevation of the Minnesota River during construction, which will affect the staging and overall construction duration. Due to the nature of the work (rehabing an older steel bridge), extra care will need to be given to the parts of the bridge that are kept intact and remaining as part of the bridge after construction.

Schedule

Environmental Approval Date: 11/25/2013
Municipal Consent Approval Date: Not Needed
Geometric Layout Approval Date: Not Needed
Construction Limits Established Date: Not Needed
Original Letting Date: 1/01/2014
Current Letting Date: 11/18/2016
Construction Season: 2017
Estimated Substantial Completion: October 2017



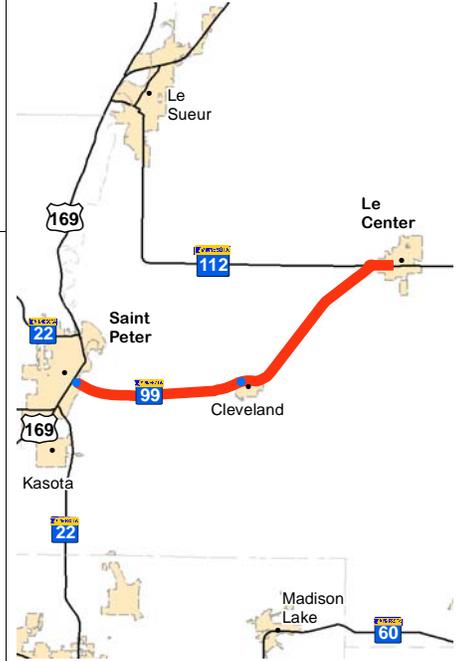
Minnesota Department of Transportation
District 7
2151 Bassett Drive
(507) 304-6100

District Engineer: Greg Ous
Project Manager: Zachary Tess

Revised Date: 12/15/2016

PROJECT SUMMARY

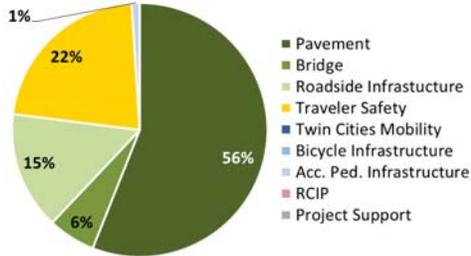
Hwy 99
 St. Peter to Le Center
 Bridge 8893
 State Project No. 4008-28



Primary Purpose

Permanenced Based Need: Pavement Condition

Investment Category



Project Description

The project consists of a mill and overlay for the mostly rural sections of Hwy 99 with urban sections in Cleveland and Le Center. This project will also include a right turn lane on County Road 110 (eastbound only), a left turn lane in Cleveland, and a left turn lane at County Road 45. One bridge will be replaced and extended on this project. Several pipe will be lined.

Recent Changes and Updates

The project became a fiscal 2019 project.

Project History

The project has been scoped and early development is underway.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2015

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 8.1	\$ 8.1
Other Construction Elements:	\$ 0.7	\$ 0.7
Engineering:	\$ 1.5	\$ 1.5
Right of Way:	\$ 0.1	\$ 0.1
Total:	\$ 10.4	\$ 10.4

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Average bid prices were used from projects in this area and inflated to the midpoint of construction for the estimates.

Project Risks

Extending the box culvert to eliminate the need for a guardrail is a challenge due to the fact that the adjacent property is a city park. It is possible that the right of way for the extension may not be available to acquire because of the city park and so guardrail would be used.

Schedule

Environmental Approval Date: Need Unknown
 Municipal Consent Approval Date: 2017
 Geometric Layout Approval Date: Spring 2017
 Construction Limits Established Date: Spring 2017
 Original Letting Date: 12/14/2018
 Current Letting Date: 12/14/2018
 Construction Season: 2019
 Estimated Substantial Completion: End of 2019



Minnesota Department of Transportation
 District 7
 2151 Bassett Drive
 (507) 304-6100

District Engineer: Greg Ous
Project Manager: Forrest Hasty

Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 109
 Winnebago to Wells
 Bridge 22X05, & 22X06
 State Project No. 2212-28, 2212-29

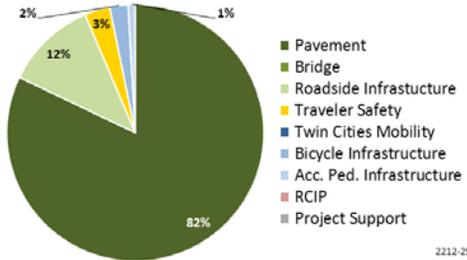
Substantially Complete



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

This project is for road repair work on about 12 miles of Hwy 109 from Winnebago to Wells.

Recent Changes and Updates

These are two separate projects (SP 2212-28 and SP 2212-29). Both are substantially complete.

Project History

These are pavement preservation projects.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2011

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 14.3	\$ 13.6
Other Construction Elements:	\$ 2.5	\$ 1.7
Engineering:	\$ 2.9	\$ 3.3
Right of Way:	\$ 0.2	\$ 0.1
Total:	\$ 19.7	\$ 18.7

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The construction letting cost estimate for the 2014 project, SP 2212-28, is \$9 million. The projects were both let. The current estimate is based on the actual letting cost of both the projects.

Project Risks

Project is substantially complete so there are no further risks.

Schedule

Environmental Approval Date: 2011
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: Not Needed
 Construction Limits Established Date: Not Needed
 Original Letting Date: 1/01/2013
 Current Letting Date: 5/18/2012
 Construction Season: 2012; 2014
 Estimated Substantial Completion: 07/06/2015



Minnesota Department of Transportation
 District 7
 2151 Bassett Drive
 (507) 304-6100

District Engineer: Greg Ous
Project Manager: Brett Benzkofer

Revised Date: 12/15/2016

PROJECT SUMMARY

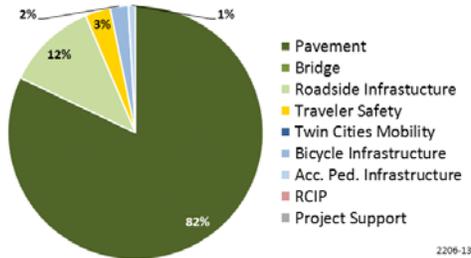
Hwy 109
Hwy 22 in Wells to I-90 in Alden
State Project No. 2206-13



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

This project is a mill and overlay on Hwy 109 from the Hwy 22 intersection in Wells to the I-90 intersection in Alden. Sidewalk and pedestrian ramps will be updated in Alden to meet current ADA standards.

Sidewalk will be installed from the Dairy Queen to the Dollar General store on the south side of Hwy 109 in Wells.

Two box culverts will be replaced along the Hwy 109 corridor as well as several pipes. There will be a detour to accommodate these activities.

Recent Changes and Updates

The construction limits are complete. New sidewalk will be constructed in the city of Wells and most of the sidewalk in Alden will be replaced.

The letting needed to be pushed to Fiscal Year 2018. Construction in fall 2017 was considered, but construction staff limitations made that undoable. The change in construction year resulted in the estimate changing to account for additional inflation.

Project History

This project will resurface the pavement to achieve a smooth riding surface.

The project was scoped and pedestrian ramps and sidewalk will be replaced to meet ADA requirements in Alden. There is a railroad crossing in Alden, and a railroad agreement will be needed.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2013

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 5.9	\$ 6.3
Other Construction Elements:	\$ 0.5	\$ 0.5
Engineering:	\$ 1.0	\$ 1.2
Right of Way:	\$ 0.1	\$ 0.1
Total:	\$ 7.4	\$ 8.1

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The key cost estimate assumption is the pavement fix, which is anticipated to be a medium resurfacing and overlay. Transverse joint repairs are included and estimated at 15 joints per mile. This is estimated in 2012 dollars inflated to 2018 dollars. The change from 2017 to 2018 construction accounts for the increased estimate.

Project Risks

There is the potential to find more problems with culverts during construction.

Schedule

Environmental Approval Date: Pending
Municipal Consent Approval Date: 12/7/2015
Geometric Layout Approval Date: Not Needed
Construction Limits Established Date: 10/02/2015
Original Letting Date: 1/01/2017
Current Letting Date: 9/22/2017
Construction Season: 2018
Estimated Substantial Completion: Oct. 2018



Minnesota Department of Transportation
District 7
2151 Bassett Drive
(507) 304-6100

District Engineer: Greg Ous
Project Manager: Forrest Hasty

Revised Date: 12/15/2016

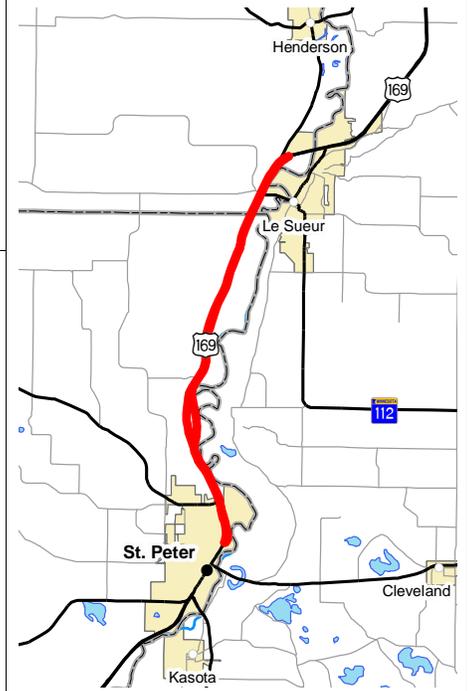
PROJECT SUMMARY

Hwy 169

Hwy 22 in St Peter to Hwy 93 at Le Sueur

Bridge 52002, 52004, 8961, 8649

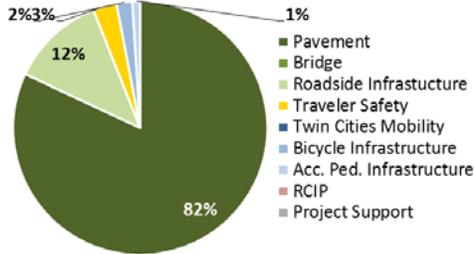
State Project No. 5209-74



Primary Purpose

Performance-based Need: Pavement Condition, Bridge Condition

Investment Category



Project Description

This project provides for an unbonded concrete overlay on the northbound lanes of Hwy 169 for about 10 miles from Hwy 22 to the north junction of Hwy 93 in Le Sueur.

Recent Changes and Updates

The project scope changed from a bituminous mill and overlay to an unbonded concrete overlay in order to provide a longer service life.

Along with the pavement change, this project may include some additional bridge and/or culvert work. The magnitude of this work is yet to be determined.

This work may require a second year of construction (in 2019).

Project History

The purpose of this project is provide a smooth riding surface on the northbound lanes of Hwy 169, which is a High Priority Interregional Corridor.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2014

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 6.3	\$ 17.5
Other Construction Elements:	\$ 0.4	\$ 1.1
Engineering:	\$ 1.1	\$ 3.3
Right of Way:	\$ 0.0	\$ 0.2
Total:	\$ 7.8	\$ 22.1

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The cost estimate assumes construction in 2018.

Project Risks

There is a minor risk that additional environmental documentation could become required. More right of way costs are likely compared to what is identified in current estimate of cost. With contingency this project is currently estimated between \$17M and \$25M, depending on the amount and type of bridge/culvert repairs and other hydraulic design.

Schedule

Environmental Approval Date: Pending Approval
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: Not Needed
 Construction Limits Established Date: 03/14/2016
 Original Letting Date: 11/17/2017
 Current Letting Date: 11/17/2017
 Construction Season: 2018 - 2019
 Estimated Substantial Completion: 2019



Minnesota Department of Transportation
 District 7
 2151 Bassett Drive
 (507) 304-6100

District Engineer: Greg Ous
Project Manager: Tom Wiener

Revised Date: 12/15/2016

PROJECT SUMMARY

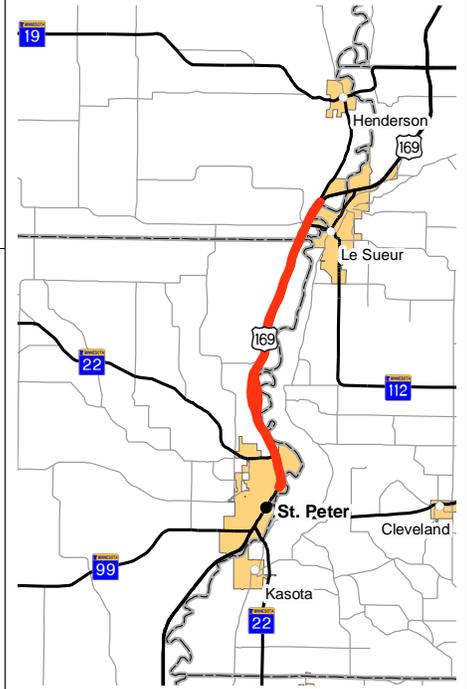
Hwy 169

St. Peter to Le Sueur, south of the Minnesota River Bridge

State Project No. 5209-66

<http://www.dot.state.mn.us/d7/projects/floodmitigation/>

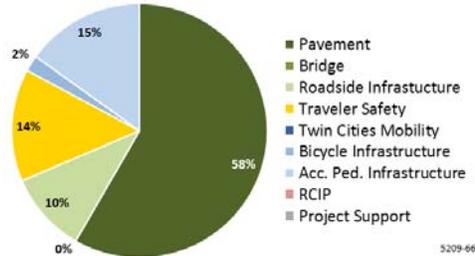
Substantially Complete



Primary Purpose

Performance-based Need: Flood Mitigation

Investment Category



Project Description

This project raised the grade of the southbound lanes in two areas and preserved the southbound lanes in non-grade raise areas between St. Peter and Le Sueur.

Recent Changes and Updates

This project is substantially complete.

Project History

This project was constructed in 2014 with the clean up work occurring in the spring of 2015.

The project scope included additional work to regrade sections of the road to be reconstructed for high water events. This project is an alternate bid project.

When the highway was originally constructed in the early 1960s, the Minnesota River high water elevation was assumed at 751.0 feet, and the roadway was constructed accordingly. The actual 100 year flood elevation in this area ranges from about 756.0 feet to 756.6 feet.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2012

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 11.3	\$ 10.7
Other Construction Elements:	\$ 0.9	\$ 1.1
Engineering:	\$ 2.3	\$ 1.3
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 14.5	\$ 13.1

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The current estimate is the actual let amount.

Project Risks

The project was constructed in 2014 and project risks were retired.

Schedule

Environmental Approval Date: 01/17/2014
 Municipal Consent Approval Date: 08/12/2013
 Geometric Layout Approval Date: 06/28/2013
 Construction Limits Established Date: 06/28/2013
 Original Letting Date: 04/25/2014
 Current Letting Date: 04/11/2014
 Construction Season: 2014
 Estimated Substantial Completion: Fall 2014



Minnesota Department of Transportation
 District 7
 2151 Bassett Drive
 (507) 304-6100

District Engineer: Greg Ous
Project Manager: Zachary Tess

Revised Date: 12/15/2016

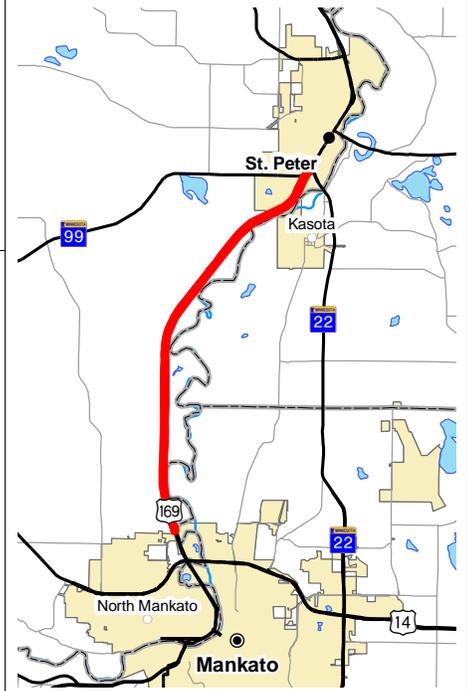
PROJECT SUMMARY

Hwy 169

Hwy 14 in Mankato to St. Peter

State Project No. 5211-59, 5211-59ED

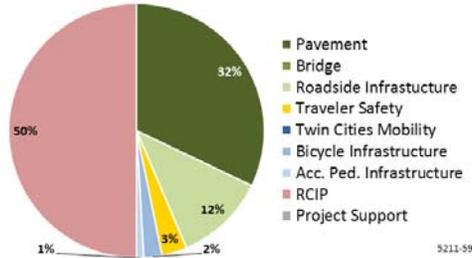
<http://www.dot.state.mn.us/d7/projects/floodmitigation/>



Primary Purpose

Regional & Community Improvement Priority

Investment Category



Project Description

This project reconstructs and raises 3.2 miles of Hwy 169 over a 9.1 mile stretch from Mankato to St. Peter. It includes installing a median barrier down the center of Hwy 169 to mitigate cross median crashes.

Recent Changes and Updates

The project was let in December 2015. It was scheduled for November 2015, but MnDOT did not receive approval from the Economic Development Administration to go forward with letting until the later date due to slow resolution on a right of way transfer from the Department of Natural Resources to MnDOT.

Construction began in spring 2016. As of August 2016, full opening is planned for mid-October.

Project History

This project received a \$9.8 million federal grant from the Economic Development Administration, U.S. Department of Commerce.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2013

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 14.6	\$ 17.0
Other Construction Elements:	\$ 1.2	\$ 1.2
Engineering:	\$ 2.7	\$ 2.7
Right of Way:	\$ 0.1	\$ 0.1
Total:	\$ 18.6	\$ 21.0

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The current estimate for construction letting is based on the actual accepted bid amount.

Project Risks

The weather has been wet all summer and final completion could be delayed by rain or high water.

Schedule

Environmental Approval Date: 3/11/2013
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: 5/06/2015
 Construction Limits Established Date: 6/01/2014
 Original Letting Date: 11/20/2015
 Current Letting Date: 12/18/2015
 Construction Season: 2016
 Estimated Substantial Completion: Fall 2016



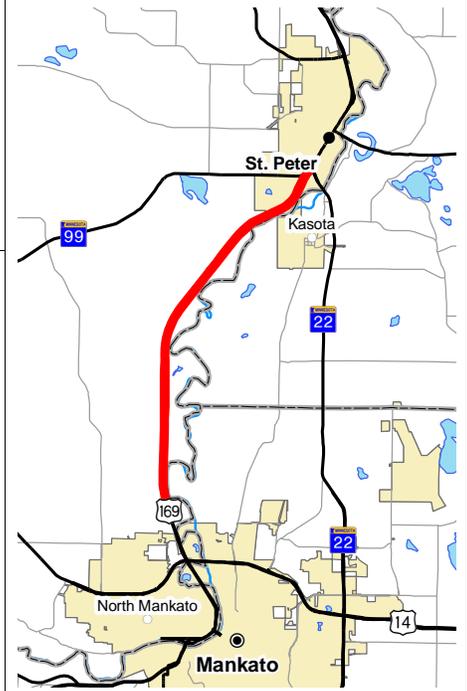
Minnesota Department of Transportation
 District 7
 2151 Bassett Drive
 (507) 304-6100

District Engineer: Greg Ous
Project Manager: Peter Harff

Revised Date: 12/15/2016

PROJECT SUMMARY

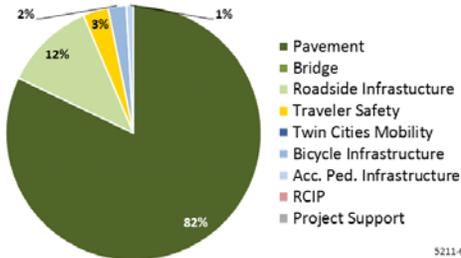
Hwy 169
Hwy 14 in Mankato to St. Peter
State Project No. 5211-61



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

The project preserves almost 6 miles of pavement along Hwy 169 from Mankato to St. Peter. It also installs a median barrier down the center of Hwy 169 to mitigate cross median crashes to improve safety.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2013

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 10.2	\$ 12.9
Other Construction Elements:	\$ 0.6	\$ 0.7
Engineering:	\$ 1.8	\$ 2.0
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 12.6	\$ 15.6

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Recent Changes and Updates

The project was let in December 2015. Construction began in spring 2016. As of August 2016, full opening planned for mid-October.

Project History

This project is the counterpart to SP 5211-59, which is the reconstruction project from Mankato to St. Peter. This project does not have U.S. Department of Commerce funding.

The cost estimate increased due to the decision to use concrete median barrier for safety and use full depth concrete for the median pavement to speed up construction.

Key Cost Estimate Assumptions

The current estimate for construction letting is based on the actual accepted bid amount.

Project Risks

There is a potential for delays due to rain and flooding.

Schedule

Environmental Approval Date: Not needed
Municipal Consent Approval Date: Not Needed
Geometric Layout Approval Date: Not Needed
Construction Limits Established Date: 06/01/2014
Original Letting Date: 10/20/2015
Current Letting Date: 12/18/2015
Construction Season: 2016
Estimated Substantial Completion: Fall 2016



Minnesota Department of Transportation
District 7
2151 Bassett Drive
(507) 304-6100

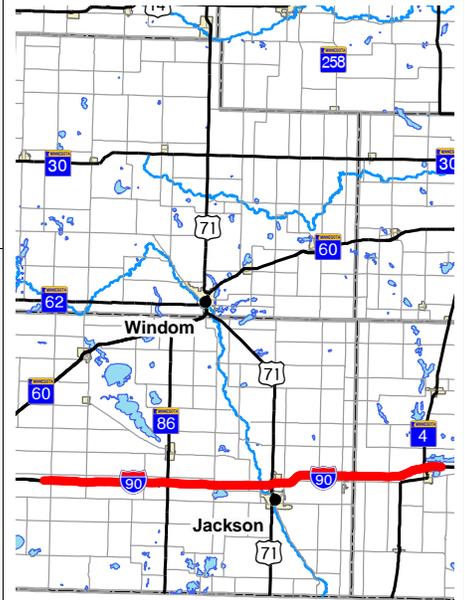
District Engineer: Greg Ous
Project Manager: Peter Harff

Revised Date: 12/15/2016

PROJECT SUMMARY

I-90

Eastbound Hwy 86 to Hwy 4 & westbound Hwy 5 to Hwy 4
State Project No. 3280-126



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category

*This project was designed and scoped before the current highway investment plan MnSHIP was developed, which breaks projects into investment categories.

Project Description

This project is for pavement resurfacing on I-90. The resurfacing includes the eastbound lanes between Hwy 86 and Hwy 4 and the westbound lanes between Hwy 5 and Hwy 4. The pavement surface will have both concrete and bituminous sections. This is an attempt to maximize the service life of the repair.

Recent Changes and Updates

Construction is nearly complete.

Project History

This project now includes work on what used to be under other MnDOT projects (SP's 3280-120, 3280-121, and 3208-122). The pavement surface is rough and the ride quality index does not meet the statewide targets set for interstate highways. This project will resurface the pavement in order to provide a smooth ride and meet performance targets for ride quality, as well as providing a longer service life.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2014

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 36.3	\$ 36.3
Other Construction Elements:	\$ 0.8	\$ 0.8
Engineering:	\$ 2.0	\$ 2.0
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 39.1	\$ 39.1

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

This is a variable scope, fixed cost project. It uses the design/build method of contracting.

Project Risks

Trying to define a variable scope project in an RFP is challenging. There may be a need to shift money from Construction Letting to Other Construction Elements in order to keep the Total Project Cost Estimate under \$39.1 M.

Schedule

Environmental Approval Date: Pending Approval
Municipal Consent Approval Date: Not Needed
Geometric Layout Approval Date: Not Needed
Construction Limits Established Date: Not Needed
Original Letting Date: 1/21/2015
Current Letting Date: 2/24/2015
Construction Season: May 2015/Nov 2015
Estimated Substantial Completion: 7/31/2016



Minnesota Department of Transportation
District 7
2151 Bassett Drive
(507) 304-6100

District Engineer: Greg Ous
Project Manager: Matt Rottermond

Revised Date: 12/15/2016

PROJECT SUMMARY

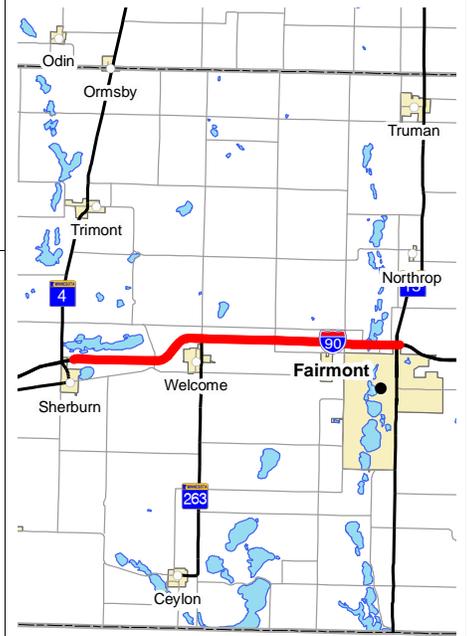
I-90

Sherburn to Fairmont

Bridge Multiple

State Project No. 4680-126

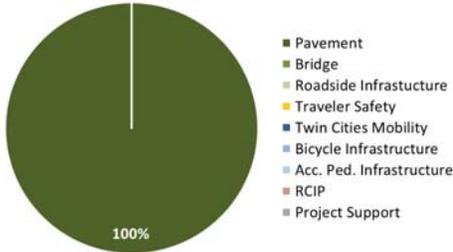
<http://www.dot.state.mn.us/d7/projects/I90preserve/>



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

This project is a mill and overlay of the westbound lanes on I-90, between Hwy 4 in Sherburn and just east of Hwy 15 in Fairmont. There will also be some drainage, lighting, and guardrail repairs. The bridge end posts will also be upgraded.

Recent Changes and Updates

The end post upgrades were added to the project in order to meet current guardrail safety standards.

Bridge work was removed from plans in another project (SP 4680-124) and brought into this project, which resulted in an increased cost estimate.

Project History

This project was added to the FY 2017 program. This acceleration was made possible due to an additional \$25 million investment in I-90 made in 2014-2015, which was funded by savings from other projects.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2014

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 6.7	\$ 11.2
Other Construction Elements:	\$ 0.5	\$ 0.4
Engineering:	\$ 0.5	\$ 1.8
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 7.7	\$ 13.4

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The current cost estimate was based on a unit-cost basis, with the inclusion of 10% "other" work, yet to be identified. The contingency was zeroed as of 8/24/15. The pipe repair cost estimate is based on scoping-level data. The initial cost estimate was based on similar projects and did not include some of the details captured in the current unit-cost based estimate.

Project Risks

The schedule for the bridge end post design is a risk because the bridge office has a huge workload for the November 2016 letting. To balance work load out the office will try to get the end posts for this project designed early.

Schedule

Environmental Approval Date: Pending Approval
 Municipal Consent Approval Date: Not needed
 Geometric Layout Approval Date: Not needed
 Construction Limits Established Date: Not needed
 Original Letting Date: 12/16/2016
 Current Letting Date: 12/16/2016
 Construction Season: 2017
 Estimated Substantial Completion: 12/01/2017



Minnesota Department of Transportation
 District 7
 2151 Bassett Drive
 (507) 304-6100

District Engineer: Greg Ous
Project Manager: Andrew Lawver

Revised Date: 12/15/2016

PROJECT SUMMARY

I-90

Worthington to Rushmore

Bridge 53815, & 53816

State Project No. 5380-133

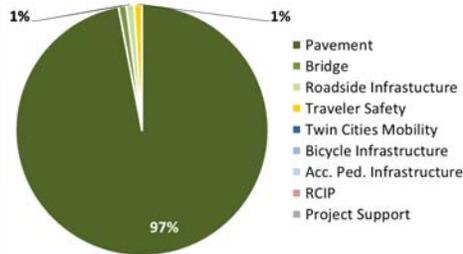
<http://www.dot.state.mn.us/d7/projects/I90preserve/>



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

This project includes resurfacing the eastbound and westbound lanes of I-90 from Hwy 60 in Worthington to near Rushmore. The type and thickness for the resurfacing have yet to be determined. The project will also include lighting replacement, drainage repairs and possibly some bridge repairs as well.

Recent Changes and Updates

This project is under construction and will be finished this year.

Project History

This project for resurfacing west of Hwy 60 was scoped in 2012 for a potential 2016 letting. The project was deferred indefinitely due to a lack of funding.

The resurfacing project for east of Hwy 60 was scoped in 2014 for a potential 2018 letting. The resurfacing project for west of Hwy 60 was moved back into the program in FY 2017 because additional funds were made available from savings on other projects. Both projects were combined to realize some project delivery and scale efficiencies.

The upgrade to replace end posts for bridges (#53815 and #53816) was added in order to meet current guardrail safety standards.

To balance the construction workload, it was decided to build the project in late 2016 (making it a FY 2017 Early Let-Late Award, or ELLA, project).

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2014

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 9.6	\$ 7.3
Other Construction Elements:	\$ 0.7	\$ 0.7
Engineering:	\$ 1.9	\$ 1.9
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 12.2	\$ 9.9

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The project was let; the current estimate is based on the awarded contract price.

Project Risks

There are no remaining identified risks.

Schedule

Environmental Approval Date: 1/19/2016
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: Not Needed
 Construction Limits Established Date: Not Needed
 Original Letting Date: 10/28/2015
 Current Letting Date: 3/18/2016
 Construction Season: 2016
 Estimated Substantial Completion: 12/01/2016



Minnesota Department of Transportation
 District 7
 2151 Bassett Drive
 (507) 304-6100

District Engineer: Greg Ous
Project Manager: Robert Sneller

Revised Date: 12/15/2016

PROJECT SUMMARY

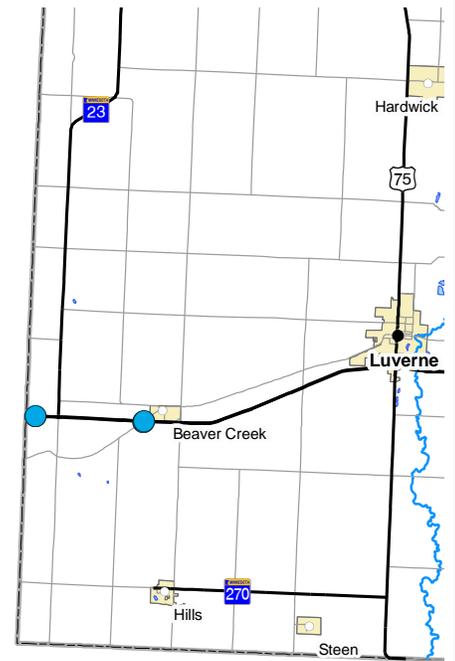
I-90

South Dakota border to east of Hwy 23

Bridge 9685, 9686, 9689, &, 9690

State Project No. 6780-105

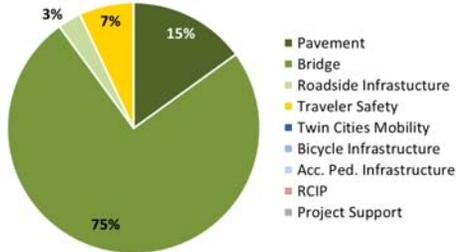
<http://www.dot.state.mn.us/d7/projects/I90preserve/>



Primary Purpose

Performance-based Need: Bridge Condition

Investment Category



Project Description

This project involves rehabilitating four bridges on I-90 near Beaver Creek, from the South Dakota border to 2.9 mi east of Hwy 23. The project will also construct permanent median crossovers for traffic control and safety. A stormwater pond will be constructed to meet permit requirements.

