

Report on the

# Corridors of Commerce Program

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November 2024

Prepared by:

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November 1, 2024

The Honorable Frank Hornstein, Chair  
House Transportation Finance & Policy Committee  
563 State Office Building  
Saint Paul, Minnesota 55155

The Honorable John Petersburg, GOP Lead  
House Transportation Finance & Policy Committee  
217 State Office Building  
Saint Paul, Minnesota 55155

The Honorable Scott Dibble, Chair  
Senate Transportation Committee  
3107 Minnesota Senate Building  
Saint Paul, Minnesota 55155

The Honorable John Jasinski, Ranking Minority Member  
Senate Transportation Finance & Policy Committee  
2227 Minnesota Senate Building  
Saint Paul, Minnesota 55155

Re: 2024 Corridors of Commerce Report

Dear Legislators,

This report fulfills the requirements laid out in [Minn. Stat. 161.088, subd. 7](#). A healthy transportation network supports a growing economy by facilitating commerce throughout the state. Transportation investments directly and indirectly foster economic growth with construction jobs and a commerce friendly network of corridors to ship goods and provide mobility to citizens. In 2013, the Minnesota Legislature created the Corridors of Commerce program with the purpose of achieving two major goals:

- Provide additional highway capacity on segments where there are currently bottlenecks in the system; and
- Improve the movement of freight and reduce barriers to commerce.

Since its creation, the eligibility criteria for selecting projects and funding for Corridors of Commerce has changed, yet the goals remain the same.

The Corridors of Commerce program has already accelerated several projects around the state. Please contact me with any questions, or you may contact Nicole Westadt at [nicole.westadt@state.mn.us](mailto:nicole.westadt@state.mn.us) or at (651) 366-4270.

Sincerely,



Nancy Daubenberger, P.E.  
Commissioner

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# Legislative Request

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This report is issued to comply with [Minn. Stat. 161.088](#) and [2023 Laws of Minn., Ch. 85, Sec. 43](#).

## **Subd. 7. Legislative report; evaluation.**

(a) Annually by November 1, the commissioner must electronically submit a report on the corridors of commerce program to the chairs and ranking minority members of the legislative committees with jurisdiction over transportation policy and finance. At a minimum, the report must include:

(1) a summary of the program, including a review of:

- (i) project selection process details that address program design and implementation, decision-making procedures, and eligibility evaluation;
- (ii) criteria measurement methodologies and criteria weighting used in project selection; and
- (iii) the policy that provides the weight given each criterion;

(2) a summary of program finance, including funds expended in the previous selection cycle, any future operating costs assigned under subdivision 6, and total funds expended since program inception;

(3) a list of projects funded under the program in the previous selection cycle, including:

- (i) project classification;
- (ii) a breakdown of project costs and funding sources; and
- (iii) a brief project description that is comprehensible to a lay audience;

(4) a comprehensive list of evaluated projects and candidate project recommendations as required under subdivision 5, paragraph (b), that identifies for each project: eligibility, classification, evaluation results for each criterion, score, and disposition in the selection process; and

(5) any recommendations for changes to statutory requirements of the program.

(b) In every even-numbered year, the commissioner must incorporate into the report the results of an independent evaluation of impacts and effectiveness of the program. The evaluation must be performed by agency staff or a consultant. The individual or individuals performing the evaluation must have experience in program evaluation, but must not be regularly involved in the program's implementation.

(c) Notwithstanding paragraph (a), a report is not required in a year in which:

- (1) no project selection was completed during the preceding 12 months; and
- (2) an evaluation under paragraph (b) is not due.

# Corridors of Commerce Program Overview

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A healthy transportation network supports a growing economy by facilitating commerce throughout the state. Transportation investments directly and indirectly foster economic growth with construction jobs and a commerce friendly network of corridors to ship goods and provide mobility to citizens. In 2013, the Minnesota Legislature created the Corridors of Commerce program with the purpose of achieving two major goals:<sup>1</sup>

- Provide additional highway capacity on segments where bottlenecks occur in the system
- Improve and preserve the movement of freight and reduce barriers to commerce

## Project Eligibility

The original 2013 law established eligibility requirements, which are detailed below in the Project Selection section, for a trunk highway project to be included in the program. In 2017, 2021 and again in 2023, legislators updated the criteria for a project to be eligible for the program:

- 1) The project must be classified as a Capacity Improvement Project or a Freight Improvement Project. The qualifying criteria for each classification are outlined below.
  - a) Capacity Improvement Project
    - The highway is currently not a divided highway, and the highway is an expressway or a freeway beyond the project limits.
    - The highway contains a highway terminus that lacks an intersection or interchange with another state highway.
    - The highway has fewer travel lanes in the project area than the number of travel lanes beyond the project limits.
    - Within the proposed project there is a new interchange or an intersection that will be reconstructed from an at-grade intersection to an interchange.
  - b) Freight Improvement Project
    - Removes or reduces an existing barrier to commerce.
    - Preserves existing freight movement.
    - Supports an emerging industry.
    - Provides connections between the state highway system and other transportation modes for the movement of freight.
- 2) Projects must be consistent with the Statewide Multimodal Transportation Plan.
- 3) Projects must be on the National Highway System, for Greater Minnesota or on any state highway in the eight-county MnDOT Metro District<sup>2</sup>.
- 4) Projects must be able to begin construction within four years of the award of the funding, except for readiness development projects.
- 5) The amount of Corridors of Commerce funding needed to construct the project (including construction cost, right of way and engineering) cannot exceed the amount of funding available.
- 6) The project cannot already be listed in MnDOT's State Transportation Improvement Program unless the project was programmed in the STIP as a result of a previous selection from this program.

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<sup>1</sup> Created by [Laws 2013, Ch. 117, Art. 3, Sec. 1](#), becoming [Minn. Stat. 161.088](#).

<sup>2</sup> Unlike other definitions for the counties within the Twin Cities Metropolitan area, [MnDOT Metro District](#) serves the following eight counties in Minnesota: Anoka, Carver, Chisago, Dakota, Hennepin, Ramsey, Scott, and Washington.

# Project Selection

Project selection for the first three funding rounds (2013, 2014 and 2015) of the Corridors of Commerce program was governed by the eight selection criteria that were in the original 2013 legislation. Those eight criteria were:

- Commerce and economic impacts
- Return on investment
- Efficiency in freight movement
- Traffic safety improvements
- Regional balance throughout the state
- Transportation system connections
- Addresses transportation policy objectives
- Community support

As authorized under the original statute, MnDOT varied its application of some of the selection criteria based on the circumstances surrounding each program year for funding and program development. For example, there were some project selection constraints because trunk highway bonds were used to finance the program in 2013. As another example, a higher emphasis was placed on project readiness in 2013 and 2014.

In 2016, the Office of the Legislative Auditor evaluated MnDOT's highway project selection processes<sup>3</sup>. The report recommended some specific improvements to how MnDOT selected projects for the Corridors of Commerce program. Following that report came the passage of [2017 Laws of Minn., 1st SS, Ch. 3, Art. 3, Sec. 20-22](#). This legislation required changes in the process for how MnDOT selects projects for the program. Those required changes included:

- MnDOT needed to establish a process to identify, evaluate and select projects under the program.
- The process must use all seven of the original selection criteria in the law, plus an eighth criteria of "regional balance" and may not include any additional evaluation criteria.
- All projects that meet the eligibility criteria for the program must be scored.
- The list of projects evaluated must be made public and include the score of each project.

In summer 2017, MnDOT began developing a more formalized project selection process. While developing the scoring process and factors to be used for each criterion, MnDOT conducted two rounds of input meetings statewide seeking input from stakeholders, businesses, corridor coalitions and the public. MnDOT used these meetings to draw attention to the 2017 changes to the Corridors of Commerce law and to promote understanding about the process and criteria. After considerable input, particularly regarding the new "regional balance" criteria, MnDOT adopted its new "Corridors of Commerce Program Guidance & Selection Process" in January 2018.

In spring 2021, the Legislature made additional changes to the project selection criteria. A new scoring criterion, "project deliverability" was added to the previous eight selection criteria. In the project deliverability scoring category, submitted projects would receive more points if time and work had already been put into the projects to help get them ready for construction. All eight of the scoring criteria must have equal weight on the final score, which means the maximum number of points a project can receive from project deliverability is 100. MnDOT's project selection process for 2022-2023 reflects this addition.

During the 2023 legislative session, language was added to allow for readiness development projects. Up to 10 percent of funding available can be used for readiness development projects. Since these projects are to be considered separately from the main program, an alternative scoring method must be established. However, the method should use the same project scoring criteria as the main program to the extent practicable. As of the writing of this report, the readiness development project selection criteria were drafted and are pending approval from the Transportation Programming & Investment Committee.

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<sup>3</sup> Office of the Legislative Auditor, "[MnDOT Highway Project Selection](#)," March 2016.

## Public Recommendations

One of the requirements of the Corridors of Commerce program is that MnDOT must accept recommendations on candidate projects from area transportation partnerships and other interested stakeholders. For the 2013 funding, MnDOT developed and selected the list of projects for Corridors of Commerce funding after asking for recommendations from stakeholders, the public and MnDOT's district staff. Considering the 2017 revisions that all eligible recommended projects be evaluated, and because of some of the issues raised in the Office of Legislative Auditor's Report, MnDOT decided that it would not submit any project recommendations for the 2017 funding and would instead score and select only projects submitted through the public recommendation process.

In January 2018, MnDOT used an online project process to receive public project recommendations for the 2017 funding. Local governments, corridor coalitions, businesses and the public submitted recommendations. From those project submissions, a total of four projects were awarded funding. After MnDOT announced the projects in May of 2018, the Legislature passed another 2018 funding package for Corridors of Commerce. That legislation required MnDOT to use the projects previously submitted and scored, so no additional public recommendations were taken at that time.

During the 2021 Legislative Session, the Legislature again made changes to the existing program requirements and added 2021 funding to the program. Because of those changes, and lessons learned by MnDOT from the 2018 project selection process, MnDOT chose to implement a series of changes to the project recommendation process for the 2022-2023 project selections. The intent of these changes is to reduce the number of projects MnDOT must take through the complete development, cost estimation, and scoring process (During the 2018 scoring process, MnDOT had 173 unique projects to process). The following are the changes made to the program:

1. MnDOT limited who is eligible to submit project recommendations to area transportation partnerships, cities, counties, townships, tribal governments, corridor coalitions, regional development organizations and metropolitan planning organizations.
2. Each eligible entity may only submit one project recommendation.
3. The on-line recommendation process requires a more detailed project description and a construction estimate reviewed and agreed to by a licensed professional engineer.
4. MnDOT also increased the amount of time the on-line submittal process is open to help with these changes.

As part of the 2023 session revisions to the legislation, a local screening and recommendation phase was added to the process. After projects are received through the online submittal process, local screening entities must review all the projects within their area, solicit input from members of the legislature who represent the area so they can review, provide comments, and then supply a nonbinding approval or disapproval for the project. Each screening entity can then recommend up to a certain number of projects for further scoring. These are noted in Table 1.

*Table 1: Screening Entities & Project Recommendation Limit*

| Screening Entity  | Maximum Recommendation |
|---|------------------------|
| Area Transportation Partnerships  | 3                      |
| Metropolitan Council in consultation with the Transportation Advisory Board | 4                      |
| Each Greater Metropolitan County  | 2                      |

## Funding

In 2013, the initial funding for the program was \$300 million in trunk highway bonds, which MnDOT supplemented with funds from other state and federal sources. In the 2014 Legislative Session, the Legislature provided \$31.5 million in trunk highway funds for FY 2014 and FY 2015. The program did not receive funding as part of the 2016-2017 transportation budget, so there was not a 2016 solicitation and project selection round.



During the 2017 legislative session, a total of \$300 million in trunk highway bonds was made available for the program for FY 2018 through FY 2021. In addition to the trunk highway bonds for FY2018-FY2021, there was \$25 million in cash for each year added for Corridors of Commerce program, increasing the total available for awards by \$100 million in cash.

For the 2017 Corridors of Commerce program, MnDOT targeted a \$400 million level for project selection (\$300 million in bonds and \$50 million in trunk highway cash from the 2018-2019 biennium and \$50 million in trunk highway cash from the 2020-2021 biennium). When MnDOT completed the scoring and ranking process on the projects, a natural break in the scoring of the projects occurred at the \$417 million level. MnDOT made the decision to program the \$417 million worth of projects, committing \$25 million from the 2022-2023 biennium as well. After MnDOT announced the four projects receiving the 2017 funding in May of 2018, the Legislature passed another \$400 million in bonding later that month, which resulted in the selection of another three projects for funding.

During the 2021 legislative session, \$200 million in bonds was provided to the program, along with a few minor revisions to the legislation. Like the previous 2017 solicitation, MnDOT assumed that \$50 million in cash would also be available from the 2024-2025 biennium to add to the \$200 million in bonds. Therefore, the 2022-2023 project selections had another \$250 million in funding from 2021 available for the program.

In the 2023 Legislative Sessions, an additional \$153 million in trunk highway bonds were added to the 2021 bonds for a total of \$403 million in program funding. \$308 million will fund eight projects and \$22 million will be used for project readiness activities to prepare future projects for Corridors of Commerce scoring.

For a complete historical breakdown of the Corridors of Commerce funding, see Table 2.

*Table 2: Corridors of Commerce Funding Overview*

| Year*        | Previous Year Funding | Trunk Highway Bonds    | Trunk Highway Funds  | Total Funding          | Project Readiness Activities | No. of Projects |
|--------------|-----------------------|------------------------|----------------------|------------------------|------------------------------|-----------------|
| 2013         | \$0                   | \$300,000,000          | \$0                  | \$300,000,000          | \$0                          | 11              |
| 2014         | \$0                   | \$0                    | \$6,500,000          | \$6,500,000            | \$0                          | 4               |
| 2015         | \$0                   | \$0                    | \$25,000,000         | \$25,000,000           | \$0                          | 12              |
| 2017         | \$0                   | \$300,000,000          | \$125,000,000        | \$425,000,000          | \$0                          | 4               |
| 2018         | \$0                   | \$400,000,000          | \$25,000,000         | \$425,000,000          | \$0                          | 3               |
| 2021**       | \$0                   | \$200,000,000          | \$50,000,000         | \$250,000,000          | \$0                          | 0               |
| 2023**       | \$250,000,000         | \$153,000,000          | \$0                  | \$403,000,000          | \$22,000,000                 | 8***            |
| 2024         | \$0                   | \$15,000,000           | \$0                  | \$15,000,000           | \$0                          | NA****          |
| <b>Total</b> | <b>\$250,000,000</b>  | <b>\$1,368,000,000</b> | <b>\$231,500,000</b> | <b>\$1,849,500,000</b> | <b>\$22,000,000</b>          | <b>42</b>       |

\*There were no funding opportunities in 2016, 2019, 2020, and 2022

\*\*Combined funding from two years

\*\*\*Only Construction Projects, Readiness Advancement Activities yet to be solicited

\*\*\*\*Funds were directed to previously awarded projects

Note: amounts exclude project funding from other sources

Details on the active Corridors of Commerce projects from the 2017, 2018, 2021 and 2023 legislative sessions are found on the following pages. For project summary information on past projects selected as a part of the 2013, 2014 and 2015 legislative sessions, refer to Appendix A.

Table 3: List and Status of All Selected Corridors of Commerce Program Projects

| Selection Year | District | Route         | Project Description  | COC Funding   | Project Status     |
|----------------|----------|---------------|--|---------------|--------------------|
| 2013           | 1        | Hwy 169       | Lane expansion in Itasca County  | \$7,900,000   | Complete           |
|                | 2        | Hwy 2         | Passing lanes between Cass Lake and Deer River   | \$13,910,000  | Complete           |
|                | 3        | I-94          | Auxiliary lanes from Rogers to St. Michael   | \$31,300,000  | Complete           |
|                | 4        | Hwy 34        | Passing lanes between Detroit Lakes and Nevis  | \$8,612,000   | Complete           |
|                | M        | Hwy 610       | Freeway completion to I-94   | \$80,300,000  | Complete           |
|                | M        | I-694         | Reconstruction and lane expansion in Arden Hills and Little Canada   | \$38,800,000  | Complete           |
|                | 6        | Hwy 14        | Lane expansion near Owatonna   | \$12,100,000  | Complete           |
|                | 7        | Hwy 14        | Lane expansion from Nicollet to North Mankato; Nicollet bypass   | \$34,700,000  | Complete           |
|                | 8        | Hwy 23        | Passing lanes between Willmar and I-90   | \$8,686,000   | Complete           |
|                | 3        | Hwy 371*      | Lane expansion from Nisswa to Jenkins  | \$45,400,000  | Complete           |
|                | M        | I-35W*        | I-35W North MnPASS expansion   | \$18,292,000  | Complete           |
| 2014           | 6        | Hwy 14        | Purchase right of way for expansion between Dodge Center and Owatonna  | \$1,500,000   | Complete           |
|                | 8, 3     | Hwy 23        | Environmental work for expansion on two segments, from New London to Paynesville and from Paynesville to Richmond                                      | \$1,500,000   | Complete           |
|                | 4        | Hwy 34        | Center left turn lane in Detroit Lakes from Hwy 59 to CR 141   | \$1,900,000   | Complete           |
|                | 1        | Hwy 2         | Reconstruct segment of roadway in Deer River   | \$2,300,000   | Complete           |
| 2015           | 7        | Hwy 14/Hwy 15 | Preliminary design work  | \$700,000     | Complete           |
|                | M, 3     | I-94          | Design options for lane addition   | \$1,400,000   | Complete           |
|                | 2        | Hwy 11        | Design passing lanes   | \$500,000     | Complete           |
|                | 6        | Hwy 14        | Purchase right of way for expansion  | \$7,300,000   | Complete           |
|                | 8, 3     | Hwy 23        | Purchase right of way for expansion  | \$800,000     | Complete           |
|                | 4, 3     | Hwy 34        | Mill and overlay   | \$3,000,000   | Complete           |
|                | M        | Hwy 169       | Design work for bridge replacement   | \$1,500,000   | Complete           |
|                | M        | I-35W         | Design work  | \$5,500,000   | Complete           |
|                | M        | I-35W         | Design work for MnPASS system  | \$1,100,000   | Complete           |
|                | M        | Hwy 65        | Design work for bridge deck replacement  | \$1,000,000   | Complete           |
|                | M        | I-94          | Design work for new pavement, bridges, and managed lanes   | \$2,000,000   | Complete           |
| 2017           | M        | Hwy 51        | Added funding for reconstruction (Snelling Ave)  | \$1,400,000   | Complete           |
|                | 3        | I-94          | Add an auxiliary lane from St. Michael (Trunk Hwy 241) to Albertville (Country Road 37).   | \$60,000,000  | Complete           |
|                | M        | I-494         | Add MnPASS lanes in both directions from France Avenue to Hwy 77 eastbound and from Hwy 77 to I-35W westbound  | \$134,000,000 | Under construction |
|                | M        | I-494/I-35W   | Complete Phase 1 of the I-494/I-35W turbine interchange, northbound to westbound directional ramp. Project has been combined with I-494 project above. | \$70,000,000  | Under construction |
|                | 3        | Hwy 169       | Convert Hwy 169 to a freeway in Elk River, from Hwy 101 to 197 <sup>th</sup> Avenue  | \$157,000,000 | Under construction |

| Selection Year | District | Route           | Project Description   | COC Funding   | Project Status     |
|----------------|----------|-----------------|---|---------------|--------------------|
| 2018           | 6        | Hwy 14          | Expand Hwy 14 from two lanes to four lanes between Owatonna and Dodge Center, completing a continuous four-lane roadway between I-35 and Rochester.                   | \$138,000,000 | Complete           |
|                | 3, 8     | Hwy 23          | Complete two gaps (New London to Paynesville – South Gap and Paynesville to Richmond – North Gap) to create a continuous four-lane roadway from Willmar to St. Cloud. | \$95,000,000  | Complete           |
|                | M        | Hwy 252/I-94    | Convert to a freeway and add MnPASS lanes from Dowling to Hwy 610.  | \$119,000,000 | In Design          |
| 2023           | M        | Hwy 10          | Lane expansion Highway 10 in Coon Rapids from CSAH 78 to CSAH 9   | \$8,000,000   | In Design          |
|                | M        | Hwy 13          | Grade separation Highway 13 in Savage/Burnsville from Quentin Avenue to Nicollet Avenue   | \$96,000,000  | In Design          |
|                | M        | Hwy 65          | Grade separation Highway 65 in Blaine from 103 <sup>rd</sup> Avenue to 117 <sup>th</sup> Avenue   | \$30,000,000  | In Design          |
|                | 1        | Hwy 53          | Roadway improvements to Highway 53 from Eveleth to Virginia   | \$18,000,000  | In Design          |
|                | 3        | I-94            | Lane expansion on I-94 from Albertville to Monticello   | \$78,000,000  | Under Construction |
|                | 3        | Hwy 371/Hwy 210 | Construct grade separation in Baxter  | \$58,000,000  | In Design          |
|                | 6        | Hwy 14          | Construct grade separation in Byron/Rochester   | \$60,000,000  | In Design          |
|                | 8        | Hwy 23/Hwy 9    | Construct grade separation in New London  | \$33,000,000  | In Design          |

\* Indicate projects that were added after the initial list of projects were selected, because of savings in delivering the program.

# 2017 Corridors of Commerce Summary

During the 2017 session, legislators put \$300 million in trunk highway bonding to the Corridors of Commerce program. In addition, they appropriated \$25 million each fiscal year in trunk highway cash to the Corridors of Commerce program. The trunk highway cash piece of the legislation was a change to MnDOT's base budget and carries on in future years unless the Legislature specifically changes the law. MnDOT decided to target a \$400 million Corridors of Commerce funding level in 2017 because the trunk highway cash transfer language increased the base budget and because it takes a few years to deliver the bigger capacity projects this program targets.

In January 2018, the Corridors of Commerce program opened for recommendations of project proposals using the new selection process. Since this was a new process, MnDOT was not sure what the final project scoring and selection results would be or how much the selected projects would cost. MnDOT received 173 unique project submissions for a total cost of just over \$8.1 billion. When the final project scoring list was completed, MnDOT decided to program \$417 million because it allowed for a more natural break in the project selection.

Listed in Appendices D and E are the final project scores for all the eligible project recommendations received for the FY 2017 and 2018 funding.

Based upon the scoring outcome, Table 4 shows those projects selected for the 2017 funding. The budget programmed for each selected project represents a 10 percent reduction in the cost estimate to encourage and re-incorporate savings efficiencies within the program. A total of \$213 million of the 2017 funding was selected for Greater Minnesota projects and \$204 million was selected for Twin Cities Metro District projects. That split of funding is within MnDOT's stated "Regional Balance Criteria" of a soft 50-50 split of the funding between the two regions.

The I-94 project selected was the lowest priced alternative submitted for scoring and did not include the rebuilding of the County Road 37 interchange or the construction of the commercial development road. Since the selection of the 2017 projects, MnDOT determined that the I-94 bridges over County Road 37 will need to be replaced in the future. There are some substantial efficiencies in both cost and construction traffic mitigation to be gained from including the rebuilding of the interchange and construction of the commercial development road at the same time as the I-94 Corridors of Commerce project. MnDOT programmed additional funding from its regular Trunk Highway Construction program to cover County Road 37 bridges.