Recent Changes and Updates

Project History

The bridges were built in the early 1960s and the purpose of the project is to rehabilitate the bridges.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2013

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 4.6	\$ 4.6
Other Construction Elements:	\$ 0.2	\$ 0.2
Engineering:	\$ 0.9	\$ 0.9
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 5.8	\$ 5.8

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The cost estimate will be revised once the bridge rehabilitation recommendations are completed.

Project Risks

The scope of the bridge work is unknown at this time. The project risks will be revised once the bridge rehabilitation recommendations are completed.

Schedule

Environmental Approval Date: Pending Approval
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: Not Needed
 Construction Limits Established Date: Pending Approval
 Original Letting Date: 3/24/2017
 Current Letting Date: 3/24/2017
 Construction Season: Summer 2017
 Estimated Substantial Completion: 11/2017



Minnesota Department of Transportation
 District 7
 2151 Bassett Drive
 (507) 304-6100

District Engineer: Greg Ous
Project Manager: Matthew Young

Revised Date: 12/15/2016

PROJECT SUMMARY

I-90
Des Moines Rest Area
State Project No. 3280-130



Primary Purpose

Performance-based need: Roadside Infrastructure Condition

Investment Category

*This project was designed and scoped before the current highway investment plan MnSHIP was developed, which breaks projects into investment categories.

Project Description

The project involves improvements to the Des Moines Rest Area that is located along I-90 near Hwy 70.

Recent Changes and Updates

This project has not been scoped, so it is not yet fully known what it entails or what the costs total. Scoping and costs for rest areas are generally developed in the central office with construction inspection managed through the district.

Project History

This project has been developed this year.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2016

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 6.5	\$ 6.5
Other Construction Elements:	\$ 0.0	\$ 0.0
Engineering:	\$ 1.3	\$ 1.3
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 7.8	\$ 7.8

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

This project has not yet been scoped. The estimate is an early placeholder.

Project Risks

The project has not yet been scoped. Risks have not been identified.

Schedule

Environmental Approval Date: Need Unknown
Municipal Consent Approval Date: Not needed
Geometric Layout Approval Date: Need Unknown
Construction Limits Established Date: Need Unknown
Original Letting Date: 1/01/2020
Current Letting Date: 1/01/2020
Construction Season: 2020
Estimated Substantial Completion: 2021



Minnesota Department of Transportation
District 7
2151 Bassett Drive
(507) 304-6100

District Engineer: Greg Ous
Project Manager: Robert H Williams

Revised Date: 12/15/2016

PROJECT SUMMARY

I-90
I-90
Clear Lake Rest Area
State Project No. 3280-129



Primary Purpose

Performance-based need: Roadside Infrastructure Condition

Investment Category

*This project was designed and scoped before the current highway investment plan MnSHIP was developed, which breaks projects into investment categories.

Project Description

This project involves improvements to the Clear Lake Rest Area that is located along I-90, west of the city of Jackson.

Recent Changes and Updates

This project has not been scoped, so it is not yet fully known what it entails or what the costs total. Scoping and costs for rest areas are generally developed in the central office with construction inspection managed through the district.

Project History

This project has been developed this year.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2016

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 6.5	\$ 6.5
Other Construction Elements:	\$ 0.0	\$ 0.0
Engineering:	\$ 1.3	\$ 1.3
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 7.8	\$ 7.8

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The project has not yet been scoped. This estimate is a placeholder until more is known.

Project Risks

The project has not yet been scoped so risks have not been identified.

Schedule

Environmental Approval Date: Need Unknown
Municipal Consent Approval Date: Not Needed
Geometric Layout Approval Date: Not Needed
Construction Limits Established Date: Need Unknown
Original Letting Date: 1/01/2019
Current Letting Date: 1/01/2019
Construction Season: 2019
Estimated Substantial Completion: 2020



Minnesota Department of Transportation
District 7
2151 Bassett Drive
(507) 304-6100

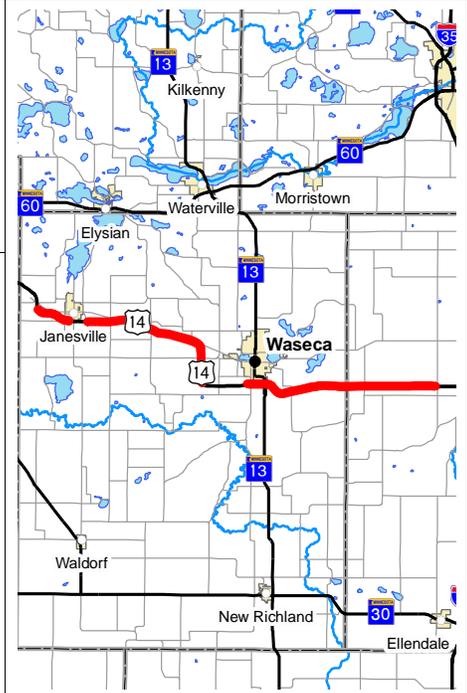
District Engineer: Greg Ous
Project Manager: Robert H Williams

Revised Date: 12/15/2016

PROJECT SUMMARY

Old Hwy 14
West of Janesville to Owatonna city limits
State Project No. 8103-113

Substantially Complete



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category

*This project was designed and scoped before the current highway investment plan MnSHIP was developed, which breaks projects into investment categories.

Project Description

This project is a Design-Build project on the rural portions of Old Hwy 14 between Waseca CR 60, west of Janesville, and the Owatonna city limits. It consists of a concrete overlay and drainage improvements. The project does not include work in the cities of Janesville and Waseca.

Recent Changes and Updates

Construction is complete.

Project History

The Legislature recently passed the law allowing for construction of this project according to the Settlement Agreement. The turnback of Old Hwy 14 in Waseca and Steele counties was contested. A Settlement Agreement defined what was to be constructed.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2014

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 8.6	\$ 14.6
Other Construction Elements:	\$ 0.6	\$ 0.6
Engineering:	\$ 1.7	\$ 1.7
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 10.9	\$ 16.9

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The current estimate is based on the actual let amount. The baseline estimate was low because it was made based on very rough assumptions that did not account for the additional costs that would result when negotiations were complete. Also, there was a lack of competition in bidding resulting in a higher cost.

Project Risks

The Settlement Agreement was very prescriptive in some areas and vague in others.

Schedule

Environmental Approval Date: Not Needed
Municipal Consent Approval Date: Not Needed
Geometric Layout Approval Date: Not Needed
Construction Limits Established Date: Not Needed
Original Letting Date: 12/03/2014
Current Letting Date: 12/03/2014
Construction Season: May 2015 - Nov 2015
Estimated Substantial Completion: 11/01/2015



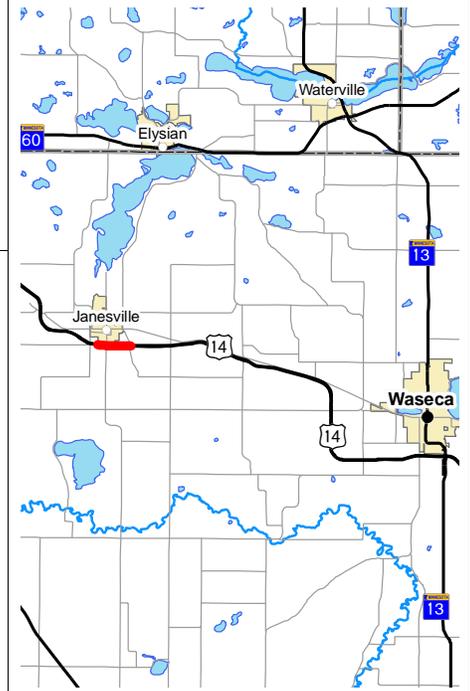
Minnesota Department of Transportation
District 7
2151 Bassett Drive
(507) 304-6100

District Engineer: Greg Ous
Project Manager: Matt Rottermond

Revised Date: 12/15/2016

PROJECT SUMMARY

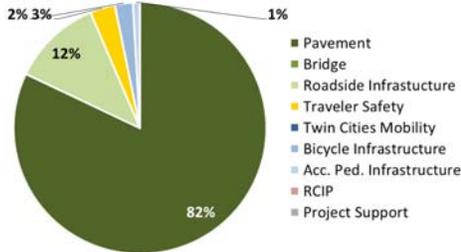
Old Hwy 14
Janesville
State Project No. 8103-114



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

This project consists of the reconstruction of Old Hwy 14 within the city limits of Janesville. The city will be replacing the utilities in conjunction with this project. A new concrete surface will be provided with curb and gutter.

Recent Changes and Updates

This project is under construction. It is anticipated to be completed in fall 2016.

Project History

The Legislature recently passed the law allowing for the construction of this project according to the Settlement Agreement. The turnback of Old Hwy 14 in Waseca and Steele counties was contested. A Settlement Agreement defined what was to be constructed.

Construction was planned for 2015; however, the city of Janesville is leading the project development and decided to move construction to 2016. The letting date was moved and the cost estimate was updated to account for an additional year of inflation, but a very good bid still brought the actual in below the initial estimate.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2014

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 4.6	\$ 4.0
Other Construction Elements:	\$ 0.3	\$ 0.3
Engineering:	\$ 0.9	\$ 0.9
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 5.8	\$ 5.2

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The current estimate cost given is only for the state share of the actual letting cost.

Project Risks

The Settlement Agreement was very prescriptive in some areas and vague in others.

Schedule

Environmental Approval Date: Not Needed
Municipal Consent Approval Date: Not Needed
Geometric Layout Approval Date: Not Needed
Construction Limits Established Date: Not Needed
Original Letting Date: 4/15/2015
Current Letting Date: 3/05/2016
Construction Season: May 2016 - Nov 2016
Estimated Substantial Completion: 11/01/2016



Minnesota Department of Transportation
District 7
2151 Bassett Drive
(507) 304-6100

District Engineer: Greg Ous
Project Manager: Matt Rottermond

Revised Date: 12/15/2016

PROJECT SUMMARY

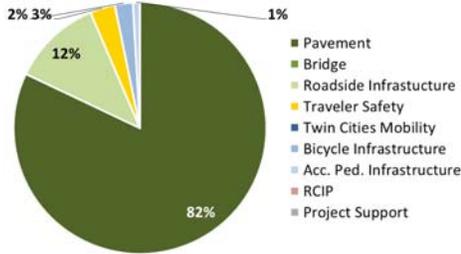
Old Hwy 14
From west to east Waseca city limits
State Project No. 8103-115



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

This project consists of reconstruction of Old Hwy 14 through Waseca. The city will replace the utilities in conjunction with this project. A new concrete surface will be provided with the curb and gutter.

Recent Changes and Updates

The construction plans are 90% complete.

The city is leading the project and needed more time to develop it than they initially anticipated. This has resulted in them shifting the letting and the construction years.

Project History

The Legislature recently passed the law allowing for the construction of this project according to the Settlement Agreement. The turnback of Old Hwy 14 in Waseca and Steele counties was contested. A Settlement Agreement was defined what was to be constructed.

The City of Waseca is leading the project. They are applying federal funds and will do a separate environmental document.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2014

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 17.8	\$ 24.0
Other Construction Elements:	\$ 1.0	\$ 1.0
Engineering:	\$ 2.7	\$ 2.7
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 21.5	\$ 27.7

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Of the current cost estimate, approximately \$14 million is state cost. The estimate has gone up because of complicated staging and drainage. The initial estimate did not account for risks in these areas.

Project Risks

The Settlement Agreement was very prescriptive in some areas and vague in others.

Schedule

Environmental Approval Date: Not Needed
Municipal Consent Approval Date: Not Needed
Geometric Layout Approval Date: Not Needed
Construction Limits Established Date: Not Needed
Original Letting Date: 4/15/2016
Current Letting Date: 12/15/2016
Construction Season: May 2017 - Nov 2018
Estimated Substantial Completion: 11/01/2018



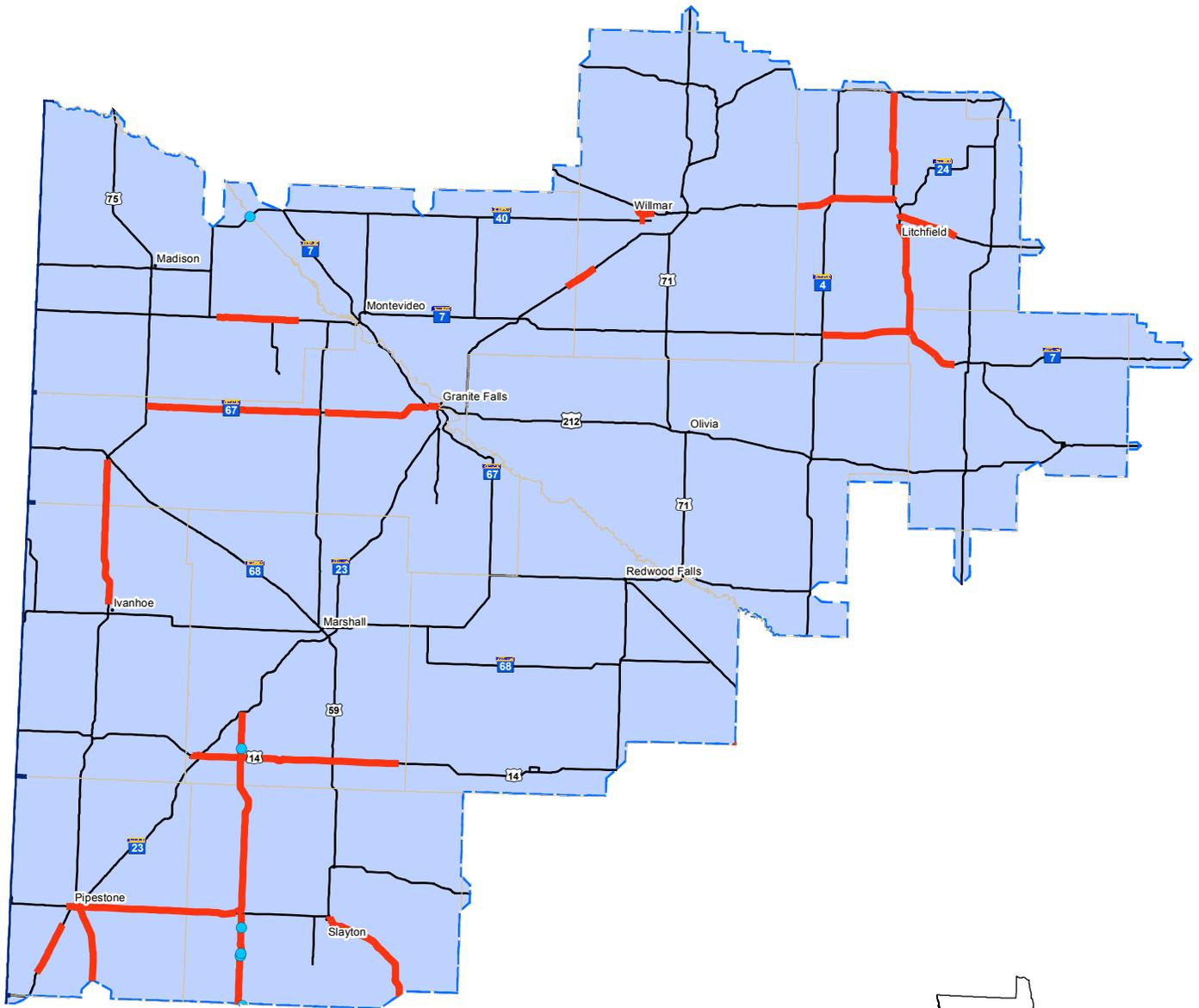
Minnesota Department of Transportation
District 7
2151 Bassett Drive
(507) 304-6100

District Engineer: Greg Ous
Project Manager: Matt Rottermond

Revised Date: 12/15/2016

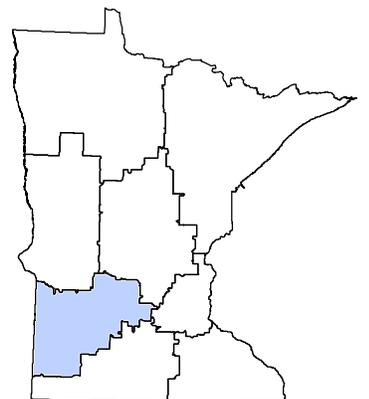


Major Highway Projects 2016 D8-WILLMAR



Major Highway Projects

- Bridge Projects
- ▬ Roadway Projects
- ▬ State Boundary
- ▬ County Line
- ▬ Construction District



District Project Summary

District 8

Route	State Project #	Project Location	Page
Hwy 7	4703-26	Cosmos to Hutchinson	G 2
Hwy 12	4704-89	4th Street to the south junction of Hwy 22, south of the railroad tracks, in Litchfield	G 3
Hwy 12	4704-47	West Meeker County line to Hwy 22	G 4
Hwys 12 & 40	3403-74	Hwy 12 - E. of Twp. 26 to E. of CSAH 55; Hwy 40 - W. of CSAH 55 to W. of CSAH 5	G 5
Hwy 14	4201-41	Florence to Tracy	G 6
Hwy 22	4710-27	Just north of Hwy 12 to Hwy 55 in Eden Valley	G 7
Hwy 22	4308-34	From the junction of Hwy 7 to the south edge of Litchfield	G 8
Hwy 23	4206-22	Interstate 90 to Willmar	G 9
Hwy 30 & 75	5101-15	Pipestone; Hwy 30 in town, Hwy 30 east, and Hwy 75 south	G 10
Hwy 40	1209-22	3 miles west of Milan	G 11
Hwy 59	5104-39	From Hwy 62 at Fulda to the south junction of Hwy 30 at Slayton	G 12
Hwy 75	4109-29	Hwy 19 in Ivanhoe to Canby	G 13
Hwy 91	5108-12	Hwy 30 in Lake Wilson to Hwy 23	G 14
Hwy 91	5107-14	Murray/Nobles County Line to MN30 (Lake Wilson)	G 15
Hwy 212	3706-41	First Street in Dawson to 3.15 miles west of Hwy 59	G 16
Hwy 212	8705-18	West of Clarkfield and Clarkfield to Granite Falls	G 17

PROJECT SUMMARY

Hwy 7

Cosmos to Hutchinson

State Project No. 4703-26

<http://www.dot.state.mn.us/d8/projects/hwy7and22/index.html>

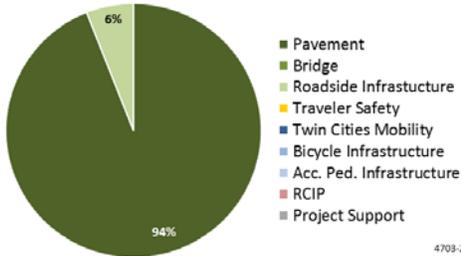
Substantially Complete



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

This project is a mill and overlay of approximately 16 miles from the city of Cosmos to Hutchinson. It also includes 2 miles of bituminous replacement near the bridges.

Recent Changes and Updates

Construction on this project is complete.

Project History

This project was tied to two other adjoining projects for letting. The current estimate was updated to reflect the actual tied letting amount for all three of the projects.

This roadway has deteriorated pavement, resulting in a rough ride and high maintenance costs. The project will strengthen pavement, improve ride quality, and reduce maintenance costs.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2013

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 5.7	\$ 7.1
Other Construction Elements:	\$ 0.3	\$ 0.1
Engineering:	\$ 1.2	\$ 1.4
Right of Way:	\$ 0.0	\$ 0.1
Total:	\$ 7.2	\$ 8.6

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Current Construction Letting estimate is the awarded cost for the project. Other Construction Elements of \$0.1M is for unknown costs, such as incentives, Supplemental Agreements, and overruns. Engineering estimates reflect 20 percent of construction letting.

Project Risks

No significant project risks.

Schedule

Environmental Approval Date: 11/15/2010
 Municipal Consent Approval Date: NA
 Geometric Layout Approval Date: Not needed
 Construction Limits Established Date: NA
 Original Letting Date: 02/27/2009
 Current Letting Date: 12/20/2013
 Construction Season: 2014
 Estimated Substantial Completion: Fall 2014



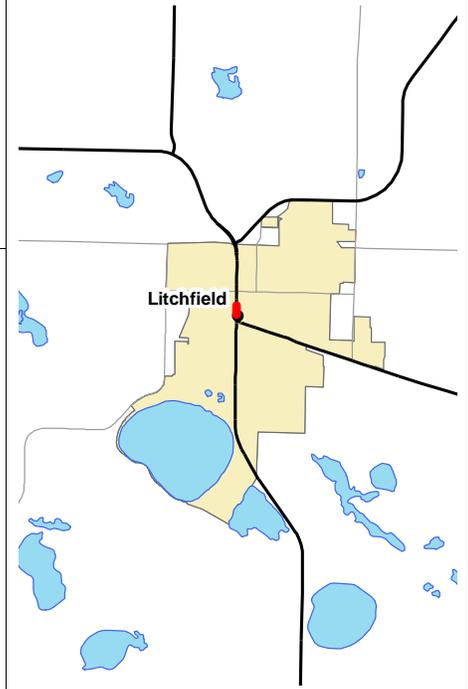
Minnesota Department of Transportation
 District 8
 2505 Transportation Road
 (320) 231-5195

District Engineer: Jon Huseby
Project Manager: Kelly Brunkhorst

Revised Date: 12/15/2016

PROJECT SUMMARY

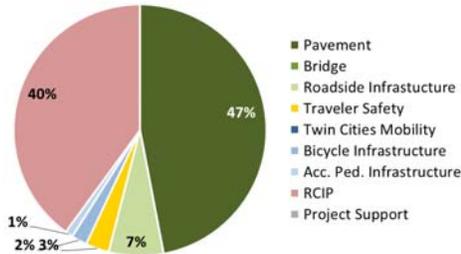
Hwy 12
4th Street to the south junction of Hwy 22, south of the railroad tracks, in
Litchfield
State Project No. 4704-89
<http://www.dot.state.mn.us/d8/projects/Hwy12downtownLitch/index.html>



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

This project is a reconstruction project through downtown Litchfield, with a distance of approximately 1/3 mile.

Recent Changes and Updates

From October of 2015 to April of 2016, the District, with the assistance of a consultant, conducted a robust public engagement process to determine what the Litchfield community wanted out of a downtown reconstruction project. Currently this project is progressing through the project development phases and there will be continued public involvement from design through construction.

The letting for this project was moved up several months to provide more time in construction for this large and complex project.

Project History

2015 was the first year in the report.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2014

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 3.7	\$ 3.7
Other Construction Elements:	\$ 0.2	\$ 0.2
Engineering:	\$ 0.6	\$ 0.6
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 4.5	\$ 4.5

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

This project does have right of way costs, but less than \$0.1M.

Project Risks

This project has many risks inherent with the reconstruction in an urban commercial setting, including: unknown utility issues, historical buildings, uncertain pedestrian improvement (ADA) needs, and potential for hazardous materials.

Schedule

Environmental Approval Date: Not Complete
Municipal Consent Approval Date: Not Complete
Geometric Layout Approval Date: Not Complete
Construction Limits Established Date: Not Complete
Original Letting Date: 03/22/2019
Current Letting Date: 11/16/2018
Construction Season: 2019
Estimated Substantial Completion: Fall 2019



Minnesota Department of Transportation
District 8
2505 Transportation Road
(320) 231-5195

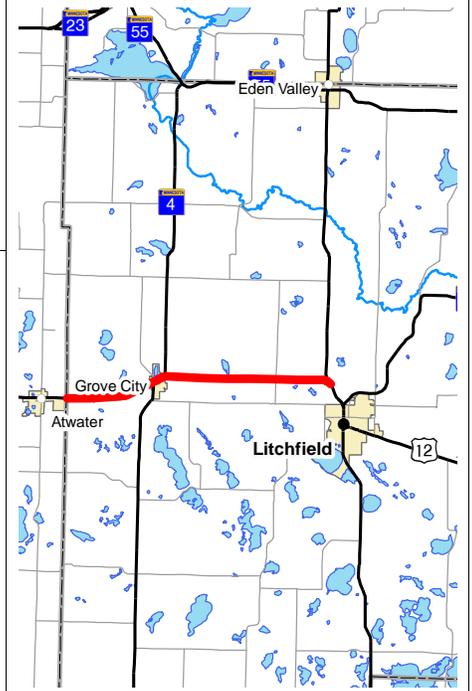
District Engineer: Jon Huseby
Project Manager: Lowell Flaten

Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 12
 West Meeker County line to Hwy 22
 State Project No. 4704-47

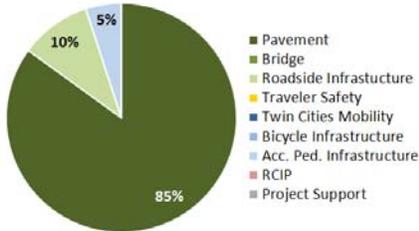
Substantially Complete



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

This is an alternate bid project for a bituminous reclamation. The project is approximately 11 miles in length and will include some minor culvert repairs.

Recent Changes and Updates

The project was completed in September of 2015.

Project History

Construction on this project is to be completed in the fall of 2015. The current estimate was updated to reflect the actual letting cost of the project.

The project was increased from a short term to a longer term fix as a part of a statewide effort to increase investment on pavement for principal arterials in order to improve the long-term condition of the system. This is reflected in the higher current estimate. Funding for the increased scope was provided through the Statewide Performance Program (SPP).

This project was identified because of rough riding pavement and the deteriorating condition of the underlying structure, which resulted in higher maintenance costs. This project will provide long-term improvement to the ride condition and stabilize the underlying structure, resulting in reduced maintenance costs.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2015

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 2.0	\$ 5.9
Other Construction Elements:	\$ 0.1	\$ 0.1
Engineering:	\$ 0.4	\$ 1.2
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 2.5	\$ 7.2

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Current Construction Letting estimate is the awarded cost for the project. Other Construction Elements of \$0.1M is for unknown costs, such as incentives, Supplemental Agreements, and overruns. Engineering estimates reflect 20 percent of construction letting.

Project Risks

No significant project risks remain.

Schedule

Environmental Approval Date: 07/16/2014
 Municipal Consent Approval Date: NA
 Geometric Layout Approval Date: Not needed
 Construction Limits Established Date: NA
 Original Letting Date: 11/21/2014
 Current Letting Date: 11/21/2014
 Construction Season: 2015
 Estimated Substantial Completion: Fall 2015



Minnesota Department of Transportation
 District 8
 2505 Transportation Road
 (320) 231-5195

District Engineer: Jon Huseby
Project Manager: Kelly Brunkhorst

Revised Date: 12/15/2016

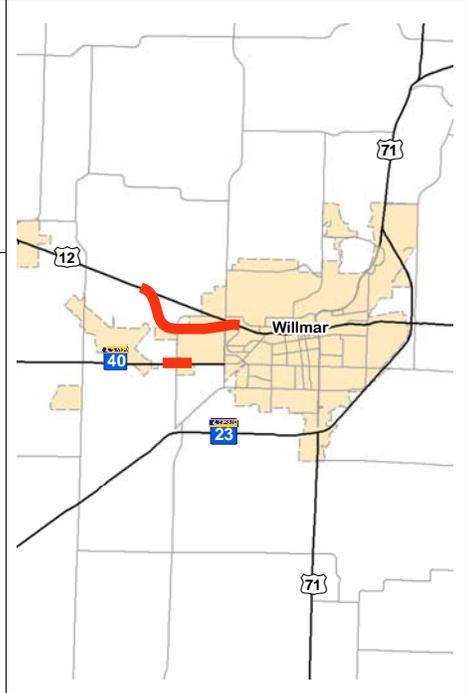
PROJECT SUMMARY

Hwys 12 & 40

Hwy 12 - E. of Twp. 26 to E. of CSAH 55; Hwy 40 - W. of CSAH 55 to W. of CSAH 5

State Project No. 3403-74

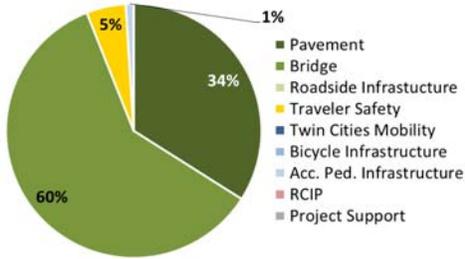
<http://www.dot.state.mn.us/d8/projects/willmarwe/index.html>



Primary Purpose

Regional and Community Improvement Priority. This project was partially funded through a federal TIGER grant.

Investment Category



Project Description

This is a collaborative project between MnDOT, BNSF, the City of Willmar, Kandiyohi County and the city of Willmar's Economic Development Commission. The project will create a rail connection between two existing BNSF railway lines and modify surrounding roadways to better move freight through the city of Willmar. A portion of US Hwy 12 will be reconstructed from 0.1 miles east of township road 26 to 0.6 miles east of CSAH 55. A bridge for Hwy 12 traffic will also be added over the new rail line. A portion of MN Hwy 40 will be reconstructed 0.3 miles west of CSAH 55 to 0.7 miles west of CSAH 5 and a new bridge for Hwy 40 traffic will be added over the new rail line.

Recent Changes and Updates

There are several agreements that still need to be negotiated. This project will require a large quantity of borrow dirt and the area in which this project is located does not have an obvious borrow site. The price of the borrow dirt could change dramatically depending on how far away from the project it hauled from. We are currently working on the soils investigation. The results of this investigation will likely show some poor soils. How these poor soils are dealt with could have a significant cost.

Project History

This is a design-build project--the first for District 8.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2016

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 36.2	\$ 36.2
Other Construction Elements:	\$ 0.0	\$ 0.0
Engineering:	\$ 3.0	\$ 3.0
Right of Way:	\$ 2.5	\$ 2.5
Total:	\$ 41.7	\$ 41.7

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Assumptions for the construction letting include:

- 1) Alternative 2B will be chosen
- 2) \$20.2M Rail road costs and \$16M Roadway Costs
- 3) Includes 15% of the roadway costs for Design-Build

Assumptions for engineering/consultant costs include:

- 1) 8% of the total letting cost to cover Preliminary Design of the Roadway and Preliminary and Final Design of the Railroad

Project Risks

Given that this project is a public/private partnership, there are several major risks inherent to the project related to the public private partnership between MnDOT, Kandiyohi County, The City of Willmar and BNSF Railway.

Schedule

Environmental Approval Date: Pending approval
 Municipal Consent Approval Date: Pending approval
 Geometric Layout Approval Date: Pending approval
 Construction Limits Established Date: Pending approval
 Original Letting Date: 10/19/2017
 Current Letting Date: 10/19/2017
 Construction Season: 2018
 Estimated Substantial Completion: 2018



Minnesota Department of Transportation
 District 8
 2505 Transportation Road
 (320) 231-5195

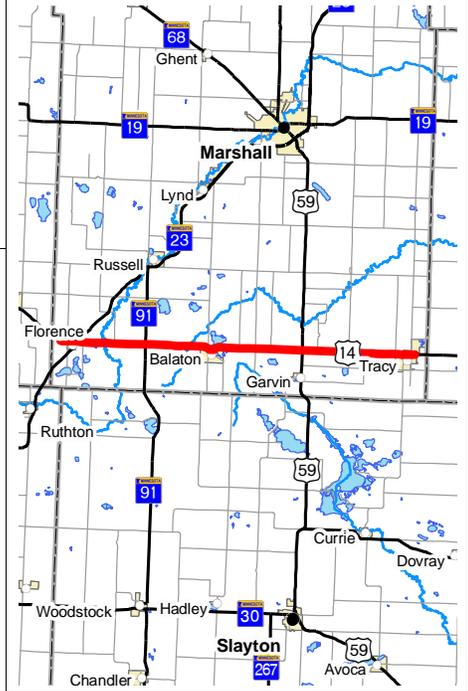
District Engineer: Jon Huseby
Project Manager: Paul Rasmussen

Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 14
 Florence to Tracy
 State Project No. 4201-41
<http://www.dot.state.mn.us/d8/projects/hwy14florence/index.html>

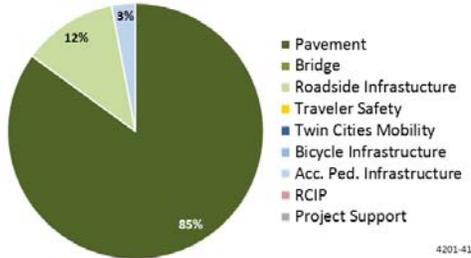
Substantially Complete



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

This project is approximately 20 miles of bituminous overlay from Florence to Tracy. The project also includes a mill and overlay in Balaton.

Recent Changes and Updates

This project was completed in June of 2015 and the road is now open to traffic.

Project History

Completion of this project has been delayed due to soils not settling as quickly as expected for flood mitigation associated with the project. The roadway is currently open to traffic and construction will be complete in the fall of 2015.

The current cost estimate reflects the actual awarded costs for the projects tied to SP 4201-41. The project was tied to adjoining work for letting, which was SP 4201-90 for flood mitigation near Florence. The current estimate has been updated to reflect the actual tied letting amount for the multiple projects.

This project was tied to an adjoining project for letting.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2013

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 3.5	\$ 5.2
Other Construction Elements:	\$ 0.1	\$ 0.7
Engineering:	\$ 0.7	\$ 1.0
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 4.3	\$ 6.9

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The current estimate has been updated to reflect the actual tied letting amount for the two projects. Includes a 1.5 mile stretch of full depth bituminous replacement. Current Construction Letting estimate is the awarded cost for the project. Engineering estimate reflects 20 percent of construction letting. Planning level estimate type.

Project Risks

No significant risks remain.

Schedule

Environmental Approval Date: 03/18/2013
 Municipal Consent Approval Date: NA
 Geometric Layout Approval Date: Not needed
 Construction Limits Established Date: NA
 Original Letting Date: 11/22/2013
 Current Letting Date: 11/22/2013
 Construction Season: 2014
 Estimated Substantial Completion: Fall 2015



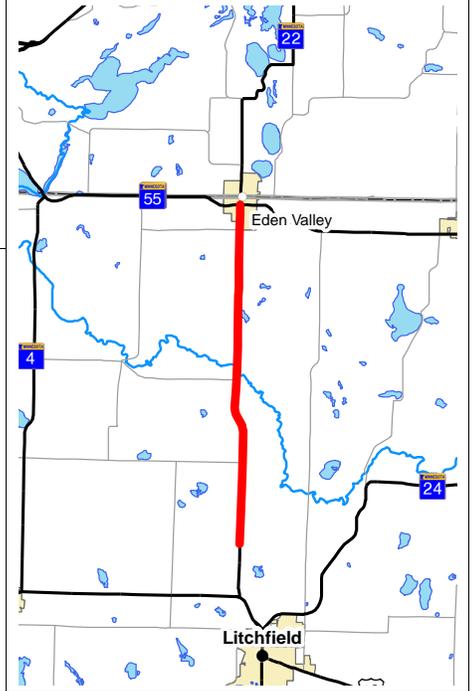
Minnesota Department of Transportation
 District 8
 2505 Transportation Road
 (320) 231-5195

District Engineer: Jon Huseby
Project Manager: Lowell Flaten

Revised Date: 12/15/2016

PROJECT SUMMARY

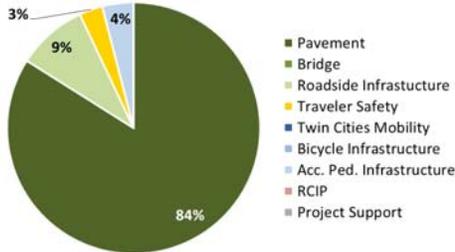
Hwy 22
Just north of Hwy 12 to Hwy 55 in Eden Valley
State Project No. 4710-27



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

This project includes a thick bituminous overlay on Hwy 22 from just north of Hwy 12 to Hwy 55 in Eden Valley.

The project is approximately 12 miles in length. Approximately 10 pedestrian ramps and 21 driveways will be upgraded to meet ADA standards in Eden Valley as part of this project.

Recent Changes and Updates

The total project cost estimate has been updated to reflect that the project moved ahead two years.

Project History

This project was advanced from 2020 to 2018. 2015 was the first year in the report.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2015

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 5.3	\$ 4.9
Other Construction Elements:	\$ 0.1	\$ 0.1
Engineering:	\$ 0.9	\$ 0.9
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 6.3	\$ 5.9

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Engineering estimates reflect 20% of construction letting. This project does have right of way costs, but they are expected to be less than \$0.1M.

Project Risks

No known significant project risks. Pedestrian improvements (ADA) in the urban section may incur costs for unknown issues.

Schedule

Environmental Approval Date: Pending approval
Municipal Consent Approval Date: Not Needed
Geometric Layout Approval Date: Pending approval
Construction Limits Established Date: Not Complete
Original Letting Date: 02/23/2018
Current Letting Date: 02/23/2018
Construction Season: 2018
Estimated Substantial Completion: Fall 2018



Minnesota Department of Transportation
District 8
2505 Transportation Road
(320) 231-5195

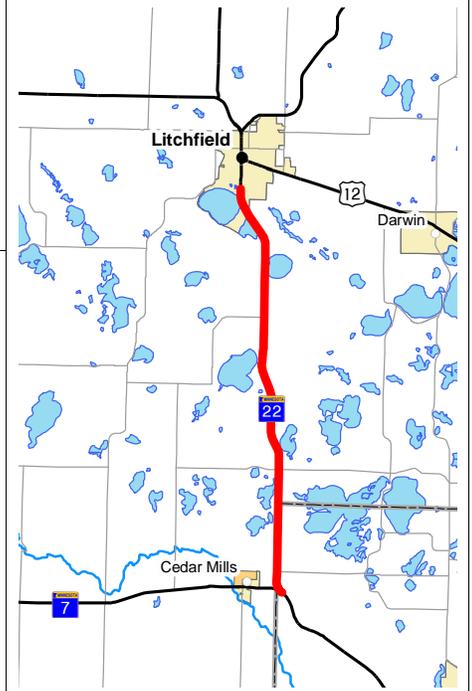
District Engineer: Jon Huseby
Project Manager: Kelly Brunkhorst

Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 22

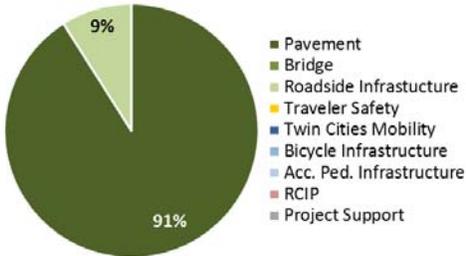
From the junction of Hwy 7 to the south edge of Litchfield
State Project No. 4308-34



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

This project is a thick overlay of approximately 12 miles of Hwy 22 between the west junction of Hwy 7 to the southern limits of the city of Litchfield.

Recent Changes and Updates

The environmental documentation for this project is in progress.

The total project cost estimate was reduced due to updated inflation factors.

Project History

This segment was identified as having rough riding pavement and deteriorating condition of the underlying structure, resulting in high maintenance costs. This project's purpose is to provide long-term improvements to the ride condition and stabilize the structure, resulting in reduced maintenance costs.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2013

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 6.0	\$ 5.4
Other Construction Elements:	\$ 0.1	\$ 0.2
Engineering:	\$ 1.1	\$ 1.0
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 7.2	\$ 6.6

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Engineering estimates reflect 20 percent of construction letting. The cost estimates shown reflect the bituminous fix, but this project is anticipated to be an alternate bid project.

Project Risks

This cost estimate reflects a thick bituminous overlay, but the project could be an alternate bid; the concrete option would approximately double the letting cost of the project. Minor risk exists for extra costs to be incurred at a short reconstruction section in a swampy area.

Schedule

Environmental Approval Date: Pending Approval
Municipal Consent Approval Date: NA
Geometric Layout Approval Date: June 2015
Construction Limits Established Date: NA
Original Letting Date: 01/27/2017
Current Letting Date: 01/27/2017
Construction Season: 2017
Estimated Substantial Completion: Fall 2017



Minnesota Department of Transportation
District 8
2505 Transportation Road
(320) 231-5195

District Engineer: Jon Huseby
Project Manager: Kelly Brunkhorst

Revised Date: 12/15/2016

PROJECT SUMMARY

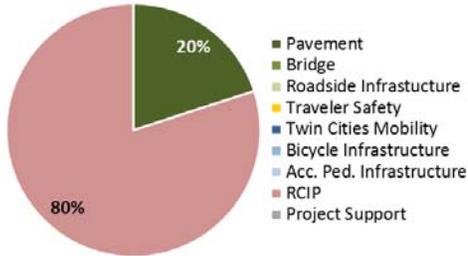
Hwy 23
 Interstate 90 to Willmar
 State Project No. 4206-22
<http://www.dot.state.mn.us/d8/projects/hwy23passinglanes/>



Primary Purpose

Performance-based Need: Interregional Corridor Mobility

Investment Category



Project Description

This project includes the construction of passing lane segments along Highway 23 between Interstate 90 and Willmar.

Recent Changes and Updates

Construction on the south set of passing lanes was completed in August of 2016.

Construction on the north set of passing lanes is expected to be complete by October of 2016.

Project History

For construction purposes, this project was split into two projects. Due to the location of the parallel railroad line and two townships that are unwilling to close township roads, two of the passing lanes were impacted, but will still be built.

The current cost estimate is based on the current level of design, which is about 75% to 100% complete, for the two projects.

This project was identified for the Corridors of Commerce program to provide additional highway capacity and improve the movement of freight and reduce barriers to commerce. An assessment of the corridor, as well as input gathered from a manufacturer's perspective study, resulted in selecting locations spread along the corridor, to provide the biggest benefit.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2013

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 10.3	\$ 12.6
Other Construction Elements:	\$ 1.0	\$ 0.4
Engineering:	\$ 1.7	\$ 2.5
Right of Way:	\$ 1.6	\$ 0.0
Total:	\$ 14.6	\$ 15.5

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Engineering estimates reflect 20 percent of construction letting.

Project Risks

The risks were retired.

Schedule

Environmental Approval Date: 6/01/2015
 Municipal Consent Approval Date: NA
 Geometric Layout Approval Date: 06/01/2015
 Construction Limits Established Date: 6/1/2015
 Original Letting Date: 02/26/2016
 Current Letting Date: 10/23/2015
 Construction Season: 2016
 Estimated Substantial Completion: Fall 2016



Minnesota Department of Transportation
 District 8
 2505 Transportation Road
 (320) 231-5195

District Engineer: Jon Huseby
Project Manager: Matt Brua

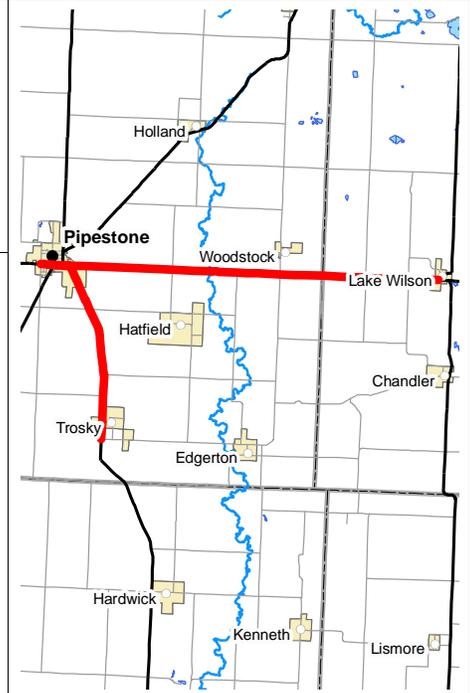
Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 30 & 75

Pipestone; Hwy 30 in town, Hwy 30 east, and Hwy 75 south
 State Project No. 5101-15, 5903-21, &, 5905-25
<http://www.dot.state.mn.us/d8/projects/hwy30/index.html> and
<http://www.dot.state.mn.us/d8/projects/hwy75/index.html>

Substantially Complete



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category

*This project was designed and scoped before the current highway investment plan MnSHIP was developed, which breaks projects into investment categories.

Project Description

This project includes a mill and overlay of Hwy 30 in the city of Pipestone. The project also includes an overlay of Hwy 30 between Pipestone and Lake Wilson and an overlay of Hwy 75 from the junction of County Road 9 to Pipestone.

Recent Changes and Updates

The project was completed in the fall of 2015.

Project History

This project was let, and is expected to be complete in the fall of 2015.

The City of Pipestone made some utility improvements in advance of this project, which resulted in shortening the west end of project by four blocks in the city of Pipestone. The current cost is the awarded cost for the project that was reduced in length to accommodate the City of Pipestone's need to perform their work.

Three individual projects are being tied together at letting, for better coordination of contractors, staging and to minimize impacts to the public. Tying these three projects together now meets the minimum threshold for inclusion in this report.

This segment was identified as having rough pavement resulting in high maintenance costs. The project's purpose is to improve ride condition and reduce maintenance costs.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2011

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 4.7	\$ 3.3
Other Construction Elements:	\$ 0.3	\$ 0.2
Engineering:	\$ 1.0	\$ 0.7
Right of Way:	\$ 0.1	\$ 0.1
Total:	\$ 6.1	\$ 4.3

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Current Construction Letting estimate is the awarded cost for the project. Engineering estimates reflect 20 percent of construction letting.

Project Risks

No significant project risks.

Schedule

Environmental Approval Date: 07/23/2014
 Municipal Consent Approval Date: NA
 Geometric Layout Approval Date: Not needed
 Construction Limits Established Date: NA
 Original Letting Date: 02/27/2015
 Current Letting Date: 01/30/2015
 Construction Season: 2015
 Estimated Substantial Completion: Fall 2015



Minnesota Department of Transportation
 District 8
 2505 Transportation Road
 (320) 231-5195

District Engineer: Jon Huseby
Project Manager: Lowell Flaten

Revised Date: 12/15/2016

PROJECT SUMMARY

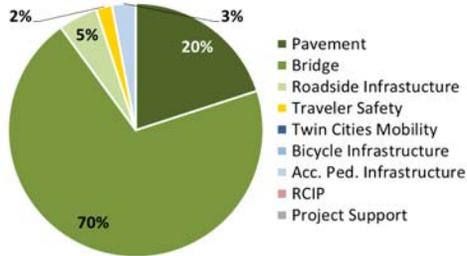
Hwy 40
 3 miles west of Milan
 Bridge 5380
 State Project No. 1209-22
<http://www.dot.state.mn.us/d8/projects/hwy40-bridge-milan/index.html>



Primary Purpose

Performance based need: bridge condition

Investment Category



Project Description

This project is the replacement of bridge number 5380.

Recent Changes and Updates

This project recently changed from a bridge rehabilitation to a bridge replacement due to public concerns. The decision to replace the bridge rather than rehabilitate the existing structure was determined through extensive public outreach.

Project History

This project was previously a bridge rehabilitation until late 2015, when it changed to a bridge replacement. The 2017-2020 STIP is the first year it is shown as a bridge replacement.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2016

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 5.3	\$ 5.3
Other Construction Elements:	\$ 0.2	\$ 0.2
Engineering:	\$ 1.0	\$ 1.0
Right of Way:	\$ 0.3	\$ 0.3
Total:	\$ 6.8	\$ 6.8

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Engineering is 20% of construction total and right of way costs are based on previous scopes to replace the bridge in 2009.

Project Risks

This project will need an Army Corps of Engineer's permit and review through the environmental process.

Schedule

Environmental Approval Date: Pending approval
 Municipal Consent Approval Date: Not needed
 Geometric Layout Approval Date: Pending approval
 Construction Limits Established Date: Pending approval
 Original Letting Date: 3/22/19
 Current Letting Date: 3/22/19
 Construction Season: 2019
 Estimated Substantial Completion: 2019



Minnesota Department of Transportation
 District 8
 2505 Transportation Road
 (320) 231-5195

District Engineer: Jon Huseby
Project Manager: Teal Spellman

Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 59

From Hwy 62 at Fulda to the south junction of Hwy 30 at Slayton

State Project No. 5104-39

<http://www.dot.state.mn.us/d8/projects/hwy59/index.html>

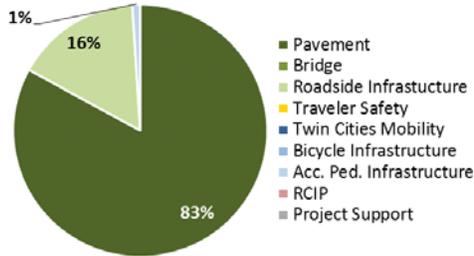
Substantially Complete



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

This project is a mill and overlay of approximately 13 miles of Hwy 59 from the junction with Hwy 62 to the south junction of Hwy 30 at Slayton. The project includes pedestrian ramp improvements in the city of Avoca.

Recent Changes and Updates

This project was completed in August of 2015.

Project History

This project was moved from the 2016 to the 2015 construction season due to stakeholder input and the rapidly deteriorating pavement condition. The current estimate reflects the actual awarded letting cost for the project. The decrease is due to estimate refinements, and the removal of inflationary increases because the project letting was moved two years earlier.

This segment was identified as having rough pavement resulting in high maintenance costs. The project's purpose is to improve ride condition and reduce maintenance costs.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2012

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 4.0	\$ 2.5
Other Construction Elements:	\$ 0.2	\$ 0.1
Engineering:	\$ 0.7	\$ 0.5
Right of Way:	\$ 0.1	\$ 0.0
Total:	\$ 5.0	\$ 3.1

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

This project does have right of way costs, but less than \$0.1M. Current Construction Letting estimate is the awarded cost for the project. Engineering estimates reflect 20 percent of construction letting.

Project Risks

No significant project risks remain.

Schedule

Environmental Approval Date: 11/24/2014
 Municipal Consent Approval Date: Not needed
 Geometric Layout Approval Date: 08/22/2014
 Construction Limits Established Date: 08/22/2014
 Original Letting Date: 01/22/2016
 Current Letting Date: 5/15/2015
 Construction Season: 2015
 Estimated Substantial Completion: Fall 2015



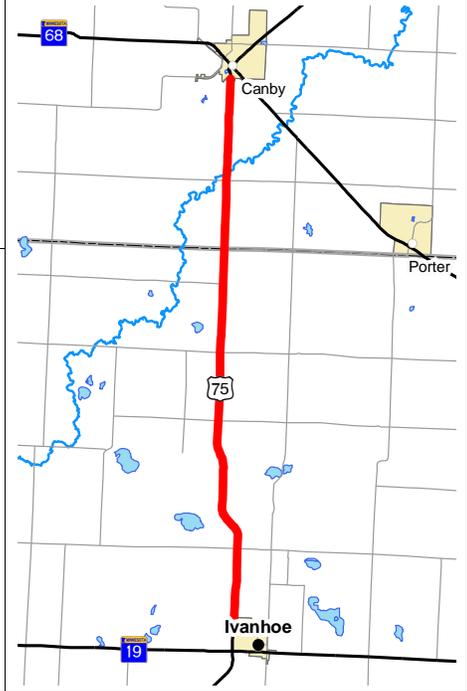
Minnesota Department of Transportation
 District 8
 2505 Transportation Road
 (320) 231-5195

District Engineer: Jon Huseby
Project Manager: Lowell Flaten

Revised Date: 12/15/2016

PROJECT SUMMARY

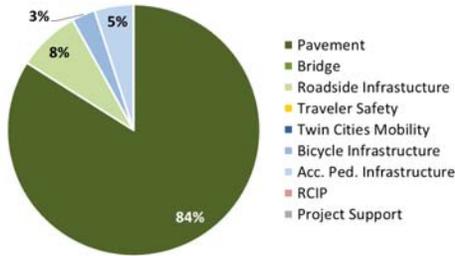
Hwy 75
 Hwy 19 in Ivanhoe to Canby
 State Project No. 4109-29



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

This project is a mill and overlay of approximately 17 miles from Hwy 19 in Ivanhoe to Canby. It also includes the replacement of low-tension guardrail and raising of the approach panel adjacent to the bridge, lining 20 to 30 pipes and replacing 5 culverts.

Recent Changes and Updates

This project is progressing through the project development phases.

Project History

2015 was the first year this project appeared in the report.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2015

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 4.6	\$ 4.6
Other Construction Elements:	\$ 0.1	\$ 0.1
Engineering:	\$ 0.8	\$ 0.8
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 5.5	\$ 5.5

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Engineering estimates reflect 20% of construction letting. This project does have right of way costs, but they are expected to be less than \$0.1M.

Project Risks

No known significant project risks.

Schedule

Environmental Approval Date: Not Complete
 Municipal Consent Approval Date: Not needed
 Geometric Layout Approval Date: Not needed
 Construction Limits Established Date: Not Complete
 Original Letting Date: 03/22/2019
 Current Letting Date: 03/22/2019
 Construction Season: 2019
 Estimated Substantial Completion: Fall 2019



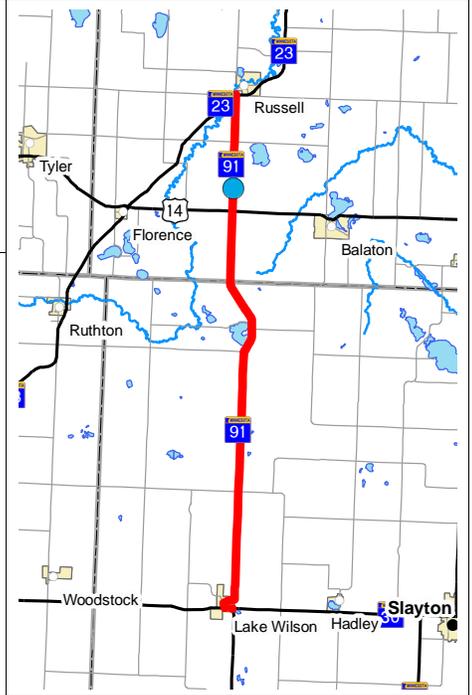
Minnesota Department of Transportation
 District 8
 2505 Transportation Road
 (320) 231-5195

District Engineer: Jon Huseby
Project Manager: Kent Medalen

Revised Date: 12/15/2016

PROJECT SUMMARY

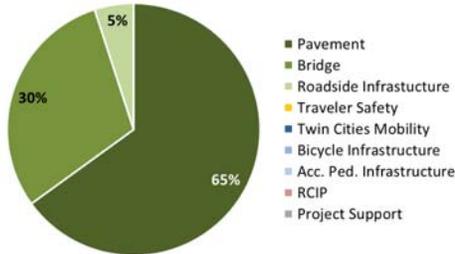
Hwy 91
 Hwy 30 in Lake Wilson to Hwy 23
 Bridge 9094
 State Project No. 5108-12



Primary Purpose

Performance-based Need: Pavement and Bridge Condition

Investment Category



Project Description

This project is a mill and overlay of approximately 23 miles from Hwy 30 in Lake Wilson to Hwy 23. It also includes the replacement of Bridge 9094.

Recent Changes and Updates

The total project cost estimate was reduced due to updated inflation factors.

Project History

2015 was the first year in the report.

This project is tied with two other 2019 projects on Hwy 91, one of which is in District 7.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2015

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 7.1	\$ 6.0
Other Construction Elements:	\$ 0.2	\$ 0.2
Engineering:	\$ 1.1	\$ 1.0
Right of Way:	\$ 0.0	\$ 0.5
Total:	\$ 8.4	\$ 7.3

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Engineering estimates reflect 20% of construction letting. This project does have right of way costs, but they are expected to be less than \$0.1M.

Project Risks

No known significant project risks. Relatively minor cost risk for culverts scoped for liners, may need to be replaced. Pedestrian improvements (ADA) in the urban section may incur costs for unknown issues.

Schedule

Environmental Approval Date: TBD
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: TBD
 Construction Limits Established Date: TBD
 Original Letting Date: 02/22/2019
 Current Letting Date: 02/22/2019
 Construction Season: 2019
 Estimated Substantial Completion: Fall 2019



Minnesota Department of Transportation
 District 8
 2505 Transportation Road
 (320) 231-5195

District Engineer: Jon Huseby
Project Manager: Jesse Vlamincik

Revised Date: 12/15/2016

PROJECT SUMMARY

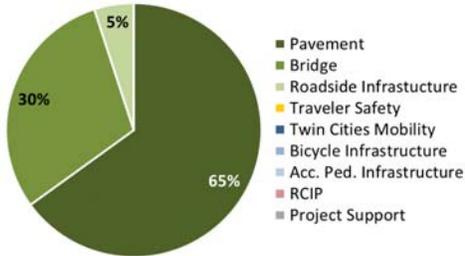
Hwy 91
 Murray/Nobles County Line to MN30 (Lake Wilson)
 Bridge 6753, 6754, 8759
 State Project No. 5107-14



Primary Purpose

Performance-based need: Pavement Condition

Investment Category



Project Description

This project is a mill and overlay of Hwy 91 from Hwy 30 in Lake Wilson to Hwy 23 near Russell. The project also includes a bridge replacement (bridge #6782) over the Des Moines River.

Recent Changes and Updates

The project is progressing through the project development phases. The total project cost estimate was reduced due to updated inflation factors.

Project History

2016 was the first year in the report.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2015

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 4.3	\$ 4.1
Other Construction Elements:	\$ 0.1	\$ 0.1
Engineering:	\$ 0.7	\$ 0.6
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 5.1	\$ 4.8

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

This project does have Right of Way costs, but less than \$0.1 million.

Project Risks

No significant project risks.

Schedule

Environmental Approval Date: TBD
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: TBD
 Construction Limits Established Date: TBD
 Original Letting Date: 2/22/2019
 Current Letting Date: 2/22/2019
 Construction Season: 2019
 Estimated Substantial Completion: Fall 2019



Minnesota Department of Transportation
 District 8
 2505 Transportation Road
 (320) 231-5195

District Engineer: Jon Huseby
Project Manager: Jesse Vlamincik

Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 212

First Street in Dawson to 3.15 miles west of Hwy 59

State Project No. 3706-41

<http://www.dot.state.mn.us/d8/projects/hwy212montevideo/index.html>

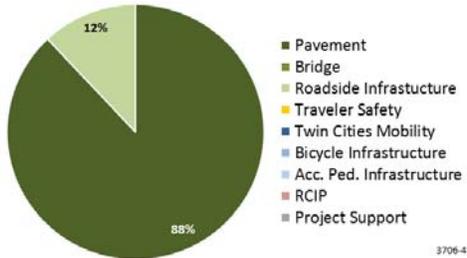
Substantially Complete



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

This project includes a mill and thick overlay of Hwy 212 from First Street in Dawson to about 3 miles from the western junction of Hwy 59. The project is approximately 9 miles in length and will be an alternative bid selection project.

Recent Changes and Updates

Construction was completed in the fall of 2014.

Project History

The project scope was refined by reducing the amount of work to be performed within the city limits of Dawson in order to provide a more consistent pavement section through the city. The current estimate was updated to reflect the actual bid amount

This segment was identified as having rough riding pavement and deteriorating condition of the underlying structure, resulting in high maintenance costs. This project's purpose is to provide long-term improvements to the ride condition and stabilize the structure, resulting in reduced maintenance costs.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2013

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 7.0	\$ 6.1
Other Construction Elements:	\$ 0.2	\$ 0.2
Engineering:	\$ 1.4	\$ 1.2
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 8.6	\$ 7.5

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Engineering estimates reflect 20 percent of construction letting.

Project Risks

No significant project risks remain.

Schedule

Environmental Approval Date: 03/26/2013
 Municipal Consent Approval Date: Not needed
 Geometric Layout Approval Date: Not needed
 Construction Limits Established Date: Not needed
 Original Letting Date: 08/23/2013
 Current Letting Date: 09/27/2013
 Construction Season: 2014
 Estimated Substantial Completion: Fall 2014



Minnesota Department of Transportation
 District 8
 2505 Transportation Road
 (320) 231-5195

District Engineer: Jon Huseby
Project Manager: Susann Karnowski

Revised Date: 12/15/2016

PROJECT SUMMARY

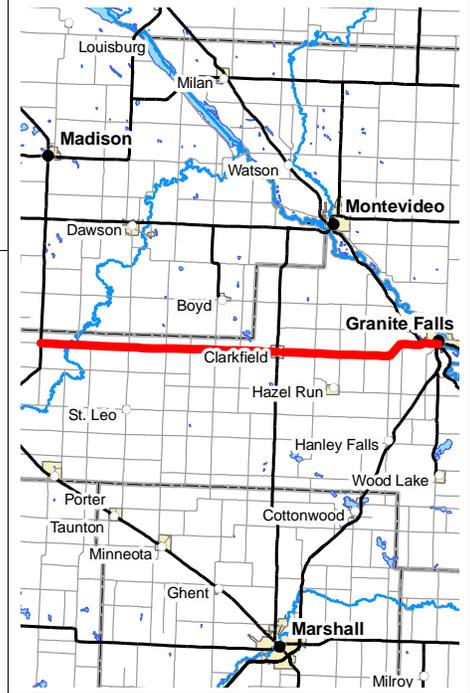
Hwy 212

West of Clarkfield and Clarkfield to Granite Falls

State Project No. 8705-18, 8706-23, & 8712-31

<http://www.dot.state.mn.us/d8/projects/hwy67-212/index.html>

Substantially Complete



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category

*This project was designed and scoped before the current highway investment plan MnSHIP was developed, which breaks projects into investment categories.

Project Description

This project includes a mill and overlay of Hwy 67 from the junction with Hwy 75 to Granite Falls (excluding the city of Clarkfield) and a mill and overlay of Hwy 212 in Granite Falls

Recent Changes and Updates

Construction was completed in October of 2015.

Project History

These tied projects were let.

The current estimate reflects the awarded cost of the tied letting. The difference in cost can be attributed to better bid costs due to the economy of scale offered by the combined projects, and the previous estimate being the result of additive rounding (up) errors inherent in the three individual estimates, combined into one.

Three individual projects are being tied together at letting, for better coordination of contractors, staging and to minimize impacts to the public. Tying these three projects together now meets the minimum threshold for inclusion in this report.

This segment was identified as having rough pavement resulting in high maintenance costs. The project's purpose is to improve ride condition and reduce maintenance costs.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2011

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 7.1	\$ 5.6
Other Construction Elements:	\$ 0.3	\$ 0.1
Engineering:	\$ 1.2	\$ 1.1
Right of Way:	\$ 0.1	\$ 0.1
Total:	\$ 8.7	\$ 6.9

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Current Construction Letting estimate is the awarded cost for the project. Other Construction Elements of \$0.1M is for unknown costs, such as incentives, Supplemental Agreements, and overruns. Engineering estimates reflect 20 percent of construction letting.

Project Risks

No significant project risks.