*Table 4: Projects Selected with 2017 Corridors of Commerce Funding*

| Geographic Region | Route         | Project Description  | COC Funding Award | Project Status   |
|-------------------|---------------|--|-------------------|--|
| Greater Minnesota | I-94*         | Add an auxiliary lane from St. Michael (Hwy 241) to Albertville (Country Road 37)  | \$60,000,000      | Complete   |
| Metro District    | I-494         | Add MnPASS lanes in both directions from France Avenue to Hwy 77 eastbound and from Hwy 77 to I-35W westbound.   | \$134,000,000     | Under construction with anticipated completion in fall 2026    |
| Metro District    | I-494 & I-35W | Complete Phase 1 of the I-494/I-35W turbine interchange, northbound to westbound directional ramp. Project has been combined with I-494 project above. | \$70,000,000      | Under construction with anticipated completion in fall 2026    |
| Greater Minnesota | Hwy 169       | Convert to a freeway from Hwy 101 to 197 <sup>th</sup> Avenue in Elk River   | \$157,000,000     | Under construction with anticipated completion in spring 2025. |

*\*Project award amount was increased from \$56 million because of some increased costs*

# 2018 Corridors of Commerce Summary

During the 2018 session, legislators approved \$400 million in trunk highway bonding for the Corridors of Commerce program. The bond funding came with some special provisions that affected which projects were eligible for the funding. Those special provisions were:

- MnDOT must select projects solely using the scoring results from the 2017 funding program.
- Projects will be selected based upon the projects scored order or rank.
- At least two projects from outside of MnDOT's Metro District must be selected.
- For projects outside of MnDOT's Metro District, MnDOT must select projects in counties that did not receive project funding from the 2017 funding program.

After applying the special provisions, MnDOT selected the next three projects for the 2018 funding. Table 5 below provides information regarding the three selected projects. Like Table 4, the project budget amount programmed for each selected project represents a 10 percent reduction in the cost estimate to encourage and re-incorporate savings efficiencies within the program.

*Table 5: Projects Selected with 2018 Funding*

| Geographic Region | Route          | Project Description   | COC Funding Award | Project Status   |
|-------------------|----------------|---|-------------------|--|
| Greater Minnesota | Hwy 14*        | Expand Hwy 14 from two lanes to four lanes between Owatonna and Dodge Center, completing a continuous four-lane roadway between I-35 and Rochester                    | \$138,000,000     | Complete   |
| Greater Minnesota | Hwy 23**       | Complete two gaps (New London to Paynesville – South Gap and Paynesville to Richmond – North Gap) to create a continuous four-lane roadway from Willmar to St. Cloud. | \$95,000,000      | Complete   |
| Metro District    | Hwy 252 / I-94 | Convert to a freeway and add MnPASS lanes from Dowling to Hwy 610.  | \$119,000,000     | Environmental Impact Study in progress. Construction anticipated to start summer 2029. |

\*This project came in below the original COC funding award.

\*\* Although selected as one project for funding, for efficiency and traffic mitigation construction will be as two separate projects.

From Table 5, a total of \$352 million was awarded for the three projects. The remaining \$48 million in bonds from 2018 funding and the \$25 million in cash will be used as a contingency to cover potential inflation on all the projects from the 2017 and 2018 legislation. MnDOT is striving to deliver the remaining 2017 and 2018 projects as close to or within their award amounts; however, each are at different stages in the project development process and may need to find additional resources to be delivered. Any savings from projects already awarded or completed will be given back to the program to help other projects that may be short in the future.

# 2021 Corridors of Commerce Summary

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During the 2021 legislative session, \$200 million in bonds was provided to the program, along with a few minor revisions to the legislation. Like the previous 2017 solicitation, MnDOT assumed that \$50 million in cash would also be available from the 2024-2025 biennium to add to the \$200 million in bonds. Therefore, the 2022-2023 project selections had another \$250 million in funding from 2021 available for the program.

# 2023 Corridors of Commerce Summary

During the 2023 Legislative Session, an additional \$153 million of trunk highway bonds were added to the Corridors of Commerce program. The \$153 million brought the total funding available up to for \$403 million. Eight projects were selected for Corridors of Commerce funding in June of 2023, and \$22 million was reserved to ready future projects for solicitation in upcoming Corridors of Commerce selections. The selected 2023 projects are listed in Table 6.

*Table 6: Projects Selected with 2023 Corridors of Commerce Funding*

| Geographic Region | Route         | Project Description   | COC Funding Award | Project Status  |
|-------------------|---------------|---|-------------------|---|
| Metro District    | Hwy 10        | Lane expansion Highway 10 in Coon Rapid from CSAH 78 to CSAH 9                          | \$8,000,000       | In design, anticipated letting Winter 2025                  |
| Metro District    | Hwy 13        | Grade separation Highway 13 in Savage/Burnsville from Quentin Avenue to Nicollet Avenue | \$96,000,000      | In design, anticipated letting Summer 2027                  |
| Metro District    | Hwy 65        | Grade separation Highway 65 in Blaine from 103rd Avenue to 117th Avenue                 | \$30,000,000      | In design, anticipated letting Winter 2026                  |
| Greater Minnesota | Hwy 53        | Roadway improvements to Highway 53 from Eveleth to Virginia                             | \$18,000,000      | In design, anticipated letting Winter 2025                  |
| Greater Minnesota | I-94          | Lane expansion on I-94 from Albertville to Monticello                                   | \$78,000,000      | Under construction with anticipated completion in fall 2026 |
| Greater Minnesota | Hwy 371 & 210 | Construct grade separation in Baxter  | \$58,000,000      | In design, anticipated letting Fall 2027                    |
| Greater Minnesota | Hwy 14        | Construct grade separation in Byron/Rochester   | \$60,000,000      | In design, anticipated letting Fall 2025                    |
| Greater Minnesota | Hwy 23        | Construct grade separation in New London  | \$33,000,000      | In design, anticipated letting Summer 2027                  |

Please note the 2023 legislative changes also allow for some Corridors of Commerce funding to be put for future project readiness projects. The details of the selection of those projects are currently pending approval.

# Program Effectiveness Evaluation Summary

A feature of the Corridors of Commerce program is legislative direction to incorporate into the legislative report the “results of an independent evaluation of impacts and effectiveness of the program,” which is to be provided biennially starting in 2016.<sup>4</sup> MnDOT staff not involved with regular Corridors of Commerce program implementation performed the analysis. Findings are summarized below, and the full evaluation is provided in Appendix C.

The program effectiveness evaluation reviewed Corridors of Commerce projects that are now complete and funded from the initial implementation in 2013, projects from the 2014 selection round, projects from the 2015 project selection round, and three projects from the 2018 selection round. A highway project is typically a multiyear endeavor and proceeds through project development (such as design, engineering, and environmental analysis) and construction steps. As a result, for this evaluation there are 17 completed projects ready for review. The projects are listed in Table 7.

*Table 7: Completed 2013-2018 Projects*

| District | Route  | Construction End Month |
|----------|--|------------------------|
| 2        | Hwy 2 (Passing lanes from Cass Lake to Deer River)                 | Oct. 2015              |
| 3        | I-94 (Rogers to St. Michael)                                       | Oct. 2015              |
| Metro    | Hwy 51 (Snelling Avenue reconstruction)                            | Oct. 2015              |
| 6        | Hwy 14 (“Segment 1” of Owatonna to Dodge Center)                   | Oct. 2015              |
| 4        | Hwy 34 (Passing lanes from Detroit Lakes to Nevis)                 | Nov. 2015              |
| Metro    | Hwy 610 (CSAH 81 to I-94)  | Oct. 2016              |
| 8        | Hwy 23 (Passing lanes -- South)                                    | Aug. 2016              |
| 8        | Hwy 23 (Passing lanes -- North)                                    | Oct. 2016              |
| 7        | Hwy 14 (North Mankato to Nicollet)                                 | Nov. 2016              |
| 4        | Hwy 34 (Center left turn lane in Detroit Lakes / Mill and overlay) | Aug. 2017              |
| 2        | Hwy 2 (Reconstruct in Deer River)                                  | Aug. 2017              |
| Metro    | I-694 (Lexington Avenue to Rice Street)                            | Sept. 2017             |
| 3        | Hwy 371  | Oct. 2017              |
| 1        | Hwy 169  | June 2018              |
| 6        | Hwy 14 (Owatonna to Dodge Center, Phase 2)                         | Nov. 2021              |
| 3        | I-94 (St. Michael to Albertville)                                  | Dec. 2021              |
| 3        | Hwy 23 (North Gap)   | Nov. 2023              |

The evaluation focuses on the quantifiable criteria used in selecting projects, outlined below.

- **Construction timing and duration:** Project delivery effectiveness was gauged by comparing the original estimates of construction start date (made when projects were selected into the program) to actual commencement and completion of construction work.
- **Construction cost:** Cost management and oversight was reviewed by comparing construction cost estimates made at different points in the project development process and final cost amounts.
- **Vehicle speeds:** Traffic speed can be used to measure roadway capacity and efficient movement. Speed for both passenger automobiles and trucks were examined, comparing speed averages prior to construction against both predicted and observed speeds following project completion.
- **Traffic safety:** Crash incidence and severity. Crash data provides an important way to help identify changes in traffic safety at each of the project locations. However, it is too soon following construction to be able to obtain valid information on crash rates in the areas of some of the Corridors of Commerce projects. The evaluation established an analytical approach that can be used—once sufficient post-construction data is available—to identify any likely change in crashes. This approach is based on comparing crash incidents before and after a given Corridors of Commerce project.

<sup>4</sup> Minn. Stat. 161.088, subd. 7 (b).



- **Freight movement:** Commercial vehicle traffic growth. To track developments in freight movement, a trend analysis evaluation technique was created that reviews truck traffic changes in each of the Corridors of Commerce project corridors. This technique is designed to isolate traffic impacts that are more likely to come from the Corridors of Commerce project itself. It reviews heavy commercial vehicle growth over a period of years prior to each project, while adjusting for general statewide growth in truck traffic. As with the analysis of crashes, in some instances there is too little post-construction traffic data to observe whether there is commercial vehicle growth (beyond a general statewide “baseline”) that is attributable to the Corridors of Commerce project.

Summarizing the findings, the set of completed Corridors of Commerce projects uniformly score well on the dimension of construction scheduling, namely timing and duration. In all projects, construction started before or in the originally estimated year. The majority of projects also demonstrate effective cost management throughout their development cycle with respect to initial construction cost estimates, shown by final construction costs coming in below the initial estimates. All of the project locations evaluated in this study now support measurably higher vehicle speeds than the pre-expansion baseline levels, although the magnitude of the speed improvement varies based on the type of project.

The evaluation of traffic safety outcomes reveals generally mixed results. While some of the projects, such as the improvements along U.S. Highway 14 near Mankato and Owatonna, show substantial improvement in crash rates, other projects have seen increases in these rates in the limited time since their completion. The analysis of fatal and serious injury crashes near the project locations includes some detail about specific instances of such crashes in order to better understand the likely causes of these crashes.

The analysis of freight movement growth likewise shows a mixed set of outcomes among the projects covered in the evaluation. In many cases, increases in truck volumes following project completion fall within the year-to-year level of variability in observed levels of truck traffic. Moreover, many of the project locations have been impacted by recent changes in methods of traffic data collection, including vehicle classification methods. This transition has made difficult the task of identifying consistent, long-term trends in truck volumes at many of the project locations.

# Appendix A: Past Corridors of Commerce Program Projects

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## 2013 Corridors of Commerce Summary

MnDOT originally selected 10 projects for the \$300 million in bonds from the 2013 funding. After the initial selection, two individual Highway 14 projects were merged into one project resulting in a total of nine projects. Following the original project selection, MnDOT placed an emphasis on managing the scope and cost of the selected projects to minimize the risk of exceeding the program budget. The efforts resulted in projected total costs coming in substantially below the original estimated amount, allowing MnDOT to capture project savings and delivery efficiencies. As a result, two additional projects were added to the program using 2013 funding. Those projects were a four-lane widening project on Highway 371 from Nisswa to Jenkins in District 3 and the I-35W MnPASS north expansion project in the Twin Cities Metro area. These projects did not rely solely on the Corridors of Commerce funding for construction. A summary of all projects that received 2013 funding is listed in Table A1.

Table A1: Projects Selected with 2013 Funding

| District                            | Route     | Project Description  | Project Category           | Project Status               | Project Delivery*   | Construction         | Total Funding Needed |
|-------------------------------------|-----------|--|----------------------------|------------------------------|---------------------|----------------------|----------------------|
| <b>Original Projects Selected</b>   |           |  |                            |                              |                     |                      | <b>\$300,000,000</b> |
| 1                                   | Hwy 169   | Lane expansion in Itasca County                                    | Freight Bottleneck         | Complete and open to traffic | \$1,800,000         | \$6,100,000          | \$7,900,000          |
| 2                                   | Hwy 2     | Passing lanes between Cass Lake and Deer River                     | Freight Bottleneck         | Complete and open to traffic | \$110,000           | \$13,800,000         | \$13,910,000         |
| 3                                   | I-94      | Auxiliary lanes from Rogers to St. Michael                         | IRC Capacity Improvement   | Complete and open to traffic | \$2,900,000         | \$28,400,000         | \$31,300,000         |
| 4                                   | Hwy 34    | Passing lanes between Detroit Lakes and Nevis                      | Freight Bottleneck         | Complete and open to traffic | \$46,000            | \$8,566,000          | \$8,612,000          |
| M                                   | Hwy 610   | Freeway completion to I-94   | Metro Capacity Improvement | Complete and open to traffic | \$4,643,000         | \$75,657,000         | \$80,300,000         |
| M                                   | I-694     | Reconstruction and lane expansion in Arden Hills and Little Canada | Metro Capacity Improvement | Complete and open to traffic | \$2,800,000         | \$36,000,000         | \$38,800,000         |
| 6                                   | Hwy 14    | Lane expansion near Owatonna                                       | IRC Capacity Improvement   | Complete and open to traffic | \$46,000            | \$12,054,000         | \$12,100,000         |
| 7                                   | Hwy 14    | Lane expansion from Nicollet to North Mankato; Nicollet bypass     | IRC Capacity Improvement   | Complete and open to traffic | \$2,200,000         | \$32,500,000         | \$34,700,000         |
| 8                                   | Hwy 23    | Passing lanes between Willmar and I-90                             | Freight Bottleneck         | Complete and open to traffic | \$286,000           | \$8,400,000          | \$8,686,000          |
| <b>Original Projects Total</b>      |           |  |                            | <b>All Complete</b>          | <b>\$14,831,000</b> | <b>\$221,477,000</b> | <b>\$236,308,000</b> |
| <b>Additional Projects Selected</b> |           |  |                            |                              |                     |                      |                      |
| 3                                   | Hwy 371** | Lane expansion from Nisswa to Jenkins                              | IRC Capacity Improvement   | Complete and open to traffic | \$3,500,000         | \$41,900,000         | \$45,400,000         |
| M                                   | I-35W**   | I-35W North MnPASS expansion                                       | Metro Capacity Improvement | Complete and open to traffic | \$3,000,000         | \$15,300,000         | \$18,292,000         |
| <b>Additional Projects Total</b>    |           |  |                            | <b>All Complete</b>          |                     |                      | <b>\$63,692,000</b>  |
| <b>Remaining Balance</b>            |           |  |                            |                              |                     |                      | <b>\$0</b>           |

\*Professional/Technical Only

Note: Table excludes project funding from other sources.

## 2014 Corridors of Commerce Summary

As part of a supplemental budget, the 2014 Legislature provided \$31.5 million in trunk highway funding for Corridors of Commerce. The law required that \$6.5 million was available in FY 2014 for projects only in Greater Minnesota and \$25 million was available in FY 2015 for projects statewide. The legislation allowed the funding to be used to prepare potential projects for future construction. Preparations could include right of way purchases, environmental work, and design engineering. These activities were not allowed with the 2013 funding, so this helped MnDOT advance more complex projects towards the shovel-ready status for construction.

There was an immediate need to identify FY 2014 projects, so MnDOT used the projects previously suggested by the MnDOT districts, stakeholders, and the public. Since the focus of the 2014 program was to prepare projects for future construction, MnDOT adjusted its project consideration criteria to include the following:

- Advancement of the readiness of a future project
- Preservation of efficient freight movement
- Return on investment
- Local support

Four projects were selected for this round of funding (see Table A2). Two of the projects, Highway 14 and Highway 23, involved preparing major corridors for future expansion should additional funding become available. The Highway 34 project was to complete a gap on the corridor that was not covered with the project funded in the 2013 Corridors of Commerce program. The final project selected, Highway 2 in Deer River, was a reconstruction along the main corridor through town. This “Main Street” rebuilding project is an example of how the Corridors of Commerce program can provide statewide transportation benefits (through the improved condition and operation of Highway 2) and local economic benefits. In this instance, the community was able to access and improve their underground utilities.

*Table A2: Projects Selected with FY 2014 Funding*

| District | Route  | Project Description   | Project Category         | Cost Estimate | Project Status |
|----------|--------|---|--------------------------|---------------|----------------|
| 6        | Hwy 14 | Purchase right of way for expansion between Dodge Center and Owatonna   | IRC Capacity Development | \$1,500,000   | Complete       |
| 8, 3     | Hwy 23 | Environmental work for expansion on two segments, from New London to Paynesville and from Paynesville to Richmond | IRC Capacity Development | \$1,500,000   | Complete       |
| 4        | Hwy 34 | Center left turn lane in Detroit Lakes from Highway 59 to CR 141  | Freight Improvement      | N/A           | Complete       |
| 1        | Hwy 2  | Reconstruct segment of roadway in Deer River  | Freight Improvement      | \$2,300,000   | Complete       |

## 2015 Corridors of Commerce Summary

For the \$25 million allotted in FY 2015, MnDOT used the same process it used on the FY 2013 projects, with the addition of the following:

- Approximately 50 percent of the funding went to the Twin Cities metro area and 50 percent of the funding went to Greater Minnesota

Unlike the FY 2014 funding round, there was sufficient time to go through the same type of project solicitation and selection process that was done in 2013. MnDOT again used the Corridors of Commerce website to allow stakeholders, businesses and the public to submit potential projects for consideration. MnDOT used the projects submitted during the 2013 project identification process as a starting point for the 2015 list. This meant that all

the projects suggested from the 2013 process were automatically included on the 2015 list unless the project was constructed. New suggestions were then added, including any new ones received from the public solicitation or from internal district submissions.

The focus of the 2014 legislation was on getting projects ready for construction if new funding became available. MnDOT's selected projects that:

- Met the goals and were eligible for the program
- Were a high priority from the district perspective
- Would substantially accelerate the project's readiness
- Had local support

Twelve projects were selected for funding—six in Greater Minnesota and six in the Twin Cities metro area.

In Greater Minnesota, five of the projects specifically accelerated major improvements along several key corridors. From preliminary design to right of way acquisition, these five projects would enhance MnDOT's ability to deliver major corridor investments if funding became available. The sixth Greater Minnesota project involved greatly needed resurfacing work on Highway 34 to help maintain reliable east-west freight movements in northern Minnesota.

In the Twin Cities metro area, three of the six projects selected involved developing the designs for major bridge and roadway replacements to improve freight movement. Two other projects involved design work for major capacity improvements on I-35W and I-94. One project was for construction work along Snelling Avenue in St. Paul for freight improvements, which was part of a larger project on Snelling.

*Table A3: Projects Selected with FY 2015 Funding*

| District | Route               | Location                                       | Project Description   | Project Category              | Total Funding                             | Project Status |
|----------|---------------------|--|---|-------------------------------|---|----------------|
| 7        | Hwy 14 / Hwy 15     | New Ulm  | <a href="#">Preliminary design work</a>                                 | Freight Improvement           | \$700,000 (actual cost about \$1,000,000) | Complete       |
| M, 3     | I-94                | St. Michael to Albertville                     | <a href="#">Design options for lane addition</a>                        | IRC Capacity Development      | \$1,400,000                               | Complete       |
| 2        | Hwy 11              | Greenbush to Warroad                           | <a href="#">Design passing lanes</a>                                    | Freight Improvement           | \$500,000                                 | Complete       |
| 6        | Hwy 14              | Owatonna to Dodge Center                       | <a href="#">Purchase right of way for expansion</a>                     | IRC Capacity Development      | \$7,300,000                               | Complete       |
| 8, 3     | Hwy 23              | New London to Paynesville                      | <a href="#">Purchase right of way for expansion</a>                     | IRC Capacity Development      | \$800,000                                 | Complete       |
| 4, 3     | Hwy 34              | Detroit Lakes to Becker                        | <a href="#">Mill and overlay</a>  | Freight Movement Preservation | \$3,000,000                               | Complete       |
| M        | Hwy 169             | Nine Mile Creek                                | <a href="#">Design work for bridge replacement</a>                      | Freight Movement Preservation | \$1,500,000                               | Complete       |
| M        | I-35W               | Minnesota River crossing                       | <a href="#">Design work</a>   | Freight Movement Preservation | \$5,500,000                               | Complete       |
| M        | I-35W               | Northern suburbs                               | <a href="#">Design work for MnPASS system</a>                           | Metro Capacity Development    | \$1,100,000                               | Complete       |
| M        | Hwy 65              | 3 <sup>rd</sup> Avenue Bridge over Mississippi | <a href="#">Design work for bridge deck replacement</a>                 | Freight Movement Preservation | \$1,000,000                               | Complete       |
| M        | I-94                | Between Minneapolis and St. Paul               | <a href="#">Design work for new pavement, bridges and managed lanes</a> | Metro Capacity Development    | \$2,000,000                               | Complete       |
| M        | Hwy 51 Snelling Ave | Selby Ave. to Pierce Butler in St. Paul        | <a href="#">Added funding for reconstruction</a>                        | Freight Improvement           | \$1,400,000 <sup>1</sup>                  | Complete       |

<sup>1</sup>Amount is only the portion provided from Corridors of Commerce program

# Appendix B: Corridors of Commerce Program Guidance and Selection Process for 2022-2023<sup>5</sup>

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## Overview

A healthy transportation network supports a growing economy by helping facilitate commerce throughout the State. Transportation investments directly and indirectly foster economic growth through the provision of construction jobs and a commerce-friendly network of corridors to ship goods and provide mobility to citizens. In 2013, the Minnesota Legislature created the Corridors of Commerce Program with the purpose of achieving two major goals.

- Provide additional highway capacity on segments where there are currently bottlenecks in the system.
- Improve the movement of freight and reduce barriers to commerce.

The Corridors of Commerce program is not intended to serve as an alternative funding mechanism for MnDOT's regular preservation and expansion program. The Minnesota Legislature enacted this program to be separate from MnDOT's regular program and established separate eligibility and scoring criteria for the program that are different than MnDOT's regular program priorities.

## Project Eligibility

The Corridors of Commerce law specifically laid out program eligibility guidelines. For a project to be eligible for the program, it must meet the following eligibility requirements.

1. Projects must either be classified as a Capacity Improvement Projects or Freight Improvement Projects. The requirements for each of those classifications are as follows:
  - Capacity Improvement Projects must meet one of the following bullets:
    - Currently is not a divided highway, and that highway is an expressway or freeway beyond the project limits.
    - Contains a highway terminus that lacks an intersection or interchange with another trunk highway.
    - Contains fewer lanes of travel compared to that highway beyond the project limits.
    - Contain a location that is proposed as a new interchange or to be reconstructed from an intersection to an interchange.
  - Freight Improvement Projects must meet one of the following bullets:
    - Remove or reduce an existing barrier to commerce.
    - Preserve existing freight movement.
    - Support an emerging industry.
    - Provide connections between the trunk highway system and other transportation modes for the movement of freight.
2. Projects must be consistent with MnDOT's Statewide Multimodal Transportation Plan.
3. Projects must be able to begin construction within four years of award of the funding, but the actual construction start may be delayed beyond 4-years to avoid significant impacts to the travelling public by having parallel routes in the same region under construction at the same time.

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<sup>5</sup> Reprinted from Corridors of Commerce [website](#)

4. Projects must be on the Interregional Corridor Network of state highways, including the supplemental freight routes, in Greater Minnesota or any state highway in the eight-county MnDOT Metropolitan District.
5. The amount of corridors of commerce funding needed to construct the project (including construction cost, right-of-way, & engineering) cannot exceed the amount of funding available.
6. A project that is listed in MnDOT's State Transportation Improvement Program is not eligible for funding, unless the project was listed in the STIP because it previously received Corridors of Commerce funding.

## Project Recommendations

### The Process

MnDOT will use an online project recommendation process. (New for 2022) Only an individual serving as an official representative of one of the following organizations may submit a project recommendation for consideration of the program below:

- An area transportation partnership
- Any city, county, or township in Minnesota
- Any tribal government in Minnesota
- Any corridor coalition which is formally organized as a not-for-profit organization.
- Any metropolitan planning organization
- Any regional development organization

Each project submitted needs to be able to provide to MnDOT, upon request, a copy of a resolution or letter authorizing them to submit that project on behalf of the organization. (New for 2022) Each organization is limited to submitting one project recommendation during each project recommendation cycle.

The following information needs to be provided through the online system for the project to be considered recommended to MnDOT:

- A. Name of applicant
- B. Email address of applicant
- C. Phone number for applicant
- D. Name of the organization applicant represents
- E. Project location
- F. (New for 2022) A detailed project description that corresponds with the cost estimate identified in item "G" below.
- G. (New for 2022) A cost estimate (construction only) for the project in FY 2022 dollars that has been reviewed and agreed to by any registered engineer in the State of Minnesota.
- H. (New for 2022) Name and contact information for licensed engineer who reviewed cost estimate
- I. Identify source and dollar amount for other funding sources committed to the recommended project.
- J. Name and contact information for those funding source commitments.

### MnDOT Recommendations

MnDOT will not make any agency project recommendations as a part of this process. MnDOT will rely solely upon the online recommendation process to provide the list of projects to be considered for the program.

# Scoring and Ranking

## Legislative Criteria

The Corridors of Commerce law includes nine criteria which MnDOT must use to score and rank projects for the program. The law requires that all nine criteria must be used and that MnDOT cannot add any additional criteria. The nine criteria in the law are as follows:

1. Return on Investment
2. Economic Competitiveness
3. Freight Efficiency
4. Safety
5. Regional Connections
6. Policy Objectives
7. Community Consensus
8. Project Deliverability
9. Regional Balance

## Scoring Overview

All projects that have been determined to be eligible for the program will be scored. Up to a 100 Points each will be awarded to projects in eight of the nine criteria. The top point score for a project would be 800 points. The ninth criteria, Regional Balance, has been set-up as a funding division criterion that will be applied after the projects have been scored and ranked using the other seven criteria.

Return on Investment, Economic Competitiveness, Freight Efficiency, and Safety criteria, MnDOT will be scoring using a decile system approach. Under this approach, project outputs that relate to each of the criteria will be compared against each other by sorting them from the best output down to the lowest output. The project outputs will then be divided into ten equal groups or deciles based upon where they compare to all the other projects. Those projects with an output in the top decile (the top 10%) will receive the maximum number of points for that output. Those projects with an output in the bottom decile (bottom 10%) will receive the lowest number of points for that output. Below is an example of how the decile scoring system works:

*Table B1*

| Decile | Points |
|--------|--------|
| Top    | 50     |
| 2      | 45     |
| 3      | 40     |
| 4      | 35     |
| 5      | 30     |
| 6      | 25     |
| 7      | 20     |
| 8      | 15     |
| 9      | 10     |
| Bottom | 5      |

There are two project outputs for each criterion, except economic competitiveness (it has just one). Therefore, a project may score 50 points in one output and only 30 points in the other output to get a combined 80 points for that criterion.

The remaining four scoring criteria of Regional Connections, Policy Objectives, Community Consensus, and Project Deliverability have had specific scoring matrixes developed for them. Each of those matrixes will determine the amount of points a project receives from that criterion. Each of the scoring criteria and the methodology being incorporated with them is discussed briefly in the next section.



## Individual Criteria Scoring Methodology

**Return on Investment.** The law states the first criteria is a return on investment (ROI) measure that provides for comparison across eligible projects. MnDOT will incorporate the Project Effectiveness analysis from the FHWA Highway Capacity manual as the basis for determining ROI outputs. There are essentially two outputs as a part of this analysis: Travel Time Savings and 5-year Crash Reduction Savings.

Travel Time Savings are calculated by first determining what the current travel times are along the roadway (MnDOT will be using one of two available travel time data sets which incorporates cell phone and GPS data). Next, future travel times are calculated based upon the recommended project being constructed. There are two factors which can impact future travel times on the corridor, increases in the capacity of the roadway and increases in the posted speed limit resulting from the improvement. Combined, these savings represent the total travel time savings. The total savings is then divided by the cost of the project to the Corridors of Commerce Program to determine a Return-on-Investment output for travel time.

Please note the cost used to determine the ROI is the cost to the corridors of commerce program and not the total cost of the project. As an example, if a project's total cost was \$100 M but the submitter was only asking for \$50 M from the program because the other \$50 M is covered from other sources, the travel time savings would be divided by \$50 M and not \$100 M. This is also true for the 5-year Crash Reduction Savings below.

5-Year Crash Reduction Savings are calculated by first determining the type and severity of crashes at the proposed project locations for the last five years using MnDOT's crash data. Using FHWA's Crash Modification Factors, it is possible to project the amount of reduction in crashes a particular type of improvement can be expected to generate.

For example, if there are 100 specific types of crashes in the project area and the modification factor projects the project will result in a 50% savings in those crashes, the project will result in savings of 50 of those particular crashes. The number of crash savings by each type is then multiplied by the individual crash cost to produce a Total Crash Savings from the improvement. The total savings is then divided by the cost of the project to the Corridors of Commerce Program to determine a Return-on-Investment output for 5-Year Crash Savings.

**Economic Competitiveness.** The law states that the project must produce a measurable impact on commerce and economic competitiveness. MnDOT purchased the Regional Input-Output Modeling System (RIMS-II) data set for each MnDOT district. That data set summarizes a multiplier of the Number of Jobs per Million dollars of investment factor for each of the eight MnDOT Districts. To determine the output for the criteria, the total cost of the project (not the cost to the corridors of commerce program) is multiplied by the respective multiplier factor in Table B2.

*Table B2*

| District                             | Multiplier |
|--------------------------------------|------------|
| District 1 – Northeast Minnesota     | 9.9502     |
| District 2 - North Central Minnesota | 8.6916     |
| District 3 – Central Minnesota       | 10.2447    |
| District 4 – Northwest Minnesota     | 8.4549     |
| District 6 – Southeast Minnesota     | 9.6264     |
| District 7 – Southern Minnesota      | 9.6277     |
| District 8 – Southwest Minnesota     | 9.5527     |
| Metro                                | 11.4459    |

RIMS-II estimates the total amount of direct and indirect economic benefit from the total investment. It does not estimate increased economic development potential. MnDOT plans to conduct additional research into better methods for calculating the economic competitiveness benefits of a project for future Corridors of Commerce program selections.

**Freight Efficiency.** For this criterion in the law it states, “measures of annual average daily traffic and commercial vehicle miles traveled, which may include data near the project location on the trunk highway or on connecting trunk or local highways; and measures of congestion or travel time reliability, which may be within or near the projects limits, or both.” To cover this criterion effectively, two project outputs will be used to calculate points, Travel Reliability and Heavy Commercial Average Annual Daily Traffic.

Travel Reliability will be calculated using the same travel time data from the Return-on-Investment Travel Time Savings output, however the data will be looked at differently. Instead of calculating the travel time savings, the reliability of the roadway’s travel time will be evaluated. Both the percentage and degree of travel time unreliability will be utilized to develop an index that can be compared to all the other projects. For more specific information about the Travel Reliability calculation, please consult the technical scoring system document also located on the Corridors of Commerce website.

Heavy Commercial Average Annual Daily Traffic (HCAADT) will be taken from MnDOT’s traffic count volumes maps and used directly as this output. MnDOT will determine the closest HCAADT to the project or use a weighted HCAADT figure if more than one volume is available along the project area.

**Safety.** This criterion in the law is a measure in traffic safety improvement. Safety is one of the few areas that can impact multiple scoring criteria. As noted in the Return of Investment criteria, 5-year Crash Savings from safety improvement from the project has already been given points. For the Safety Criteria, MnDOT did not want to use the exact same data from the ROI criteria. As a result, MnDOT decided to use two different outputs from its 5-year crash statistics for this criterion which measures the existing crash conditions of the project roadway in comparison to the other project roadways being scored. The two outputs being used are:

- 5-Year Average Number of Fatal and Type A Injury Crashes
- 5-Year Average Number of All Crashes

A decile output score for both the Fatal/Type A Injury Crashes and All Crashes will be calculated for all the projects.

**Regional Connections.** The law defines this criterion as “connections to regional trade centers, local highway systems, and other transportation modes.” To score points for this criterion, MnDOT developed the following point matrix (Table B3) for scoring projects according to this criterion. As a point of clarification, if a recommended project has more than one applicable Project Type, MnDOT will apply the highest scoring Project Type from the table to calculate the points.

*Table B3*

| Project Type  | Greater Minnesota   |               |                            | Metro District         |                     |
|---|---|---------------|----------------------------|------------------------|---------------------|
|   | Interstate System/<br>Connection to Level<br>1 Trade Center | IRC<br>System | Supplemental<br>IRC System | Principal<br>Arterials | All<br>Other<br>THs |
| Closing a Gap in a Larger Corridor  | 100   | 90            | 50                         | 100                    | 50                  |
| Add Lanes to Existing Facility (expands capacity)<br>Does not include filling a gap   | 90  | 80            | 50                         | 90                     | 50                  |
| Eliminate Existing Isolated Intersection with an<br>Interchange or Grade Separation; Reconstruct<br>Intersection/Interchange with More Capacity | 80  | 70            | 20                         | 80                     | 20                  |
| Completing a Corridor Conversion (Multiple<br>Interchange and Access Patterns)  | N/A   | N/A           | N/A                        | 70                     | 20                  |
| Creating/Improving Connection (Multiple<br>Interchanges and Access Patterns)  | 60  | 50            | 30                         | 60                     | 30                  |
| Add Passing Lanes to a Facility   | N/A   | 40            | 10                         | 10                     | 10                  |
| Missing Interchange Ramps/Movements   | 20  | 10            | 10                         | 20                     | 10                  |
| Project Minimally Impacts Connectivity between<br>Trade Centers for Users   | 0   | 0             | 0                          | 0                      | 0                   |

**Policy Objectives.** The Corridors of Commerce law defines this criterion as “the extent to which the project addresses multiple transportation system policy objectives and principles.” MnDOT chose to use its Statewide Multimodal Policy Plan as the basis for developing a point matrix for this criterion, see Table B4. Unlike the Corridor Connections matrix, the Policy Objectives matrix has two separate scoring areas.

The first is the Open Decision-Making section. Projects which have had a corridor study, safety plan, safety audit, or environmental document that covers the proposed project area will receive 50-points. If the project does not have any of those things, it will receive no points from this section. For a corridor or safety plan to receive points, it must have been completed within the last ten years for the eight-county metro area or within the last twenty years for the rest of the counties in Minnesota. Although MnDOT does not need to have contributed financially to the study for it to count, MnDOT needs to have been involved and concur with the findings of the study, otherwise it will not receive any points.

The second section on Policy Objectives matrix covers System Stewardship and Healthy Communities policy areas from MnDOT’s policy plan. For each of the bullets a project meets, it receives 10-points for up to a maximum of 50-points for this section. The bullets have been developed based upon stated goals and priorities from MnDOT’s SMTP. Combining Section one and two then represent a project’s score for the Policy Objectives criteria.

*Table B4*

| Policy Area                                | Criteria  | Scoring                                      |
|--|---|--|
| Open Decision-Making                       | There has been a corridor study, safety plan, safety audit, or environmental document that covers the proposed project  | 50 - Points                                  |
| System Stewardship and Healthy Communities | <ul style="list-style-type: none"> <li>Pavement and/or bridges within the project area are due for a major rehabilitation or replacement within the next eight years</li> <li>Project incorporates ITS technology or traveler information system component</li> <li>The project addresses a significant flooding risk, snow trap/drift issue, or other environmental impact that affects the reliability of the roadway</li> <li>Project reduces VMT or hours of congestion</li> <li>Project removes an at grade rail crossing</li> <li>Project replaces existing overhead lighting with new L.E.D lighting</li> <li>Project includes improvements for bicyclists and pedestrians</li> <li>Adds or supports transit service (like park and ride facilities, transit only shoulders, and park and pool locations)</li> <li>Project will improve access to health care or to recreational areas of the State</li> </ul> | 10 Points for each category<br>Maximum of 50 |
| <b>Total Points Available</b>              |   | <b>100</b>                                   |

**Community Consensus.** The Corridors of Commerce definition for this criterion is support and consensus for the project among members of the surrounding community. To best achieve that, MnDOT has developed a matrix which asks for resolutions and letters support from three different groups. Looking at Table B5, notice that the first area requires a resolution of support for the project from each of the municipalities and counties touched by the proposed project. To help ensure that projects meet the spirit of this criteria, MnDOT has made this section an all or nothing points area. To receive the 45-points, all the municipalities and counties impacted (touched) by the project need to provide a resolution of support for the project, otherwise the project does not receive any of the 45-points.

The next section of the matrix covers support from the local planning agency for the area. For this section, only letters of support are needed not resolutions. The letters can be from either the Chair of the Planning Agency or its lead staff member. However, if a project impacts more than just one regional planning agency, it will need a letter from each planning agency to get the points. Otherwise, it will not receive any points.

The last section of the Community Consensus matrix requests a single letter of support from any chamber of commerce. This section was added to help reflect the economic impact nature of the Corridors of Commerce

program. There is no requirement that the chamber of commerce letter come from a chamber in the project's geography, just that a single letter of support be received for the project.

The resolutions and letters of support are not needed for the projects until 60-days after the closing of the on-line recommendation process. MnDOT will contact all the municipalities and counties impacted by a recommended project by letter to request they consider providing a resolution of support for the project. Within that letter, MnDOT will note that if the local government does not provide a support resolution it will impact the projects scoring within the Corridors of Commerce program. MnDOT will likewise notify the regional planning agencies of projects that will need letters of support from them. The project submitter is responsible for contacting a local chamber of commerce and have them send a letter of support. All resolutions and letters should be sent by mail or electronically to Patrick Weidemann at MnDOT (See Section VI for contact information).

*Table B5*

| Type of Support   | What is Needed  | Points  |
|---|---|---|
| <b>Resolutions of Support from Impacted Jurisdictions</b> | Resolutions supporting the project from each municipality and county that is touched by the project limits.                                   | 45 (If all jurisdictions provide a resolution, otherwise no points.)  |
| <b>Letter of Support</b>                                  | A letter of support for the project from the metropolitan planning organization, regional development commission, or regional planning agency | 45 (If more than one planning agency touched by the project, must have all provide letters of support or no points awarded) |
| <b>Letter of Support</b>                                  | A single letter of support for the project from any chamber of commerce   | 10  |

**Project Deliverability** (NEW for 2022). This criterion was added during the 2021 Legislative Session.

The criteria are designed to award points for those projects which are further along in the project development process and thus have a higher likelihood to be delivered within the funding timeframe for the program. One of the best lead measures for being able to deliver a project within a reasonable time frame and budget is to determine where a recommended project is at in the environmental review process. MnDOT has developed the table below to award the Project Deliverability criteria points based upon where the project is at in the environmental review process.

*Table B6*

| Description  | Points |
|--|--------|
| Projects with environmental review process complete                      | 100    |
| Project with environmental review process started, but not yet complete. | 50     |
| Projects that have not started the environmental review process.         | 0      |

**Regional Balance.** The criteria Regional Balance does not have any accompanying language with it in the law. MnDOT intends to use the division/awarding of the funding across the state as the way this criterion gets incorporated.

## I. Project Selection Process

All recommended projects that meet both the eligibility requirements and project recommendations requirements of the program will be scored. MnDOT will develop project descriptions and cost estimates from the information provided by the submitters to a sufficient level, so that they can be scored in each of the eight-point scoring criteria. The projects will then be scored and ranked together on a single list from the highest scoring project to the lowest.

MnDOT will award funding to the projects starting with the top scoring project and continuing down the list until all the funding is expended. The Regional Balance Criteria may result in some projects being skipped over in lieu of lower scoring projects from another region or area of the State, to ensure the funding is "regionally balanced."

MnDOT intends to work with the Legislature during the 2023 session to help get more direction and/or definition to what they mean by Regional Balance. Should MnDOT not get any additional direction from the Legislature, MnDOT will look at its past usage of a soft 50-50 split and discuss other approaches publicly in the Spring of 2023 before making any final decisions on splits.

## II. Additional Program Guidance

The following is some additional program guidance and clarifications:

1. MnDOT's cost participation policy applies to all the selected corridors of commerce projects. For purposes of that policy, all projects selected for award in the program will be treated as "MnDOT Initiated" projects.
2. MnDOT will not award funding to a project that does not meet all the applicable state and federal laws, even if it scores the highest in the program.
3. Use of FHWA federal funding on a Corridors of Commerce project is limited to only those projects which have previously been identified through MnDOT's performance-based planning process and have been developed to be eligible for federal funding (i.e. followed the NEPA process).

## III. FY 2022-2023 Program Schedule

*Table B7*

| Key Activity   | Schedule      |
|--|---------------|
| Announce 2022 recommendation process and open online submittal process                       | Aug. 1, 2022  |
| Close online submittal process   | Nov. 30, 2022 |
| Project review begins by Districts   | Dec. 1, 2023  |
| Final project descriptions, cost estimates, and letters of support are due to Central Office | March 1, 2023 |
| Consultant begins evaluation and scoring of projects   | March 1, 2023 |
| MnDOT announces project awards   | June 1, 2023  |

## IV. Program Contacts

If you have additional questions about the Corridors of Commerce Program, please feel to contact one of the individuals below.

Patrick Weidemann

Director of Capital Planning and Programming

MnDOT Office of Transportation System Management

(320) 295-9667

[pat.weidemann@state.mn.us](mailto:pat.weidemann@state.mn.us)

# Appendix C: 2024 Program Effectiveness Evaluation

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This appendix provides the results of an evaluation of the Corridors of Commerce program. The discussion includes analysis and methodology details. As directed in the statute, the evaluation was performed by MnDOT staff independent of those who oversee regular program implementation.

At the time of the last evaluation (August 2022), there were 14 projects funded through previous rounds of the program that are substantially complete and open to traffic. These include the nine projects funded through the initial 2013 Corridors of Commerce program (listed in Table 1), two of the projects funded by fiscal year 2014 legislation and three from fiscal year 2015. The 2014 projects include the reconstruction of Highway 2 through the City of Deer River and the addition of a center left turn lane along Highway 34 in the city of Detroit Lakes. The 2015 projects include the two to four-lane expansion of Highway 371 from Nisswa to Jenkins, the reconstruction of a portion of Highway 51 (also known as Snelling Avenue) within the city of Saint Paul, and a mill and overlay project on Highway 34 in and near Detroit Lakes. The Highway 34 project was bundled together with the 2014 turn lane project for contracting and construction efficiency and will be treated as a single project for evaluation purposes. Together, these projects form the set of evaluated projects. Three additional projects, one funded in 2017 and the other two in 2018, have been completed since the last evaluation and are included in the present study, bringing the total to 17.

## Evaluation Criteria and Considerations

The 2015 legislative report on Corridors of Commerce<sup>6</sup> lists the following criteria that were applied to candidate projects in 2013 after pre-screening for delivery time frame and amount of additional funding required:

- Construction start date
- Relative return on investment
- Travel time improvement
- Local support
- Multimodal connection

The first three factors translate most readily to quantitative comparisons, which are the appropriate starting points in choosing the objective measures used for this evaluation. The target measures are identified below. The recent completion of some Corridors of Commerce projects means before/after data is not yet available in some cases. The comparison data is also limited because there are projects approved for Corridors of Commerce funding in subsequent years that partially overlap areas already improved by the 2013 projects. These overlaps are noted where they occur.

Projects are judged by whether they are performing in line with expectations with respect to the following:

- Construction timing and duration
- Construction cost
- Vehicle speeds
- Crash incidence and severity
- Heavy commercial vehicle traffic growth

Even where data exists to allow for comparisons between (1) the scoping and selection phase and (2) early post-opening operations on the facility, strict causality cannot be reliably assigned to each improvement funded under

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<sup>6</sup> Minnesota Department of Transportation, "2015 Report on the Corridors of Commerce Program", (see bottom of page 5)

Corridors of Commerce. This is due to the difficulty of controlling for all other behavioral, economic, engineering and sample size considerations.

Instead, the analysis seeks correlations and directional trends to understand how the priorities advanced by the Corridors of Commerce legislation are being brought to life.

Lastly, while all 17 of the projects identified for evaluation are effectively complete and open to traffic, the set of projects available for evaluation on each of the five criteria listed above will vary depending on data availability, timing of project completion and applicability. All projects will be evaluated on the construction timing and cost criteria but some of the projects will necessarily be left out of the analysis of the other three criteria.

Each project is populated with the best available estimates and projections, most specific and closest to the time of construction. In most cases, the planning or predicted values dating from the time of project selection are obtained from high-level modeling conducted by MnDOT's Office of Transportation System Management. For any projects with more detailed third-party consultant studies preceding construction, those results are shown here and supersede the preliminary planning inputs.

## Construction Timing and Duration

Table C1 checks the actual beginning and endpoints of construction against the timing anticipated during project selection. (Expectations for duration or construction finish were not then established or known.) The construction schedule is defined as running from when traffic on the corridor first experiences road work impacts such as reduced speeds, temporary lane reconfigurations and related disruption. Similarly, the end of construction is considered to be the time when free-flow conditions are restored, as confirmed with project managers. This timing may not coincide with the dates specified in the contract in every case, due to preparation and wrap-up work undertaken that does not noticeably affect the roadway environment.