Schedule

Environmental Approval Date: 07/23/2014
 Municipal Consent Approval Date: Not needed
 Geometric Layout Approval Date: Not needed
 Construction Limits Established Date: Not needed
 Original Letting Date: 01/30/2015
 Current Letting Date: 01/30/2015
 Construction Season: 2015
 Estimated Substantial Completion: Fall 2015



Minnesota Department of Transportation
 District 8
 2505 Transportation Road
 (320) 231-5195

District Engineer: Jon Huseby
Project Manager: Bill Knofczynski

Revised Date: 12/15/2016

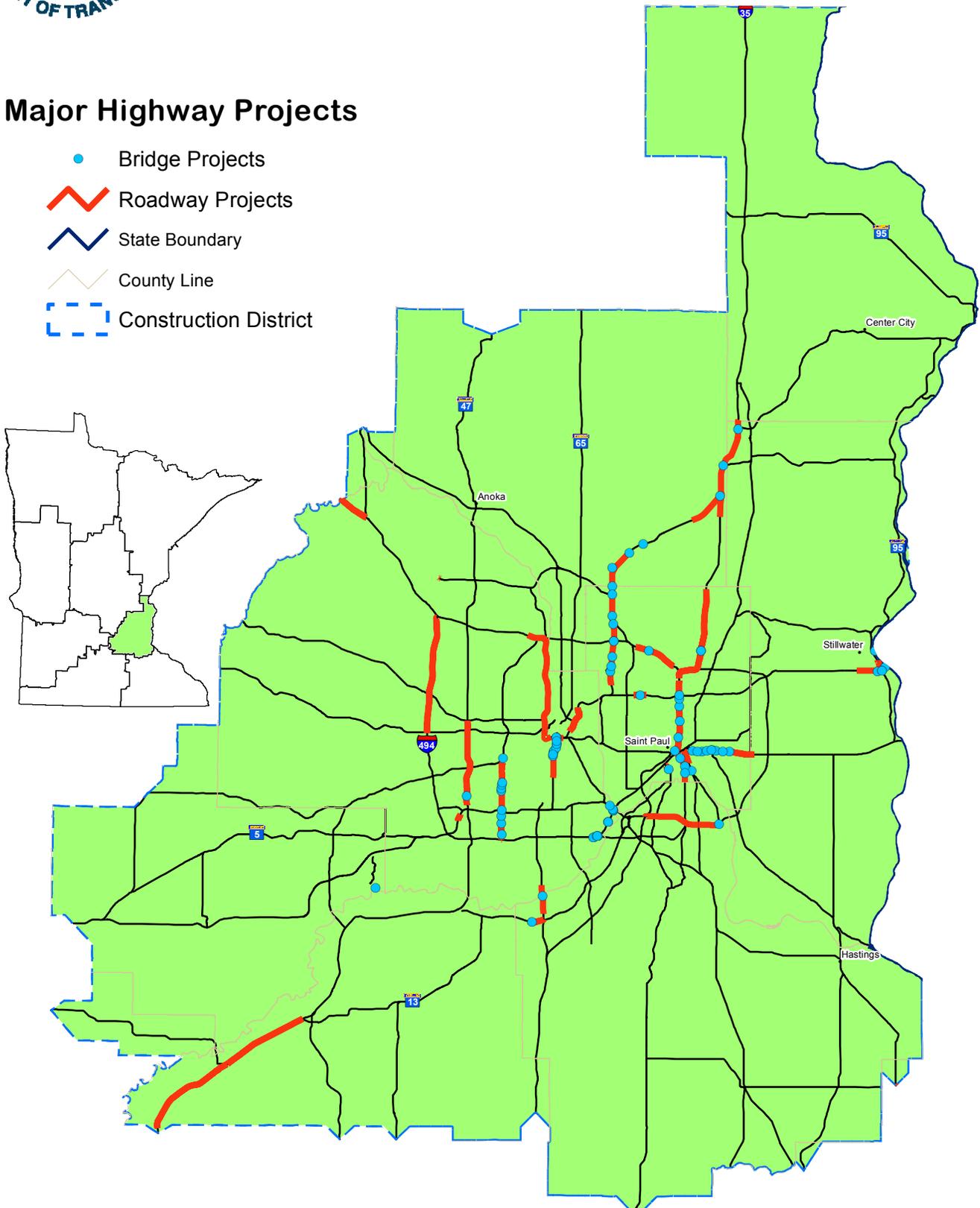


Major Highway Projects 2016 D-METRO



Major Highway Projects

- Bridge Projects
- ▬ Roadway Projects
- ▬ State Boundary
- ▬ County Line
- ▬ Construction District



District Project Summary

District Metro

Route	State Project #	Project Location	Page
Hwy 5	2732-105	Hwy 5/I-494 Jct to South end of MN River Bridge	H 2
Hwy 10	0202-95	Hwy 10 at County Road 83 (Armstrong Blvd) interchange	H 3
Hwy 13	1901-148	County Road 5 in Burnsville	H 4
Hwy 36	6212-148	Lexington Ave bridge over Hwy 36 in Roseville	H 5
Hwy 36	8221-01	Oak Park Heights, Stillwater and Bayport	H 6
Hwy 52	6244-30	Lafayette River Bridge over Mississippi River in St. Paul	H 7
Hwy 100	2734-33	36th Street to 25 1/2 Street in St. Louis Park	H 8
Hwy 100	2733-89	St. Louis Park	H 9
Hwy 101	1009-24	Minnesota River Bridge in Shakopee to Hwy 61 in Chanhassen	H 10
Hwy 149	6223-20	Smith Avenue High Bridge over the Mississippi River in St. Paul	H 11
Hwy 169	2772-113	Nine Mile Creek Bridge (Hopkins, Edina, Minnetonka)	H 12
Hwy 169	7007-34	Hwy 19 to Ash St in Belle Plaine	H 13
Hwy 169	2772-105	North of Hwy 62 in Edina to Hwy 55 in Golden Valley	H 14
Hwy 169	7008-111	Scott County, from Hwy 25 in Belle Plaine to Hwy 282 in Jordan	H 15
Hwy 212	2763-49	At Shady Oak Road in Eden Prairie	H 16
Hwy 610	2771-37	Hwy 81 to I-94 in Maple Grove	H 17
Hwy 952A (Robert St)	6217-43	Robert St, from Annapolis St to 12th St. in St. Paul	H 18
I-35	8280-47	Washington, Anoka Counties	H 19
I-35E	6281-47	Little Canada Rd in Little Canada to Lino Lakes	H 20
I-35E	6280-308	Cayuga Bridge between University Ave and Maryland Ave	H 21
I-35E	6280-367	I-35E between Pennsylvania Ave and Little Canada Road	H 22
I-35E	6281-25	Vadnais Heights and White Bear Lake - Goose Lake Road Bridges	H 23
I-35W	6284-180	Roseville to Hwy 10	H 24
I-35W	2783-136	3rd and 4th Street ramp to Johnson Street in Minneapolis	H 25
I-35W	2782-327	43rd Street to I-94 Commons	H 26
I-35W	1981-124	Minnesota River Crossing (Bloomington and Burnsville)	H 27
I-94	6283-234	I-94 (Mounds Blvd to Hwy 120) and Hwy 61 (Burns Avenue to Hwy 5)	H 28
I-94	2781-432	Nicollet Avenue in Minneapolis to Shingle Creek Bridge in Brooklyn Center	H 29
I-494	2785-330	I-394 in Minnetonka to I-94/494/694 in Maple Grove	H 30
I-494	1985-149	South St Paul to Inver Grove Heights	H 31
I-494	1985-148	South St Paul to Mendota Heights	H 32
I-694	6285-143	Little Canada to Arden Hills	H 33

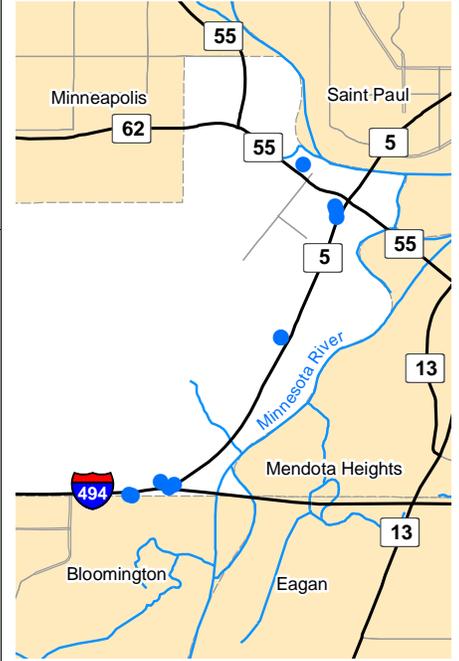
PROJECT SUMMARY

Hwy 5

Hwy 5/I-494 Jct to South end of MN River Bridge

Bridge 27161, 27107, 27118, 27763, 27764, 27766, 27983, 27984, 9153, 9154, 9306

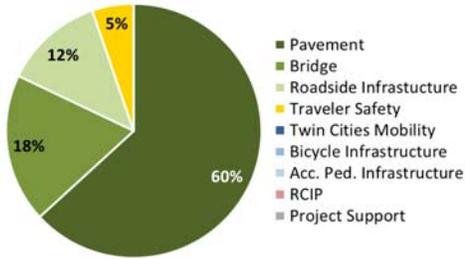
State Project No. 2732-105



Primary Purpose

Performance-based need: Pavement Condition
Performance-based need: Bridge Condition

Investment Category



Project Description

Concrete pavement overlay, cable median barrier, rehab of 11 bridges.

Recent Changes and Updates

This is the first year this project has been included in the MHP report.

Project History

The project will improve the pavement condition of the road segment. One bridge will be redecked and ten other bridges will have other repairs. The drainage system will be repaired and replaced as needed to stop erosion problems.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2017

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 18.3	\$ 18.3
Other Construction Elements:	\$ 0.0	\$ 0.0
Engineering:	\$ 3.0	\$ 3.0
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 21.3	\$ 21.3

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Standard practices were used to develop cost estimates for this project

Project Risks

Traffic staging, ponding for erosion control, contaminated properties, adjacent to Fort Snelling and Fort Snelling State Park, MAC future interest to realign the Post Rd Interchange

Schedule

Environmental Approval Date: pending
Municipal Consent Approval Date: not needed
Geometric Layout Approval Date: pending
Construction Limits Established Date: pending
Original Letting Date: 07/27/2018
Current Letting Date: 07/26/2019
Construction Season: 2019/2020
Estimated Substantial Completion: 2020



Minnesota Department of Transportation
District M
1500 West County Road B2
(651) 234-7500

District Engineer: Scott McBride
Project Manager: Chad Casey

Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 10

Hwy 10 at County Road 83 (Armstrong Blvd) interchange

Bridge 02007, &, 02586

State Project No. 0202-95

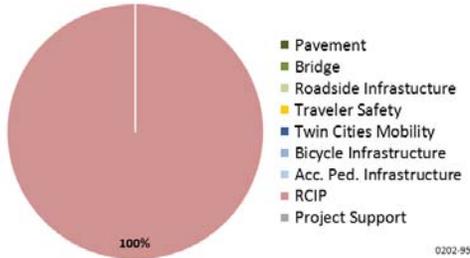
<http://www.highway10andarmstrong.com/>



Primary Purpose

Twin Cities Mobility: Spot Mobility Improvement

Investment Category



Project Description

Construct Hwy10/County Road 83 interchange and railroad grade- separation, access closures, and frontage road.

Recent Changes and Updates

There are no changes to the Total Project Cost Estimate in this year's report. The Current Estimate reflects the award and anticipated cost for the project.

Project History

This project was led by Anoka County. Changes to the 2015 report included an increase to construction engineering costs based on bids and final engineering costs.

Project funding included a Corridor Investment Management Strategy (CIMS) grant from MnDOT of \$10M in 2013, \$10M from the Counties Transit Improvement Board (CTIB) in 2014, \$10M from a federal TIGER grant, Local Roads Improvement Program, BNSF, and local funds from Anoka Co. and City of Ramsey.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2013

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 23.0	\$ 29.8
Other Construction Elements:	\$ 0.0	\$ 0.0
Engineering:	\$ 5.0	\$ 5.1
Right of Way:	\$ 7.0	\$ 7.0
Total:	\$ 35.0	\$ 41.9

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Current Estimate based on bids and final engineering costs.

Project Risks

The project is nearly complete with only minor landscaping elements being completed. Major risks have been retired.

Schedule

Environmental Approval Date: 06/04/2013
 Municipal Consent Approval Date: NA
 Geometric Layout Approval Date: 10/1/2013
 Construction Limits Established Date: 01/01/2014
 Original Letting Date: 11/01/2014
 Current Letting Date: 3/31/15
 Construction Season: 2015
 Estimated Substantial Completion: 07/15/2016



Minnesota Department of Transportation
 District M
 1500 West County Road B2
 (651) 234-7500

District Engineer: Scott McBride
Project Manager: Phil Bergem

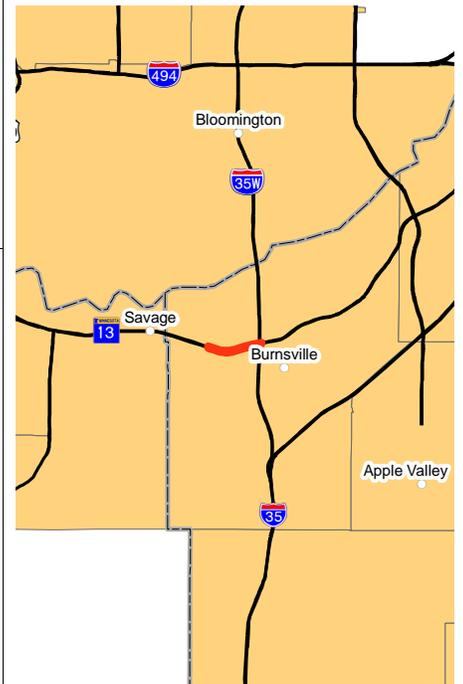
Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 13
County Road 5 in Burnsville
Bridge 19036
State Project No. 1901-148

http://www.co.dakota.mn.us/Transportation/CurrentConstruction/CR5Interchan

Substantially Complete



Primary Purpose

Twin Cities Mobility: Spot Mobility Improvement

Investment Category

*This project was designed and scoped before the current highway investment plan MnSHIP was developed, which breaks projects into investment categories.

Project Description

Construct a grade separated interchange at Hwy 13/County Road 5 in Burnsville. The project will add a new bridge (with trail) to carry County Road 5 over Hwy 13. Construction will include noise walls, retaining wall and ponding.

Recent Changes and Updates

It will not be included in next year's report. The Current Estimate reflects a substantially complete project and should be considered the Actual Cost of the project.

Project History

This project was delivery by Dakota County and completed in 2015.

The need for the interchange was driven by traffic volumes exceeding the capacity of the at-grade intersection, which resulted in extended periods of heavy congestion during peak hours. This intersection also ranked 21st in the state's top worst crash cost intersections in 2009. MnDOT completed design work and Dakota County provided construction oversight.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2010

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 27.9	\$ 27.5
Other Construction Elements:	\$ 0.0	\$ 0.0
Engineering:	\$ 1.8	\$ 1.4
Right of Way:	\$ 10.0	\$ 10.6
Total:	\$ 39.7	\$ 39.5

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Standard practices were used to develop costs.

Project Risks

The project is complete and no risks remain.

Schedule

Environmental Approval Date: 02/14/2012
Municipal Consent Approval Date: Not Needed
Geometric Layout Approval Date: 7/28/2011
Construction Limits Established Date: Need Unknown
Original Letting Date: 2013
Current Letting Date: 09/15/2012
Construction Season: 2013/2015
Estimated Substantial Completion: 2015



Minnesota Department of Transportation
District M
1500 West County Road B2
(651) 234-7500

District Engineer: Scott McBride
Project Manager: Dakota County

Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 36

Lexington Ave bridge over Hwy 36 in Roseville

Bridge 5723

State Project No. 6212-148

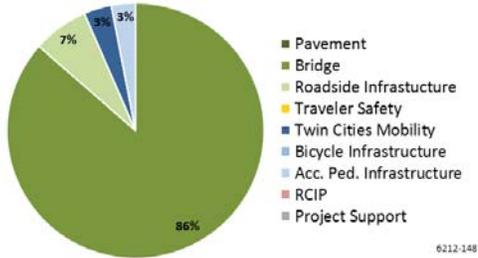
<http://www.dot.state.mn.us/metro/projects/hwy36roseville/>



Primary Purpose

Performance-based need: Bridge Condition

Investment Category



Project Description

Replacement of Lexington Ave bridge including access ramps. Also addresses ADA issues on the multiuse trail and replaces two existing signals at the ramp terminals.

Recent Changes and Updates

This project is currently under construction with an anticipated completion in late fall 2016.

Project History

In 2015, the project letting date was moved to avoid conflicts with I-35E work in 2015. Pavement work on westbound Hamline Ave ramps was added for staging/future MnPASS lane.

The condition of the Lexington Avenue Bridge was the driving force behind this project. The Lexington Avenue Bridge, constructed in 1938, needed major rehabilitation. The bridge had a sufficiency rating of 61 with a status of "structurally deficient". Bridge 5723 is a Chapter 152 bridge and is mandated by the Legislature to be replaced by 2018.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2011

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 13.6	\$ 12.5
Other Construction Elements:	\$ 0.0	\$ 0.0
Engineering:	\$ 2.5	\$ 2.5
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 16.1	\$ 15.0

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Lexington Ave will be closed for bridge construction while traffic uses the temporary bypass. Four lanes of traffic will be maintained on Hwy 36 during construction.

Project Risks

Project risks include traffic control during construction.

Schedule

Environmental Approval Date: 8/7/2012
 Municipal Consent Approval Date: NA
 Geometric Layout Approval Date: 4/25/2014
 Construction Limits Established Date: August 2012
 Original Letting Date: 01/25/2002
 Current Letting Date: 10/23/2015
 Construction Season: Summer/Fall 2016
 Estimated Substantial Completion: Fall 2016



Minnesota Department of Transportation
 District M
 1500 West County Road B2
 (651) 234-7500

District Engineer: Scott McBride
Project Manager: Michael Kruse

Revised Date: 12/15/2016

PROJECT SUMMARY

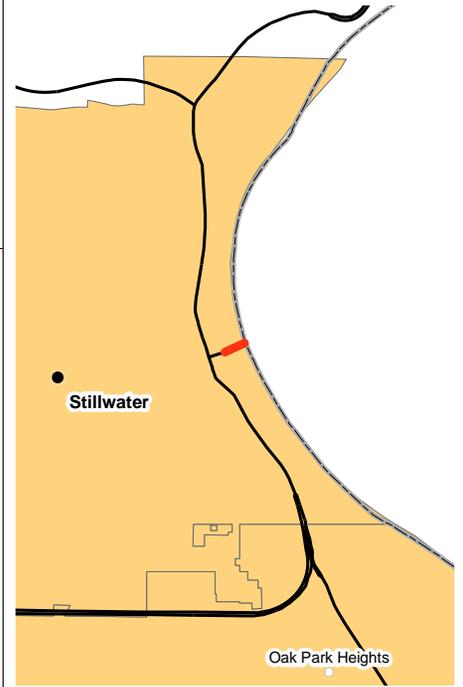
Hwy 36

Oak Park Heights, Stillwater and Bayport

Bridge 82043, 82047, 82048, 82045

State Project No. 8221-01, 8214-114, 8221-82045A, etc.

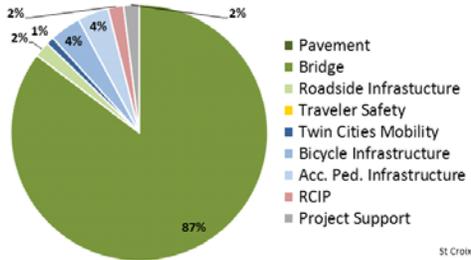
www.mndot.gov/stcroixcrossing/



Primary Purpose

Performance-based Need: Bridge Condition

Investment Category



Project Description

Replace a major river bridge over the St. Croix River and construct/reconstruct 7 miles of highway (4 in Minn. and 3 in Wisc.). In Minnesota, reconstruct two intersections (Hwy 36/Osgood, Hwy 36/Greeley) and one interchange (Hwy 36/Hwy 95). In Wisconsin, construct one overpass (WIS 64/WIS 36) and one interchange (WIS 64/County Rd E). Convert the Stillwater Lift Bridge to a bicycle/pedestrian bridge and construct a 4.5 mile bicycle and pedestrian loop trail that connects the lift bridge and the new St. Croix Crossing with trails in both states. Project costs are split between MnDOT and WisDOT.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2010

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 410.8	\$ 472.1
Other Construction Elements:	\$ 136.2	\$ 79.1
Engineering:	\$ 55.0	\$ 81.2
Right of Way:	\$ 31.4	\$ 14.4
Total:	\$ 633.4	\$ 646.8

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Recent Changes and Updates

The bridge schedule changed in September 2015 for the bridge to open to traffic in late 2017, instead of 2016. This delay was a result of a number of factors, including an early cold season in fall of 2014 that slowed construction and the complexity of work with rebar. Construction continues on the bridge with the MN roadway approach substantially complete in 2015.

Project History

The Stillwater Lift Bridge (Bridge 4654) was built in 1931. The lift bridge is structurally deficient and functionally obsolete. A detailed purpose and need statement can be found in the project's supplemental final environmental impact study. Congressional approval was granted in March 2012 to allow the project to proceed.

In 2013, the project began construction. The design-build contract for the Minnesota approach work on Hwy 36/95 began in June 2013 and was substantially complete in June of 2015. The river bridge pier foundations began construction in May 2013 and were completed in early 2014. Work for the river bridge superstructure contract began in 2014 and is expected to finish in late 2017.

Key Cost Estimate Assumptions

Commitments made in supplemental final environmental impact study are being implemented, including the roadway design, bridge type and mitigation. Total project costs shown above are split with Wisconsin DOT and include construction, right-of-way & risk. Baseline estimate assumed only the MN portion of the contingency costs and was a planning level estimate. Current estimates are based on 6/30/15 data and includes contingencies for both MN and WI.

Project Risks

Permits, cost and schedule are potential risks.

Schedule

Environmental Approval Date: 09/05/2012
 Municipal Consent Approval Date: 2006 & 2012
 Geometric Layout Approval Date: 1995 through 2014
 Construction Limits Established Date: 2006
 Original Letting Date: 1997
 Current Letting Date: 2013
 Construction Season: 2013/2017
 Estimated Substantial Completion: Fall 2017



Minnesota Department of Transportation
 District M
 1500 West County Road B2
 (651) 234-7500

District Engineer: Scott McBride
Project Manager: Todd Clarkowski

Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 52

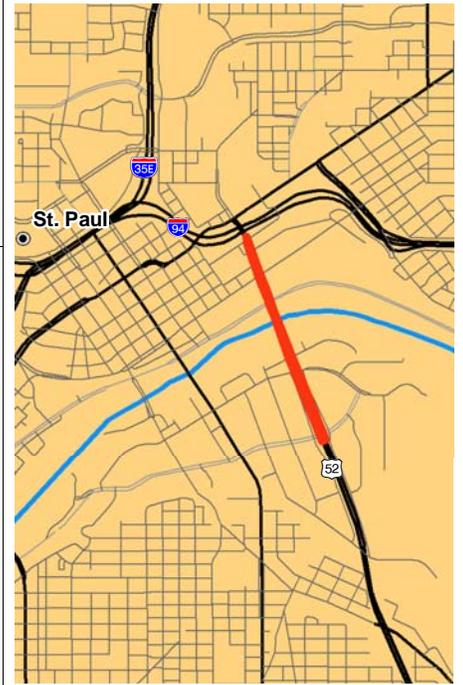
Lafayette River Bridge over Mississippi River in St. Paul

Bridge 62026, 9800

State Project No. 6244-30

<http://www.dot.state.mn.us/lafayettebridge/>

Substantially Complete



Primary Purpose

Performance-based Need: Bridge Condition

Investment Category

*This project was designed and scoped before the current highway investment plan MnSHIP was developed, which breaks projects into investment categories.

Project Description

Major river bridge replacement, ramps, loops to I-94 and connection to East 7th Street, replace/rehab Hwy 52 bridge over Plato Blvd and Hwy 52 bridge over I-94, as well as a full length pedestrian bridge.

Recent Changes and Updates

Construction was complete in November 2015. Cost increases on the project were driven by right of way settlements. Additionally, costs for supplemental agreements with the contractor for unforeseen construction issues, such as repairing freeze/thaw damage to concrete. The Current Estimate reflects a substantially complete project and should be considered the actual cost of the project. Additional costs for right of way and other incidentals may be expected.

Project History

The Lafayette Bridge built in 1968 was replaced by this project on Hwy 52, over the Mississippi River, Plato Blvd, and portions of I-94.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2009

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 130.4	\$ 130.4
Other Construction Elements:	\$ 0.0	\$ 16.9
Engineering:	\$ 26.1	\$ 21.9
Right of Way:	\$ 16.2	\$ 28.0
Total:	\$ 172.7	\$ 197.2

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Construction has been completed

Project Risks

Major construction has been completed, and risks retired.

Schedule

Environmental Approval Date: 09/17/2009
 Municipal Consent Approval Date: NA
 Geometric Layout Approval Date: 09/17/2009
 Construction Limits Established Date: 09/17/2009
 Original Letting Date: 10/21/2011
 Current Letting Date: 11/19/2010
 Construction Season: 2011/2015
 Estimated Substantial Completion: November 2015



Minnesota Department of Transportation
 District M
 1500 West County Road B2
 (651) 234-7500

District Engineer: Scott McBride
Project Manager: Dale Gade

Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 100

36th Street to 25 1/2 Street in St. Louis Park

Bridge 5308, 5309, 5462, 5598,

State Project No. 2734-33

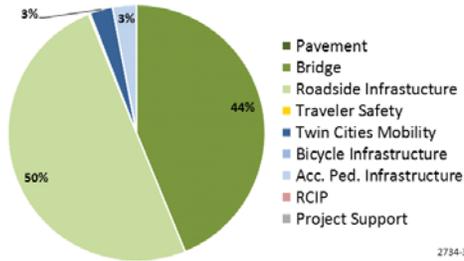
<http://www.dot.state.mn.us/metro/projects/hwy100slp/>



Primary Purpose

Twin Cities Mobility: Spot Mobility
Improvement Performance-based Need:
Roadside Infrastructure Condition

Investment Category



2734-33

Project Description

Freeway and interchange reconstruction from West 36th Street to Cedar Lake Rd. Replace bridges, grading, surfacing, drainage, utilities, noise and retaining walls, as well as installation of traffic management cameras.

Recent Changes and Updates

Construction began in August of 2014. The current estimate has not changed since the 2014 MHP reports. Substantial progress was made and the project is on track to be complete in Nov 2016. There are no changes to the estimate since the 2015 report.

Project History

This project reconstructs Hwy 100 at the Hwy 7 and Minnetonka Boulevard interchanges in St. Louis Park and also widens the road to include three lanes in each direction for improved capacity. A reduction in scope and retirement of risk and contingency release were reported as the reasons for a reduced project's estimated costs in previous MHP reports.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2012

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 60.0	\$ 44.0
Other Construction Elements:	\$ 4.0	\$ 3.6
Engineering:	\$ 13.0	\$ 9.3
Right of Way:	\$ 3.0	\$ 4.5
Total:	\$ 80.0	\$ 61.4

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Standard practices were used to development estimates for this project, reduced scope design standards.

Project Risks

This project is complete, no risks remain.

Schedule

Environmental Approval Date: 06/10/2013
Municipal Consent Approval Date: 12/03/2012
Geometric Layout Approval Date: 9/17/2013
Construction Limits Established Date: 08/15/2012
Original Letting Date: 07/08/2015
Current Letting Date: 05/16/2014
Construction Season: 2014/2016
Estimated Substantial Completion: 11/01/2016



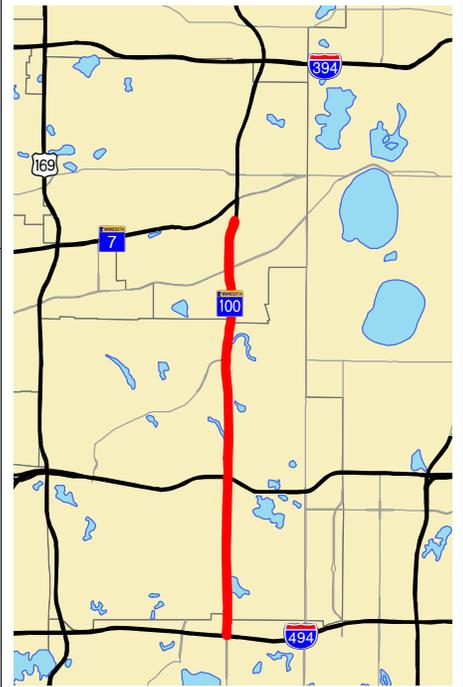
Minnesota Department of Transportation
District M
1500 West County Road B2
(651) 234-7500

District Engineer: Scott McBride
Project Manager: Andrew Lutaya

Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 100
St. Louis Park
Bridge 9431, 9500, 27103, 27104, 27210, 9432, 27029, 27102
State Project No. 2733-89
<http://www.dot.state.mn.us/metro/projects/hwy100slp/>



Primary Purpose

Performance-based needs: Bridge Condition

Performance-based needs: Pavement Condition

Project Description

Bituminous pavement overlay, drainage, guardrail improvements, overlay four bridges and repairs to four other bridges on Hwy 100 from I-494 to just north of West 36th St in St. Louis Park.

Investment Category

*This project was designed and scoped before the current highway investment plan MnSHIP was developed, which breaks projects into investment categories.

Recent Changes and Updates

Since the 2014 MHP report, the project has been under construction. Work is progressing to meet a traffic opening by fall 2016. There are no changes to the TPCE since the 2015 report.

Project History

This project improves the last sub-standard section on Hwy 100 south of I-394 which is one of the most congested freeways in the Metro area.

The change in 2015 to the baseline to current estimate was a result of changing the concrete pavement repair to a 4 in. bituminous overlay (based on Materials Unit recommendation). Additional traffic control costs were reduced due to the change from concrete pavement repair to bituminous overlay.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2014

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 15.9	\$ 16.7
Other Construction Elements:	\$ 0.0	\$ 0.0
Engineering:	\$ 2.8	\$ 2.9
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 18.7	\$ 19.0

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Standard practices were used to develop estimates for this project.

Project Risks

None at this point.

Schedule

Environmental Approval Date: 2015
Municipal Consent Approval Date: na
Geometric Layout Approval Date: na
Construction Limits Established Date: na
Original Letting Date: 06/14/2018
Current Letting Date: 06/05/2015
Construction Season: 2015
Estimated Substantial Completion: 11/15/2015



Minnesota Department of Transportation
District M
1500 West County Road B2
(651) 234-7500

District Engineer: Scott McBride
Project Manager: Chad Casey

Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 101

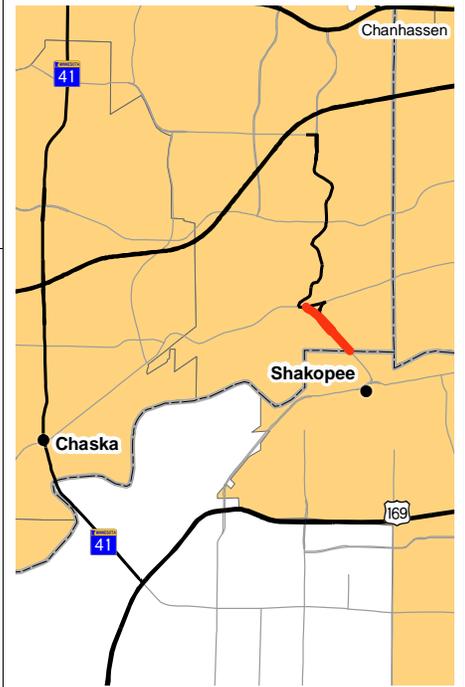
Minnesota River Bridge in Shakopee to Hwy 61 in Chanhassen

Bridge 10004

State Project No. 1009-24

<http://www.dot.state.mn.us/metro/projects/hwy101river/index.html>

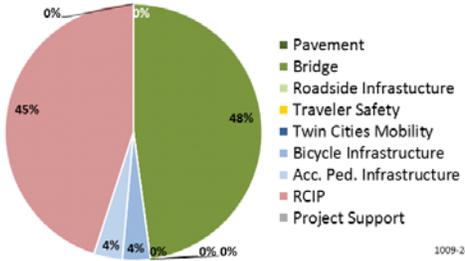
Substantially Complete



Primary Purpose

Performance-based Need: Bridge & Flood Mitigation

Investment Category



Project Description

Construction of a new Hwy 101 bridge over the floodplain, above the 100-yr flood elevation, between the existing Hwy 101 Minnesota River bridge in Shakopee at County Road 61/Flying Cloud Drive in Chanhassen. Carver County is the project lead. Project now includes work on Flying Cloud Drive and a roundabout at the intersection of Hwy 101 and Flying Cloud Drive.