*Table C1: Completed Project Construction Dates*

| District | Route            | Potential Start Time Frame (estimate) | Contract Letting Month | Construction Start Month | Construction End Month |
|----------|------------------|---------------------------------------|------------------------|--------------------------|------------------------|
| 6        | Hwy 14 (Phase 1) | 2014 - 2015                           | Apr. 2014              | July 2014                | Oct. 2015              |
| 3        | I-94             | 2016 - 2018                           | May 2014               | July 2014                | Oct. 2015              |
| 4        | Hwy 34           | 2014 - 2015                           | June 2014              | Aug. 2014                | Nov. 2015              |
| 2        | Hwy 2            | 2016 - 2018                           | Aug. 2014              | Oct. 2014                | Oct. 2015              |
| M        | Hwy 610          | 2014 - 2015                           | Aug. 2014              | Oct. 2014                | Oct. 2016              |
| M        | Hwy 51           | Summer 2015                           | Mar. 2015              | May 2015                 | Oct. 2015              |
| 7        | Hwy 14           | 2016 - 2018                           | May 2015               | June 2015                | Nov. 2016              |
| 3        | Hwy 371          | 2016 - 2017                           | Oct. 2015              | Feb. 2016                | Oct. 2017              |
| 8        | Hwy 23 (South)   | 2016 - 2018                           | Oct. 2015              | May 2016                 | Aug. 2016              |
| M        | I-694            | Spring 2016                           | Nov. 2015              | Feb. 2016                | Sept. 2017             |
| 4        | Hwy 34           | Summer 2016                           | Feb. 2016              | July 2016                | Aug. 2017              |
| 8        | Hwy 23 (North)   | 2016 - 2018                           | Apr. 2016              | June 2016                | Oct. 2016              |
| 1        | Hwy 169          | Summer 2016                           | June 2016              | Sept. 2016               | June 2018              |
| 2        | Hwy 2            | Summer 2017                           | Mar. 2017              | June 2017                | Aug. 2017              |
| 3        | I-94             | Spring 2019                           | Mar. 2019              | Aug. 2019                | Dec. 2021              |
| 6        | Hwy 14 (Phase 2) | Spring 2020                           | Aug. 2019              | Feb. 2020                | Nov. 2021              |
| 3        | Hwy 23           | Spring 2022                           | Dec. 2021              | Apr. 2022                | Nov. 2023              |

All the projects listed meet the broad guidelines specified for groundbreaking, and two of the projects were finished before the first year shown in their preliminary start schedules. These comparisons justify the high deliverability rating assigned to the awarded projects. Note also that the project adding several passing lane segments along Highway 23 in District 8 was split into two separate sponsored projects, identified in Tables C1 and C2 as the north and south sections. Accordingly, these two projects are treated separately in this instance, since they were conceived with different start and contract letting dates; however, for most of the remaining



sections of the analysis not related to project delivery, these two projects will be treated as a single project. Note also that the TH 23 project listed in District 3 (the “North Gap” expansion project between Paynesville and Richmond), is entirely separate from the passing lane projects in District 8.

## Construction Cost

Table C2 compares project cost estimates recorded at four major development stages. Chronologically from earliest to most current, the snapshots describe the cost progression from: the original construction estimate;<sup>7</sup> the pre-letting engineer’s estimate; the awarded contractor bid; and the final total payment by MnDOT to the contractor (designated as the 95 percent or more complete value certified amount).

*Table C2: Completed Project Construction Cost Comparison (millions)*

| District | Route                             | Original Construction | Engineer's Estimate (EE) | Awarded Bid (BID) | Final Amount (FINAL) |
|----------|-----------------------------------|-----------------------|--------------------------|-------------------|----------------------|
| 6        | Hwy 14 (Phase 1)                  | \$15.0                | \$12.6                   | \$12.0            | \$11.1               |
| 3        | I-94 (Rogers to St. Michael)      | \$32.4                | \$30.6                   | \$28.3            | \$28.4               |
| 4        | Hwy 34 (Passing lanes)            | \$10.0                | \$9.0                    | \$7.9             | \$8.5                |
| 2        | Hwy 2 (Passing lanes)             | \$10.5                | \$10.8                   | \$13.3            | \$14.1               |
| M        | Hwy 610                           | \$100.3               | \$83.6                   | \$80.7            | \$80.3               |
| M        | Hwy 51                            | \$7.1                 | \$10.5                   | \$12.9            | \$13.3               |
| 7        | Hwy 14 (Mankato to Nicollet)      | \$38.5                | \$31.2                   | \$31.7            | \$33.6               |
| 3        | Hwy 371                           | \$41.9                | \$56.9                   | \$49.9            | \$50.2               |
| 8        | Hwy 23 Passing Lanes (South)      | \$10.9                | \$4.3                    | \$4.1             | \$4.3                |
| M        | I-694                             | \$42.3                | \$35.0                   | \$34.7            | \$35.0               |
| 4        | Hwy 34 (turn lanes)               | \$3.7                 | \$2.7                    | \$2.6             | \$2.6                |
| 8        | Hwy 23 Passing Lanes (North)      | \$10.9                | \$4.1                    | \$3.9             | \$3.8                |
| 1        | Hwy 169                           | \$8.3                 | \$6.7                    | \$5.9             | \$6.3                |
| 2        | Hwy 2 (Reconstruct)               | \$1.5                 | \$1.9                    | \$2.2             | \$2.5                |
| 3        | I-94 (St. Michael to Albertville) | \$70.6                | \$68.7                   | \$71.0            | \$68.9               |
| 6        | Hwy 14 (Phase 2)                  | \$160.0               | \$118.9                  | \$108.0           | \$110.4              |
| 3        | Hwy 23 (North Gap)                | \$42.8                | \$41.4                   | \$41.8            | \$43.1               |

*All amounts are in millions.*

Note that in Table C2 the original construction cost estimates for the north and south segments of the Highway 23 passing lanes project are identical. This reflects the original construction cost for the project applying to the entire corridor, including both segments. Also, as noted previously, the Highway 34 turn lanes project was combined with a mill and overlay project on a concurrent section of the highway. So, the original construction cost estimate reflects the combined estimates for both project components rather than just the construction of the turn lanes.

## Findings

For most of the projects examined, except for the two projects located on Highway 2 and the Highway 51 reconstruction, none of the engineer’s estimates, awarded bids or final amounts are greater than the original construction estimate. This is one indicator of desired cost control and oversight. In other words, no more resources were consumed at later project stages than what was initially expected at the time of project selection. Additionally, only these three projects and the expansion of Highway 14 between North Mankato and Nicollet resulted in awarded bids and/or final amounts that were above the engineer’s estimate. The final amounts for construction cost all remain close to the awarded bid amounts. Only in one instance (the Highway 2 reconstruction project in Deer River) does the final amount exceed the awarded bid by more than 10 percent.

Only for the pair of Highway 2 projects and the Highway 51 reconstruction project do estimated and actual costs continually increase over the course of project preparation and execution from the low of the original estimate to

7 2013 estimates were presented in the “Construction Letting (Estimate)” field of Figure 1 on page 6 of the 2015 Report on the Corridors of Commerce Program and exclude project delivery expense.



the final amount. The biggest escalation in cost of \$2.5 million (24 percent of the original estimate) occurs between the engineer's estimate and awarded bid values for the passing lanes project. In contrast, the largest increase in cost for the Highway 2 reconstruction project occurs earlier in the project development process, between the original construction estimate and the development of the engineer's estimate.

The 2024 program evaluation adds in three projects, which were recently completed, and funded during the 2017 and 2018 funding cycles. These are the four to six-lane expansion of Interstate 94 between St. Michael and Albertville, the two to four-lane expansion of TH 23 between Paynesville and Richmond (the "North Gap" project), and the second phase of the two to four-lane expansion of TH 14 between Owatonna and Dodge Center.

Regarding the Interstate 94 expansion project, the listed final cost for the project was lower than the original construction estimate due one of the pieces of construction work – the replacement of the Interstate 94 westbound bridge at the County State Aid Highway (CSAH) 19 interchange – being removed from the contract after its initial design because of needed design modifications for a future Corridors of Commerce-funded project immediately to the west, between Albertville and Monticello. The TH 23 North Gap project maintained consistent cost estimates throughout the project development process. The \$42.8 million original cost estimate was a total project cost estimate produced in May 2018, and which assumed construction to proceed in 2022. Of note, this estimate does not include a small grant award received through the 2014 Corridors of Commerce funding cycle, which was applied toward environmental review activities on the North Gap project and nearby TH 23 South Gap project between Paynesville and New London. The Interstate 94 project also received \$1 million Corridors of Commerce grant in 2015 for engineering design work.

The second phase of the TH 14 project between Owatonna and Dodge Center is one of the more complex projects to evaluate. In addition to being part of a larger project, the first phase of which was funded five years earlier, and for which some aspects of project development had already been completed prior to the project's funding through Corridors of Commerce, the project was also delivered through a design-build method. Under this approach the contractor was responsible for both final design of the project and construction. This accounts for much of the discrepancy between the project's original estimate and estimates at later phases of development. Some of the funding through the Corridors of Commerce grant was applied to other project-related costs, including right-of-way acquisition, utility relocation, and consultant contracts. The project had also benefited from two prior grants, obtained in 2014 and 2015, for the purpose of right-of-way acquisition.

## Vehicle Speeds

Another requirement of the Corridors of Commerce legislation is that project selection must consider "efficiency in the movement of freight, including... measures of congestion or travel time reliability."<sup>8</sup> Although recurring reliability problems such as weather events or rush hour backups affect vehicle speeds, these types of events have at most a secondary influence on most of the Corridors of Commerce candidate routes, because these projects are located outside of the Twin Cities metro area and do not experience significant congestion-related delays or travel time variability. The measurement of reliability remains less systematic and routine than other traffic benchmarks, although progress is being made through pilot research led by MnDOT's Metro District that draws on new data collection technology to obtain, validate and report regular, widespread reliability information in the future. For these reasons, travel efficiency is chiefly judged by reference to average vehicle speeds, recorded for autos and trucks.

Required decades ago, as a condition for receiving federal highway funding, speed monitoring was left up to state discretion in 1995, and since then has been carried out as a voluntary service by MnDOT to facilitate statewide analysis. Speed monitoring generally involves two methods to collect data. Fixed-point automated speed monitoring stations continuously collect geographically dispersed data for all state-owned roadway classifications—urban and rural, divided/undivided highways and limited-access freeways. Average travel speeds have traditionally been estimated based on vehicle volume, capacity, and presence of intersection traffic control.

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<sup>8</sup> Minn. Stat. 161.088, subd. 5.

More recently, the availability of data from global positioning system, GPS, readings from smartphones and on-board navigation units are providing a new source of speed data with better spatial coverage and more regular reporting.

Overlapping with Corridors of Commerce improvements around the state, a multiyear review was under way of speed limits governing two-lane highways having a posted limit of 55 miles per hour. The study, required by a 2014 law<sup>9</sup>, was initiated in 2014 and was completed in 2018. For each qualifying location, the review considered engineering and safety criteria to determine the appropriateness of raising the posted speed limit to 60 miles per hour. The year-by-year list of evaluated routes is contained in the report published in January 2018.<sup>10</sup>

The completion of this speed limit review resulted in three of the highways under study corresponding to Corridors of Commerce projects receiving higher posted speed limits. The corridor of TH 34 between Detroit Lakes and Nevis had its speed limit increased from 55 to 60 miles per hour, though not until after the completion of the construction of the passing lane segments. TH 14 between Owatonna and Dodge Center also had its speed limit raised from 55 to 60 miles per hour, though this did not affect the first phase of the project which had its speed limit raised to 65 as part of the four-lane expansion. This portion of the project opened to traffic in late 2015. The second phase of the project was impacted by the increase following a 2018 review, though its implementation overlapped substantially with construction on this second phase beginning in early 2020, thus confounding the impact of the new speed limit with speed restrictions associated with the project's work zone. The third project affected by speed limit review was the two to four-lane expansion of TH 23 between Paynesville and Richmond in District 3. This was one of the earlier highway corridors to undergo a speed limit review, with its review taking place in 2014. The expansion project was not completed until approximately eight years later, meaning that the effect of the project on speeds should be distinct from the effect of the speed limit increase.

The most recent speed limit report makes a point equally relevant to the Corridors of Commerce assessment about the nature of the relationship between faster allowed speeds and resulting safety outcomes:

*It is important to remember that raising a posted speed limit is not inherently making a road “less safe.” A properly selected speed limit can increase the safety of the roadway by creating uniform travel speeds for all vehicles, and by setting realistic driver expectations of those trying to cross or enter the roadway.<sup>11</sup>*

In other words, there is not necessarily a tradeoff between speed and safety of travel. This uncertainty supports the independent testing within each completed corridor of the speed and safety criteria described in this evaluation.

When investigating typical, representative speed conditions, there are two common reporting practices depending on context. Return on investment modeling, including the modeling that is run during Corridors of Commerce screening, adopts the simple arithmetic mean for an average measure, dividing vehicle miles traveled by vehicle hours traveled. Alternatively, engineering analysis of speed differentials for individual vehicles shows summary statistics in percentile terms, which has the effect of minimizing the impact of extreme but rare high- and low-speed (e.g., farm tractor) observations. Future reports may use both reporting practices; however, this update of the report relies on the former.

Since there are so many vehicles traveling at very similar speeds clustered around the posted speed limit, before-and-after mean speed comparisons tend to show larger changes rather than when using an equivalent percentile measurement. Likewise, speed changes will be greater when focusing on peak time-of-day travel—defined as 6 to 9 a.m. and 4 to 7 p.m.—instead of 24-hour averages that include relatively uncongested intervals. To understand the magnitude of improvement under the high-traffic conditions of greatest concern to drivers, the actual speed data that follows is restricted to peak hours. Obtaining custom, timely actual speed information has historically been difficult, until the introduction of a still-emerging breakthrough technology application developed to advance regulatory effectiveness. As part of the Federal Highway Administration's National Performance

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<sup>9</sup> Laws 2014, Chapter 312, art. 11, sec. 36

<sup>10</sup> Minnesota Department of Transportation, “2018 Report on the Evaluation of Certain Highway Speed Limits,” Jan. 2019.

<sup>11</sup> Ibid., p. 7

Management Research Data Set, also called NPMRDS, private sector probe data is available for analysis by public agencies at the federal, state, and municipal levels on a near-real time basis. Specifically, actual average travel times—and by extension vehicle speeds—are reported around the clock and throughout the year in monthly data tables containing fine detail by time-of-day (down to five-minute slices). Travel time information is obtained from smartphones, dedicated navigation devices, integrated personal vehicle technology and freight fleet reporting coordinated by the research division of the largest national trucking trade association. Roadway network coverage consists of all Corridors of Commerce locations selected to date. However, NPMRDS breaks highways into segments known as traffic message channels. In some cases, Corridor of Commerce project areas do not align well with TMC segments. Streetlight Data provides a similar data set to NPMRDS and allows users to manually select start and end locations. Instances that use Streetlight Data are noted in the analysis.

## Analysis of Vehicle Speeds

Table C3 contains 2023 data on mean speeds for each evaluated Corridors of Commerce project with passenger car and truck speeds separated. Observations are drawn from AM and PM Peak periods, corresponding to 6-9 AM and 4-7 PM. Most of the reported speeds for passenger cars are slightly higher than those for commercial trucks, typically within two to three miles per hour though the gap is a bit larger for the Interstate 94 projects, both of which have posted speeds of 70 miles per hour.

*Table C3: Comparison of Auto and Truck Observed Mean Vehicle Speed Estimates for 2023*

| Hwy     | Description                       | Autos Observed over Peak Period: Jan-June 2023 | Trucks Observed over Peak Period: Jan-June 2023 |
|---------|-----------------------------------|--|---|
| I-694   | Lexington to Junction I-35E       | 63.2   | 60.5  |
| I-94    | Rogers to St Michael              | 72.0   | 67.5  |
| MN-23   | Passing Lanes - North             | 57.5   | 54.6  |
| MN-23   | Passing Lanes - South             | 60.4   | 59.2  |
| MN-34   | Passing Lanes*, **                | 62.3   | 59.4  |
| MN 34   | Turn Lanes                        | 26.9   | 27.9  |
| MN-371  | Nisswa to Jenkins                 | 61.8   | 60.1  |
| US-14   | Mankato to Nicollet               | 67.6   | 64.2  |
| Hwy 14  | Owatonna to Dodge Center Phase 1* | 68.0   | 65.8  |
| Hwy 14  | Owatonna to Dodge Center Phase 2* | 69.3   | 66.1  |
| Hwy 169 | Near Taconite *, **               | 63.0   | 62.4  |
| US-2    | Passing Lanes                     | 58.4   | 55.1  |
| I-94    | St. Michael to Albertville        | 72.0   | 67.7  |
| MN-23   | Paynesville to Richmond           | 66.4   | 65.8  |

\* Used Streetlight data, which does not have the capability to separate light duty vehicles from heavy trucks, but does have the ability to isolate truck speeds

\*\* Either AM, PM, or both AM and PM speeds were not available, so daily speeds were used in conjunction with any specific speed data provided by Streetlight.

Tables C4-C8 take a closer look at 2023 speed averages for five Corridors of Commerce projects. The first four of these were considered projects for which commute flows and high peak-period volumes might affect directional, peak-period speeds. For the first three tables speed averages are broken out by vehicle type, direction (east and west), and AM and PM peak periods. In each case, traffic is flowing at speeds close to the posted speed limit, indicating little or no effect of congestion following project completion. The fourth and fifth tables, 7 and 8, shows speed averages for select construction sections where passing lanes were constructed for Highway 23 in District 8. Along with being broken up directionally, temporally, and by vehicle type, the tables are also broken up by the northern and southern project passing lanes.

*Table C4: Breakout Comparison of I-694 during AM and PM Peak Periods in 2023*

| I-694         | East | West |
|---------------|------|------|
| <b>Autos</b>  |      |      |
| AM            | 63.6 | 63.9 |
| PM            | 63.0 | 62.3 |
| <b>Trucks</b> |      |      |
| AM            | 61.0 | 60.5 |
| PM            | 60.3 | 60.1 |

*Table C5: Breakout Comparison of I-94 (Rogers to St. Michael, MN) during AM and PM Peak Periods in 2023*

| I-94          | East | West |
|---------------|------|------|
| <b>Autos</b>  |      |      |
| AM            | 71.7 | 72.6 |
| PM            | 73.0 | 70.9 |
| <b>Trucks</b> |      |      |
| AM            | 67.1 | 67.8 |
| PM            | 67.8 | 67.2 |

*Table C6: Breakout Comparison of I-94 (St. Michael to Albertville, MN) during AM and PM Peak Periods in 2023*

| I-94          | East | West |
|---------------|------|------|
| <b>Autos</b>  |      |      |
| AM            | 73.5 | 72.0 |
| PM            | 73.9 | 68.3 |
| <b>Trucks</b> |      |      |
| AM            | 68.8 | 67.8 |
| PM            | 68.7 | 65.5 |

*Tables C7 & C8: Breakout Comparison of Highway 23 Passing Lanes Construction Sections*

| North Section | North | South |
|---------------|-------|-------|
| <b>Autos</b>  |       |       |
| AM            | 56.6  | 58.4  |
| PM            | 57.1  | 58.3  |
| <b>Trucks</b> |       |       |
| AM            | 54.8  | 53.8  |
| PM            | 55.0  | 54.5  |

| South Section | North | South |
|---------------|-------|-------|
| <b>Autos</b>  |       |       |
| AM            | 59.9  | 60.4  |
| PM            | 60.5  | 60.9  |
| <b>Trucks</b> |       |       |
| AM            | 58.7  | 58.8  |
| PM            | 59.7  | 59.4  |

Table C9 contains speed information for each evaluated Corridors of Commerce project. Columns on the left display the absolute mean speeds estimated under baseline capacities and predicted after the Corridors of Commerce enhancements. The rightmost columns provide actual NPMRDS, or StreetLight, speed point estimates recorded at peak times and averaged across all vehicles for the first six months<sup>12</sup> of 2014, 2019, 2021 and 2023. Given the staggered construction start and end dates for the projects under evaluation, these two six-month periods capture pre- and post-construction conditions for nearly all projects while also controlling for seasonal effects. The inclusion of the years 2019 and 2021 also provide benchmarks for conditions before and immediately after the COVID-19 Pandemic, accounting for sharp changes in travel demand which may affect observed speeds.

*Table C9: Comparison of Estimated/Predicted and Observed Mean Vehicle Speed Estimates<sup>13</sup>*

|                |                                  | Estimated/Predicted<br>(absolute mean speeds) |          |          |          | Observed Passenger and Truck Peak Periods |               |               |               |
|----------------|----------------------------------|---|----------|----------|----------|---|---------------|---------------|---------------|
|                |                                  | Auto  |          | Truck    |          | Combined Auto and Truck                   |               |               |               |
| Route          | Description                      | Baseline                                      | Improved | Baseline | Improved | Jan-June 2014                             | Jan-June 2019 | Jan-June 2021 | Jan-June 2023 |
| <b>Hwy 2</b>   | Passing Lanes                    | 55  | 60       | 55       | 55       | 54.0                                      | 52.2          | 57.1          | 56.7          |
| <b>I-94</b>    | Rogers to St. Michael            | 62  | 70       | 62       | 65       | 61.1                                      | 62.2          | 65.9          | 69.8          |
| <b>Hwy 34</b>  | Passing Lanes                    | 55  | 60       | 55       | 60       | 49.8                                      | 54.6*         | 53.2          | 62.3*, **     |
| <b>Hwy 14</b>  | Owatonna to Dodge Center Phase 1 | 55  | 65       | 55       | 65       | 58.7*                                     | 62.7*         | 64.3*         | 66.9*         |
| <b>Hwy 14</b>  | Owatonna to Dodge Center Phase 2 | 60  | 65       | 60       | 65       | 56.0                                      | 57.8          | 59.2^         | 67.7          |
| <b>Hwy 14</b>  | Mankato to Nicollet              | 55  | 65       | 55       | 65       | 54.0                                      | 64.3          | 66.7          | 65.9*         |
| <b>Hwy 23</b>  | Passing Lanes - North            | 55  | 60       | 55       | 60       | 53.8                                      | 55.2          | 56.8          | 56.0          |
| <b>Hwy 23</b>  | Passing Lanes - South            | 55  | 60       | 55       | 60       | 53.8                                      | 55.4          | 57.6          | 59.8          |
| <b>Hwy 34</b>  | Turn Lanes                       | 30  | 30       | 30       | 30       | 26.6                                      | 27.4          | 27            | 27.4          |
| <b>Hwy 371</b> | Nisswa to Jenkins                | 52  | 60       | 52       | 60       | 47.3                                      | 59.7          | 61.6          | 60.9          |
| <b>I-694</b>   | Lexington Ave to Junction I-35E  | 60  | 60       | 60       | 60       | 43.5                                      | 56.5          | 62.2          | 61.9          |
| <b>Hwy 169</b> | Near Taconite                    | 55  | 65       | 55       | 65       | 54.5*                                     | 60.5*         | 62.1*         | 62.7*, **     |
| <b>I-94</b>    | St. Michael to Albertville       | 70  | 70       | 70       | 70       | 62.2                                      | 65.1          | 67.2          | 69.8          |
| <b>Hwy 23</b>  | Paynesville to Richmond          | 60  | 65       | 60       | 65       | 54.6                                      | 60.2          | 62.3          | 66.1          |

\* Calculated using Streetlight

\*\* Either AM, PM, or both AM and PM speeds were not available, so daily speeds were used in conjunction with any specific speed data provided by Streetlight.

\*\*\*2014 data not available via Streetlight

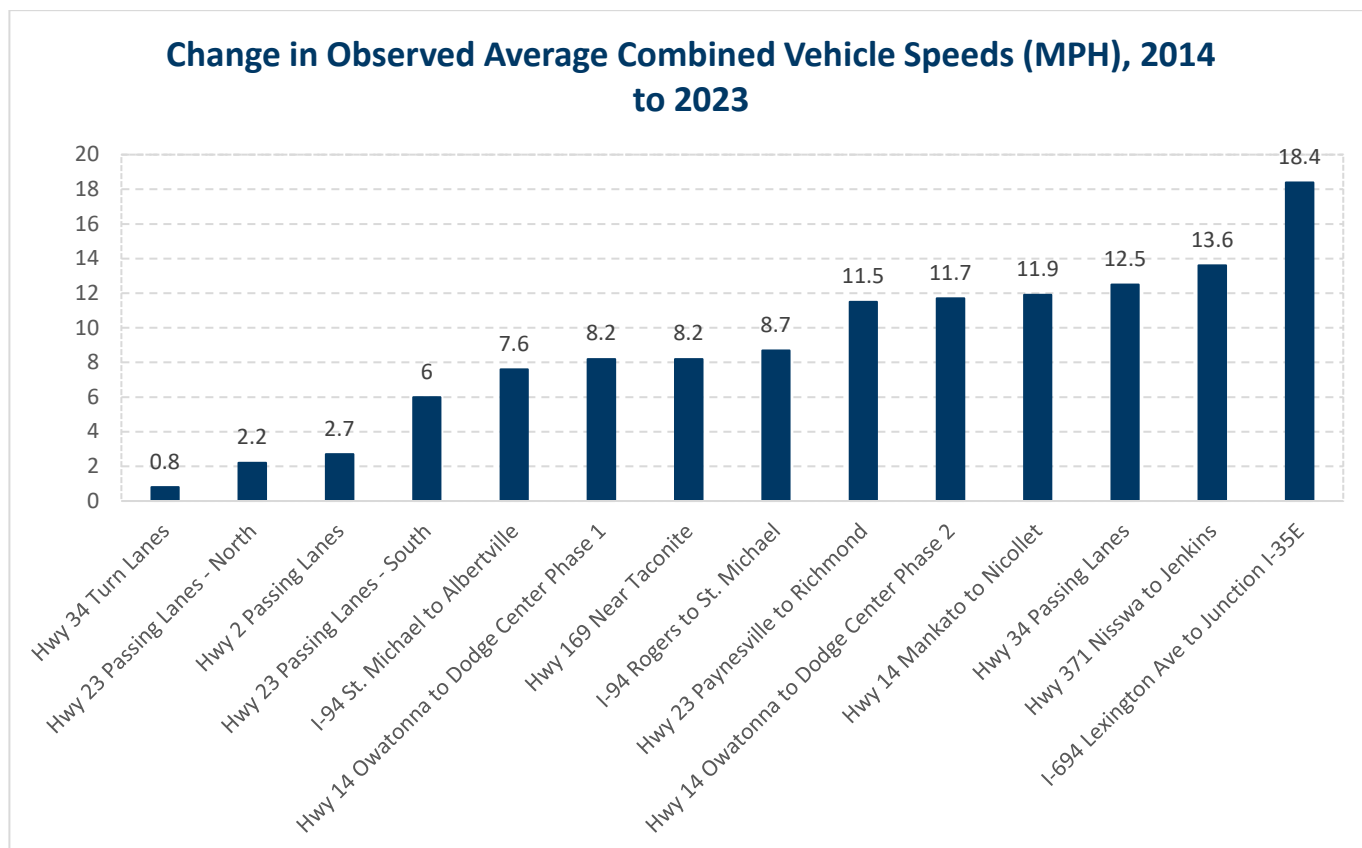
^ Project under construction during year

<sup>12</sup> The NPMRDS speed data series begins in July 2013, making the presence of some winter months unavoidable in the pre-construction baseline. Future evaluation iterations can test the stability of post-construction speed snapshots so as to qualitatively control for unusually severe or mild winters.

<sup>13</sup> Because sample size is suppressed in the NPMRDS data made available, a margin of error cannot be calculated for observed speeds. Everything else being equal, higher-volume roads will have more precise estimates.

Figure C1 below highlights the observed changes in speed for autos and trucks, comparing the January through June period of 2014 to the same period in 2023. Ascending or positive data points indicate higher observed speeds following the completion of a given project. For most projects, the change in observed speeds tends to follow the change in posted speed limits permitted by the project's completion. For example, most two to four-lane expansion projects tend to allow for an increase in posted speeds of between 5 and 10 miles per hour, depending on the speed limit prior to construction.

*Figure C1: Change in Peak-Period Vehicle Speeds (miles per hour) for January-June 2014 Compared to January-June 2023*



## Findings

The results displayed in Figure 1 indicate that all the projects examined here showed at least some observed increase in average speeds between the first half of 2014 and 2023. Highway expansion projects tended to show the largest increase in average peak-period speeds among those sampled. The most dramatic increase in speeds was observed on I-694, which was expanded from four to six lanes through Arden Hills and Shoreview, and which experienced an increase of 18.4 miles per hour during the observation period. This was a location that experienced significant peak-period congestion prior to construction. The next-largest speed increase was recorded on Highway 371 between Nisswa and Jenkins. This project involved capacity expansion from two to four lanes with a bypass of the city of Pequot Lakes on a new roadway alignment.

The average peak-period speeds on Highway 14 Owatonna to Dodge Center Phase 1 (East of Owatonna) increased by 8.2 miles-per-hour between 2014 and 2023. It is important to note that these findings differ from those previously reported in 2018. In March 2019 a study was conducted using Streetlight Data to find the 2014 average speeds. This data better represents the project area. 2019, 2021, and 2023 average speeds are derived from Streetlight Data using the same project area although in a separate study.

The passing lane projects examined tended to show smaller, though positive changes in speeds. One anomalous result was the large, reported change in speeds along the Highway 34 corridor in District 4 between Detroit Lakes and Nevis. While some increases in speed should be expected along this corridor during the study period due to an approved increase in the posted speed limit, the reported 12.5-mile per hour increase should be viewed with some skepticism. The methods for evaluating this section have changed during subsequent analysis periods, with a mix of speed data sources between periods and increased efforts to more closely identify treated passing lane locations along the corridor. The results displayed in Table C.9 and Figure 1 indicate that all the projects evaluated produced at least a modest improvement in speeds.

## Crash Incidence and Severity

One of the Corridors of Commerce project selection criteria is “improvements to traffic safety.” Adding to the overriding importance all highway users assign to safe travel, routes with significant commercial traffic volumes warrant further attention in a safety review. Differences in speed and acceleration/deceleration characteristics and reduced visibility around large vehicles, in combination with individual driver decisions, can produce hazardous conditions in certain weather, topography and roadway configurations. Building new lanes to create protected passing opportunities and promote increased vehicle separation is intended to mitigate some of this complex risk interaction.

## Analysis of Crashes

MnDOT’s Office of Traffic Engineering uses crash records from the Department of Public Safety to spatially locate crash data and conduct safety analyses. Crash data can be collected on a project-by-project basis and, along with traffic volume data, crash rates can be calculated for segments, intersections, or areas. Crashes are categorized by severity according to the following coded scale:

- Fatal (K) – crash resulted in at least one fatality
- Serious Injury (A) – crash resulted in at least one life altering injury
- Minor Injury (B) – crash resulted in at least one clearly determined injury
- Possible Injury (C) – crash may have resulted in an injury that was not diagnosed at the scene
- Property Damage Only (PDO) – crash resulted in no apparent or recorded injuries but caused damage to vehicle(s) or other property

Additionally, the Office of Traffic Engineering reports detailed trunk highway crash statistics annually in a spreadsheet called the Crash Data Toolkit. The toolkits are published midyear with data compiling five-year crash counts. This toolkit data is used to identify statewide average crash rates for different facility types.

For this Corridors of Commerce safety analysis, two projects were identified. Because the traffic volumes—and resulting opportunities for conflict—vary substantially across the approved route improvements, using crash rates gives a better comparison as opposed to crash counts. Comparison of crash rates before and after the implementation of the projects under study thus forms the basis of the evaluation.

Crash data and volume data were collected for different periods for each project. A “before” period included two years before project construction began to give a baseline of the crash rates along a route. A “construction” period accounted for the calendar years when a project was being constructed. The entire year of construction is not included in the before or after years due to abnormal traffic patterns/volumes during construction as well as to avoid partial years in the analysis. An “after” period accounted for the same number of years as the “before” period but beginning the year after construction finished and ending in 2023.

Using the crash and traffic volume datasets, a single crash rate was calculated for each period in each project. This involved using a length-weighted measure of annual average daily traffic (AADT), which represents the total vehicle-miles driven within the project limits when there were multiple roadways and/or intersections being included, along with the sum of all the crashes in the area. Some notes about each project are included later in this section. A similar process was done to calculate fatal and serious injury (KA) crash rates.

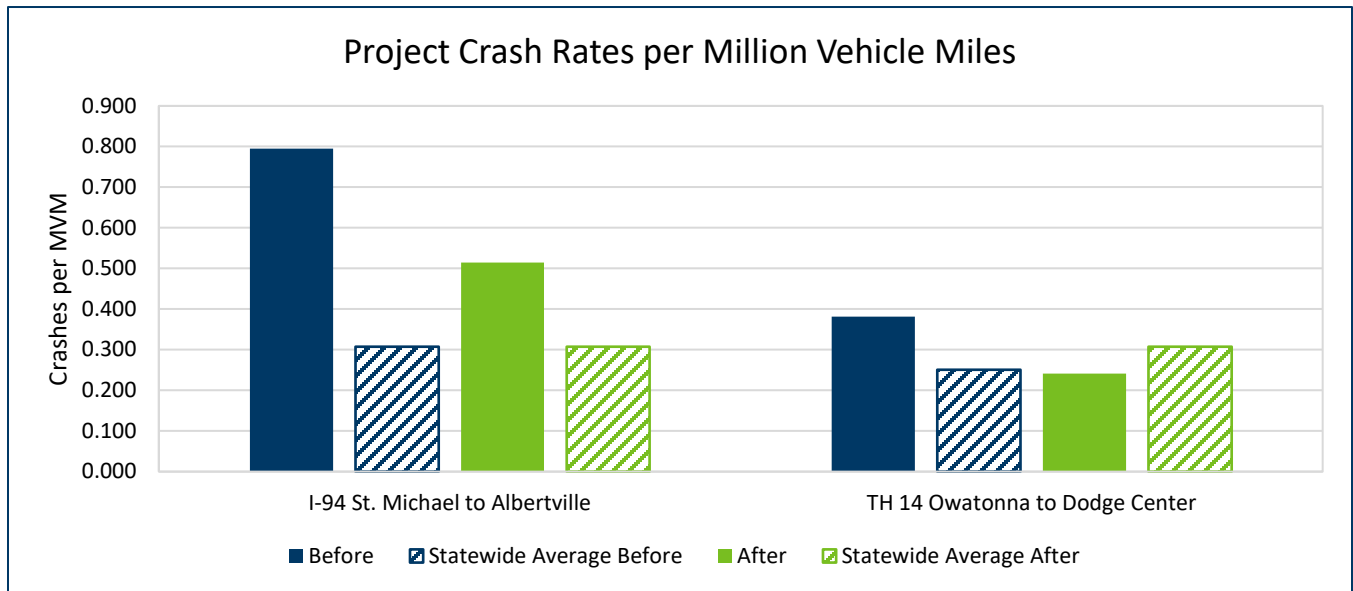


A comparison of total crash rates including all crash severities is presented below in Table C10 and Figure C2 while Table C11 and Figure C3 show the KA crash rates for each project. Statewide average crash rates are shown for each project utilizing the facility type in the after period.

*Table C10: Project Crash Rates per Million Vehicle Miles*

| Project                           | Before | Statewide Average Before | After | Statewide Average After |
|-----------------------------------|--------|--------------------------|-------|-------------------------|
| I-94 (St. Michael to Albertville) | 0.795  | 0.307                    | 0.514 | 0.307                   |
| TH 14 (Owatonna to Dodge Center)  | 0.381  | 0.251                    | 0.241 | 0.307                   |

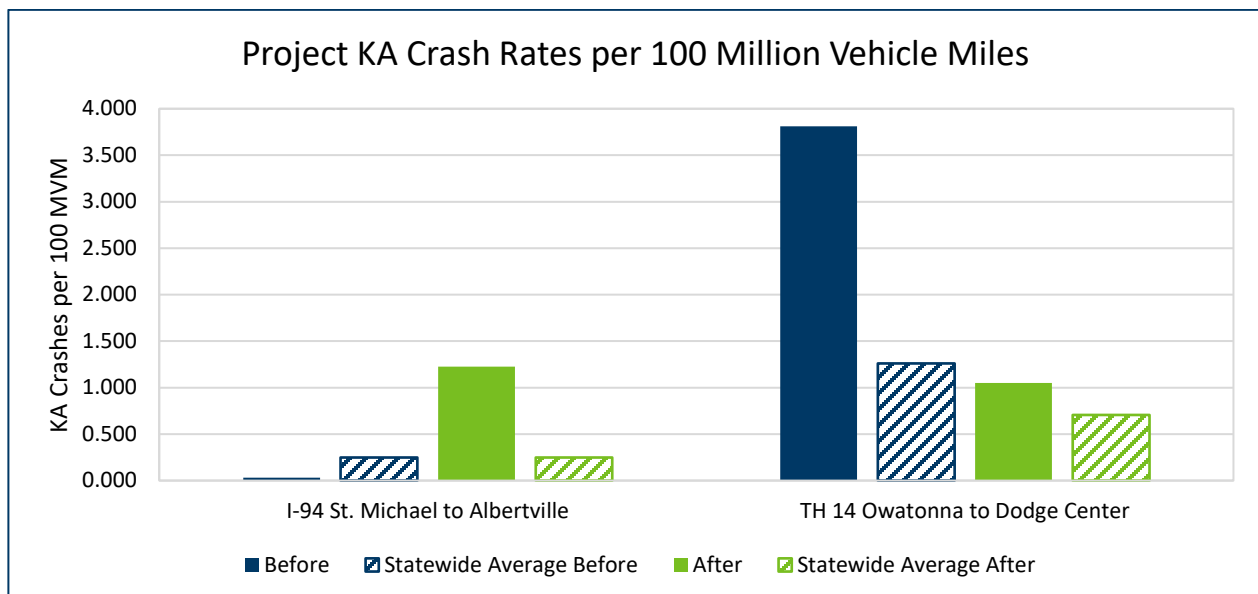
*Figure C2: Project Crash Rates per Million Vehicle Miles*



*Table C11: KA Project Crash Rates per 100 Million Vehicle Miles*

| Project                           | Before | Statewide Average Before | After | Statewide Average After |
|-----------------------------------|--------|--------------------------|-------|-------------------------|
| I-94 (St. Michael to Albertville) | 0.000  | 0.248                    | 1.225 | 0.248                   |
| TH 14 (Owatonna to Dodge Center)  | 3.813  | 1.261                    | 1.050 | 0.706                   |

*Figure C3: Project KA Crash Rates per 100 Million Vehicle Miles*





Overall, both projects saw total crash rate decreases with the construction of the projects. However, the I-94 project saw an increase in the KA crash rate while the TH 14 project saw a decrease.

The crash rates shown above are discussed for each project below along with other details about the analyses.

- I-94 (St. Michael to Albertville): Lane Addition – This project on I-94 had the safety analysis focused solely on the mainline of I-94 between the CSAH 19 bridge in Albertville and the western end of the TH 241 interchange in St. Michael. The before period used in the analysis was 2017-2018 with construction years being 2019-2021, and the after period being 2022-2023. Crash rates before and after the project are both above the statewide averages for total crashes, though the total crash rate did decrease in the after period. The KA crash rate in the before period was below the statewide average with no KA crashes but increased to above the statewide average in the after period. Three KA crashes occurred in the project area during the construction and after periods which were:
  - A 2020 serious injury crash involving a rear end into a disabled vehicle on the shoulder.
  - A 2023 serious injury crash involving a single vehicle lane departure.
  - A 2023 fatal crash involving a rear end due to slow traffic.
- TH 14 (Owatonna to Dodge Center): Two-lane to four-lane expansion with bypass and new interchanges – This project had the safety analysis focused on both the old alignment and the new alignment of US 14 from just to the east of 44th Ave SE to the Dodge Center Creek bridge. The before period used in the analysis was 2017-2018 with construction years being 2019-2021, and the after period being 2022-2023. Both total crash rates and KA crash rates decreased with this project with the total crash rate getting below the statewide average, but the KA crash rate staying above the statewide average. It is noted the statewide average changed in the before and after periods to account for the new facility type constructed. Four KA crashes occurred in the project area during the construction and after periods which were:
  - A 2019 fatal crash involving a head on collision.
  - A 2019 fatal crash involving a head on collision.
  - A 2021 serious injury crash involving a single vehicle lane departure in a work zone.
  - A 2023 serious injury crash involving a single vehicle lane departure into a stationary vehicle.

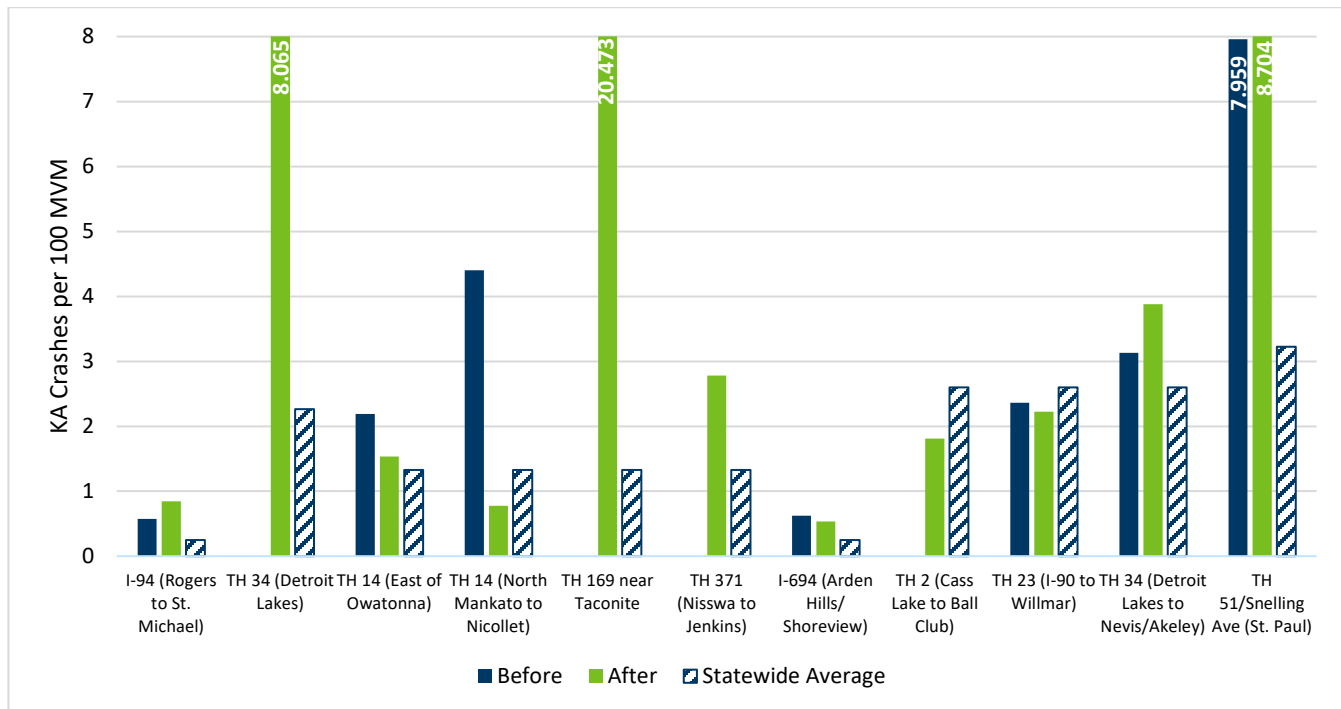
The crash rate comparisons for the two projects included here should be interpreted as preliminary evidence of the effects of the implementation of these projects on highway safety.

A previous crash analysis was conducted in 2022 of 11 Corridors of Commerce projects which included crash data through the year 2021. An update to the fatal and serious injury crash rates to those projects, which includes the fatal and serious injury crashes which happened in 2022 and 2023, is provided below.

*Table C12: KA Project Crash Rates per 100 Million Vehicle Miles - Previous Projects*

| Project                               | Before | After  | Statewide Average |
|---------------------------------------|--------|--------|-------------------|
| I-94 (Rogers to St. Michael)          | 0.572  | 0.846  | 0.248             |
| TH 34 (Detroit Lakes)                 | 0.000  | 8.065  | 2.265             |
| TH 14 (Phase 1)                       | 2.192  | 1.536  | 1.328             |
| TH 14 (North Mankato to Nicollet)     | 4.400  | 0.778  | 1.328             |
| TH 169 near Taconite                  | 0.000  | 20.473 | 1.328             |
| TH 371 (Nisswa to Jenkins)            | 0.000  | 2.780  | 1.328             |
| I-694 (Arden Hills/ Shoreview)        | 0.623  | 0.533  | 0.248             |
| TH 2 (Cass Lake to Ball Club)         | 0.000  | 1.811  | 2.599             |
| TH 23 (I-90 to Willmar)               | 2.360  | 2.225  | 2.599             |
| TH 34 (Detroit Lakes to Nevis/Akeley) | 3.130  | 3.882  | 2.599             |
| TH 51/Snelling Ave (St. Paul)         | 7.959  | 8.704  | 3.226             |

Figure C4: KA Project Crash Rates per 100 Million Vehicle Miles - Previous Projects



Overall, seven of the 11 projects saw an increase in KA crash rates with the construction of the project, and seven projects have KA crash rates above the statewide average for similar road types. The fatal and serious injury crashes that happened at these projects in 2022 and 2023 are described below. This section can be viewed as an addendum to the previous report.

- I-94 (Rogers to St. Michael): Lane Addition – This project on I-94 had the safety analysis focused solely on the mainline of I-94 between the TH 101 and TH 241 interchanges, but not including the interchanges themselves. The before period used in the analysis was 2008-2013 with the after period being 2016-2023. One KA crash occurred in the project area in the 2022-2023 period:
  - A fatal crash involving a single vehicle lane departure.
- TH 34 (Detroit Lakes): Center left turn lane addition – The before period used in the analysis was 2012-2015 with the after period being 2018-2023. Two KA crashes occurred in the project area in the 2022-2023 period:
  - A serious injury crash involving a vehicle failing to yield at an intersection.
  - A serious injury crash involving a pedestrian.
- TH 14 (Owatonna to Dodge Center, Phase 1): Two-lane to four-lane expansion – The before period used in the analysis was 2008-2013 with the after period being 2016-2023. No KA crashes occurred in the project area in the 2022-2023 period.
- TH 14 (North Mankato to Nicollet): Two-lane to four-lane expansion with bypass and new interchange – The before period used in the analysis was 2010-2014 with the after period being 2017-2023. One KA crash occurred in the project area during the 2022-2023 period:
  - A serious injury crash involving a motorcycle failing to negotiate a roundabout.
- TH 169 near Taconite: Two-lane to four-lane expansion – The before period used in the analysis was 2013-2015 with the after period being 2019-2023. Two KA crashes occurred in the project area during the 2022-2023 period:
  - A fatal crash involving a single vehicle lane departure.
  - A fatal crash involving a side street vehicle failing to yield at an intersection.