Recent Changes and Updates

This project was complete in November 2015. Some additional activities, such as landscaping, extended into 2016. The Current Estimate reflects a substantially complete project and should be considered the Actual Cost of the project. Additional costs for right of way and other incidentals may be expected.

Project History

The project was let by Carver County and construction began in July 2014. MnDOT provided construction oversight activities as a contribution to the project as well as a lump sum payment of \$21.335M.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2012

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 42.0	\$ 49.3
Other Construction Elements:	\$ 0.0	\$ 0.0
Engineering:	\$ 4.2	\$ 4.2
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 46.2	\$ 53.5

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

State Aid standards and Project delivery process. 4,100-ft long bridge with a 10-ft trail on bridge. Hwy 101 to stay open to traffic during construction.

Project Risks

The project is complete and no risks remain.

Schedule

Environmental Approval Date: 09/04/2013
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: Summer 2013
 Construction Limits Established Date: 09/04/2013
 Original Letting Date: 05/16/2014
 Current Letting Date: 05/16/2014
 Construction Season: 2014/2015
 Estimated Substantial Completion: 11/23/2015



Minnesota Department of Transportation
 District M
 1500 West County Road B2
 (651) 234-7500

District Engineer: Scott McBride
Project Manager: Molly Kline

Revised Date: 12/15/2016

PROJECT SUMMARY

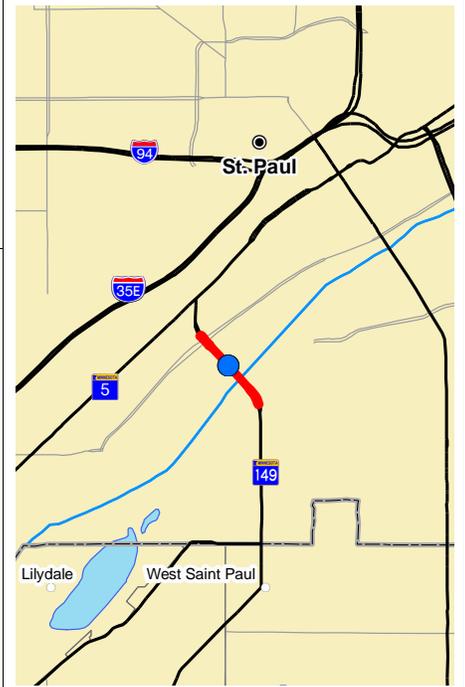
Hwy 149

Smith Avenue High Bridge over the Mississippi River in St. Paul

Bridge 62090

State Project No. 6223-20

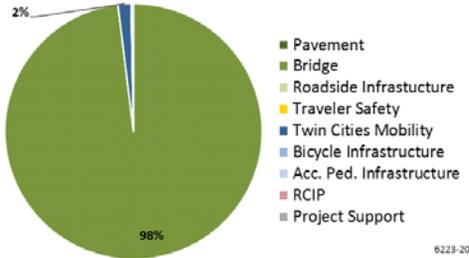
<http://www.dot.state.mn.us/metro/projects/hwy149highbridge>



Primary Purpose

Performance-based Need: Bridge Condition

Investment Category



Project Description

Redeck the Smith Avenue High Bridge over the Mississippi River. Associated miscellaneous work, such as approach panels also will be replaced with this project. ADA facilities adjacent to the bridge will also be upgraded to comply with the current standards.

Recent Changes and Updates

Recent changes to the project include costs increase from last year's MHP report from \$14.6M to \$16.8M. The project will now be delivered via the Construction Manager/General Contract (CM/GC) project delivery method, which is expected to save time, reduce risk and foster innovation. The pavement project (SP1917-45) no longer tied to the bridge project due to the CM/GC.

Project History

Last year's MHP report updated the letting date to 1/27/17, with an estimated substantial completion date of 1/26/18. A pavement project in West St. Paul (SP 1917-45) was tied to the bridge project. The loose and falling concrete from the deck bottom cannot be controlled without a major improvement to replace the entire bridge deck.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2013

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 14.2	\$ 14.2
Other Construction Elements:	\$ 0.0	\$ 0.0
Engineering:	\$ 2.8	\$ 2.6
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 17.0	\$ 16.8

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Standard practices were used to develop estimates for this project.

Project Risks

Environmental issues and permits required for construction over the Mississippi River, impacts to access for local businesses & neighborhoods, and rail line crossing under the north end of the bridge needs agreements and flagging during construction.

Schedule

Environmental Approval Date: Pending
 Municipal Consent Approval Date: Pending
 Geometric Layout Approval Date: Pending
 Construction Limits Established Date: Pending
 Original Letting Date: 06/14/2017
 Current Letting Date: 01/26/2018
 Construction Season: 2018
 Estimated Substantial Completion: Fall 2018



Minnesota Department of Transportation
 District M
 1500 West County Road B2
 (651) 234-7500

District Engineer: Scott McBride
Project Manager: Tara McBride

Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 169

Nine Mile Creek Bridge (Hopkins, Edina, Minnetonka)

Bridge 27568

State Project No. 2772-113

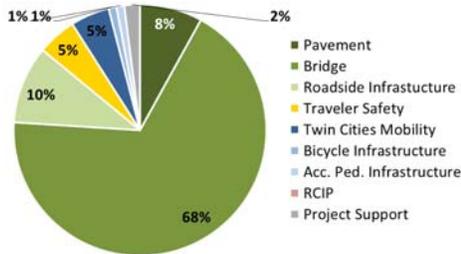
<http://www.dot.state.mn.us/metro/projects/hwy169hopkins/index.html>



Primary Purpose

Performance-based needs: Bridge Condition

Investment Category



Project Description

Replace bridge over nine mile creek in Hopkins/Edina and replace culvert. Design build project tied to 2772-104, 2772-105, 2772-110)

Recent Changes and Updates

Since the last MHP report, the Nine Mile Creek Bridge replacement has been split from the pavement preservation project (SP 2772-105) and will be developed as Design-Build.

The construction letting for this project was recently released and the bid results are pending.

Project History

As a result of the 2015 MN legislative session, funding was provided for the Nine Mile Creek Bridge project (SP 2772-113) and it was selected to be moved into SFY 2017. The bridge project was originally tied to a pavement project on US 169 (SP 2772-105). Before the 2015 funding, this project was planned in SFY 2021 of the Capital Highway Investment Proposal.

The bridge is approximately 3,000 ft. long and replacement is a significant undertaking.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2016

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 65.9	\$ 65.9
Other Construction Elements:	\$ 1.8	\$ 1.8
Engineering:	\$ 1.3	\$ 1.3
Right of Way:	\$ 0.9	\$ 0.9
Total:	\$ 69.9	\$ 69.9

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The Design-Build project delivery method estimates a savings of \$2.3M.

Project Risks

Risks include agency permits, remove pilings, flood plain mitigation, noise walls, traffic impacts of a full road and bridge closure, and traffic impacts of parallel projects.

Schedule

Environmental Approval Date: pending
 Municipal Consent Approval Date: pending
 Geometric Layout Approval Date: pending
 Construction Limits Established Date: 2016
 Original Letting Date: 06/14/2021
 Current Letting Date: 08/05/2016
 Construction Season: 2016/2017
 Estimated Substantial Completion: 2017



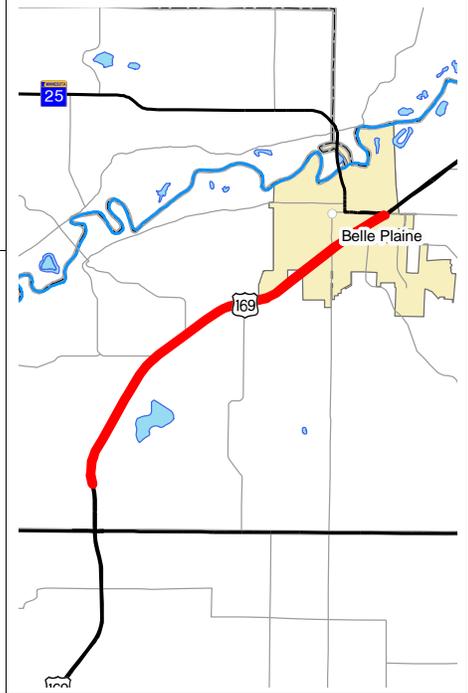
Minnesota Department of Transportation
 District M
 1500 West County Road B2
 (651) 234-7500

District Engineer: Scott McBride
Project Manager: Jerome Adams

Revised Date: 12/15/2016

PROJECT SUMMARY

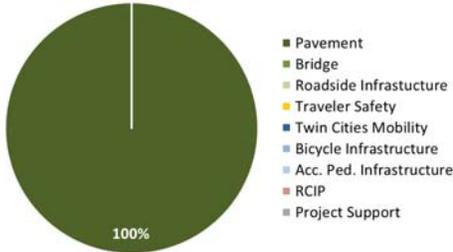
Hwy 169
 Hwy 19 to Ash St in Belle Plaine
 State Project No. 7007-34



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



Project Description

Unbonded concrete overlay of Hwy 169 from Hwy 19 to Ash Street in Belle Plaine. Includes some minor CPR work and minor drainage repairs.

Recent Changes and Updates

This is the first year this project is included in the MHP report.

Project History

This project will provide a long-term pavement improvement to this road segment along a heavily traveled corridor with significant freight volumes.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2016

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 21.5	\$ 21.5
Other Construction Elements:	\$ 0.0	\$ 0.0
Engineering:	\$ 3.6	\$ 3.6
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 25.1	\$ 25.1

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Standard practices were used to develop cost estimates for this project.

Project Risks

Project risks include traffic detour and access for adjacent properties, including a school and businesses.

Schedule

Environmental Approval Date: pending
 Municipal Consent Approval Date: not needed
 Geometric Layout Approval Date: pending
 Construction Limits Established Date: pending
 Original Letting Date: 07/27/18
 Current Letting Date: 12/21/18
 Construction Season: 2018/2019
 Estimated Substantial Completion: 03/07/2019



Minnesota Department of Transportation
 District M
 1500 West County Road B2
 (651) 234-7500

District Engineer: Scott McBride
Project Manager: Chad Casey

Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 169

North of Hwy 62 in Edina to Hwy 55 in Golden Valley

State Project No. 2772-105

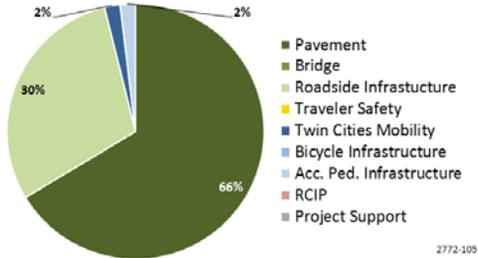
<http://www.dot.state.mn.us/metro/projects/hwy169hopkins>



Primary Purpose

Performance-based Need: Pavement Condition

Investment Category



2772-105

Project Description

Concrete pavement repair project with diamond grinding, mill and overlay and drainage work.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2013

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 16.5	\$ 12.4
Other Construction Elements:	\$ 0.0	\$ 0.0
Engineering:	\$ 1.3	\$ 2.4
Right of Way:	\$ 0.0	\$ 0.1
Total:	\$ 17.8	\$ 14.9

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Recent Changes and Updates

Since the 2015 MHP report, the Nine Mile Creek Bridge (SP 2772-113) replacement has been split from this project. The reduction in cost for this project is a result of a portion of the roadway now being included in the bridge project, resulting in a shorter and less expensive pavement project.

Project History

In 2015, the project was combined with the Hwy 169-Nine Mile Creek Bridge project.

Bus shoulders between TH 55 ramps & loops were removed from the project, reducing some of the construction letting costs.

The current concrete, paved in 1983, has deterioration and both bituminous and concrete pavement will be used through the road section. A noise wall south of Excelsior Blvd. will require modifying retaining wall, constructing moment slab, and a concrete traffic barrier.

Key Cost Estimate Assumptions

One year construction staging.

Project Risks

This project involves concrete patching and repair which introduces risk because exact quantities needed won't be known until construction begins because of the Design-Build delivery method. Both directions of Hwy 169 over Nine Mile Creek will be closed between Bren Road/Londonderry Road and 7th Street South/Interlachen Road (5th Street/Lincoln Drive) interchanges from Fall 2016 through fall 2017. Needs coordination with Nine Mile Creek Bridge project.

Schedule

Environmental Approval Date: Pending
 Municipal Consent Approval Date: Not Needed
 Geometric Layout Approval Date: NA
 Construction Limits Established Date: NA
 Original Letting Date: 06/14/2017
 Current Letting Date: 08/05/2016
 Construction Season: 2016/2017
 Estimated Substantial Completion: 11/01/2017



Minnesota Department of Transportation
 District M
 1500 West County Road B2
 (651) 234-7500

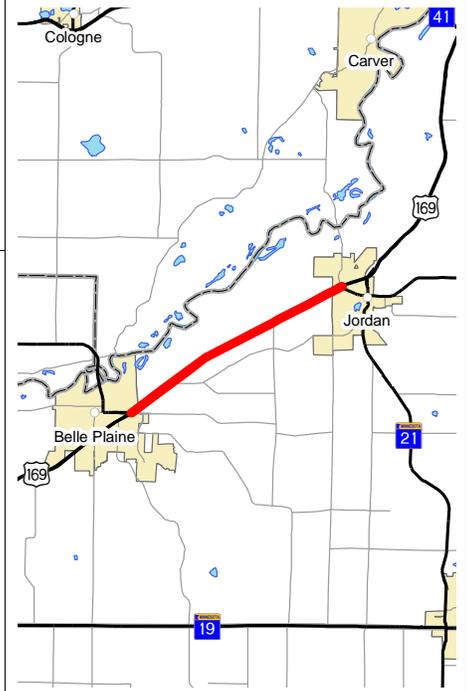
District Engineer: Scott McBride
Project Manager: Jerome Adams

Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 169

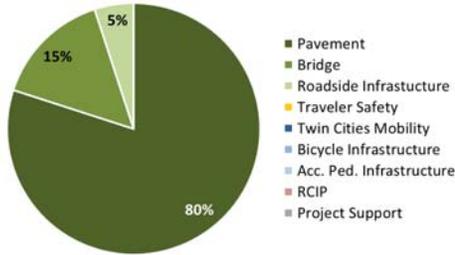
Scott County, from Hwy 25 in Belle Plaine to Hwy 282 in Jordan
State Project No. 7008-111



Primary Purpose

Performance-based Need: Pavement
Conditions Performance-based Need: District Safty Plan

Investment Category



Project Description

This project is an unbonded concrete overlay, median closures, add U-turns, and cable guardrails on Hwy 169 from Hwy 25 in Belle Plaine to Hwy 282 in Jordan.

Recent Changes and Updates

Since last year's report, refined scoping has reduced the construction letting costs resulting in lower Total Project Cost Estimate (TPCE).

Project History

The project is being driven by pavement needs. The unbonded overlay is a long term solution to cracking due to the freeze/thaw cycle.

Increasing traffic volumes have led to safety concerns with numerous access points and a narrow median. This project will eliminate median crossings and consolidate left-turn and crossing movements along with creating left turn and acceleration lanes. A Reduced Conflict Intersection is being constructed at Hwy169/CSAH 59 intersection. Additional access management may be implemented with support from local partners.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2014

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 18.0	\$ 16.6
Other Construction Elements:	\$ 0.0	\$ 0.0
Engineering:	\$ 3.0	\$ 3.1
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 21.0	\$ 19.7

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Median closures and turn lane costs are based on prior projects and will be adjusted after layout preparation and quantity development.

Project Risks

Potential local opposition to the Reduced Conflict Intersection. Extent of culvert work not fully known.

Schedule

Environmental Approval Date: Pending
Municipal Consent Approval Date: not needed
Geometric Layout Approval Date: Pending
Construction Limits Established Date: Pending
Original Letting Date: 07/21/2017
Current Letting Date: 11/17/2017
Construction Season: 2018
Estimated Substantial Completion: 01/26/2019



Minnesota Department of Transportation
District M
1500 West County Road B2
(651) 234-7500

District Engineer: Scott McBride
Project Manager: Diane Langenbach

Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 212

At Shady Oak Road in Eden Prairie

State Project No. 2763-49

<http://www.edenprairie.org/community/infrastructure-projects/shady-oak-road>

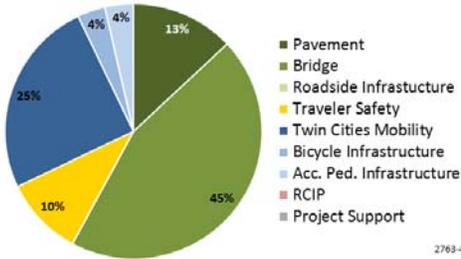
Substantially Complete



Primary Purpose

Twin Cities Mobility: Spot Mobility
Improvement Performance-based Need:
Bridge Condition

Investment Category



Project Description

Reconstruction of an existing local interchange for additional capacity.

Recent Changes and Updates

The Current Estimate reflects a substantially complete project and should be considered the Actual Cost of the project. Additional costs for right of way and other incidentals may be expected.

Project History

This locally-led project was complete in November 2015. Hwy 212 is a principal arterial in the western metro area. The project reconstructed the existing diamond interchange to provide additional capacity on Shady Oak Road and improve access to Hwy 212. There was coordination with the City of Eden Prairie, MnDOT, and Southwest LRT. This was a locally-led project and received Transportation Economic Development (TED) funding of \$7.1M in 2012 from MnDOT.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2013

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 23.2	\$ 23.2
Other Construction Elements:	\$ 0.1	\$ 0.1
Engineering:	\$ 4.9	\$ 4.9
Right of Way:	\$ 3.5	\$ 3.5
Total:	\$ 31.7	\$ 31.7

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Local governments provided cost estimates and engineering. MnDOT had oversight and review of project design. The project received \$7.1 million in 2012 Transportation Economic Development (TED) funding, which constitutes the extent of MnDOT's share of the project.

Project Risks

The project is complete and no risks remain.

Schedule

Environmental Approval Date: Local Prep
Municipal Consent Approval Date: Not Needed
Geometric Layout Approval Date: 3/26/2013
Construction Limits Established Date: 3/26/2013
Original Letting Date: 08/15/2014
Current Letting Date: 05/15/2014
Construction Season: 2014/2015
Estimated Substantial Completion: November 2015



Minnesota Department of Transportation
District M
1500 West County Road B2
(651) 234-7500

District Engineer: Scott McBride
Project Manager: April Crockett

Revised Date: 12/15/2016

PROJECT SUMMARY

Hwy 610

Hwy 81 to I-94 in Maple Grove

Bridge 27228, 27230, 27245, 27246, 27251, 27R10, 27R11, 27W15, 27W16

State Project No. 2771-37

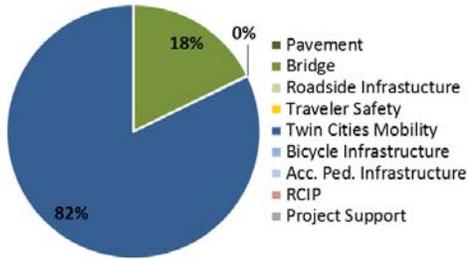
<http://www.dot.state.mn.us/metro/projects/610west/index.html>



Primary Purpose

Regional & Community Improvement Priority:
Corridors of Commerce Project: Metro
Capacity Development

Investment Category



Project Description

Realign and extend highway from County Road 81 and Elm Creek Boulevard to I-94, including construct Hwy 610 bridge over Fernbrook Lane, construct interchange at Hwy 610 and Maple Grove Parkway, close and remove a half mile segment of 101st Avenue North, between I-94 and Fernbrook Lane, and extend 105th Ave west from Holly Lane across I-94 to a new intersection with 101st Ave.

Recent Changes and Updates

Metro Construction Office anticipates this project to be complete in the fall of 2016. The project costs have not changed since the 2014 MHP report.

Project History

This project is the final connection of I-94 to Hwy 610. This project connects I-94 to the existing portion of Hwy 610 that currently ends at the CSAH 81, Elm Creek Blvd., and Hwy 610 interchange. Project costs changed in the 2014 MHP report due to the award of the construction bid at \$80.7M in 2014. While it is not certain, the competitive bid was thought to be a result of the economy recovering in early 2010's. During or when emerging from an economic downturn, it is not uncommon for bids to be competitive and much less than expected such as this. The project is being built with design-build as the contracting process.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2014

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 112.0	\$ 80.7
Other Construction Elements:	\$ 11.0	\$ 10.0
Engineering:	\$ 3.6	\$ 3.6
Right of Way:	\$ 49.0	\$ 45.6
Total:	\$ 175.6	\$ 139.9

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Standard practices were used to develop cost estimates.

Project Risks

Remaining risks include typical Design/Build construction risks.

Schedule

Environmental Approval Date: 02/27/2014
Municipal Consent Approval Date: 03/03/2014
Geometric Layout Approval Date: 6/2/2014
Construction Limits Established Date: 10/08/2013
Original Letting Date: 08/08/2014
Current Letting Date: 08/08/2014
Construction Season: Oct. 2014/Oct. 2016
Estimated Substantial Completion: 10/15/2016



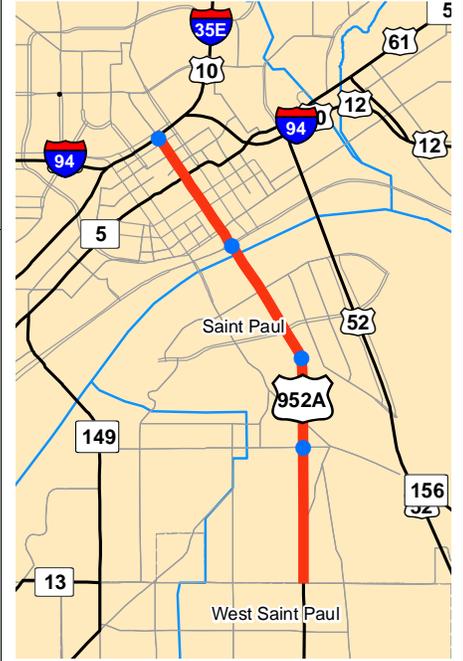
Minnesota Department of Transportation
District M
1500 West County Road B2
(651) 234-7500

District Engineer: Scott McBride
Project Manager: Jerome Adams

Revised Date: 12/15/2016

PROJECT SUMMARY

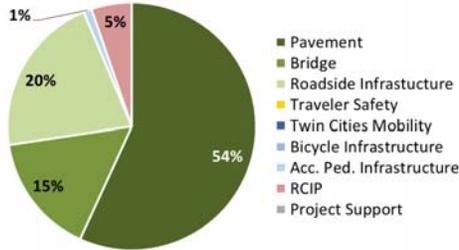
Hwy 952A (Robert St)
 Robert St, from Annapolis St to 12th St. in St. Paul
 Bridge 62894, 62050, 9036, 90381
 State Project No. 6217-43



Primary Purpose

Pavement-based needs: Pavement Condition

Investment Category



Project Description

Pavement overlay, rehabilitation on four bridges, drainage, traffic signals, ADA improvements and sidewalk replacement

Recent Changes and Updates

This is the first year this project is included in the MHP report.

Project History

Robert Street is a low speed urban arterial. This corridor had been coded as a municipal street and is no longer signed as a state highway. The pavement in this heavily used urban segment is in very poor condition with multiple surface problems. ADA pedestrian ramps have not been updated to current standards and sidewalks are in poor condition throughout the corridor.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2017

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 12.8	\$ 12.8
Other Construction Elements:	\$ 1.4	\$ 1.4
Engineering:	\$ 2.9	\$ 2.9
Right of Way:	\$ 0.7	\$ 0.7
Total:	\$ 17.8	\$ 17.8

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Robert St Bridge over I-94 is a redeck. Sidewalk replacement is based on estimate percent of sidewalks out of compliance

Project Risks

Project risks include unknown right of way needs and alignment, cost to repair drainage infrastructure, presence of contaminated materials and City utility needs.

Schedule

Environmental Approval Date: pending
 Municipal Consent Approval Date: not needed
 Geometric Layout Approval Date: not needed
 Construction Limits Established Date: pending
 Original Letting Date: 07/27/2018
 Current Letting Date: 07/27/2019
 Construction Season: 2019/2020
 Estimated Substantial Completion: 2020



Minnesota Department of Transportation
 District M
 1500 West County Road B2
 (651) 234-7500

District Engineer: Scott McBride
Project Manager: Tara McBride

Revised Date: 12/15/2016

PROJECT SUMMARY

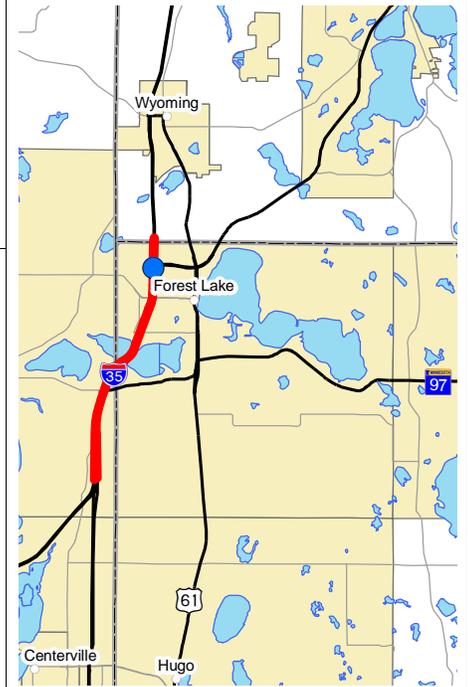
I-35

Washington, Anoka Counties

Bridge 82815, 02804, 02806

State Project No. 8280-47

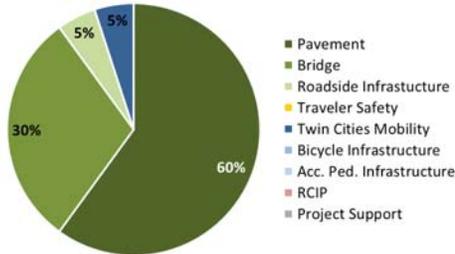
<http://www.dot.state.mn.us/metro/projects/35linolakes/index.html>



Primary Purpose

Performance-based Need: Pavement Condition and Bridge Condition.

Investment Category



Project Description

This project consists of an unbonded concrete overlay, and replacement of three bridges. The project includes I-35E from 80th St E to the junction of I-35/I-35W/I-35E & on I-35W from north of Main St. to the junction of I-35/I-35W/I-35E and on I-35 from the junction of I-35/I-35W/I-35E to north of Hwy 8. The three bridges are: northbound I-35W over southbound I-35E, Hwy 97 over I-35, and Hwy 8 over I-35.

Recent Changes and Updates

Recent changes to this project include an increase of \$10M to the construction letting costs. This is a result of discovery and better understanding of damage to the substructure of the roadway and refining the cost estimate for project components as the project moves into final design. MnDOT has also adjusted the estimate to adapt to a fluctuating bid environment where MnDOT expects bids for this project to be much higher than when the original estimate was developed during an economic downturn.

Project History

This project first was included in the MHP in 2014 as a pavement and bridge project to address poor pavement and bridge condition.

The current condition of this road section is anticipated to decline quickly due to failing road base that hasn't been improved since 1969. Currently this section has a mill and over every 7 years, and the concrete overlay project is a longer term fix to correct base failures.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2015

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 39.6	\$ 50.1
Other Construction Elements:	\$ 0.0	\$ 0.0
Engineering:	\$ 6.4	\$ 6.9
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 46.0	\$ 56.6

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Standard practices were used to develop cost estimates for this project.

Project Risks

Traffic impacts during construction. Interagency coordination and communication. Unknown future cost changes due to switching the delivery method to Design-Build delivery.

Schedule

Environmental Approval Date: 10/07/2015
 Municipal Consent Approval Date: 10/07/2015
 Geometric Layout Approval Date: pending
 Construction Limits Established Date: 01/16/2015
 Original Letting Date: 07/21/2017
 Current Letting Date: 04/28/2017
 Construction Season: 2017/2018
 Estimated Substantial Completion: 11/15/2018



Minnesota Department of Transportation
 District M
 1500 West County Road B2
 (651) 234-7500

District Engineer: Scott McBride
Project Manager: Ryan Coddington

Revised Date: 12/15/2016

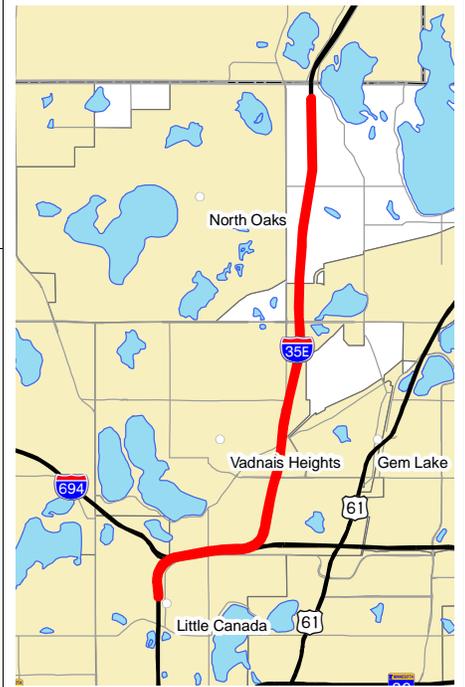
PROJECT SUMMARY

I-35E

Little Canada Rd in Little Canada to Lino Lakes

State Project No. 6281-47

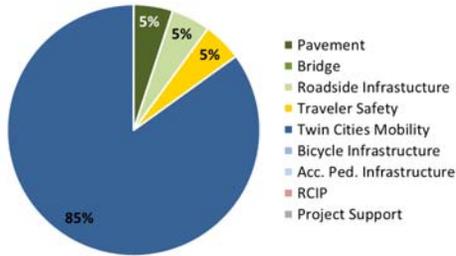
<http://www.dot.state.mn.us/metro/projects/i35vadnaisheights/index.html>



Primary Purpose

Twin Cities Mobility: Managed Lanes

Investment Category



Project Description

I-35E MnPASS extension from Little Canada Road to CSAH 96 in both directions (with exceptions in the I35E/694 Commons areas) and north to Lino Lakes for the northbound lane only.

Recent Changes and Updates

This project is currently under construction, with an anticipated date of completion in December 2016. The Construction Letting costs reflect the awarded bid, which was higher than expected, but was the low bid out of four received and may be the results of increase traffic control during construction.

Project History

This project is an extension of the I-35E MnPASS lane along I-35E, from Little Canada Road to CSAH 96 in both directions (with exceptions in the I35E/694 Commons areas) and north past County Road J for the northbound lane only. A MnPASS lane will be added where the Goose Lake Bridge will be built .

The Goose Lake Road Bridge (SP 6281-25) is included as a separate project in this report. Project funding comes from a Managed Lane setaside and Chapter 152 Transit Advantage bonds.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2016

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 19.4	\$ 22.0
Other Construction Elements:	\$ 0.0	\$ 0.0
Engineering:	\$ 3.3	\$ 3.3
Right of Way:	\$ 0.3	\$ 0.3
Total:	\$ 23.0	\$ 25.6

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Standard practices were used to develop cost estimates for this project.

Project Risks

Project is timed with other area project, especially the Goose Lake Bridge project (6281-25). This area has high traffic flow and staging must be carefully planned to minimize accidents during construction. Potential impacts of environmentally sensitive areas.