- TH 371 (Nisswa to Jenkins): Two-lane to four-lane expansion with bypass and new interchange – The before period used in the analysis was 2012-2015 with the after period being 2018-2023. Five KA crashes occurred in the project area during the 2022-2023 period:
  - A fatal crash involving a side street vehicle failing to yield at an intersection.
  - A fatal crash involving a single vehicle lane departure.
  - Three serious injury crashes involving single vehicle lane departures.
- I-694 (Arden Hills/Shoreview): Lane addition – This project on I-694 had the safety analysis focused solely on the mainline of I-694 between the Lexington Avenue and Rice Street bridges, but not including the interchanges themselves. The before period used in the analysis was 2012-2015 with the after period being 2018-2023. Two KA crashes occurred in the project area during the 2022-2023 period:
  - Two serious injury crashes involving rear ends.
- TH 2 (Cass Lake to Ball Club): Passing lane addition – The before period used in the analysis was 2008-2013 with the after period being 2016-2023. No KA crashes occurred in the project area in the 2022-2023 period.
- TH 23 (I-90 to Willmar): Passing lane addition – The before period used in the analysis was 2011-2015 with the after period being 2017-2023. Four KA crashes occurred during the 2022-2023 period:
  - A fatal crash involving a single vehicle lane departure.
  - Two serious injury crashes involving single vehicle lane departures.
  - A serious injury crash involving a spinout.
- TH 34 (Detroit Lakes to Nevis/Akeley): Passing lane addition – The before period used in the analysis was 2008-2013 with the after period being 2016-2023. No KA crashes occurred in the project area in the 2022-2023 period.
- TH 51/Snelling Avenue: Urban arterial reconstruction – The before period used in the analysis was 2009-2014 with the after period being 2016-2023. Three KA crashes occurred in the project area during the 2022-2023 period:
  - A serious injury crash involving a pedestrian.
  - Two serious injury crashes involving an angle crash at an intersection due to red light running.

The crash rate comparisons for the 13 projects included here should be interpreted as preliminary evidence of the effects of the implementation of these projects on highway safety.

## Freight Movement Growth

The statute governing the Corridors of Commerce program lists “freight improvement” as one possible project classification:

- 2) freight improvement, for an asset preservation or replacement project that can result in:
  - i. removing or reducing barriers to commerce;
  - ii. easing or preserving freight movement;<sup>14</sup>

Seven of the projects completed to date, including passing lane additions on Highways 2, 23 and 34 received this designation, while the others were primarily considered “capacity development” work.

The law identifies project selection criteria, including:

- 3) efficiency in the movement of freight, including but not limited to:
  - i. measures of annual average daily traffic and commercial vehicle miles traveled, which may include data near the project location on that trunk highway or on connecting trunk and local highways;<sup>15</sup>

<sup>14</sup> Minn. Stat. 161.088, subd. 3.

<sup>15</sup> Minn. Stat. 161.088, subd. 5.

To address the freight movement aspect of Corridors of Commerce performance, a trend analysis was generated for heavy commercial vehicle traffic on each affected corridor. Review of these traffic patterns—particularly in future evaluation summaries once initial post-opening data becomes available—will provide a gauge of how the Corridors of Commerce improvements may have contributed to the corridors’ relative attractiveness on the statewide freight network.

Bearing in mind that market factors can influence freight volumes independent of road infrastructure characteristics, placing the Corridors of Commerce investment in context along a longer timeline demonstrates how the current trajectory for truck traffic measures up against the historical benchmark.

Annual average daily traffic data is collected for trunk highway segments on a rotating basis approximately every other year. The intent is to capture typical prevailing conditions and avoid construction-related anomalies. A variety of methods are then employed for classifying vehicles to estimate truck volumes, expressed as heavy commercial annual average daily traffic. (Data for corridors that span multiple road segments can be calculated by averaging the HCAADTs for each shorter segment and weighting by segment length.) Details on these procedures can be found [online](#) from the Traffic Forecasting & Analysis unit of MnDOT’s Office of Transportation System Management, which publishes the data presented below.

The related measure of heavy commercial vehicle miles traveled simply combines road segment length with vehicle counts registered at specific points within the segment. For instance, two trucks traveling a five-mile segment yield a total of 10 HCVMT. Statewide HCVMT serves as a control or normalization factor for corridor-level HCAADT figures so that the adjusted HCAADT values can be directly interpreted as traffic changes particular to a given corridor, after netting out average “background” traffic growth observed across Minnesota.

Table C13, Table C14 and Figure 5 gives an example with hypothetical data to illustrate this adjustment process.

Table C13 contains an illustrated HCVMT trend for the period 2008 to 2016, with annualized growth rates ranging from 1 percent to 5 percent. The “HCVMT Index” column values are the result of dividing each year’s HCVMT by the constant 2008 level of 2.50 billion. For instance, the 2013 HCVMT of 3.04 billion is 22 percent higher than the 2008 amount, producing an index reading of 1.22. Note that the years 2014 and 2015 are missing from this table. Due to the development and implementation of replacement database systems during this period, official statewide VMT estimates are not available for these years.

*Table C13: HCAADT Normalization Example*

| Year | State HCVMT (billions) | Annual HCVMT Growth Rate | HCVMT Index to 2008 |
|------|------------------------|--------------------------|---------------------|
| 2008 | 2.5                    | -                        | 1                   |
| 2009 | 2.58                   | 3%                       | 1.03                |
| 2010 | 2.7                    | 5%                       | 1.08                |
| 2011 | 2.81                   | 4%                       | 1.12                |
| 2012 | 2.95                   | 5%                       | 1.18                |
| 2013 | 3.04                   | 3%                       | 1.22                |
| ...  | -                      | -                        | -                   |
| 2016 | 3.13                   | 1%                       | 1.25                |

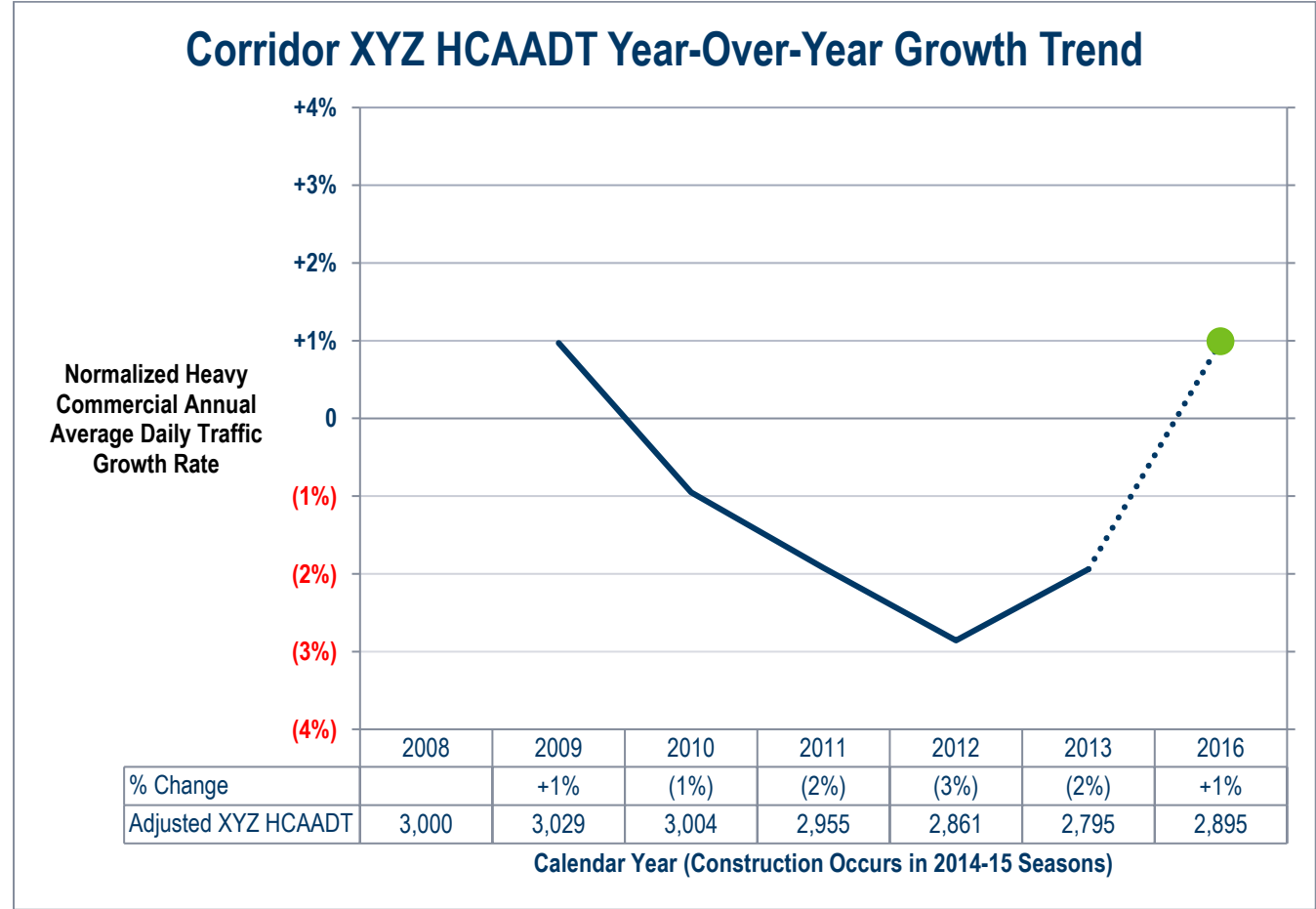
*Table C14: HCAADT Normalization Example (continued)*

| Year | Years Before (-) / After (+) Construction | Corridor XYZ Raw HCAADT | Raw Annual HCAADT Growth Rate | HCAADT Adjusted for State HCVMT | Adjusted Annual HCAADT Growth Rate |
|------|---|-------------------------|-------------------------------|---------------------------------|------------------------------------|
| 2008 | -6  | 3,000                   |                               | 3,000                           |                                    |
| 2009 | -5  | 3,120                   | 4%                            | 3,029                           | 1%                                 |
| 2010 | -4  | 3,245                   | 4%                            | 3,004                           | -1%                                |
| 2011 | -3  | 3,31                    | 2%                            | 2,955                           | -2%                                |
| 2012 | -2  | 3,376                   | 2%                            | 2,861                           | -3%                                |
| 2013 | -1  | 3,410                   | 1%                            | 2,795                           | -2%                                |
| ...  | ...                                       | -                       | -                             | -                               | -                                  |
| 2016 | 1   | 3,618                   | 2%                            | 2,895                           | 1%                                 |

In Table C14, the data shows corridor heavy commercial average annual daily traffic history for several years before construction and the first year after project completion. Construction lasted for two seasons (2014 and 2015) in this example. “Raw HCAADT” lists the actual reported traffic numbers alongside the resulting growth rate over the prior year. Finally, “HCAADT Adjusted for State HCVMT” divides raw HCAADT by the heavy commercial vehicle miles traveled index value in that year. For instance, the raw 2013 HCAADT of 3,410 becomes 2,795 after dividing by 1.22.

Consequently, adjusted HCAADT can be thought of as the corridor-specific traffic growth (or decrease) after “subtracting” overall state HCVMT change. When the adjusted annual HCAADT growth rate is positive, the corridor is experiencing faster growth than the state as a whole; when negative, the corridor’s growth trails the statewide benchmark for that year. The adjusted annual HCAADT growth rate is very close<sup>16</sup> to the difference between raw HCAADT growth and HCVMT growth. For instance, adjusted HCAADT growth in 2013 of negative 2 percent is attributable to raw HCAADT growth at 1 percent being more than offset by the state HCVMT growth rate of 3 percent.

Figure C5: Chart for HCAADT Normalization Example



Charting the adjusted heavy commercial average annual daily traffic growth rates is a useful way of summarizing traffic developments. In this example, the corridor registers growth in 2009 above the statewide reference level, but three years of declining relative performance follow in 2010 through 2012, as the corridor loses ground against the broader statewide trend. In 2013 the decline continues but at a slower rate. Following the two-year data gap during construction, in 2016 the corridor posts its first positive result since 2009, exceeding statewide heavy commercial vehicle miles traveled growth by 1 percent annualized. The dashed line signals the discontinuity in the annual series because of the construction gap. Although the investment is associated with encouraging ensuing growth, this better-than-average performance would need to be sustained for additional years just to

<sup>16</sup> The math is generally not exact due to the changing baselines used in the index adjustment step.

catch up with the HCVMT track starting in 2008. Noting that the 2016 adjusted HCAADT of 2,895 lies below the 2008 baseline level of 3,000 leads to the conclusion that the deficit amassed in the down years collectively outweighs the progress made in 2009 and 2016.

## Heavy Commercial Vehicle Traffic Growth Trends on Completed Projects

Replicating the traffic trend analysis with at least one year of post-construction data is possible for select Corridors of Commerce projects funded in 2013, 2014 and 2015. Currently, the most recent official HCAADT figures date from 2023. The post-construction evaluation requires at least two full years of volume data following project completion, since the effects are reported in the form of year-over-year rates of growth or decline. Requiring a second year of post-construction traffic volumes ensures that sharp increases in volumes between the final construction year (due to the effects of road closures, lane closures or detours) and the first post-construction year do not appear as part of the results.

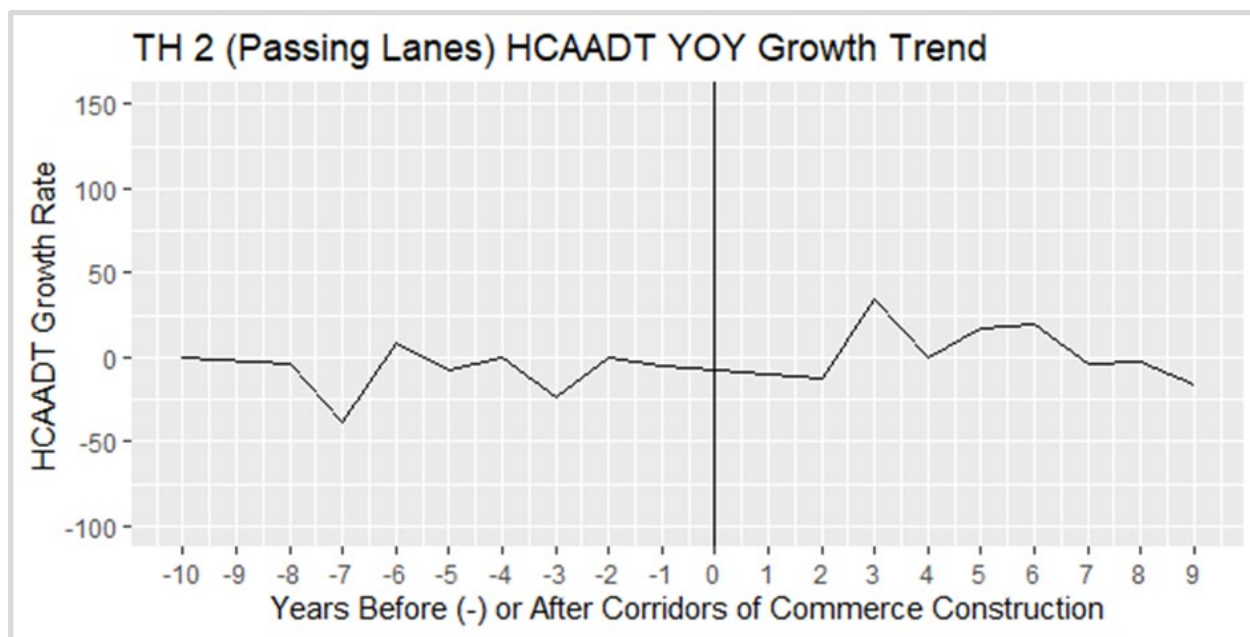
MnDOT's methodology for calculating statewide heavy commercial vehicle miles of travel changed in 2021. This change reflects a transition in data collection methods for vehicle class and commercial truck volume data, from a reliance on manual, short-duration counts using pneumatic tubes to the use of radar-based roadside units that can generate continuous counts. The latter method provides a higher level of safety for collecting volume data on high-volume roadways. While this safety improvement is welcome, there have been observed discrepancies in volume counts by vehicle class, including heavy trucks, between the manual counts and radar-based counts. This has resulted in an artificially high increase in heavy commercial vehicle miles traveled from 2020 to 2021 and beyond. To mitigate these impacts, an estimate of HCVMT growth was derived from the Bureau of Transportation Statistics. BTS generates weekly estimates of nationwide vehicle miles traveled on interstates, which were used to derive an annual estimated growth rate. In future years, other local sources will be considered.

The onset of COVID-19 in 2020 caused a shift in heavy commercial traffic. In 2020, passenger car traffic was significantly reduced with stay-at-home orders and other COVID-related policies. Travel patterns shifted because of these policies, including social distancing. Additionally, consumption patterns shifted as in-person shopping became difficult. Heavy commercial traffic likely increased because of the pandemic, but the story is complex given driver shortages and other complicating factors.

The 10-year historical trends, along with the change in the volumes between, at least, the first two post-construction years for the 2013 and 2015 Corridors of Commerce project locations can be inspected and are summarized in the figures below. For the time dimension along the x-axis, [-10] (10 years before Corridors of Commerce construction) corresponds to the observation year 2004, [-1] refers to the year 2013 and [1] refers to the second full year post construction. For the included projects [1] ranges from 2017 to 2020. Any subsequent years are referred to as [2] and [3], and so on. (The growth rate scale on the y-axis is recalibrated in each case to fit the data range, and each graph is vertically centered at 0 percent.)

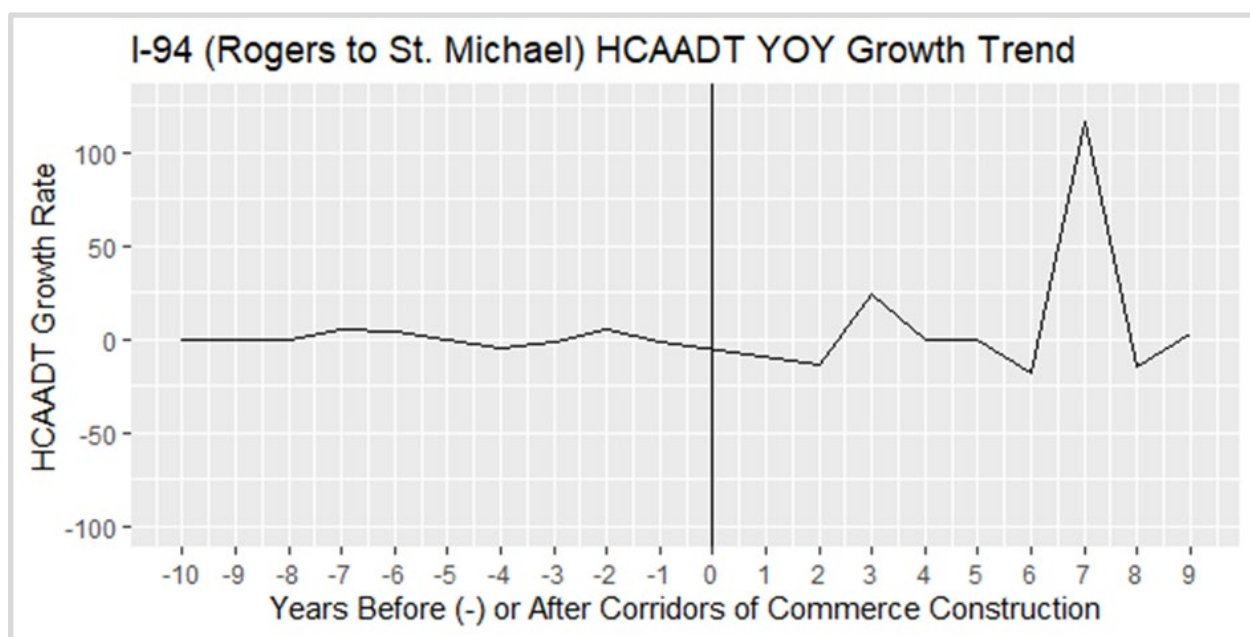


Figure C6: Highway 2 HCAADT Trend



The segments of Highway 2 that include the Corridors of Commerce passing lane improvements generated low heavy commercial traffic growth in the preceding 10 years (depicted in Figure 6), with growth rates generally negative and well below statewide average rates. Particularly sharp declines occurred in 2007 and again in 2011. However, the corridor's decline in traffic volumes began to level off by the following year and has begun to show an increase from the last year before the start of construction to the beginning of the post-construction period. Heavy commercial traffic outpaced state heavy commercial growth in all post construction years except for the most recent year. In year 9 (2023), the corridor saw a moderate decrease in heavy commercial traffic. From 2004 to 2023, heavy commercial volumes declined by approximately 50 percent.

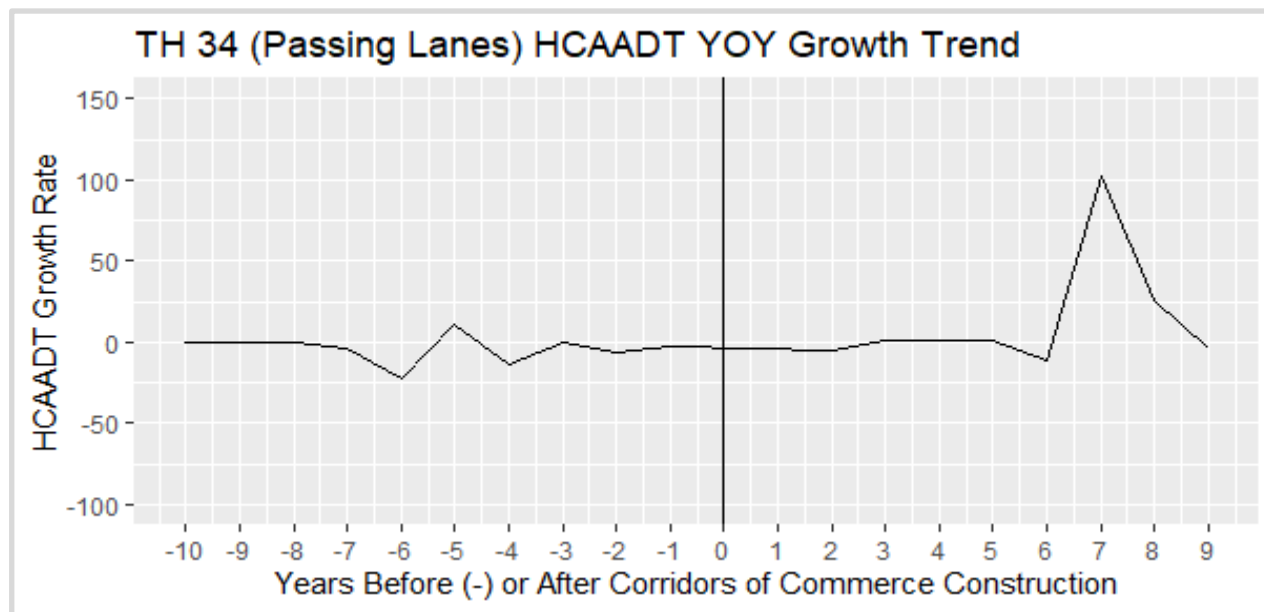
Figure C7: Interstate 94 (Rogers to St. Michael) HCAADT Trend



In pre-construction years (2004 to 2013), the I-94 expansion segment between Rogers and St. Michael (shown in Figure 7) generally paralleled statewide heavy commercial traffic growth. In post-construction years (1-9), heavy commercial traffic growth alternated above and below statewide growth rates. In year 6, (2021) reported growth

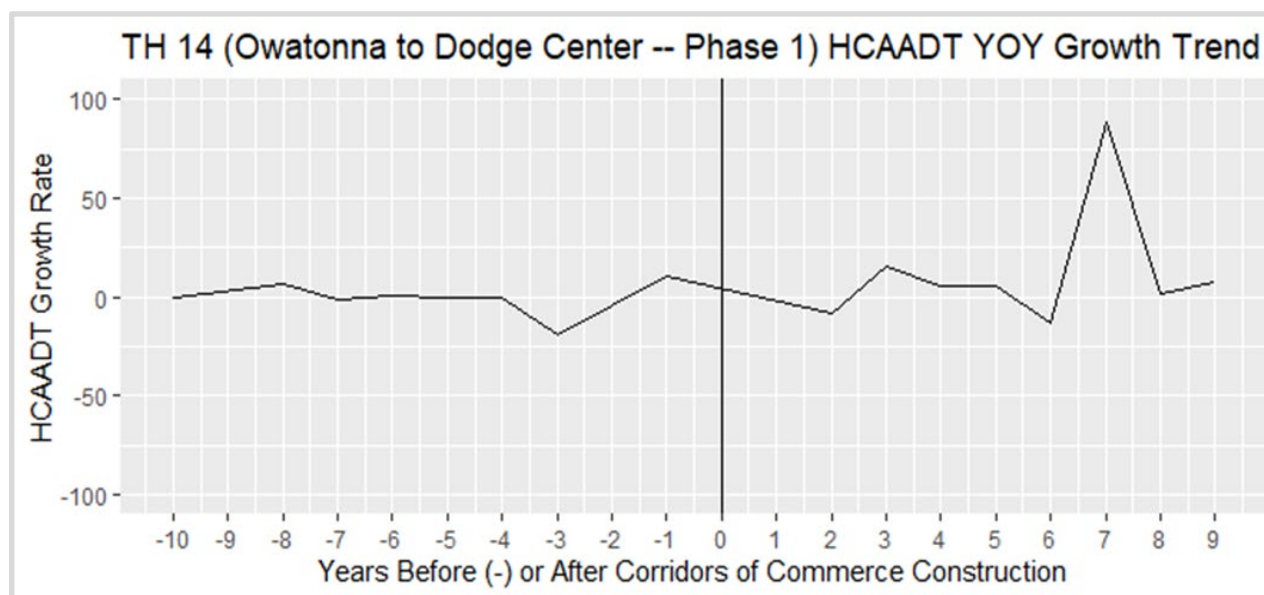
rates were much higher. This is believed to be largely due to a transition in volume count methods at this location toward the use of a radar-based counter. This transition likely affected the classification of vehicle types in a way that inflated heavy commercial counts.

*Figure C8: Highway 34 Passing Lanes HCAADT Trend*



Growth trends for truck traffic along the corridor of Highway 34 where passing lanes were installed are shown in Figure 8. In the years immediately preceding and following construction, heavy commercial traffic volumes were relatively stable, with trends mirroring or only slightly lagging trends in state heavy commercial growth. In year 4 (2020), the corridor saw a moderate decrease in heavy commercial traffic volumes which may be a result of the COVID-19 pandemic. In year 5 (2021), heavy commercial volumes began to spike, most likely the result of volumes being derived from a new, radar-based continuous count station along the corridor west of Osage.

*Figure C9: Highway 14 Owatonna to Dodge Center Phase 1 HCAADT Trend*

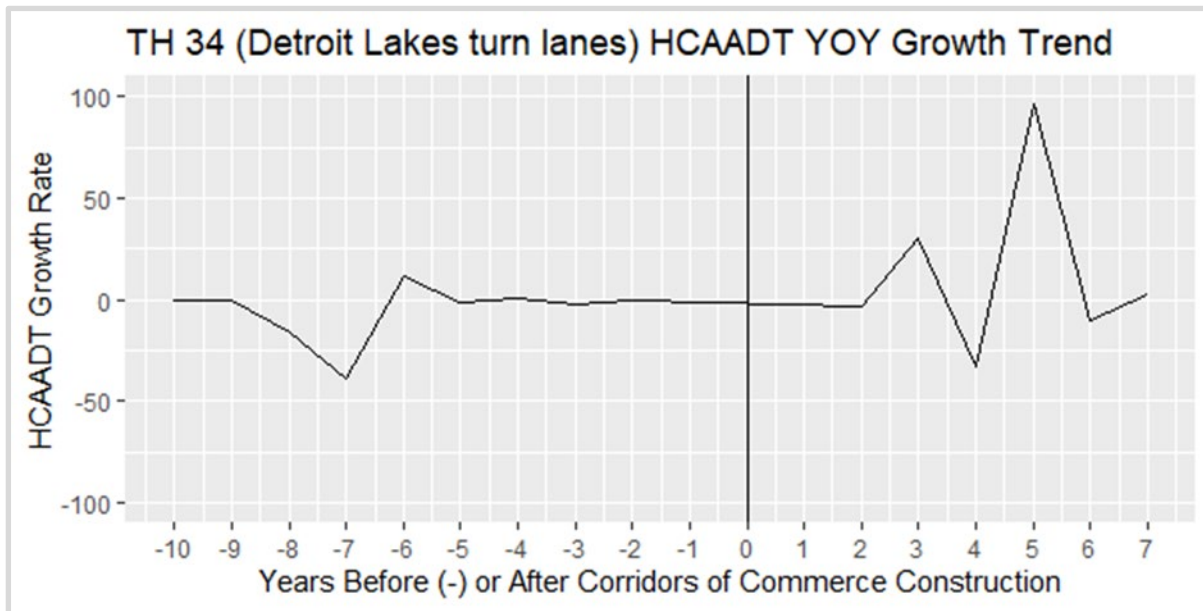


Between 2005 and 2010, the segments of Highway 14 that comprise the Corridors of Commerce expansion area for the first phase of the Owatonna to Dodge Center corridor closely tracked with state heavy commercial growth, modestly exceeding that baseline by 1 percent to 5 percent each year (see Figure C9). This period of parity ended



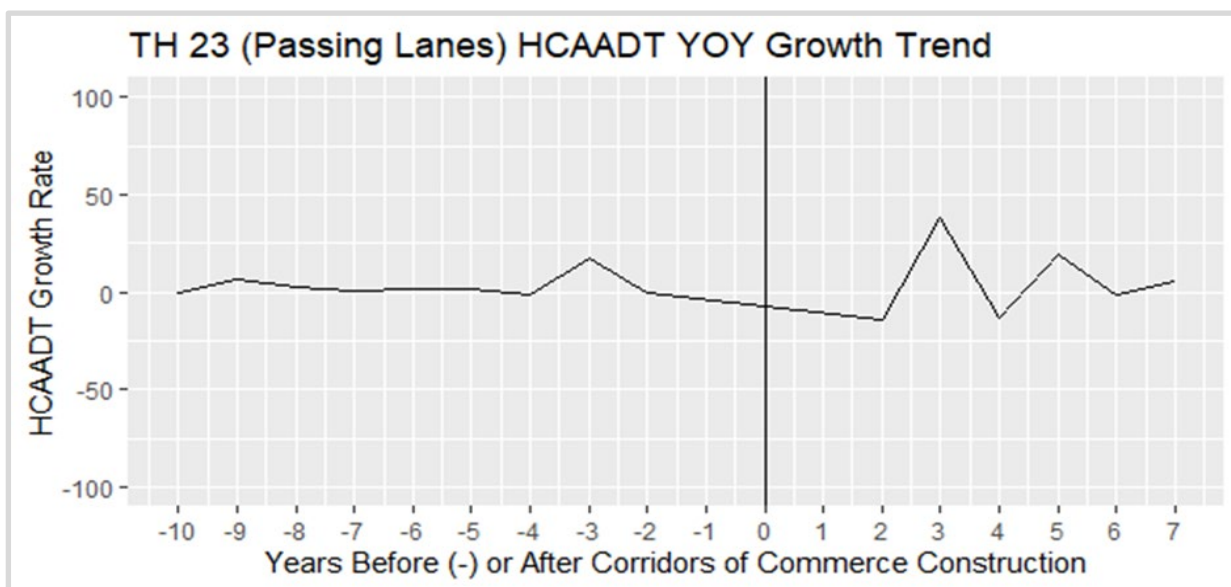
abruptly in 2011, three years before the widening, when adjusted truck volume fell approximately 20 percent. This sharp decline appears to have been a single-year phenomenon, with heavy commercial traffic growth rates rebounding to near heavy commercial growth in the year prior to construction. This section of Highway 14 saw traffic growth rates somewhat below statewide heavy commercial growth in the five years post-construction, with a moderate decline in year 6 (2020) before a rebound in year 7 (2021). This sharp rebound coincides with the installation of a radar-based continuous count station nearby, from which HCAADT volumes are collected.

*Figure C10: Highway 34 Turn Lane HCAADT Trend*



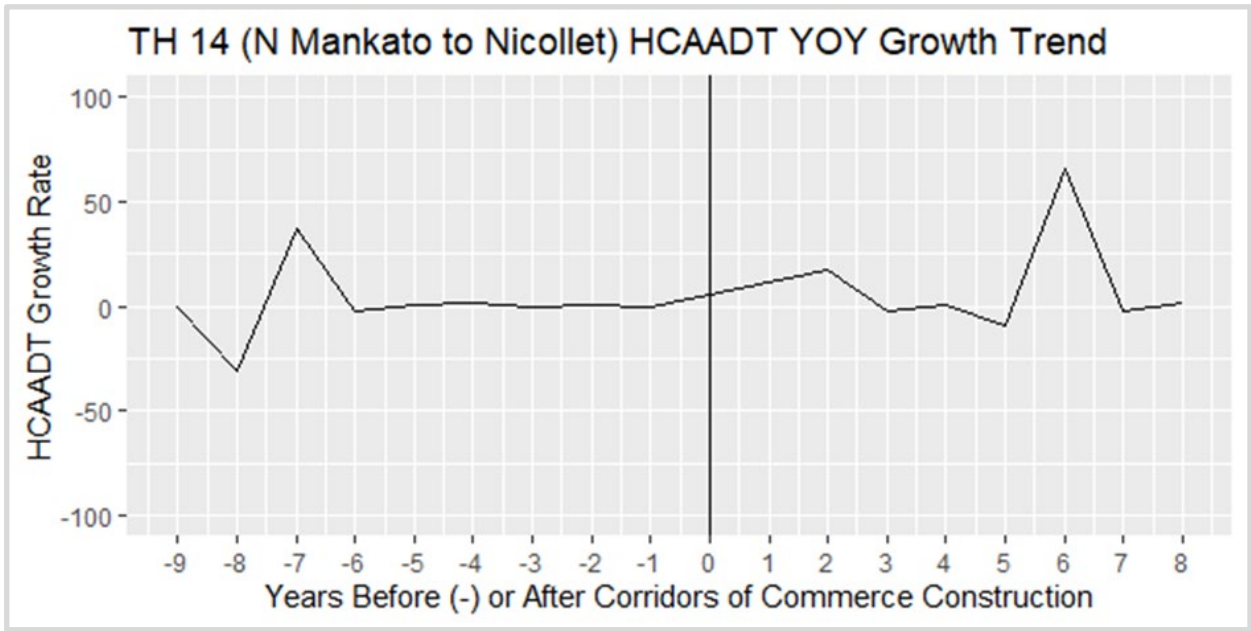
The turn lane segments of Highway 34 in Detroit Lakes experienced heavy commercial traffic growth, relative to state heavy commercial growth, between 3 and 5 percent until a sharp reduction in 2008 and 2009 (see Figure 10). In 2009 traffic volumes were just below 60% of 2004 values. Following the decline, volumes rebounded slightly and remained consistent with minor fluctuation in the prior and post construction years. Year 3 (2019) through year 5 (2021) post construction saw a significant increase, despite a one year drop in volumes in year 4 (2020), with volumes significantly outpacing state heavy commercial growth. The reduction in year 4 (2020) is likely due to the COVID-19 pandemic.

*Figure C11: Highway 23 Passing Lane Sections HCAADT Trend*



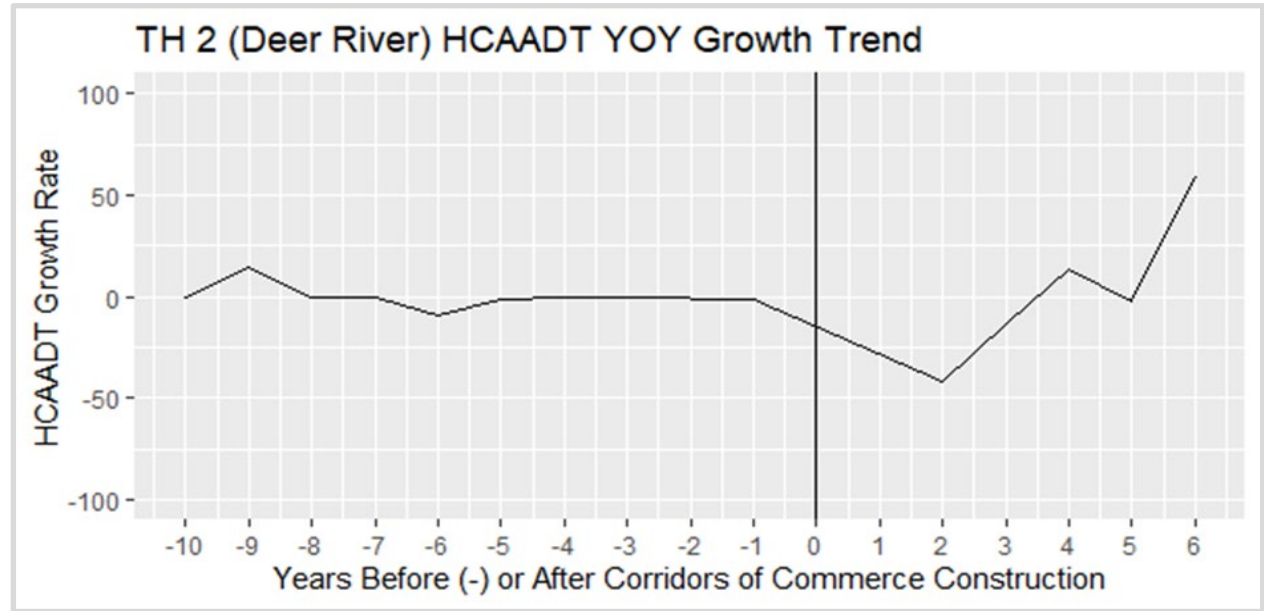
In the 10-year pre-construction period, Highway 23 fluctuated between -3.5 percent and 5 percent growth relative to state heavy commercial growth. This period of relative consistency ended post construction. Between year 2 (2018) and year 5 (2021), traffic volumes alternated between under and outpacing state heavy commercial growth with fluctuations between -15% and 35%.

Figure C12: Highway 14 Nicollet to Mankato HCAADT Trend



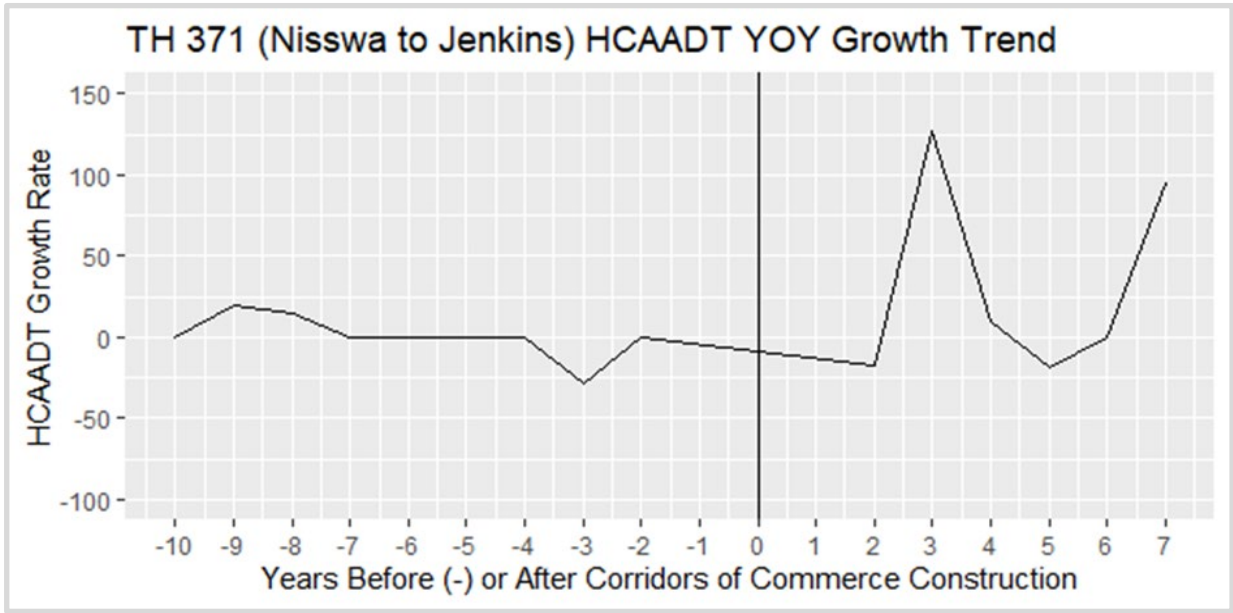
The segments of Highway 14 between Nicollet and Mankato tracked closely with state heavy commercial growth, except in 2007 and 2008 which saw a rapid reduction and subsequent growth in volumes. In 2010 the volumes stabilized just below state heavy commercial growth. Traffic volumes post construction are within five percent of 2004 values and continued to track statewide heavy commercial growth until year 5 (2021) where traffic volumes increased 30 percent over statewide growth. The timing of this large increase suggests that it is likely related to counts being derived from a nearby and recently installed radar-based traffic recorder station in North Mankato.

Figure C13: Highway 2 Deer River HCAADT Trend



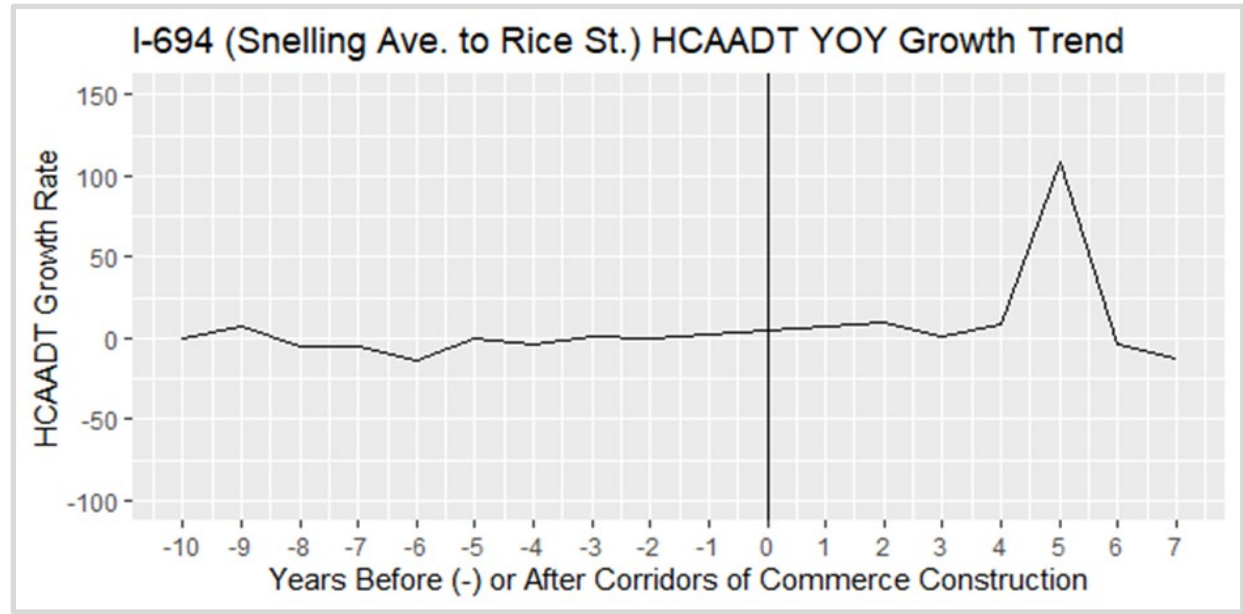
Heavy commercial traffic volumes on the corridor corresponding to the Highway 2 reconstruction project in Deer River have generally followed state heavy commercial growth rates. While truck volumes appear to have fallen approaching and shortly after the time of construction, there is some indication that this trend has begun to reverse following 2020. Year 4 (2021), traffic volumes moderately outpaced state heavy commercial growth, however traffic volumes were still reduced compared to pre-construction levels.

Figure C14: Trunk Highway 371 HCAADT Trend



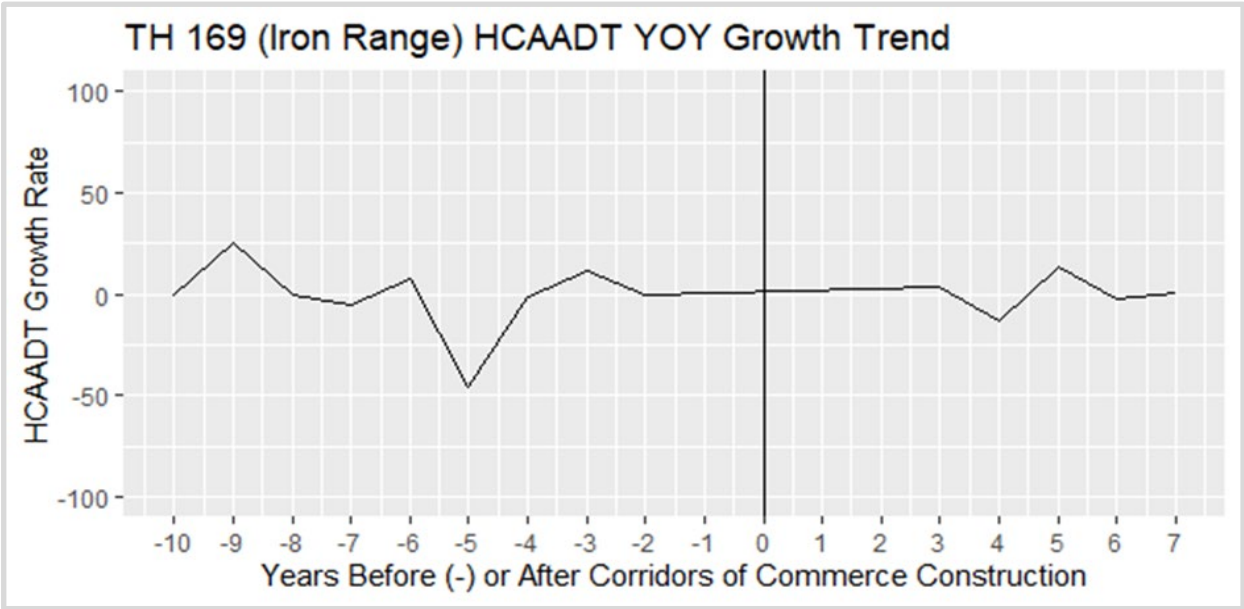
Highway 371 had relatively consistent heavy commercial traffic volumes prior to construction and through the first couple of years following the project’s completion. The expansion of Highway 371 included a realignment. The route previously went through Pequot Lakes and now runs further east bypassing the city and has an interchange with County Highway 11. While the project’s location likely received some increase in truck volumes following the completion of this new and expanded facility, the exact magnitude is difficult to determine due to the installation of a new continuous count station near Nisswa from which volumes have recently been derived. This the most likely explanation for the sharp increase in volumes at the end of the observation period.