Schedule

Environmental Approval Date: December 2015
 Municipal Consent Approval Date: February 2015
 Geometric Layout Approval Date: pending
 Construction Limits Established Date: pending
 Original Letting Date: 03/25/16
 Current Letting Date: 03/18/16
 Construction Season: 2016
 Estimated Substantial Completion: 2016



Minnesota Department of Transportation
 District M
 1500 West County Road B2
 (651) 234-7500

District Engineer: Scott McBride
Project Manager: Dale Gade

Revised Date: 12/15/2016

PROJECT SUMMARY

I-35E

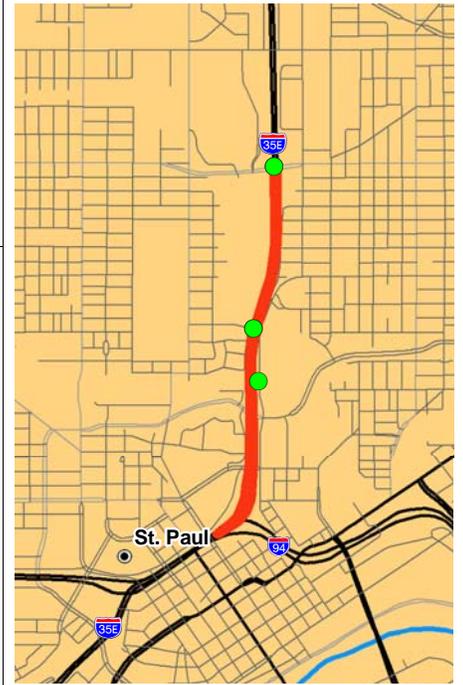
Cayuga Bridge between University Ave and Maryland Ave

Bridge 6515, 9265, 6517

State Project No. 6280-308

<http://www.dot.state.mn.us/metro/projects/35estpaul/cayuga.html>

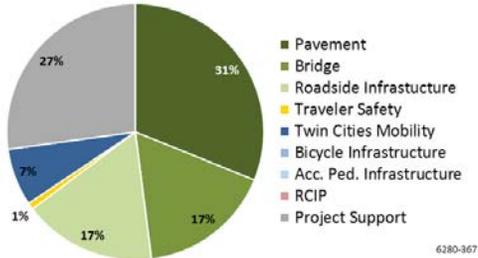
Substantially Complete



Primary Purpose

Performance-based Need: Bridge Condition

Investment Category



Project Description

Replace Cayuga Bridge (6515), Pennsylvania Ave. Bridge (9265), BNSF RR Bridge (6517). Replace the Pennsylvania interchange with the interchange at Cayuga to solve safety and operational problems. Improve geometrics on 35E. Extend auxiliary lane from Pennsylvania to Maryland.

Recent Changes and Updates

While the project is nearly complete, there is additional work, such as ramps, frontage roads and landscaping, that will continue into 2016. The Total Project Cost Estimate (TPCE) has not changed since the 2013 MHP report. The Current Estimate reflects an award amount. Additional costs for right of way and other incidentals may be expected.

Project History

The Cayuga Bridge was built in 1965. Since then it has undergone bridge repair and paint in 1975 and "limited service" overlay in 2004. The Current Estimate reflects construction letting of \$116 million. While it is not certain, the competitive bid was thought to be a result of the economy recovering in the 2010's. During or when emerging from an economic downturn, it is not uncommon for bids to be competitive and much less than expected such as this.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2010

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 143.9	\$ 116.0
Other Construction Elements:	\$ 5.3	\$ 11.0
Engineering:	\$ 24.4	\$ 25.5
Right of Way:	\$ 11.3	\$ 18.2
Total:	\$ 184.9	\$ 170.7

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Based on current estimated costs for the awarded project.

Project Risks

The project is nearly complete with only minor elements left. Major risks have been retired.

Schedule

Environmental Approval Date: 09/15/2011
 Municipal Consent Approval Date: 09/05/2012
 Geometric Layout Approval Date: 5/10/2012
 Construction Limits Established Date: 05/16/2011
 Original Letting Date: 04/25/2014
 Current Letting Date: 11/16/2012
 Construction Season: 2012/2016
 Estimated Substantial Completion: 04/01/2016



Minnesota Department of Transportation
 District M
 1500 West County Road B2
 (651) 234-7500

District Engineer: Scott McBride
Project Manager: Dale Gade

Revised Date: 12/15/2016

PROJECT SUMMARY

I-35E

I-35E between Pennsylvania Ave and Little Canada Road
 Bridge 6509, 6510, 6511, 6512, 6514, 6579, 9117, 9118, 9119, 9120

State Project No. 6280-367

<http://www.dot.state.mn.us/metro/projects/35estpaul/mnpass.html>

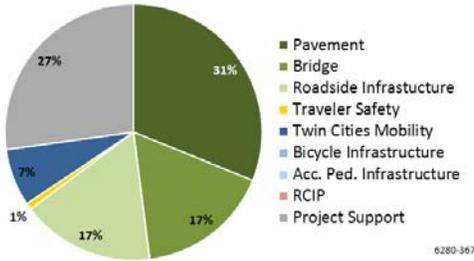
Substantially Complete



Primary Purpose

Twin Cities Mobility: Managed Lanes
 Performance-based Need: Pavement Condition

Investment Category



Project Description

The I-35E MnPASS Project includes long-term pavement rehabilitation between Maryland Ave. and Little Canada Rd., replacement of the Arlington, Wheelock and Larpenteur bridges, and replacement of the I-35E mainline bridges at Roselawn, County Road B and Hwy 36.

Recent Changes and Updates

This project was primarily complete in November 2015, but construction of the Caguya interchange and frontage roads will continue into spring of 2017.

Costs have not changed since the 2013 MHP report. The Current Estimate reflects an award amount with contractor. Additional costs for right of way and other incidentals may be expected, such as work to frontage roads and landscaping.

Project History

The MnPASS System II study identified I-35E north of St. Paul as the top candidate for the region's next MnPASS facility due to congestion levels, transit demand and the opportunity to coordinate construction of the MnPASS Express Lanes and 35E/Cayuga. Current estimate increased in 2013 when design build contract was let. The construction letting of \$98.6 million is reflected in the current estimate.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2012

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 73.6	\$ 98.6
Other Construction Elements:	\$ 0.0	\$ 0.0
Engineering:	\$ 18.4	\$ 22.2
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 92.0	\$ 120.8

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Standard practices were used to develop cost estimates for this project.

Project Risks

The project is nearly complete with only minor elements left. Major risks have been retired.

Schedule

Environmental Approval Date: 03/01/2013
 Municipal Consent Approval Date: 02/20/2013
 Geometric Layout Approval Date: 2/12/2013
 Construction Limits Established Date: 02/12/2013
 Original Letting Date: 06/14/2013
 Current Letting Date: 07/24/2013
 Construction Season: 2014/2015
 Estimated Substantial Completion: November 2015



Minnesota Department of Transportation
 District M
 1500 West County Road B2
 (651) 234-7500

District Engineer: Scott McBride
Project Manager: Dale Gade

Revised Date: 12/15/2016

PROJECT SUMMARY

I-35E

Vadnais Heights and White Bear Lake - Goose Lake Road Bridges
 Bridge 9567, (new, 62729), &, 9568, (new, 62730)

State Project No. 6281-25

<http://www.dot.state.mn.us/metro/projects/i35vadnaisheights/index.html>



Primary Purpose

Performance-based needs: Bridge Condition

 Performance-based needs: Pavement Condition

Investment Category

*This project was designed and scoped before the current highway investment plan MnSHIP was developed, which breaks projects into investment categories.

Project Description

Replace Goose Lake Road Bridges including profile adjustment on both sides of the bridges, mill and unbonded concrete overlay, ADA, retaining walls, ponding, guardrail, drainage and transportation management system improvements.

Recent Changes and Updates

This project is currently under construction, with expected completion in Dec 2016. There have been no cost changes since the 2015 MHP report.

Project History

The I-35E bridges over Goose Lake Road and the BNSF railroad in Vadnais Heights are being replaced with new wide structures to accommodate three lanes of traffic and profile adjustment of pavement on both sides of the bridges. In addition there is pavement work, drainage, TMS, guardrail, retaining walls, and ADA improvements.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2012

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 10.1	\$ 22.4
Other Construction Elements:	\$ 0.4	\$ 0.2
Engineering:	\$ 2.1	\$ 4.0
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 12.5	\$ 26.6

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Cost increases in construction letting from 2014 to 2015 are \$2M and are a result of railroad agreement costs, changing the pavement fix, and bridge clearance. From 2013 to 2014, the project costs increased from \$10.1M to \$20M due to a mill and concrete overlay project being included, as well as preparing the bridges and pavement to be ready for a MnPASS extension into this area. There were efficiency and cost savings in combining the bridge and pavement project as well as the MnPASS project (which is a separate entry in this report).

Project Risks

Typical project constructions risks remain.

Schedule

Environmental Approval Date: 3/16/2015
 Municipal Consent Approval Date: not needed
 Geometric Layout Approval Date: 12/2014
 Construction Limits Established Date: 12/2014
 Original Letting Date: 01/23/2015
 Current Letting Date: 06/05/2015
 Construction Season: 2015/2016
 Estimated Substantial Completion: 12/2016



Minnesota Department of Transportation
 District M
 1500 West County Road B2
 (651) 234-7500

District Engineer: Scott McBride
Project Manager: Mohammad Dehdashti

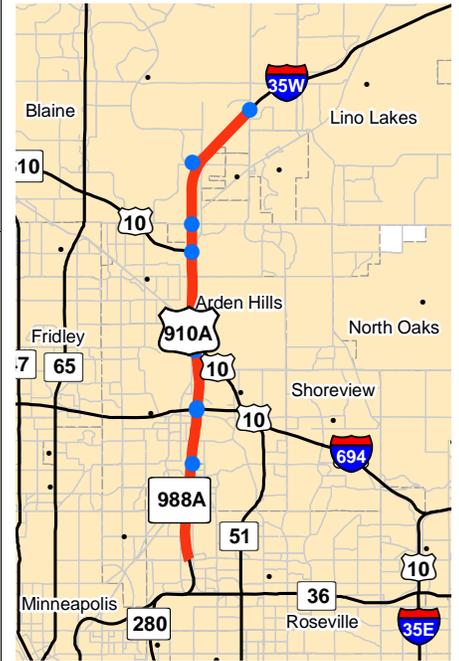
Revised Date: 12/15/2016

PROJECT SUMMARY

I-35W

Roseville to Hwy 10

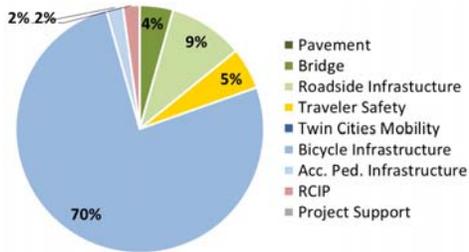
Bridge 02550, 02566, 02571, 62732, 62873, 62890, 62911, 62938, 62939, 62940, 62941, 62942, 91071, 9355, 9357, 9492, 9578, 9601, 9602, 9605, 9604, 9831



Primary Purpose

Twin Cities Mobility: Managed Lanes
 Performance-based need: Pavement condition
 Performance-based need: Bridge Condition

Investment Category



Project Description

This project will add managed lanes and spot mobility improvements on I35W from Roseville to Blaine, provide a long-term pavement fix, repair 21 bridges, and improve roadside infrastructure

Recent Changes and Updates

This is the first year this project is included in the MHP report.

Project History

I-35W connects greater Minnesota and the northern Twin Cities suburbs to downtown Minneapolis and is an important freight corridor. As population and development continues to grow in the northern suburbs, traffic volumes on I-35W have increased. With an average of 53,000 to 127,000 vehicles driving on the highway per day, congestion levels vary throughout the day. Managed or MnPASS lanes on I-35W between Hwy 36 and Lexington Avenue are needed to improve capacity, mobility and reliable travel times. In addition to the MnPASS lanes, a long-term pavement fix will eliminate the need to do short term pavement fixes every 4-5 years in the corridor, and more than 16 bridges will be improved to meet current height clearance for freight vehicles.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2017

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 208.0	\$ 208.0
Other Construction Elements:	\$ 6.1	\$ 6.1
Engineering:	\$ 3.6	\$ 3.6
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 217.7	\$ 217.7

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Quantities based estimate from staff approved layout.

Project Risks

Long-term pavement fix is an unfunded need of approximately \$65M. Additional funding may be needed for utility relocation and flooding and water quality mitigation.

Schedule

Environmental Approval Date: pending
 Municipal Consent Approval Date: pending
 Geometric Layout Approval Date: pending
 Construction Limits Established Date: pending
 Original Letting Date: 08/17/2018
 Current Letting Date: 08/17/2018
 Construction Season: 2019/2021
 Estimated Substantial Completion: 2021



Minnesota Department of Transportation
 District M
 1500 West County Road B2
 (651) 234-7500

District Engineer: Scott McBride
Project Manager: Jerome Adams

Revised Date: 12/15/2016

PROJECT SUMMARY

I-35W

3rd and 4th Street ramp to Johnson Street in Minneapolis
 State Project No. 2783-136
<http://www.dot.state.mn.us/metro/projects/i35wandfourthst/>

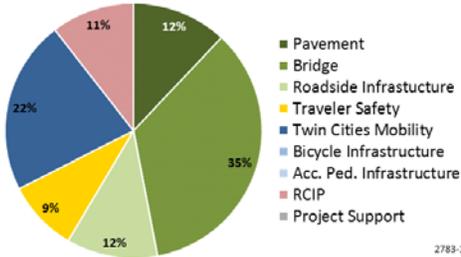
Substantially Complete



Primary Purpose

Twin Cities Mobility: Spot Mobility
 Improvement Performance-based Need:
 Bridge Condition

Investment Category



2783-136

Project Description

Construct new ramp from downtown Minneapolis to northbound I-35W and auxiliary lane from 3rd and 4th Street north to Johnson St., retaining walls, and drainage.

Recent Changes and Updates

This project was completed in the spring of 2015. The Current Estimate reflects a substantially complete project and should be considered the actual cost of the project.

Project History

This project was developed by Hennepin County for a design-build letting. MnDOT contributed \$9.4M in a Transportation Economic Development (TED) grant. The Total Project Cost Estimate (TPCE) based on the bid amount came to \$20.M. After review of the estimate, it was shown that the higher cost was attributed to the design of the retaining walls and the risk associated with the construction of the retaining walls. The proposed retaining walls required retention of the slopes with the use of sheet piling to allow for the construction of the permanent retaining walls in many locations and original estimates did not account for this need. Also, the costs estimated for the installation of drainage tile to capture water seeping from the existing slopes was estimated low and bid at a higher amount.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2011

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 9.7	\$ 15.4
Other Construction Elements:	\$ 1.5	\$ 6.0
Engineering:	\$ 2.2	\$ 3.0
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 13.4	\$ 24.4

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The Total Project Cost Estimate (TPCE) is for MnDOT costs and does include a local share of \$4.4M for construction and \$1.3M for engineering from Hennepin County.

Project Risks

The project is complete and no risks remain.

Schedule

Environmental Approval Date: 12/03/2013
 Municipal Consent Approval Date: 12/29/2011
 Geometric Layout Approval Date: 10/28/2011
 Construction Limits Established Date: 10/28/2011
 Original Letting Date: 02/14/2012
 Current Letting Date: 03/19/2014
 Construction Season: 2014/2015
 Estimated Substantial Completion: 04/01/2014



Minnesota Department of Transportation
 District M
 1500 West County Road B2
 (651) 234-7500

District Engineer: Scott McBride
Project Manager: Scott Pedersen

Revised Date: 12/15/2016

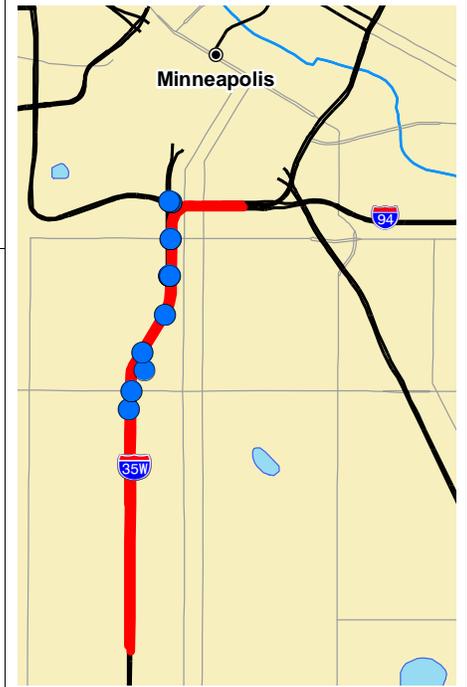
PROJECT SUMMARY

I-35W

43rd Street to I-94 Commons

Bridge 9731, 9733, 27842, 27843, 27867, 27868, 27869, 27870, 27871, 27872

State Project No. 2782-327



Primary Purpose

Twin Cities Mobility: Managed Lanes

Performance-based Need: Bridge and Pavement Condition

Investment Category

*This project was designed and scoped before the current highway investment plan MnSHIP was developed, which breaks projects into investment categories.

Project Description

Adjust the horizontal and/or vertical alignment of I-94, I-35, and Hwy 65. Replace the following bridges: 40th Street Pedestrian, 31st Street, Lake Street, Midtown Greenway, 28th Street, 26th Street, 24th Avenue pedestrian bridge, Southbound Braid, Franklin Ave, Northbound Flyover, and Hwy 65 over I-94. Repair bridges at 38th Street, 1st Avenue, and Portland Avenue. Replace all pavements on I-35W from 43rd Street into I-94 Commons. The project will also construct an on-line transit station on I35W at Lake Street to improve transit access and add access from northbound I-35W to 28th Street and southbound I-35W to improve Lake Street business district access.

Recent Changes and Updates

Changes to the project since the last MHP report include confirmation of funding sources from project partners. Some of the funding for the transit portion of this project is expected to come from an FTA Small Starts grant. In order for a Small Starts application to be submitted, a local match confirmation was made by an increased contribution from Hennepin County, Metropolitan Council and the Counties Transit Investment Board (CTIB) in August 2016 after the MN Legislature did not provide a state-funded match for the transit portion. Public involvement is ongoing. Changes to this year's report include an increase to the Construction Letting which is from an increased local share of funding that previously had been attributed to MnDOT's contribution, but now has been clarified as local share.

Project History

This project has been pursued since the mid-1990s. Previous studies identified the need for an on-line transit station, access to Lake Street and extension of the MnPASS Lane on I-35W in and out of Downtown Minneapolis. In 2015, the 40th St pedestrian bridge was added to this project in 2015.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2013

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 265.5	\$ 266.0
Other Construction Elements:	\$ 0.0	\$ 30.6
Engineering:	\$ 44.5	\$ 47.5
Right of Way:	\$ 3.6	\$ 3.6
Total:	\$ 313.6	\$ 347.7

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

The baseline estimate includes the MnDOT portion (\$183M). This large project is done in partnership with Minneapolis, Hennepin County and the Metropolitan Council. The current estimate includes funding from all project partners. The Construction Letting amount includes over \$82M in local funding from the City of Minneapolis, Hennepin County, Metro Transit, Metropolitan Council and CTIB. Other Construction Elements include utility agreements and Post Letting Costs for overruns, incentives, and construction traffic management.

Project Risks

Storm water tunnels and drainage present a potential project risk. Traffic impacts during construction. While the construction letting costs have decreased as risk is retired from the project, other construction elements increased because they were added to the project's TPCE in the 2015 MHP report. These elements include utility agreement costs, and post letting costs for overruns, incentives, and construction traffic management.

Schedule

Environmental Approval Date: Spring 2016
 Municipal Consent Approval Date: Spring 2016
 Geometric Layout Approval Date: 10/19/2015
 Construction Limits Established Date: November 28, 2015
 Original Letting Date: 07/21/2017
 Current Letting Date: 06/07/2017
 Construction Season: 2017/2021
 Estimated Substantial Completion: 11/01/2021



Minnesota Department of Transportation
 District M
 1500 West County Road B2
 (651) 234-7500

District Engineer: Scott McBride
Project Manager: Scott Pedersen

Revised Date: 12/15/2016

PROJECT SUMMARY

I-35W

Minnesota River Crossing (Bloomington and Burnsville)

Bridge 5983

State Project No. 1981-124

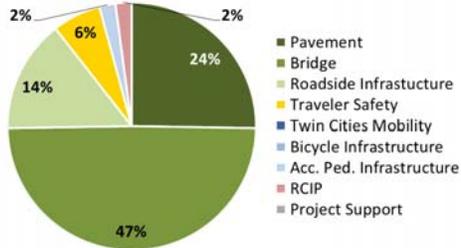
<http://www.dot.state.mn.us/metro/projects/i35wbloomington/index.html>



Primary Purpose

Performance-based need: Bridge Condition

Investment Category



Project Description

Bridge Replacement, pavement reconstruction, auxiliary lanes, signing, lighting, TMS, trails, drainage, and guardrail. On Interstate 35W from the Cliff Road Interchange to the 106th Street interchange, in the cities of Burnsville, Bloomington, and Hennepin and Dakota Counties.

Recent Changes and Updates

This is the first year this construction project has been included in the MHP report. This project will preserve the structural integrity of the bridge, bring the bridge approaches out of the flood plain by reconstructing the existing pavement between Cliff Road to 106th Street, preserving the integrity of the pavement, and improving safety and mobility of the corridor with additional auxiliary lanes, lighting and trails.

Project History

The bridge was originally constructed in 1957 and widened in 1983/1984. The widening of the structure required the post tensioning of the existing pier caps making future bridge expansion difficult.

In 2009, lane re-configuration allowed for High Occupancy Toll lanes but reduced the existing shoulders on the bridge. This project will widen the bridge to allow for shoulder lanes and add auxiliary lanes in each direction to manage traffic weaving between the 106th Street and the Cliff Road Interchanges. An off-road trail will also be added for pedestrian and bicycle crossing of the MN River.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2017

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 134.0	\$ 134.0
Other Construction Elements:	\$ 0.0	\$ 0.0
Engineering:	\$ 22.4	\$ 22.4
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 156.4	\$ 156.4

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Standard practices were used to develop estimates for this project.

Project Risks

Profile correction to mitigate flood risks is currently unfunded by approximately \$50M. Other risks include municipal consent from two cities, right of way, and environmental impacts. Unknown future costs due to switching to a design-build delivery method.

Schedule

Environmental Approval Date: pending
 Municipal Consent Approval Date: pending
 Geometric Layout Approval Date: pending
 Construction Limits Established Date: pending
 Original Letting Date: 06/14/2020
 Current Letting Date: 03/22/2019
 Construction Season: 2019/2020
 Estimated Substantial Completion: 2020



Minnesota Department of Transportation
 District M
 1500 West County Road B2
 (651) 234-7500

District Engineer: Scott McBride
Project Manager: Scott Pedersen

Revised Date: 12/15/2016

PROJECT SUMMARY

I-94

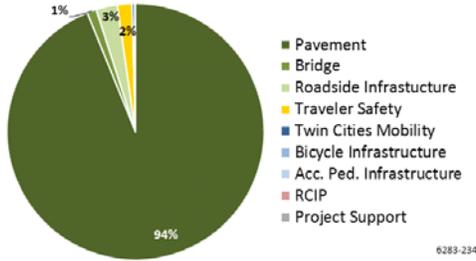
I-94 (Mounds Blvd to Hwy 120) and Hwy 61 (Burns Avenue to Hwy 5)
 Bridge 9147, 9148, 62706, 62838, 62861, 62862, 62868, 62869, and, 62870
 State Project No. 6283-234
<http://www.dot.state.mn.us/metro/projects/i94stpaul/>



Primary Purpose

Performance-based Need: Pavement
 Condition Performance-based Need: Bridge
 Condition

Investment Category



Project Description

Unbonded concrete overlay on I-94 from Mounds Blvd to east of Ruth St., bituminous resurfacing to east of Hwy 120 and on Hwy 61 north of Mounds Blvd, white topping etc. Repair of nine bridges. Signal, signing, lighting, guardrail, concrete median barrier, drainage, TMS and ADA are also included.

Recent Changes and Updates

This project is currently under construction and is expected to be complete in the fall of 2017. There have been no changes to the TPCE since the 2015 MHP report.

Project History

This project's construction costs increased in 2015 from \$32M to \$43.3M, a result of a number of project changes. A portion of the project, Mounds Blvd. to White Bear Ave, was changed to a long-term pavement fix, from a bituminous mill and overlay to concrete work. In addition to the increase costs from this change of material and substructure treatment, costs were also affected because the concrete work triggered raising the profile of road and ramps in that area. Other changes include adding a median barrier, improvements to storm sewer curbs and gutters, and slope work, on-street bike/pedestrian trails, ADA and signal improvements, and work being done on the cross street, Hwy 120. Increased costs for the pavement project are being funded from a cost savings from a mill and overlay project on I-35W in Roseville and from the Congestion Mitigation Safety Program.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2012

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 32.5	\$ 43.3
Other Construction Elements:	\$ 0.0	\$ 0.2
Engineering:	\$ 6.5	\$ 8.4
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 39.0	\$ 51.9

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

A down-scoped project provided additional state and federal funding which resulted in this project having a longer life cycle pavement repair. Traffic Control Mitigation was increased to \$2M. Water Resources cost estimate was increased by \$2.54M.

Project Risks

This project will have a large traffic impact to a congested interstate in downtown Saint Paul.

Schedule

Environmental Approval Date: 05/14/2015
 Municipal Consent Approval Date: NA
 Geometric Layout Approval Date: NA
 Construction Limits Established Date: NA
 Original Letting Date: 11/20/2015
 Current Letting Date: 11/20/2015
 Construction Season: 2016/2017
 Estimated Substantial Completion: 11/01/2017



Minnesota Department of Transportation
 District M
 1500 West County Road B2
 (651) 234-7500

District Engineer: Scott McBride
Project Manager: Jeff Gibbons

Revised Date: 12/15/2016

PROJECT SUMMARY

I-94

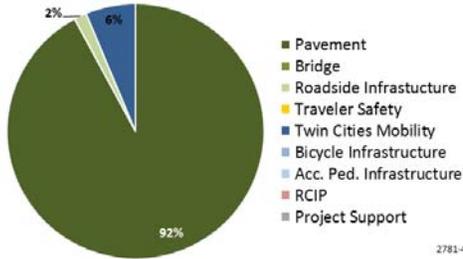
Nicollet Avenue in Minneapolis to Shingle Creek Bridge in Brooklyn Center
 Bridge multiple, bridges, (50+)
 State Project No. 2781-432
<http://www.dot.state.mn.us/metro/projects/i94brooklyncntr/>



Primary Purpose

Performance-based Need: Pavement
 Condition Performance-based Need: Bridge
 Condition

Investment Category



2781-432

Project Description

Concrete pavement repair and diamond grinding south of Hwy 55, bituminous overlay north of Hwy 55, drainage and weeping slope repair, Lowey Tunnel tile repair, Portland Tunnel joint repair, bridge redeck of westbound I-94 over southbound Hwy 252, and misc. repair of 49 bridges.

Recent Changes and Updates

Since last year's MHP report, costs have increased due to the addition of \$6M of lighting work throughout the corridor. By completing the lighting work with the pavement and bridge project in 2017, the impact on mobility in this highly-traveled corridor is reduced as additional traffic control would be necessary for a stand-alone lighting project. TPCE in last year's report was \$43M.

Project History

Changes to the project in the 2015 MHP report included an increase to the current estimate due to traffic control mitigation, and bridge. Changes to the project in the 2015 MHP report included an increase to the current estimate due to traffic control mitigation, and bridge maintenance. A Value Engineering study conducted in spring of 2015 recommended that a bituminous overlay replace the concrete pavement repair on mainline I-94, north of Hwy 55. This significantly reduced traffic impacts and enabled the pavement construction to take place in 2017 to avoid other major roadway projects in 2018 in the Metro. The TPCE in 2015 was \$48.3M.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2013

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 23.4	\$ 43.3
Other Construction Elements:	\$ 0.0	\$ 0.0
Engineering:	\$ 2.3	\$ 8.2
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 25.7	\$ 51.5

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Concrete pavement rehabilitation, traffic mitigation, bridge cost and scope are based on December 2014 bridge recommendations.

Project Risks

The potential for a significant event (i.e. 2018 Superbowl) may require an accelerated schedule for design and construction. There will be some impact to traffic during the construction period for the project.

Schedule

Environmental Approval Date: Pending
 Municipal Consent Approval Date: Not Applicable
 Geometric Layout Approval Date: Not Applicable
 Construction Limits Established Date: Pending
 Original Letting Date: 06/14/2013
 Current Letting Date: 11/18/2016
 Construction Season: 2017
 Estimated Substantial Completion: 11/01/2017



Minnesota Department of Transportation
 District M
 1500 West County Road B2
 (651) 234-7500

District Engineer: Scott McBride
Project Manager: Ron Rauchle

Revised Date: 12/15/2016

PROJECT SUMMARY

I-494

I-394 in Minnetonka to I-94/494/694 in Maple Grove

State Project No. 2785-330

<http://www.dot.state.mn.us/metro/projects/i494plymouth/>

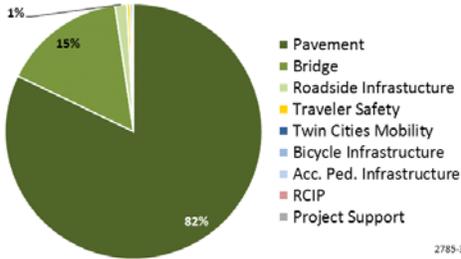


Primary Purpose

Twin Cities Mobility: Managed Lanes

Performance-based Need: Pavement Condition

Investment Category



2785-330

Project Description

Add general purpose lane between Hwy 55 and I-94/I-694, add auxiliary lane NB between I-394 and Carlson Parkway, add auxiliary lanes between Hwy 55 AND CR 6, pavement resurfacing and reconstruction, ponds, noisewalls, signal revisions, lighting, traffic management system, replace bridges and repair.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2013

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 61.2	\$ 86.1
Other Construction Elements:	\$ 0.0	\$ 0.0
Engineering:	\$ 11.8	\$ 16.4
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 73.0	\$ 102.5

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Recent Changes and Updates

The project has been under construction for the last year. Substantial progress has been made and the project is anticipated to be open to traffic in Nov 2016. The project costs have not changed since the 2014 MHP report.

Project History

MnDOT received formal approval late in summer 2013 to construct a dynamic shoulder as part of this project. In 2014, the scope of the project was changed from the dynamic shoulder to adding a third general purpose lane between Hwy 55 and the I-494/I-694/I-94 interchange when additional funding was identified from savings on other construction projects. When the scope of the project changed from the addition of a dynamic shoulder on the outside to the addition of a general purpose lane on the inside, costs increased.

Key Cost Estimate Assumptions

Standard practices were used to develop cost estimates.

Project Risks

Typical construction risks remain for this project.

Schedule

Environmental Approval Date: Spring 2014
 Municipal Consent Approval Date: Fall 2013
 Geometric Layout Approval Date: 8/22/2013
 Construction Limits Established Date: Spring 2013
 Original Letting Date: 07/28/2008
 Current Letting Date: 02/20/2015
 Construction Season: 2015/2017
 Estimated Substantial Completion: 06/30/2017



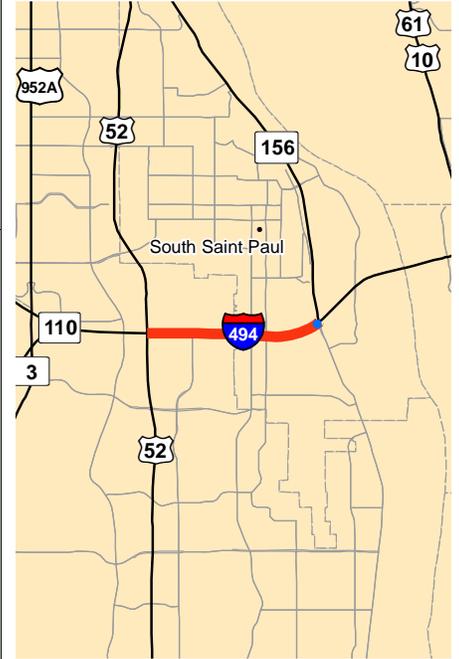
Minnesota Department of Transportation
 District M
 1500 West County Road B2
 (651) 234-7500

District Engineer: **Scott McBride**
 Project Manager: **Chad Casey**

Revised Date: 12/15/2016

PROJECT SUMMARY

I-494
 South St Paul to Inver Grove Heights
 Bridge 19865
 State Project No. 1985-149



Primary Purpose

Twin Cities Mobility: Spot Mobility
 Improvement Performance-based need:
 Pavement Condition Performance-based
 need: Bridge Condition

Investment Category

*This project was designed and scoped before the current highway investment plan MnSHIP was developed, which breaks projects into investment categories.

Project Description

Construction of an auxiliary lane from Concord St to Hwy 52, concrete pavement repair, bridge repair and widening, drainage, retaining wall, ADA improvement, signing & lighting

Recent Changes and Updates

This is the first year this project has been included in the MHP report.

Project History

Since 2013, this segment of roadway experiences 1-2 hours of daily congestion according to the annual Metropolitan Freeway System Congestion Report. The auxiliary lane will provide drivers an opportunity to speed up and slow down in a space not used by high-speed through traffic.

Built in 1980, Bridge # 19865 has the original overlay and joints and the bridge overlay and joints have reached the expected useful life. The project will also improve the pavement condition. Due to a high impact to traffic, it is preferred to complete roadway work and bridge work at the same time.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2017

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 15.8	\$ 15.8
Other Construction Elements:	\$ 0.0	\$ 0.0
Engineering:	\$ 2.9	\$ 2.9
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 18.7	\$ 18.7

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Standard practices were used to develop cost estimates for this project

Project Risks

Construction letting is July, which may push construction into the late fall/winter and possible delay into the spring of 2020.

Schedule

Environmental Approval Date: pending
 Municipal Consent Approval Date: not needed
 Geometric Layout Approval Date: pending
 Construction Limits Established Date: pending
 Original Letting Date: 07/26/2019
 Current Letting Date: 02/23/2018
 Construction Season: 2019/2020
 Estimated Substantial Completion: 03/06/20



Minnesota Department of Transportation
 District M
 1500 West County Road B2
 (651) 234-7500

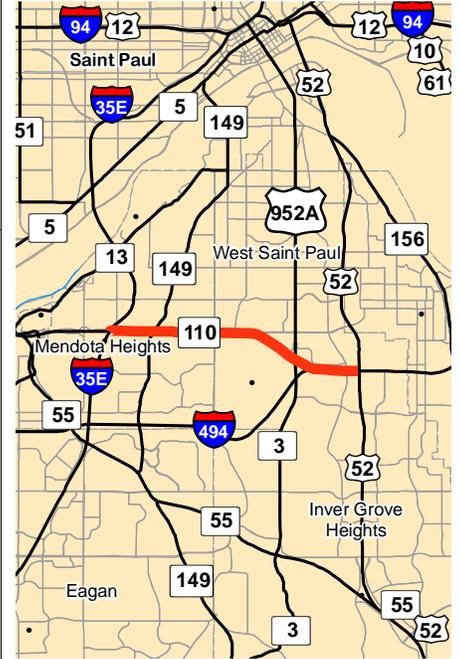
District Engineer: Scott McBride
Project Manager: Mohammad Dehdashti

Revised Date: 12/15/2016

PROJECT SUMMARY

I-494

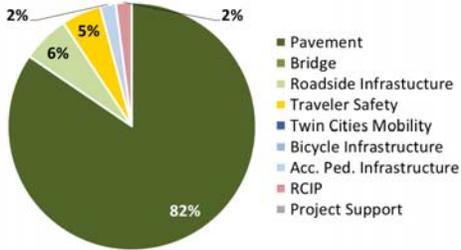
South St Paul to Mendota Heights
State Project No. 1985-148



Primary Purpose

Performance-based need: Pavement Condition

Investment Category



Project Description

Mill and pavement overlay, drainage, guardrail, traffic management system (TMS), ADA and sidewalk repair

Recent Changes and Updates

This is the first year this project has been included in the MHP report.

Project History

The condition of the pavement in this road section requires regular, heavy maintenance patching in areas, and the proposed work to the pavement should reduce this type of ongoing maintenance. The current pedestrian access routes are largely substandard and will be improved. Existing drainage infrastructure deficiencies identified include pipes, culverts, aprons, catch basins, or manholes in unacceptable conditions. Several in-place median guardrail installations don't meet current standards.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2017

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 17.5	\$ 17.5
Other Construction Elements:	\$ 0.0	\$ 0.0
Engineering:	\$ 2.9	\$ 2.9
Right of Way:	\$ 0.0	\$ 0.0
Total:	\$ 20.6	\$ 20.6

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Standard practices were used to develop cost estimates for this project

Project Risks

Due to the July letting of this project, it may get into late season construction. Potential need for additional ROW for ADA work. Traffic control expected to be high cost.

Schedule

Environmental Approval Date: pending
Municipal Consent Approval Date: not needed
Geometric Layout Approval Date: pending
Construction Limits Established Date: pending
Original Letting Date: 07/27/2018
Current Letting Date: 07/26/2019
Construction Season: 2019/2020
Estimated Substantial Completion: 2020



Minnesota Department of Transportation
District M
1500 West County Road B2
(651) 234-7500

District Engineer: Scott McBride
Project Manager: Mohammad Dehdashti

Revised Date: 12/15/2016

PROJECT SUMMARY

I-694

Little Canada to Arden Hills

Bridge 62723

State Project No. 6285-143

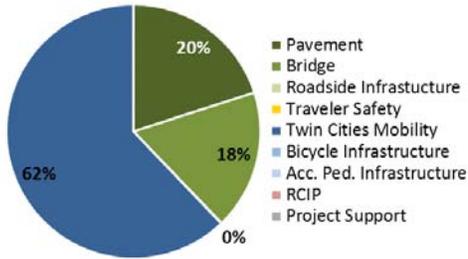
<http://www.dot.state.mn.us/enhance694/>



Primary Purpose

Regional & Community Improvement Priority:
Corridors of Commerce Project, Metro
Capacity Development

Investment Category



Project Description

Construction of a dynamic shoulder lane on I-694 from Rice St. in Little Canada to Lexington Ave. in Arden Hills and reconstruct existing lanes, low slump overlay on the Island Lake Channel bridge, noisewall and median barrier construction.

Recent Changes and Updates

The project is currently under construction and is expected to be complete in the fall of 2017. Project costs have not changed since the 2014 MHP report.

Project History

The project was selected for the Corridors of Commerce program in 2013. The project was initially included a Dynamic Shoulder Lane but has been changed to a General Purpose Lane, adding a third general purpose lane in each direction between Rice Street and Lexington Avenue. There is pavement reconstruction between Rice Street and Lexington Avenue, rebuilt interstate ramps at three locations, and improved storm water drainage throughout the corridor.

Total Project Cost Estimate (millions)

Date in which the project entered into the STIP: 2014

	<u>Baseline Est.</u>	<u>Current Est.</u>
Construction Letting:	\$ 42.2	\$ 42.2
Other Construction Elements:	\$ 0.0	\$ 0.0
Engineering:	\$ 7.8	\$ 7.8
Right of Way:	\$ 1.5	\$ 1.5
Total:	\$ 49.5	\$ 49.5

Construction cost estimates are adjusted to the mid-year of construction, using inflation rates provided by OTSM.

Key Cost Estimate Assumptions

Concrete pavement with stainless steel dowel bars and construction staging assuming the need to cross-over traffic to build it one-half at a time.

Project Risks

Land required for water treatment to build stormwater ponds.

Schedule

Environmental Approval Date: 10/2014
Municipal Consent Approval Date: 12/2014
Geometric Layout Approval Date: 02/01/2014
Construction Limits Established Date: 02/01/2014
Original Letting Date: 06/12/2015
Current Letting Date: 11/20/2015
Construction Season: 2016/2017
Estimated Substantial Completion: 11/01/2017



Minnesota Department of Transportation
District M
1500 West County Road B2
(651) 234-7500

District Engineer: Scott McBride
Project Manager: Mark Lindeberg

Revised Date: 12/15/2016

Appendix D: Future Major Highway Projects (planned 2021-2032)

Major Highway Projects (2021-2032)

District	Route	S.P.	Assigned Project Manager	Year	Location	Description	Environmental Document Status	Municipal Consent Status	Geometric Layout Approval Status	Construction Limits Status	Construction Letting Cost Estimate (In Millions)	Total Project Cost Estimate (In Millions)
1	HWY2	3104-60, 3105-16	Not assigned	2021	Limits to be defined	Pavement resurfacing from East of the Prairie River to Highway 200	NA	NA	NA	NA	\$9.7 - \$14.1	\$12.8 - \$18.4
1	HWY1	3101-38	Randy Costley	2022	Limits to be defined	Pavement resurfacing from North of County Road 38 to Highway 65	NA	NA	NA	NA	\$14.8 - \$21.4	\$19.4 - \$28.0
1	HWY27	0104-06	Derek Fredrickson	2021	Limits to be defined	Pavement resurfacing from Highway 65 to the Aitkin-Carlton County Line	NA	NA	NA	NA	\$2.7 - \$3.8	\$3.5 - \$5.0
1	HWY65	3609-41	Not assigned	2021	Limits to be defined	Pavement resurfacing from South of County Road 8 to Highway 71	NA	NA	NA	NA	\$4.2 - \$6.0	\$5.5 - \$7.9
1	I35	5880-194	Roberta Dwyer	2021	Limits to be defined	**SHELFL** Concrete unbonded overlay & br replacement NB/58 from Pine/Chisago Co line to 1 mile South County Road 11. (May be tied to FLEX project 5880-189)	NA	NA	NA	NA	\$26.9 - \$31.2	\$21.9 - \$46.8
1	HWY61	6926-XXX, 3804-XXX	Not assigned	2022	Limits to be defined	Pavement resurfacing from North of the Knife River to North of the DM&IR Railway Bridge	NA	NA	NA	NA	\$5.2 - \$7.5	\$6.8 - \$9.8
1	HWY61	1604-45, 1603-53	Brian Larson	2021	Limits to be defined	Pavement resurfacing from South of Reservation River Bridge to HWY-Canada Border	NA	NA	NA	NA	\$9.1 - \$13.2	\$11.9 - \$17.2
1	I35	6982-318	Brian Larson	2022	Limits to be defined	Pavement reconstruction on Thompson Hill, from South of Boundary Avenue to Highway 23	NA	NA	NA	NA	\$11.7 - \$16.9	\$15.3 - \$22.1
1	I35	5807-9791	Not assigned	2022	Limits to be defined	Replace or Rehabilitate Bridge over Highway 23	NA	NA	NA	NA	\$2.5 - \$3.6	\$3.3 - \$4.8
1	HWY65	3113-XXX, 3609-XXX	Not assigned	2022	Limits to be defined	Pavement resurfacing from Highway 1 to 10 miles South of County Road 8	NA	NA	NA	NA	\$7.3 - \$10.6	\$9.6 - \$13.9
1	HWY73	6930-XXX	Not assigned	2022	Limits to be defined	Pavement Resurfacing from National Forest Development Road 111 to Highway 1	NA	NA	NA	NA	\$9.7 - \$14.0	\$12.7 - \$18.3
1	I35	5880-9790	Not assigned	2023	Limits to be defined	Replace the Northbound Bridge over the Burlington Northern Santa Fe Rail Road North of Highway 48	NA	NA	NA	NA	\$3.6 - \$5.2	\$4.7 - \$6.8
1	I35	5880-9789	Not assigned	2023	Limits to be defined	Replace the Southbound Bridge over the Burlington Northern Santa Fe Rail Road North of Highway 48	NA	NA	NA	NA	\$2.8 - \$4.1	\$3.7 - \$5.4
1	HWY2	6907-XXX, 6908-XXX	Not assigned	2023	Limits to be defined	Pavement resurfacing from West of County Road 874 to Highway 194	NA	NA	NA	NA	\$2.8 - \$4.0	\$3.6 - \$5.2
1	HWY61	6925-XXX, 6926-XXX	Not assigned	2023	Limits to be defined	Pavement resurfacing in Duluth from North of Superior Street to County Road 33 (McQuade Road)	NA	NA	NA	NA	\$4.0 - \$5.7	\$5.2 - \$7.5
1	HWY61	3808-XXX, 1601-XXX	Not assigned	2023	Limits to be defined	Pavement Resurfacing from North of County Road 6 to South of County Road 79	NA	NA	NA	NA	\$7.4 - \$10.6	\$9.7 - \$13.9
1	HWY23	5807-XXX, 5809-XXX	Not assigned	2023	Limits to be defined	Pavement Resurfacing from I-35 to Main Street in Askov	NA	NA	NA	NA	\$4.0 - \$5.7	\$5.2 - \$7.5
1	HWY23	0901-XXX	Not assigned	2023	Limits to be defined	Pavement Resurfacing from East of the Pine-Carlton County Line to the Saint Louis River Bridge	NA	NA	NA	NA	\$10.3 - \$14.9	\$13.5 - \$19.5
1	HWY23	6910-XXX	Not assigned	2023	Limits to be defined	Pavement Resurfacing from Northeast of 130th Avenue to North of Highway 39	NA	NA	NA	NA	\$3.5 - \$5.1	\$4.6 - \$6.7
1	HWY73	6930-XXX	Not assigned	2023	Limits to be defined	Pavement Resurfacing from County Road 66 (13th Street Northwest) to National Forest Development Road 111	NA	NA	NA	NA	\$3.3 - \$4.8	\$4.4 - \$6.3
1	HWY194	6932-XXX	Not assigned	2023	Limits to be defined	Pavement Resurfacing from Highway 2 to West of Highway 53	NA	NA	NA	NA	\$3.2 - \$4.6	\$4.1 - \$6.0
1	HWY53	6917-XXX	Not assigned	2024	Limits to be defined	Pavement Resurfacing Northbound from North of Highway 33 to South of County Road 52	NA	NA	NA	NA	\$6.1 - \$8.9	\$8.0 - \$11.6
1	HWY169	6935-XXX	Not assigned	2024	Limits to be defined	Pavement Resurfacing Northbound, from South of County Road 67 to West of County Road 109	NA	NA	NA	NA	\$6.8 - \$9.8	\$8.9 - \$12.9
1	HWY169	6935-XXX	Not assigned	2024	Limits to be defined	Pavement Resurfacing Southbound from South of County Road 5 to West of County Road 109	NA	NA	NA	NA	\$3.9 - \$5.6	\$5.1 - \$7.4
1	HWY194	6933-XXX	Not assigned	2024	Limits to be defined	Pavement Resurfacing Northbound and Southbound, in Duluth, from East of Highway 53 (Trinity Road) to North of Mesaba Avenue	NA	NA	NA	NA	\$3.9 - \$5.6	\$5.0 - \$7.3
1	I35	6982-XXX	Not assigned	2024	Limits to be defined	Concrete Pavement Restoration Northbound and Southbound, in Duluth, from Lake Avenue to Highway 61	NA	NA	NA	NA	\$4.7 - \$6.8	\$6.2 - \$8.9
1	HWY65	0111-XXX	Not assigned	2024	Limits to be defined	Pavement Resurfacing from North of County Road 4 (Dam Lake Street) to North Highway 27	NA	NA	NA	NA	\$5.9 - \$8.6	\$7.8 - \$11.3
1	HWY65	0112-XXX	Not assigned	2024	Limits to be defined	Pavement Resurfacing from West of Highway 210 to South of the Sandy River	NA	NA	NA	NA	\$5.9 - \$8.5	\$7.7 - \$11.1
1	HWY2	3103-XXX	Not assigned	2025	Limits to be defined	Pavement Resurfacing Eastbound and Westbound, in Grand Rapids, West of 19th Avenue Northwest to East of Highway 169	NA	NA	NA	NA	\$3.6 - \$5.1	\$4.7 - \$6.7
1	HWY53	6918-XXX, 6919-XXX	Not assigned	2025	Limits to be defined	Pavement Resurfacing from 12th Ave West in Virginia to North of Wayside Rest	NA	NA	NA	NA	\$5.5 - \$7.9	\$7.2 - \$10.4
1	HWY11	3605-XXX	Not assigned	2025	Limits to be defined	Pavement Resurfacing in International Falls, from West of County Road 332 to 12th Ave	NA	NA	NA	NA	\$5.2 - \$7.5	\$6.8 - \$9.9
1	HWY61	6925-XXX	Not assigned	2025	Limits to be defined	Pavement Resurfacing Northbound and Southbound, in Duluth, from 28th Avenue East to 60th Avenue East	NA	NA	NA	NA	\$3.4 - \$4.9	\$4.4 - \$6.4
1	HWY61	1601-6202	Not assigned	2025	Limits to be defined	Bridge Replacement Over the Two Island River	NA	NA	NA	NA	\$3.3 - \$4.7	\$4.3 - \$6.2
1	HWY210	0915-XXX	Not assigned	2025	Limits to be defined	Pavement Resurfacing from East End of the Bridge over Railroad to West of I 35	NA	NA	NA	NA	\$8.4 - \$12.2	\$11.1 - \$16.0
1	HWY38	3108-XXX	Not assigned	2025	Limits to be defined	Pavement Resurfacing from Highway 2 to North of County Road 49	NA	NA	NA	NA	\$3.2 - \$4.6	\$4.2 - \$6.1
1	HWY73	6927-XXX	Not assigned	2025	Limits to be defined	Pavement Resurfacing from North of County Road 86 to South Highway 2	NA	NA	NA	NA	\$4.5 - \$6.4	\$5.8 - \$8.4
1	HWY73	6929-XXX	Not assigned	2025	Limits to be defined	Pavement Resurfacing from North of bridge over the West Swan River to South of Highway 169, Dillon Road	NA	NA	NA	NA	\$5.3 - \$7.7	\$7.0 - \$10.0
1	HWY 135	6913-XXX	Not assigned	2025	Limits to be defined	Pavement Resurfacing from North of the Embarrass River to Highway 1	NA	NA	NA	NA	\$6.8 - \$9.8	\$8.8 - \$12.8
2	Hwy 1	5702-47	N/A	2021	From Thief River Falls to Hwy 219	Bituminous reclaim	Pending approval	Not needed	Not needed	Pending Approval	\$6.4 - \$7.8	\$7.7 - \$9.4
2	Hwy1	0404-37	Jeremy Hadrava	2021	From Red Lake to E Red Lake Reservation Line	Bituminous mill and overlay and bridge replacement	Pending approval	Not needed	Not needed	Pending Approval	\$4.7 - \$5.7	\$5.6 - \$6.8
2	Hwy 1	0404-38	Jeremy Hadrava	2021	In Red Lake	Urban reconstruction	Pending approval	Pending approval	Pending approval	Pending Approval	\$3.6 - \$4.4	\$4.3 - \$5.3
2	Hwy 2	6001-61	Joseph McKinnon	2021	Westbound lanes from East Grand Forks to Fisher	Concrete Rehabilitation/Reconstruction	Pending approval	Not needed	Not needed	Pending Approval	\$6.7 - \$8.1	\$8.0 - \$9.7
2	Hwy 2	N/A	N/A	2022	Eastbound lanes from Hwy 32 To Erskine	Bituminous mill and overlay	Pending approval	Not needed	Not needed	Pending Approval	\$4.6 - \$5.6	\$5.5 - \$6.7
2	Hwy 75	N/A	N/A	2022	From Hallock to Canadian border	Bituminous mill and overlay and bridge replacement	Pending approval	Not needed	Not needed	Pending Approval	\$6.4 - \$7.8	\$7.7 - \$9.4
2	Hwy 200	N/A	N/A	2022	From Mahanomen/Clearwater Co line to Hwy 92	Bituminous mill and overlay	Pending approval	Not needed	Not needed	Pending Approval	\$4.0 - \$4.8	\$4.8 - \$5.8
2	Hwy 59	N/A	N/A	2023	From Brooks to Thief River Falls	Bituminous mill and overlay	Pending approval	Not needed	Not needed	Pending Approval	\$5.8 - \$7.0	\$7.0 - \$8.4
2	Hwy 87	N/A	N/A	2023	From Hwy 71 to Crow Wing River	Bituminous rehabilitation/reconstruction	Pending approval	Not needed	Not needed	Pending Approval	\$8.6 - \$10.6	\$10.3 - \$12.7
2	Hwy 89	N/A	N/A	2023	From N. Red Lake Reservation Line to CSAH 54	Bituminous mill and overlay	Pending approval	Not needed	Not needed	Pending Approval	\$4.3 - \$5.3	\$5.2 - \$6.4
2	Hwy 1	N/A	N/A	2024	From S. Jct. Hwy 89 to N. Jct. Hwy 89	Bituminous mill and overlay	Pending approval	Not needed	Not needed	Pending Approval	\$6.9 - \$8.5	\$8.3 - \$10.2
2	Hwy 2	N/A	N/A	2024	From Cass Co Hwy 91 to Cass/Itasca County line	Bituminous mill and overlay	Pending approval	Not needed	Not needed	Pending Approval	\$4.1 - \$5.0	\$4.9 - \$6.0
2	Hwy 11	N/A	N/A	2024	From Roseau to Warroad	Bituminous reclaim and bridge replacement	Pending approval	Not needed	Not needed	Pending Approval	\$9.0 - \$11.0	\$10.8 - \$13.2

Major Highway Projects (Planned 2021-2032)

District	Route	S.P.	Assigned Project Manager	Year	Location	Description	Environmental Document Status	Municipal Consent Status	Geometric Layout Approval Status	Construction Limits Status	Construction Letting Cost Estimate (In Millions)	Total Project Cost Estimate (In Millions)
2	Hwy 11	N/A	N/A	2024	From Warroad to Roosevelt	Bituminous mill and overlay/widening	Pending approval	Not needed	Not needed	Pending Approval	\$4.0 - \$4.8	\$4.8 - \$5.8
2	Hwy 32	N/A	N/A	2024	From Middle River to Greenbush	Bituminous reclaim and bridge rehabilitation	Pending approval	Not needed	Not needed	Pending Approval	\$7.7 - \$9.3	\$9.2 - \$11.2
2	Hwy 2	N/A	N/A	2025	In East Grand Forks	Replace 4th St. bridge	Pending approval	Not needed	Not needed	Pending Approval	\$5.2 - \$6.4	\$6.2 - \$7.7
2	Hwy 71	N/A	N/A	2025	From Park Rapids to Hwy 200	Bituminous mill and overlay and bridge replacement	Pending approval	Not needed	Not needed	Pending Approval	\$6.6 - \$8.0	\$7.9 - \$9.6
2	Hwy 71	N/A	N/A	2025	From Tenstrike to Blackduck	Bituminous mill and overlay	Pending approval	Not needed	Not needed	Pending Approval	\$4.0 - \$4.8	\$4.8 - \$5.8
2	Hwy 75	N/A	N/A	2025	From Donaldson to Hallock	Bituminous mill and overlay/urban reconstruction	Pending approval	Not needed	Not needed	Pending Approval	\$6.1 - \$7.5	\$7.3 - \$9.0
2	Hwy 2	N/A	N/A	2026	Westbound lanes from Fosston to Bagley	Bituminous mill and overlay and bridge replacement	Pending approval	Not needed	Not needed	Pending Approval	\$5.2 - \$6.4	\$6.2 - \$7.7
2	Hwy 59	N/A	N/A	2026	In Thief River Falls	Replace Red Lake River Bridge	Pending approval	Not needed	Not needed	Pending Approval	\$6.8 - \$8.3	\$8.2 - \$10.0
2	Hwy 89	N/A	N/A	2026	From Hwy 219 to Marshall/Roseau County Line	Bituminous mill and overlay	Pending approval	Not needed	Not needed	Pending Approval	\$4.0 - \$5.0	\$4.8 - \$6.0
2	Hwy 200	N/A	N/A	2026	From Laporte to Hwy 371	Bituminous reclaim	Pending approval	Not needed	Not needed	Pending Approval	\$5.0 - \$6.1	\$6.0 - \$7.3
3	Hwy 6	3106-24	TBD	2021	Cass-Itasca County Line to Highway 2	Bituminous resurfacing	NA	NA	NA	NA	\$5.3 - \$7.6	\$6.9 - \$10.0
3	Hwy 10	7102-135	Dumont	2021	Xenia Ave to Norfolk Ave in Elk River	Reconstruction	N/A	N/A	N/A	N/A	\$7.6 - \$9.2	\$9.1 - \$11.1
3	Hwy 12	8601-65	Dumont	2021	13th Avenue in Howard Lake to North of Bridge Avenue in Delano	Bituminous Resurfacing	N/A	N/A	N/A	N/A	\$6.9 - \$8.5	\$8.3 - \$10.1
3	Hwy 47	3304-27	Indihar	2021	MN 23 in Ogilvie to MN 27 in Isle	Bituminous Resurfacing	N/A	N/A	N/A	N/A	\$4.1 - \$5.0	\$4.9 - \$5.9
3	Hwy 55	7312-24	Dumont	2021	Pope/Stearns Co line in Brooten to Stearns/Kandiyohi Co line	Bituminous resurfacing	N/A	N/A	N/A	N/A	\$5.9 - \$7.2	\$7.1 - \$8.6
3	Hwy 55	8606-63	Dumont	2021	Meeker/Stearns Co line to east Annandale	Bituminous resurfacing	N/A	N/A	N/A	N/A	\$5.6 - \$6.8	\$6.7 - \$8.2
3	I-94	8680-176	Dumont	2021	Monticello to Clearwater (Eastbound)	Place a new concrete surface on top of existing concrete surface	N/A	N/A	N/A	N/A	\$17.5 - \$21.3	\$21.0 - \$25.6
3	Hwy 210	0120-24	TBD	2021	US 169 at Hassman to Highway 65 in McGregor	Bituminous resurfacing	NA	NA	NA	NA	\$6.2 - \$7.6	\$7.4 - \$9.1
3	Hwy 10	0502-XX	Dumont	2022	West of St. Germain Street in St. Cloud to Benton/Sherburne Co line	Reconstruction	N/A	N/A	N/A	N/A	\$9.0 - \$11.0	\$10.8 - \$13.2
3	Hwy 23	0503-XX	Dumont	2022	Pedestrian Bridge in St. Cloud to west of Benton Co CSAH 1	Reconstruction and replacement of Bridges #9021 and #9022 over Hwy 10	N/A	N/A	N/A	N/A	\$20.3 - \$24.8	\$24.3 - \$29.7
3	Hwy 25	1808-XX	Schiller	2022	Pierz to Jct MN 210 in Brainerd	Bituminous Resurfacing	N/A	N/A	N/A	N/A	\$8.5 - \$10.4	\$10.2 - \$12.5
3	HWY47	0108-XXX	TBD	2022	Mille Lacs-Aitkin County Line to Highway 169	Bituminous resurfacing	NA	NA	NA	NA	\$7.5 - \$10.8	\$9.8 - \$14.2
3	Hwy 200	1107-XX	Halgren	2022	MN 84 to Remer	Bituminous resurfacing	N/A	N/A	N/A	N/A	\$5.0 - \$6.2	\$6.0 - \$7.4
3	Hwy 10	7102-XX	Dumont	2023	3.3 mi E of Big Lake	Replace Bridge #5444 over BNSF	N/A	N/A	N/A	N/A	\$7.1 - \$8.7	\$8.5 - \$10.4
3	Hwy 95	3006-39	Dumont	2023	Fern Street to Davis Street in Cambridge	Urban reconstruction	N/A	N/A	N/A	N/A	\$6.3 - \$7.7	\$7.6 - \$9.2
3	Hwy 95	3006-39	Dumont	2023	West of Isanti Co CSAH 15 to west city limits of Cambridge	Bituminous resurfacing	N/A	N/A	N/A	N/A	\$5.4 - \$6.6	\$6.5 - \$7.9
3	Hwy 238	4913-XX	Dumont	2023	3rd Avenue in Uppsala to MN 27	Bituminous resurfacing	N/A	N/A	N/A	N/A	\$6.8 - \$8.3	\$8.1 - \$9.9
2	Hwy 2	1102-XX	TBD	2024	Cass CR 91 to Cass/Itasca Co line	Bituminous resurfacing	N/A	N/A	N/A	N/A	\$4.1 - \$5.1	\$5.0 - \$6.1
3	Hwy 6	1103-XX	Indihar	2024	Bridge #11005 over Roosevelt Lake in Outing to Jct MN 200 in Remer	Bituminous Resurfacing	N/A	N/A	N/A	N/A	\$5.9 - \$7.3	\$7.1 - \$8.7
3	Hwy 18	0102-XXX	TBD	2024	North junction of Highway 169 to North junction Highway 47 on north side of Lake Mille Lacs	Bituminous Resurfacing	NA	NA	NA	NA	\$7.6 - \$11.0	\$10.0 - \$14.4
3	Hwy 23	4801-XX	Schiller	2024	Milaca to Groundhouse River east of Ogilvie	Bituminous Resurfacing	N/A	N/A	N/A	N/A	\$5.4 - \$6.6	\$6.5 - \$7.9
3	Hwy 27	4904-XX	Halgren	2024	Little Falls	Replace Bridge #5907 over the Mississippi River in Little Falls	N/A	N/A	N/A	N/A	\$12.7 - \$15.5	\$15.2 - \$18.6
3	Hwy 65	3004-XX	Dumont	2024	Cambridge to north of Jct MN 107	Bituminous resurfacing	N/A	N/A	N/A	N/A	\$4.1 - \$5.0	\$4.9 - \$5.9
3	Hwy 71	7319-XX	Dumont	2024	I-94 to North Sauk Centre	Urban Reconstruction	N/A	N/A	N/A	N/A	\$11.0 - \$13.4	\$13.2 - \$16.1
3	HWY169	0116-XXX	TBD	2024	North of Highway 210 at Hassman to Highway 200 in Hill City	Bituminous resurfacing	NA	NA	NA	NA	\$14.0 - \$20.2	\$18.3 - \$26.5
3	Hwy 169	1804-XX	Schiller	2024	Begin 4-lane south of Garrison to Pike Road north of Garrison	Bituminous Resurfacing	N/A	N/A	N/A	N/A	\$4.7 - \$5.7	\$5.6 - \$6.9
3	HWY 200	0105-XXX	TBD	2024	Cass-Aitkin County Line to South of Highway 169	Bituminous resurfacing	NA	NA	NA	NA	\$3.6 - \$5.3	\$4.8 - \$6.9
3	Hwy 23	0504/4801-XX	Dumont	2025	West of Ronneby to west of Milaca	Bituminous Resurfacing	N/A	N/A	N/A	N/A	\$5.0 - \$6.2	\$6.0 - \$7.4
3	Hwy 23	0504/4801-XX	Dumont	2025	Central Avenue to East 1st Street in Milaca	Urban Reconstruction	N/A	N/A	N/A	N/A	\$4.5 - \$5.5	\$5.4 - \$6.6
3	Hwy 23	7305-XX	Dumont	2025	West city limits Waite Park to MN 15 in St. Cloud	Bituminous Resurfacing	N/A	N/A	N/A	N/A	\$5.5 - \$6.8	\$6.7 - \$8.1
3	Hwy 28	7308-XX	Indihar	2025	North of Jct US 71 to north of Swanville	Bituminous Resurfacing	N/A	N/A	N/A	N/A	\$7.0 - \$8.6	\$8.4 - \$10.3
3	Hwy 71	7319/7707-XX	Schiller	2025	North Sauk Centre to south Long Prairie	Bituminous Resurfacing	N/A	N/A	N/A	N/A	\$7.7 - \$9.4	\$9.2 - \$11.2
3	Hwy 71	8003/8004-XX	Schiller	2025	Franklin Avenue in Wadena to Red Eye River in Sebeka	Bituminous Resurfacing	N/A	N/A	N/A	N/A	\$7.9 - \$9.7	\$9.5 - \$11.7
3	I-94	7380-XX	Indihar	2025	Sauk Centre to Melrose	Bituminous Resurfacing	N/A	N/A	N/A	N/A	\$8.6 - \$10.6	\$10.4 - \$12.7
3	I-94	7380-XX	Indihar	2025	2.4 mi E of Melrose (EB)	Replace Br 6870 over Sauk River	N/A	N/A	N/A	N/A	\$4.3 - \$5.3	\$5.2 - \$6.3
3	I-94	7380-XX	Indihar	2025	2.5 mi NW of Melrose (EB)	Replace Br 6897 over Sauk River	N/A	N/A	N/A	N/A	\$4.3 - \$5.3	\$5.2 - \$6.3
3	I-94	8680-XX	Dumont	2025	East of Monticello west of MN 241 in St. Michael	Unbonded Overlay	N/A	N/A	N/A	N/A	\$18.9 - \$23.1	\$22.7 - \$27.7
3	Hwy 210	1805-1806-XX	Schiller	2025	Beginning of 4-Lane west of Baxter to end of 4-Lane east of Brainerd	Bituminous Resurfacing	N/A	N/A	N/A	N/A	\$10.6 - \$13.0	\$12.7 - \$15.6
3	Hwy 371	1809-XX	Indihar	2025	50th Avenue south to MN 210 in Baxter (NB & SB)	Bituminous Resurfacing	N/A	N/A	N/A	N/A	\$4.5 - \$5.5	\$5.4 - \$6.6
3	Hwy 10	4901-XX/0505-XX	TBD	2026	Little Falls to Half Way Crossing south of Royalton (EB & WB)	Bituminous resurfacing	N/A	N/A	N/A	N/A	\$11.5 - \$14.1	\$13.8 - \$16.9
3	Hwy 23	7305-XX	TBD	2026	Richmond to I-94 (EB & WB)	Bituminous resurfacing	N/A	N/A	N/A	N/A	\$15.8 - \$19.3	\$19.0 - \$23.2
3	Hwy 64	1109-XX	Indihar	2026	MN 210 east of Motley to Jct MN 87	Bituminous Resurfacing	N/A	N/A	N/A	N/A	\$9.0 - \$11.0	\$10.8 - \$13.2
3	I-94	7380-XX	TBD	2026	Melrose to Albany (EB & WB)	Bituminous resurfacing	N/A	N/A	N/A	N/A	\$13.5 - \$16.5	\$16.2 - \$19.8
4	Hwy 87	0306-30	Tom Pace	2021	Hwy 10 to Becker Co Line	Medium mill and overlay	Pending approval	Pending approval	Pending approval	Pending approval	\$8.9 - \$13.3	\$11.6 - \$17.3
4	Hwy 75/10	1406-72 (1401-173 is the assoc SP)	Tom Lundberg	2021	Moorhead	Medium mill and overlay	Pending approval	Pending approval	Pending approval	Pending approval	\$4.7 - \$7.0	\$6.1 - \$9.1

Major Highway Projects (Planned 2021-2032)

District	Route	S.P.	Assigned Project Manager	Year	Location	Description	Environmental Document Status	Municipal Consent Status	Geometric Layout Approval Status	Construction Limits Status	Construction Letting Cost Estimate (In Millions)	Total Project Cost Estimate (In Millions)
4	Hwy 55	2609-36	Tom Lundberg	2021	Highway 59 to Douglas/Grant County Line	Medium mill and overlay/Bridge Replacement	Pending approval	Pending approval	Pending approval	Pending approval	\$5.1 - \$7.6	\$6.6 - \$9.9
4	Hwy 28	7503-38	Brian Bausman	2022	Chokio to Morris	Medium mill and overlay	Pending approval	Pending approval	Pending approval	Pending approval	\$4.1 - \$6.2	\$5.3 - \$8.1
4	Hwy 9	8409-26	Tom Lundberg	2022	Barnesville to Breckenridge	Medium mill and overlay	Pending approval	Pending approval	Pending approval	Pending approval	\$8.0 - \$12.0	\$10.4 - \$15.6
4	I94EB	2680-44	Justin Knopf	2023	0.4 Miles E. of Grant Co. Line to Jct. MN 79 on I-94 EB	Concrete Rehabilitation	Pending approval	Pending approval	Pending approval	Pending approval	\$7.1 - \$10.7	\$9.2 - \$13.9
4	I94	2180-105	Mike Ginnaty/Chris Roy	2023	Bridge Redeck or Replace on I-94 Bridge # 21801 & 21802 over TH 79 & 21803 & 21804 over TH 114	Bridge Redeck or Replace	Pending approval	Pending approval	Pending approval	Pending approval	\$3.9 - \$5.8	\$5.1 - \$7.5
4	Hwy 55	8404-47	Brian Bausman	2023	SD Border to Grant/Wilkin Co Line	Medium mill and overlay	Pending approval	Pending approval	Pending approval	Pending approval	\$7.2 - \$10.8	\$9.4 - \$14.0
4	Hwy 55	2609-28	Tom Pace	2024	Elbow Lake to Barrett	Reclaim, shoulder widening	Pending approval	Pending approval	Pending approval	Pending approval	\$4.9 - \$7.4	\$6.4 - \$9.6
4	I94WB	NA	Lori Vanderhider	2024	Hwy 114 to Hwy 29	Reconstruct	Pending approval	Pending approval	Pending approval	Pending approval	\$7.8 - \$11.5	\$10.1 - \$15.0
4	Hwy 34	NA	Not assigned	2024	Hwy 225 to E Becker Co Line	Reclaim and Widen Shoulders	Pending approval	Pending approval	Pending approval	Pending approval	\$4.6 - \$6.8	\$6.0 - \$8.8
4	Hwy 28	NA	Not assigned	2024	Pomme deTerre Bridge to Starbuck	Medium mill and overlay	Pending approval	Pending approval	Pending approval	Pending approval	\$6.7 - \$10.1	\$8.7 - \$13.1
4	Hwy75	NA	Not assigned	2024	Hwy 27 in Wheaton to RR North of Hwy 55	Medium mill and overlay	Pending approval	Pending approval	Pending approval	Pending approval	\$5.4 - \$8.0	\$7.0 - \$10.4
4	Hwy 10 EB	NA	Not assigned	2025	CSAH 10 to 6 miles E of perham (NE end of Br over RR)	Medium mill and overlay	Pending approval	Pending approval	Pending approval	Pending approval	\$8.6 - \$12.6	\$11.2 - \$16.4
4	Hwy 59	NA	Not assigned	2025	South Grant County Line to Hwy 55 in Barrett	Medium mill and overlay	Pending approval	Pending approval	Pending approval	Pending approval	\$5.7 - \$8.5	\$7.4 - \$11.1
4	Hwy 59	NA	Not assigned	2025	0.3 Miles North of I-94 to 4th Avenue in Pelican Rapids	Medium mill and overlay	Pending approval	Pending approval	Pending approval	Pending approval	\$8.8 - \$13.0	\$11.4 - \$16.9
4	Hwy 34	NA	Not assigned	2025	0.2 Miles East of CSAH 29 to Ponsford Road	Medium mill and overlay	Pending approval	Pending approval	Pending approval	Pending approval	\$9.9 - \$14.8	\$12.9 - \$19.2
4	Hwy 27	NA	Not assigned	2025	South Junction Hwy 75 in Wheaton to 1.1 Miles East of CSAH 7	Medium mill and overlay	Pending approval	Pending approval	Pending approval	Pending approval	\$10.5 - \$15.5	\$13.7 - \$20.2
4	I94EB	2180-109	Mike Ginnaty/Chris Roy	2025	I94(EB) from TH 79 to TH 114	Unbonded Overlay	Pending approval	Pending approval	Pending approval	Pending approval	\$20.2 - \$29.8	\$26.3 - \$38.7
4	I94WB	2180-110	Mike Ginnaty/Chris Roy	2025	I94(WB) from TH 79 to TH 114	Unbonded Overlay	Pending approval	Pending approval	Pending approval	Pending approval	\$20.2 - \$29.8	\$26.3 - \$38.7
4	Hwy 9	NA	Justin Knopf	2026	1 Mile North of I-94 to Hwy 10	Medium mill and overlay	Pending approval	Pending approval	Pending approval	Pending approval	\$7.4 - \$10.9	\$9.6 - \$14.2
4	I94WB	NA	Lori Vanderhider	2026	0.4 Miles E. of Grant Co. Line to Jct. MN 79	Concrete Rehabilitation including shoulder	Pending approval	Pending approval	Pending approval	Pending approval	\$8.3 - \$12.2	\$10.8 - \$15.9
4	I94EB	NA	Tom Lundberg	2026	.56 Mi E. of ND State line to .3 Mi E. of CSAH 11A	Reconstruct	Pending approval	Pending approval	Pending approval	Pending approval	\$9.9 - \$14.5	\$12.9 - \$18.9
4	I94WB	NA	Lori Vanderhider	2026	1.5 Miles W of TH 108 to 0.1 Miles W of US 59	Concrete Rehabilitation including shoulder	Pending approval	Pending approval	Pending approval	Pending approval	\$11.1 - \$16.4	\$14.4 - \$21.3
4	Hwy 210	NA	Tom Pace	2026	TH 29 to .02 Miles W of US 71	Medium mill and overlay	Pending approval	Pending approval	Pending approval	Pending approval	\$4.3 - \$6.3	\$5.6 - \$8.2
6	Hwy 218	New	Not assigned	2021	N/A	Mill and resurface from Hwy 30 to Hwy 14	N/A	N/A	N/A	N/A	\$5.6 - \$8.1	\$6.7 - \$9.7
6	Hwy 42	New	Not assigned	2021	N/A	Mill and resurface from north of Hwy 247 to Hwy 61	N/A	N/A	N/A	N/A	\$4.7 - \$6.8	\$5.7 - \$8.2
6	Hwy 61	New	Not assigned	2022	N/A	Mill and resurface from Hwy 248 to northwest of Hwy 60	N/A	N/A	N/A	N/A	\$12.4 - \$17.9	\$14.9 - \$21.5
6	Hwy 57	New	Not assigned	2022	N/A	Mill and resurface from Kasson to Wanamingo	N/A	N/A	N/A	N/A	\$7.9 - \$11.4	\$9.5 - \$13.7
6	Hwy 218	New	Not assigned	2022	N/A	Mill and resurface from I-90 to Hwy 30	N/A	N/A	N/A	N/A	\$6.1 - \$8.8	\$7.3 - \$10.6
6	US 61	New	Not assigned	2022	N/A	Bituminous mill and overlay from .1 miles north MN 248 to 1.7 miles northwest of MN 60	N/A	N/A	N/A	N/A	\$11.9 - \$15.2	\$11.5 - \$15.6
6	I 90	New	Not assigned	2022	N/A	Unbonded concrete overlay eastbound from CSAH 46 (Petran) to 4 miles east of MN 105	N/A	N/A	N/A	N/A	\$12.9 - \$16.4	\$12.5 - \$16.9
6	I-35	New	Not assigned	2023	N/A	Concrete pavement rehab from the Iowa/Minnesota state line to north of Hwy 30	N/A	N/A	N/A	N/A	\$12.9 - \$16.8	\$10.6 - \$15.3
6	I 90	New	Not assigned	2023	N/A	Bridge replacement westbound bridge 6868 over the Cedar River and westbound bridge 9178 over 6th Street NE	N/A	N/A	N/A	N/A	\$4.4 - \$5.6	\$4.2 - \$5.7
6	US 218	New	Not assigned	2023	N/A	Bituminous mill and overlay from Iowa border to I 90	N/A	N/A	N/A	N/A	\$5.8 - \$7.2	\$5.2 - \$7.1
6	MN 30	New	Not assigned	2023	N/A	Bituminous mill and overlay from US 63 to US 52	N/A	N/A	N/A	N/A	\$7.1 - \$9.9	\$6.5 - \$8.8
6	Hwy 61	New	Not assigned	2023	N/A	Mill and resurface from north of Lake City to south of Red Wing	N/A	N/A	N/A	N/A	\$4.1 - \$5.9	\$4.9 - \$7.1
6	Hwy 52	New	Not assigned	2025	N/A	Mill and resurface from Hwy 63 to 85th Street	N/A	N/A	N/A	N/A	\$9.3 - \$13.4	\$11.1 - \$16.1
7	US 14	5202-56	Zak Tess	2021	New Ulm to Nicollet	Thick Mill and Overlay, RP 104.334 to RP 117.475	N/A	N/A	N/A	N/A	\$6.4 - \$9.3	\$8.0 - \$11.6
7	MN 22	0704-109	Peter Hauff	2021	TH 83 to North side of Bassett Dr in Mankato	Reconstruction, RP 50.599 to RP 51.908	N/A	N/A	N/A	N/A	\$13.7 - \$19.9	\$17.1 - \$24.8
7	MN 30	1701-27	Peter Hauff	2021	Westbrook to Jct TH 71	Thick Mill and Overlay, RP 56.473 to RP 73.913.	N/A	N/A	N/A	N/A	\$8.2 - \$11.9	\$10.3 - \$14.9
7	I 90	3280-131	Forrest Hasty	2022	3.7 mi E of Nobles/Jackson County line to TH 86	Medium Mill and Overlay, RP 54.7 to RP 65.545	N/A	N/A	N/A	N/A	\$5.8 - \$8.4	\$7.3 - \$10.5
7	I 90	4680-129	Not Assigned	2022	Fairmont to 1.8 mi E of Martin/Faribault County line	Thick Mill and Overlay, RP 102.168 to RP 113.79	N/A	N/A	N/A	N/A	\$11.6 - \$16.8	\$14.5 - \$21.0
7	I 90	2280-137	Caleb Fenske	2022	1.8 mi E of Martin/Faribault County line to the city of Blue Earth	Medium Mill and Overlay, RP 113.79 to RP 117.91	N/A	N/A	N/A	N/A	\$4.5 - \$6.5	\$5.6 - \$8.2
7	US 14	0803-38	Robert Jones	2022	Springfield to Sleepy Eye	Unbonded Overlay, RP 75.887 to RP 88.77	N/A	N/A	N/A	N/A	\$6.6 - \$9.6	\$8.3 - \$12.0
7	I 90	5380-125	Not Assigned	2022	Between Rushmore and TH 264	Rehab Br 53812, 53815, 53816, 53817, 53818, 53821 & 53822	N/A	N/A	N/A	N/A	\$7.0 - \$10.2	\$8.8 - \$12.7
7	MN 4	4602-27	Matt Young	2022	South of Sherburn to Martin/Watonwan County Line	Mill and Overlay, RP 10 to RP 26	N/A	N/A	N/A	N/A	\$7.8 - \$11.3	\$9.8 - \$14.1
7	MN 60	0708-42, 8310-XX	Zak Tess	2023	Madelia to Lake Crystal	Thick Mill and Overlay, RP 83.829 to RP 92.357, EB lanes	N/A	N/A	N/A	N/A	\$6.1 - \$8.8	\$7.6 - \$11.1
7	I 90	2280-XX, 3280-XX, 4680-XX & 5380-XX	Not Assigned	2023	On I 90 between Rushmore and TH 22	Rehab Br 53810, 32801, 32816, 32816, 32805, 32814, 46801, 46832, 46813, 46831, 46824 & 22814	N/A	N/A	N/A	N/A	\$6.3 - \$9.1	\$7.9 - \$11.4
7	MN 13	4001-XX, 4002-XX	Not Assigned	2023	TH 60 to Th 21 at the South limits of Montgomery	Medium Mill and Overlay, RP 43.942 to RP 59.839	N/A	N/A	N/A	N/A	\$13.7 - \$19.9	\$17.1 - \$24.8
7	MN 22	2205-13	Robert Jones	2023	Wells to Mapleton	Medium Mill and Overlay, RP 18.439 to RP 35.373	N/A	N/A	N/A	N/A	\$9.3 - \$13.5	\$11.6 - \$16.9
7	I 90	6780-XX	Not Assigned	2024	Beaver Creek to Luverne	Major CPR/Grind, RP 3.903 to RP 13.212, WB lanes	N/A	N/A	N/A	N/A	\$9.5 - \$13.8	\$11.9 - \$17.2
7	I 90	5380-XX	Not Assigned	2024	Adrian to Rushmore	Medium Mill and Overlay, RP 25.957 to RP 34.705, WB lanes	N/A	N/A	N/A	N/A	\$5.0 - \$7.3	\$6.3 - \$9.1
7	US 169	0716-XX	Not Assigned	2024	On US 169 in Mankato	Rehab Br 52008, 52011, 52012 & 9098	N/A	N/A	N/A	N/A	\$10.9 - \$15.8	\$13.6 - \$19.8

Major Highway Projects (Planned 2021-2032)

District	Route	S.P.	Assigned Project Manager	Year	Location	Description	Environmental Document Status	Municipal Consent Status	Geometric Layout Approval Status	Construction Limits Status	Construction Letting Cost Estimate (In Millions)	Total Project Cost Estimate (In Millions)
7	MN 4	0801-XX	Not Assigned	2024	2 mi N of Watonwan/Brown County line to South limits of Sleepy Eye	Reclaim, RP 51.835 to RP 63.133	N/A	N/A	N/A	N/A	\$3.2 - \$4.6	\$4.0 - \$5.8
7	MN 19	4004-XX	Not Assigned	2024	Henderson to New Prague	Medium Mill and Overlay, RP 134.457 to RP 150.492	N/A	N/A	N/A	N/A	\$5.7 - \$8.3	\$7.1 - \$10.3
7	US 75	6704-XX	Not Assigned	2024	Iowa to Luverne	Medium Mill and Overlay, RP 0.00 to RP 9.607	N/A	N/A	N/A	N/A	\$6.0 - \$8.7	\$7.5 - \$10.9
7	US 169	0712-XX, 2208-XX	Not Assigned	2025	Winnebago to Amboy	Unbonded Overlay, RP 19.897 to RP 27.857	N/A	N/A	N/A	N/A	\$11.6 - \$16.8	\$14.5 - \$21.0
7	US 169	0716-XXAC	Not Assigned	2025	On US 169 in Mankato	Rehab BR 52008, 52011, 52012 & 9098	N/A	N/A	N/A	N/A	\$10.0 - \$14.5	\$12.5 - \$18.1
7	MN 4	0801-XXAC	Not Assigned	2025	2 mi N of Watonwan/Brown County line to South limits of Sleepy Eye	Reclaim, RP 51.835 to RP 63.133	N/A	N/A	N/A	N/A	\$5.0 - \$7.3	\$6.3 - \$9.1
7	MN 13	8102-XX	Not Assigned	2025	Waseca to Waterville	Medium Mill and Overlay, RP 34.952 to RP 43.457	N/A	N/A	N/A	N/A	\$4.5 - \$6.5	\$5.6 - \$8.2
7	MN 15	4603-XX	Not Assigned	2025	Iowa to Fairmont	Medium Mill and Overlay, RP 0.00 to RP 9.471	N/A	N/A	N/A	N/A	\$5.3 - \$7.7	\$6.6 - \$9.6
7	MN 19	7204-XX	Not Assigned	2025	Renville/Sibley County Line to Winthrop	Major CPR, RP 97.358 to RP 109.511	N/A	N/A	N/A	N/A	\$6.9 - \$10.0	\$8.6 - \$12.5
7	US 59	5305-XX	Not Assigned	2025	In Worthington	Urban Reconstruct, RP 11.008 to RP 12.164	N/A	N/A	N/A	N/A	\$4.0 - \$5.8	\$5.0 - \$7.3
7	I 90	4680-XX	Not Assigned	2026	Sherburn to Fairmont	Thick Mill and Overlay, RP 87.814 to RP 102.168	N/A	N/A	N/A	N/A	\$8.7 - \$12.6	\$10.9 - \$15.8
7	US 14	0702-XX	Not Assigned	2026	TH 22 to TH 60, EB lanes	Major CPR/Grnd, RP 133.615 to RP 140.041	N/A	N/A	N/A	N/A	\$5.9 - \$8.6	\$7.4 - \$10.7
7	MN 13	4002-XX	Not Assigned	2026	South City limits of Montgomery to TH 19 in New Prague	Major CPR Thick Overlay, RP 59.839 to RP 67.885	N/A	N/A	N/A	N/A	\$7.7 - 11.2	9.6 - 14
7	MN 19	7205-XX	Not Assigned	2026	TH 15 to Sibley Ave in Gaylord	Reclaim/Overlay, RP 110.58 to RP 117.405	N/A	N/A	N/A	N/A	\$7.1 - 10.3	8.9 - 12.9
7	MN 22	4007-XX	Not Assigned	2026	West City limits of Waterville to Rice County Line	Medium Mill and Overlay, RP 45.911 to RP 47.935	N/A	N/A	N/A	N/A	\$8.7 - 12.6	10.9 - 15.8
8	Hwy 23	4203-50	Lance Kalthoff	2020	Cottonwood to Granite Falls	Mill 3" of existing pavement and replace with 7" of concrete	Not started	Not started	Not started	Not started	\$24.6 - \$30.4	\$30.2 - \$36.5
8	Hwy 7	3401-20AC	Teal Spellman	2020	Jct. Hwy 23 Clara City to US 71	Mill portion of existing concrete pavement, grind up underlying pavement structure and place bituminous surface on top	Not started	Not needed	Not started	Not started	\$8.6 - \$10.0	\$10.4 - \$12.0
8	Hwy 68	4210-49	Nick Klisch	2020	Minneota to Marshall	Improve the condition and operation of poor drainage structures along the corridor through replacement and widening the shoulders.	Not started	Not needed	Not started	Not started	\$7.2 - \$9.1	\$8.8 - \$11.1
8	Hwy 15	4304-53	Kelly Brunkhorst	2020	5th Ave. SW to 2nd Ave, downtown Hutchinson	Urban Reconstruction	Not started	Not started	Not started	Not started	\$4.8 - \$6.3	\$5.8 - \$7.6
8	Hwy 19	6402-22	Nick Klisch	2019	Marshall to W. Jct. Hwy 67	Mill 1.5" of existing pavement and replace with 3" of new bituminous.	Not started	Not needed	Not needed	Not needed	\$6.5 - \$7.5	\$8.5 - \$9.5
8	Hwy 7	4703-XX	Teal Spellman	2022	US 71 to MN 4 in Cosmos	2" mill and 3" overlay	Not started	Not started	Not started	Not started	\$6.8 - \$8.3	\$8.2 - \$9.9
8	Hwy 30	5103-XX	Chris Nienaber	2021	US 59 to the Murray/Cottonwood County line	3" mill and overlay	Not started	Not started	Not started	Not started	\$5.6 - \$6.5	\$6.7 - \$7.8
8	Hwy 40	1210-XX	TBD	2023	Mn 29 to Mn 277	3" mill and overlay	Not started	Not started	Not started	Not started	\$4.8 - \$5.5	\$5.7 - \$6.6
8	Hwy 23	5902-XX	TBD	2024	US 75 in Pipestone to 0.6 miles east of Lyon County CSAH 18	3" mill and overlay	Not started	Not started	Not started	Not started	\$13.5 - \$15.6	\$16.2 - \$18.7
8	Hwy 59	4209-26	TBD	2024	CSAH 33, just north of Marshall to Yellow Medicine County CSAH 3	3" mill and overlay	Not started	Not started	Not started	Not started	\$7.6 - \$9.2	\$9.1 - \$11.0
8	Hwy 19	4205-XX	TBD	2025	Marshall	Urban Reconstruction	Not started	Not started	Not started	Not started	\$9.6 - \$12.6	\$11.7 - \$15.4
M	I-35	1380-84	Dmitry Tomasevich	2021	Chicago County	Unbonded concrete overlay	Not known	Not known	Not known	Not known	\$22.8 - \$27.36	\$27.0 - \$32.3
M	Hwy 65	2710-47	Ron Rauche	2021	Hwy 65 (Central/3rd Ave Bridge) over the Mississippi River in Minneapolis	Major rehabilitation of Bridge #2440 including deck, railings and superstructure	Not known	Not known	Not known	Not known	\$32.0 - \$38.40	\$37.9 - \$45.3
M	Hwy 65	0207-110	Paul Jung	2021	Anoka County	Medium mill and overlay from County Road 10 to 153rd Avenue	Not known	Not known	Not known	Not known	\$15.4 - \$18.48	\$18.2 - \$21.8
M	Hwy 5	6201-91	Mark Lindeberg	2021	St. Paul	Reconstruction/Medium mill and overlay, Munster Ave to Kellogg Blvd	Not known	Not known	Not known	Not known	\$11.0 - \$13.2	\$13.0 - \$15.6
M	Hwy 55	1909-99	Tara McBride	2021	Dakota County	Redeck/Overlay BR #19819 (TH 55 over I35E), BR #19827 (TH 55 over I-494)	Not known	Not known	Not known	Not known	\$10.0 - \$12.0	\$11.8 - \$14.2
M	I-494	2785-414	Not assigned	2022	Hennepin	Replace BR #9080 (12th Ave S), BR #9077 (Niciolet Ave), BR #9079 (Chicago Ave)	Not known	Not known	Not known	Not known	\$12.5 - \$15.0	\$14.8 - \$17.7
M	Hwy 36	N/A	Not assigned	2022	Roseville to White Bear Lake	Medium Mill and Overlay, from Jct I-35W to Jct US 61 B	Not known	Not known	Not known	Not known	\$12.3 - \$14.8	\$14.5 - \$17.4
M	Hwy 212	N/A	Not assigned	2023	Chaska	Medium Bit M&O / Minor CPR, .01 mi W of CSAH 134 to Begin Chaska Bypass	Not known	Not known	Not known	Not known	\$17.2 - \$20.6	\$20.3 - \$24.4
M	Hwy 47	N/A	Not assigned	2023	Anoka County	Medium Mill and Overlay, Bunker Lk Blvd to Anoka/Santi county line	Not known	Not known	Not known	Not known	\$11.0 - \$13.2	\$13.0 - \$15.6
M	Hwy 50	N/A	Not assigned	2023	Dakota County	Full Depth Reclaim OR Whitetopping from Br 19011 of US 52 to US 61	Not known	Not known	Not known	Not known	\$14.5 - \$17.4	\$17.1 - \$20.5
M	I-494	N/A	Not assigned	2023	Bloomington, Mendota Heights	Rehab BR 9217E (I-494 EB over the MN River) and BR 9217W (I-494 WB over the MN River)	Not known	Not known	Not known	Not known	\$10.0 - \$12.0	\$11.8 - \$14.2
M	Hwy 169	N/A	Not assigned	2024	Scott County	Medium mill and overlay, .16 mi S of 173rd St to .5 mi West of CSAH 15	Not known	Not known	Not known	Not known	\$10.0 - \$12.0	\$11.8 - \$14.2
M	Hwy 36	N/A	Not assigned	2024	Washington County	Medium mill and overlay, .15 mi W of MN120 to .2 mi W of Greeley Ave	Not known	Not known	Not known	Not known	\$25.0 - \$30.0	\$29.5 - \$35.4
M	Hwy 5	N/A	Not assigned	2024	Carver County	Concrete Pavement Repair from MN 41 to CSAH 4	Not known	Not known	Not known	Not known	\$12.5 - \$15.0	\$14.8 - \$17.7
M	Hwy 52	N/A	Not assigned	2024	Dakota County	Unbonded concrete overlay, North of CR 86 to CSAH 42	Not known	Not known	Not known	Not known	\$40.0 - \$48.0	\$47.2 - \$56.6
M	US 10	0215-76	Paul Jung	2024	Anoka County	Replace bridge #9700 over Rum River and repair six additional bridges between Main St and East of 7th Ave	Not known	Not known	Not known	Not known	\$15.0 - \$18.0	\$17.7 - \$21.2
M	Hwy 61	N/A	Not assigned	2025	Hastings	Whitetopping/Unbonded Concrete Overlay, Jct MN 316 to W 36th St in Hastings	Not known	Not known	Not known	Not known	\$10.8 - \$13.0	\$12.7 - \$15.3
M	Hwy 65	N/A	Not assigned	2025	Anoka County	Whitetopping, from 153rd Ave to 217th Ave	Not known	Not known	Not known	Not known	\$20.8 - \$25.0	\$24.5 - \$29.5
M	Hwy 95	N/A	Not assigned	2025	Chicago County	Mill and overlay from North Branch to Sunrise River	Not known	Not known	Not known	Not known	\$10.0 - \$12.0	\$11.8 - \$14.2
M	Hwy 97	N/A	Not assigned	2026	Washington County	Full Depth Reclaim OR Whitetopping, from I-35 to MN 95	Not known	Not known	Not known	Not known	\$12.0 - \$14.4	\$14.2 - \$17.0
M	I-35E	N/A	Not assigned	2025	Dakota County	Major CPR & Diamond Gr. From Jct 35W/35 to .5 mi N TH 77	Not known	Not known	Not known	Not known	\$18.5 - \$22.2	\$21.8 - \$26.2
M	I-35W	N/A	Not assigned	2025	Hennepin, Dakota County	Medium mill and overlay, .096 mi S of Burnsville Pkwy to .1 mi N of 76th St	Not known	Not known	Not known	Not known	\$15.0 - \$18.0	\$17.7 - \$21.2
M	I-94	N/A	Not assigned	2026	Maple Grove	Unbonded concrete overlay, from MN 21 to CR 81 (Fish Lake Interchange)	Not known	Not known	Not known	Not known	\$75.0 - \$90.0	\$88.5 - \$106.2
M	I-494	N/A	Not assigned	2026	Bloomington	Medium mill and overlay, .2mi E 24th Ave S to .6 mi past France Ave	Not known	Not known	Not known	Not known	\$21.5 - \$25.8	\$25.4 - \$30.4
M	I-394	N/A	Not assigned	2026	Golden Valley, St. Louis Park, Minnetonka	Medium mill and overlay, from I-494/end of MN 12 to .4 mi E MN 100	Not known	Not known	Not known	Not known	\$20.9 - \$22.8	\$22.4 - \$26.9
M	I-35W	1981-124	Jon Solberg	2020-22	I-35W Minnesota River Bridge in Burnsville	Replace Bridge #5983	Not known	Not known	Not known	Not known	\$100.0 - \$120.0	\$118.0 - \$141.0
M	I-35W	N/A	Brian Isacson	2021-2022	Dwtn Mpls to Dwnt St Paul	I-94 MnPASS, St Paul to Minneapolis	Not known	Not known	Not known	Not known	\$100.0 - \$120.0	\$118.0 - \$141.6
M	I-94	N/A	Not assigned	2023-2024	Washington County	Unbonded concrete overlay from MN120 to Wisconsin border, both directions over 2 years	Not known	Not known	Not known	Not known	\$107.9 - \$129.5	\$127.3 - \$152.8
M	I-394	N/A	Not assigned	2025-2026	Minneapolis	Redeck Br 27831 I-394 over Dunwoody Blvd	Not known	Not known	Not known	Not known	\$55.8 - \$67.0	\$65.8 - \$79.0