Figure C15: Interstate 694 HCAADT Trend



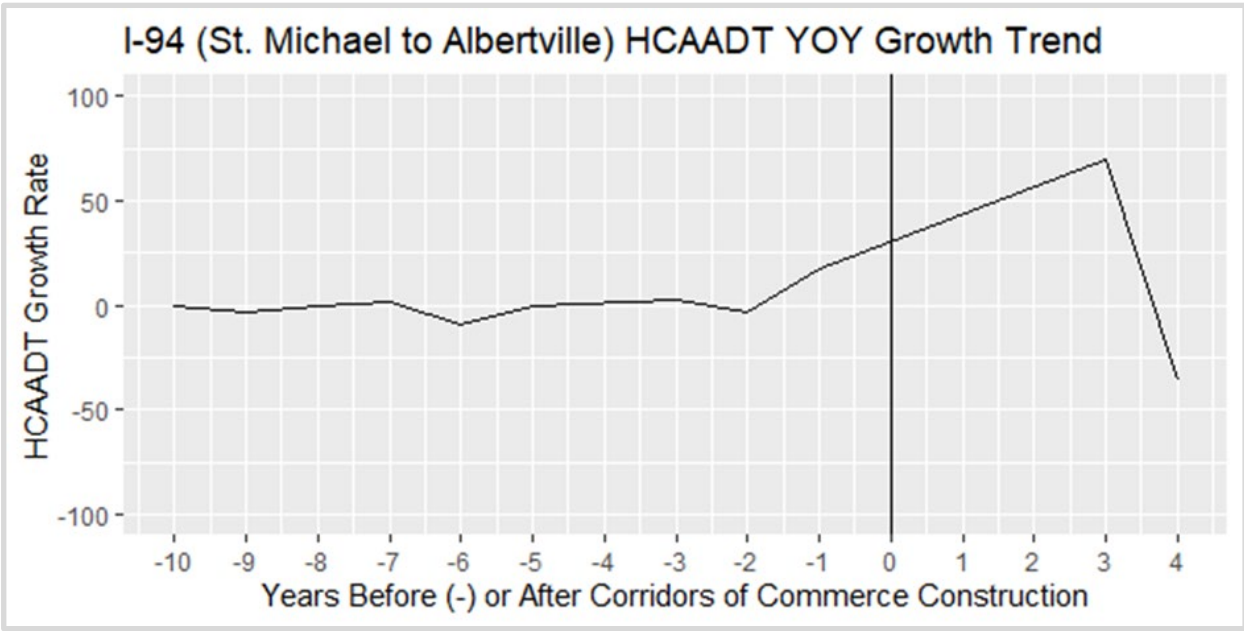
Since 2004, volumes in the Interstate 694 project area have generally followed state heavy commercial traffic growth. 2007 was the only year to experience positive, greater than statewide, growth. Year 1, 2019, post construction has a nearly identical volume to 2013, although this value is 80 percent of the 2004 volume and is 4.3 percent below statewide growth. Figure 15 shows a sharp increase in truck volumes roughly five years following project completion. The short-term nature of the increase suggests that this is most likely due to the use of a new radar-based continuous count station along this corridor, which is producing different results for vehicle classification, especially light and heavy commercial trucks.

Figure C16: TH 169 HCAADT Trend



Growth rates for heavy commercial traffic on TH 169 mirrored or slightly exceeded state heavy commercial traffic growth in the few years before and after project completion. As Figure 16 indicates, there is little evidence of much effect of the completion of this project on commercial truck volumes. The modest scope of the project, which affected only an approximately two third mile-long stretch of the highway, along with slow population and economic growth in the region, accounts for the limited post-construction impacts.

Figure C17: I-94 (St. Michael to Albertville) HCAADT Trend





Heavy commercial volumes in the I-94 corridor between St. Michael and Albertville showed a trend of modest decline in the years leading up to its expansion from four to six lanes. The direct effect of this project is difficult to discern, as there were multiple other projects going on at other locations within the larger corridor along I-94 between Maple Grove and Clearwater during and after the completion of this project. These included a widening of I-94 between Maple Grove and Rogers and separate work to reconstruct the interchange at TH 241 near St. Michael, along with the reconstruction of other intersections on TH 241 near the interchange. The sharp increase toward the end of the analysis period also coincides with the introduction of a new continuous count station on I-94 near Rogers, from which the most recent HCAADT volumes are derived. It is expected that in future years, with the completion of other nearby projects, volumes will begin to settle in toward a more modest and consistent growth rate.

*Figure C18: HCAADT Trends on TH 14 (Phase 2) Between Owatonna and Dodge Center*

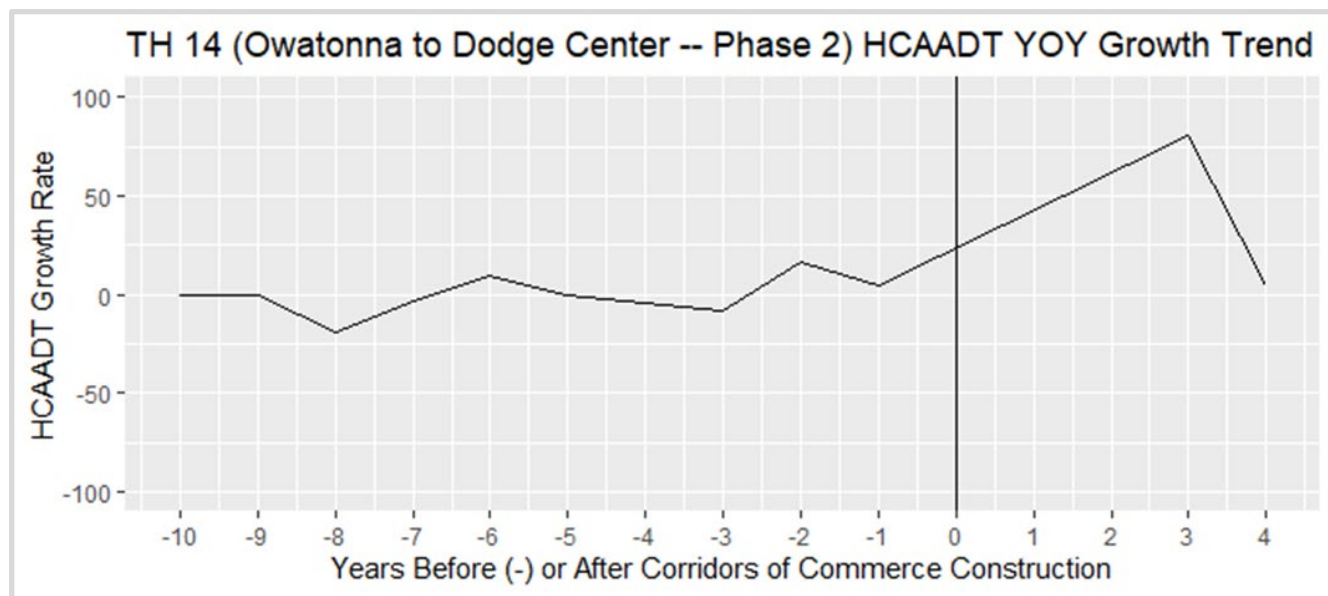


Figure C18 shows trends in commercial truck volumes for the second phase of the expansion of TH 14 between Owatonna and Dodge Center. Volumes declined following 2010 (Year -8), then stabilized for several years, beginning to tick back upward in the years leading up to construction. Significantly higher volumes were reported following construction in 2022 and 2023, nearly doubling pre-construction levels. This effect is more likely due to the use of a new radar-based continuous count station located near the western end of the project's corridor.

Corridors of Commerce projects examined in this analysis have experienced unprecedented changes due to the lingering effects of the COVID-19 pandemic and the more recent introduction of new data collection methods. While the effects of the pandemic are much less pronounced in the more recent data on truck volumes collected in the two years since the last evaluation, changes in data collection continue to present a significant challenge to estimating the impacts of new or ongoing Corridors of Commerce projects on freight traffic growth. As the results for several of the projects evaluated in this section indicate, entirely new volume trends seem to be emerging in locations affected by the migration toward the use of radar-based volume collection, and these trends seem to be largely connected to changes in the classification of commercial trucks and other heavy-duty vehicles.

Investigation of methods for reconciling the commercial truck shares reported from these units with those produced by other collection methods such as manual counts and passive volume estimation methods should be a priority when looking toward the next round of project evaluation for the Corridors of Commerce program.

# Appendix D: 2017 and 2018 Funding – Project Scoring Greater Minnesota

## Greater Minnesota Projects: 2017 and 2018 Corridors of Commerce Program

| District | Highway | Description*   | Cost          | Total Points |
|----------|---------|--|---------------|--------------|
| 3        | 169     | TH 101 to 197th - full freeway conversion                              | \$174,110,000 | 600          |
| 3        | I-94    | St. Michael to Albertville - construct auxiliary lane                  | \$62,420,000  | 580          |
| 3        | 169     | TH101 to 197th 01 partial freeway conversion                           | \$92,040,000  | 575          |
| 3        | I-94    | St. Michael to Albertville - construct 4 to 6 lane conversion          | \$77,800,000  | 570          |
| 3        | I-94    | St. Michael to Albertville - construct 4 to 6 lane conversion & Int. A | \$77,800,000  | 570          |
| 6        | 14      | Owatonna to Dodge Center construct 2 to 4 lane conversion              | \$160,410,000 | 525          |
| 3, 8     | 23      | Willmar to St. Cloud - construct 2 to 4 lane conversion                | \$105,070,000 | 520          |
| 1        | I-35    | 21st Ave to Garfield Avenue - TPP #2                                   | \$270,570,000 | 515          |
| 1        | I-35    | 27th Ave to Garfield Avenue - TPP #1                                   | \$270,570,000 | 515          |
| 3        | 23      | Paynesville to Richmond construct 2 to 4 lane conversion               | \$57,520,000  | 515          |
| 3        | I-94    | Albertville to Clearwater construct 4 to 6 lane conversion             | \$179,540,000 | 510          |
| 6        | 14      | CR 16 to Dodge Center construct 2 to 4 lane conversion                 | \$138,610,000 | 510          |
| 3        | 10      | Wadena construct 2 to 4 lane conversion                                | \$39,210,000  | 490          |
| 3        | 371     | Jenkins to Pine River construct 2 to 4 lane conversion                 | \$48,020,000  | 485          |
| 6        | 14      | 54th Ave to CR 3 construct 2 to 4 lane conversion                      | \$100,060,000 | 485          |
| 6        | 14      | CR 3 to Dodge Center construct 2 to 4 lane conversion                  | \$85,850,000  | 485          |
| 7        | 14      | New Ulm to Nicollet construct 2 to 4 lane conversion                   | \$79,200,000  | 485          |
| M, 8     | 212     | Granite Falls to Chaska construct 2 to 4 lane conversion               | \$398,660,000 | 485          |
| 3        | I-94    | Monticello to Clearwater construct 4 to 6 lane conversion              | \$54,720,000  | 485          |
| 3        | 371     | Junction of TH 210 construct interchange                               | \$43,040,000  | 480          |
| 6        | 14      | Junction CR 104 construct an interchange                               | \$39,180,000  | 465          |
| 6        | 52      | Junction TH 14 capacity improvements                                   | \$34,140,000  | 465          |
| 7        | 14      | New Ulm to Courtland construct 2 to 4 lane conversion                  | \$64,320,000  | 465          |
| 7        | 14      | CR 37 to Nicollet Expansion  | \$67,550,000  | 460          |
| 2        | 11      | Roseau to Warroad construct 2 to 4 lane conversion                     | \$56,970,000  | 455          |
| 3        | I-94    | Monticello to Hasty construct 4 to 6 lane conversion                   | \$86,120,000  | 455          |
| 1        | 169     | Pengilly to Bovey construct 2 to 4 lane conversion.                    | \$75,530,000  | 450          |
| 1        | 169     | CSAH 7 to TH 65 construct 2-to 4 lane conversion                       | \$75,530,000  | 445          |
| 6        | 14      | 56th Ave to CR 16 construct 2 to 4 lane conversion                     | \$28,900,000  | 445          |
| 6        | 14      | Construct Byron Interchange Option 1                                   | \$17,190,000  | 445          |
| 6        | 14      | Construct Byron Interchange Opt2                                       | \$16,500,000  | 445          |
| 6        | 14      | Construct Byron Interchange Option 3                                   | \$24,780,000  | 445          |
| 7        | 14      | New Ulm to W. Courland Expansion                                       | \$36,840,000  | 445          |
| 3        | 210     | Pillager to Ironton construct 2 to 4 lane conversion                   | \$98,480,000  | 440          |
| 7        | 14      | Nicollet to W. Courtland construct 2 to 4 lane conversion              | \$54,090,000  | 440          |
| 3        | I-94    | Construct improved interchange at TH 23                                | \$2,500,000   | 435          |
| 6        | 52      | Junction TH 57 construct interchange                                   | \$10,590,000  | 430          |
| 3        | 10      | Royalton interchange construction                                      | \$35,280,000  | 425          |
| 3        | 210     | Motley to Baxter construct 2 to 4 lane conversion                      | \$86,250,000  | 425          |
| 8        | 23      | New London to Paynesville construct 2 to 4 lane conversion             | \$47,550,000  | 425          |
| 7        | 14      | Nicollet to E. Courtland Expansion                                     | \$19,060,000  | 410          |
| 1        | 169     | CSAH 7 to CSAH 80 construct 2 to 4 lane conversion.                    | \$28,150,000  | 400          |
| 8        | 23      | Junction TH 19 construct interchange                                   | \$13,350,000  | 390          |
| 7        | 60      | Construct interchanges through Windom                                  | \$58,070,000  | 385          |
| 1        | 61      | Construct a roundabout at 40th Ave                                     | \$14,990,000  | 375          |
| 7        | 14      | Junction TH 14 construct new interchange                               | \$94,920,000  | 375          |
| 8        | 23      | Pipestone to Willmar construct passing lanes                           | \$8,320,000   | 370          |

| District | Highway | Description*  | Cost          | Total Points |
|----------|---------|---|---------------|--------------|
| 8        | 23      | Junction. TH 59 construct interchange                         | \$15,090,000  | 370          |
| 7        | 169     | Construct bypass of St. Peter                                 | \$224,590,000 | 365          |
| 1        | 169     | CSAH 83 to TH 65 construct 2 to 4 lane conversion             | \$18,530,000  | 360          |
| 1        | I-35    | Junction CSAH 3 construct interchange                         | \$4,610,000   | 360          |
| 3        | 23      | Downtown St. Cloud - Freeway Conversion                       | \$45,350,000  | 360          |
| 1        | 2       | Junction CSAH 13 construct roundabout.                        | \$1,640,000   | 355          |
| 1        | 61      | Junction. 40th Ave construct roundabout                       | \$3,230,000   | 355          |
| 3        | 10      | Junction CSAH 11 safety improvement                           | \$2,380,000   | 350          |
| 8        | 212     | Granite Falls to Montevideo construct passing lane            | \$3,980,000   | 350          |
| 1        | 61      | 40th Ave intersection improvements                            | \$2,230,000   | 340          |
| 2        | 11      | Roseau to Warroad passing lane and realignment near airport   | \$8,510,000   | 340          |
| 4        | I-94    | Construct new interchange                                     | \$19,690,000  | 340          |
| 8        | 212     | Granite Falls to Montevideo reconstruction                    | \$6,980,000   | 340          |
| 7        | 169     | Construct Lind St. and Webster St. interchanges               | \$50,160,000  | 335          |
| 1        | 61      | Junction Homestead Rd construct J-turn                        | \$630,000     | 330          |
| 1        | 2       | Grand Rapids to TH 63 - 4 to 5 lane conversion.               | \$2,880,000   | 325          |
| 1        | 53      | Junction. CSAH 16 construct J-turn                            | \$610,000     | 325          |
| 2        | 59      | CSAH 3 to Thief Rivers Falls construct 2 to 4 lane conversion | \$16,890,000  | 325          |
| 8        | 23      | Willmar to Priam construct 2 to 4 lane conversion             | \$7,650,000   | 325          |
| 1        | 210     | TH 169 to TH 65 reconstruction                                | \$12,040,000  | 320          |
| 4        | 59      | Detroit Lakes to Mahnomen construct passing lane              | \$3,766,000   | 320          |
| 8        | 23      | Junction. CSAH 1 construct left turn lane                     | \$730,000     | 320          |
| 1        | 53      | Junction TH 1 construct J-turn                                | \$670,000     | 315          |
| 1        | 169     | Junction TH 25 construct J-turn                               | \$580,000     | 310          |
| 1        | 2       | Junction TH 194 construct roundabout                          | \$2,830,000   | 310          |
| 2        | 11      | Roseau to Warroad construct passing lanes                     | \$3,793,000   | 310          |
| 8        | 23      | TH 71 to CR 5 construct 2 to 4 lane conversion                | \$4,790,000   | 310          |
| 1        | 53      | Junction Solway Rd. J-turn                                    | \$560,000     | 305          |
| 1        | 53      | Junction. CSAH 9 construct J-turn                             | \$620,000     | 300          |
| 8        | 23      | Pipestone to Russell surfacing project                        | \$44,760,000  | 300          |
| 1        | 169     | Junction CSAH 137 construct J-turn                            | \$860,000     | 295          |
| 8        | 212     | Brownston to Stewart construct passing lane                   | \$3,500,000   | 295          |
| 8        | 71      | Construct Redwood Falls bypass                                | \$12,020,000  | 295          |
| 1        | 61      | Junction. McQuade Rd construct J-turn                         | \$980,000     | 290          |
| 8        | 212     | Buffalo Lake to Steward construct passing lane                | \$3,230,000   | 290          |
| 1        | 53      | Junction. CSAH 15 construct J-turn                            | \$475,000     | 285          |
| 1        | 169     | CSAH 7 to TH 65 safety improvements                           | \$5,490,000   | 280          |
| 1        | 33      | Junction CSAH 7 construct J-turn                              | \$510,000     | 280          |
| 8        | 23      | Junction TH 7 construct interchange                           | \$6,600,000   | 280          |
| 8        | 212     | Sacred Heart to Renville passing lane                         | \$2,750,000   | 275          |
| 8        | 212     | Junction TH 15 construct roundabout                           | \$2,443,000   | 270          |
| 1        | 53      | Virginia to Intl Falls install passing lanes                  | \$2,900,000   | 260          |
| 8        | 23      | Junction. TH 7 construct roundabout                           | \$3,120,000   | 260          |
| 1        | 169     | Safety Improvements   | \$5,490,000   | 255          |
| 1        | 61      | Junction Ryan Rd construct J-turn                             | \$1,640,000   | 250          |
| 8        | 212     | Replace BNSF bridge in Granite Falls                          | \$9,790,000   | 235          |
| 8        | 23      | New London to Paynesville construct passing lane              | \$9,030,000   | 210          |
| 8        | 23      | New London to Paynesville construct Super 2                   | \$8,510,000   | 175          |

\* Highlighted projects in yellow and green indicate those selected in 2017 and 2018 respectively for Corridors of Commerce program funds

Note: MnDOT Office of Transportation System Management - April 30, 2018

# Appendix E: 2017 and 2018 Funding – Project Scoring Metro

## *Metro Projects: 2017 and 2018 Corridors of Commerce Program*

| District | Highway    | Description*  | Cost          | Total Points |
|----------|------------|---|---------------|--------------|
| Metro    | I-494      | France Ave to TH 77 construct MnPASS lane                         | \$149,020,000 | 660          |
| Metro    | I-494      | Bush Lake Rd to 35W construct a turbine interchange               | \$92,170,000  | 655          |
| Metro    | 252 / I-94 | Convert to a freeway and add MnPASS lanes Dowling to TH 610.      | \$163,220,000 | 645          |
| Metro    | I-494      | France Ave to I-35W construct improvements                        | \$91,700,000  | 640          |
| Metro    | I-494      | TH 100 to I-35W construct an EB auxiliary lane                    | \$12,470,000  | 625          |
| Metro    | 169        | CSAH 17 to I 494 construct MnPASS                                 | \$152,490,000 | 620          |
| Metro    | I-494      | Bush Lake Rd to TH 100 construct turbine interchange              | \$79,360,000  | 615          |
| Metro    | 65         | TH 10 to 117th Ave freeway design                                 | \$99,070,000  | 615          |
| Metro    | I-494      | Bush Lake Rd to TH 100 interchange improvements                   | \$13,480,000  | 610          |
| Metro    | I-494      | France Ave to I-35W construct auxiliary lane                      | \$12,010,000  | 605          |
| Metro    | I-94       | Junction with TH 280/Franklin Avenue interchange improvements     | \$89,420,000  | 605          |
| Metro    | 36         | I-35W to I-35E construct MnPASS                                   | \$61,130,000  | 600          |
| Metro    | 169        | CR 21 to I 494 construct MnPASS                                   | \$39,070,000  | 595          |
| Metro    | 10 / 169   | TH 169 to Thurston Ave freeway conversion                         | \$55,180,000  | 590          |
| Metro    | 77         | Apple Valley to Bloomington add MnPASS                            | \$37,110,000  | 580          |
| Metro    | 252        | Convert to a freeway and extend 3rd lane                          | \$95,670,000  | 575          |
| Metro    | 13         | Junction Dakota Ave construct interchange                         | \$25,650,000  | 570          |
| Metro    | I-35W      | Construct NB flyover to WB I-494                                  | \$79,890,000  | 570          |
| Metro    | 65         | 105th Ave to 117th construct freeway design                       | \$57,120,000  | 565          |
| Metro    | 65         | Junction 109th Ave construct interchange                          | \$26,360,000  | 565          |
| Metro    | 94/494/694 | Construct a SB I-694 to EB I-94 flyover ramp                      | \$26,890,000  | 565          |
| Metro    | 62         | I-35W to TH77 construct EB auxiliary lane                         | \$22,560,000  | 560          |
| Metro    | I-35W      | Construct a SB I-35W to EB I-694 flyover                          | \$22,470,000  | 555          |
| Metro    | 65         | Junction TH 10 construct free flow improvements                   | \$42,880,000  | 550          |
| Metro    | I-94       | Maple Grove to Rogers add lanes in both direction                 | \$8,250,000   | 550          |
| Metro    | 36         | Junction Century construct interchange                            | \$32,170,000  | 545          |
| Metro    | I-494      | Bush Lake Rd to TH 100 construct auxiliary lane                   | \$1,500,000   | 545          |
| Metro    | 61         | Junction Warner Rd construct interchange                          | \$33,020,000  | 545          |
| Metro    | 169        | Junction TH 282 construct interchange                             | \$13,300,000  | 540          |
| Metro    | 212        | NYA to Chaska construct 2 to 4 lane conversion                    | \$97,980,000  | 535          |
| Metro    | 62         | I-35W to TH 77 construct auxiliary lane both directions.          | \$15,230,000  | 530          |
| Metro    | 62         | Tracy to TH 35W expand roadway 2-lanes to 4-lanes                 | \$154,050,000 | 530          |
| Metro    | I-94       | Construct TH 610 gap  | \$37,230,000  | 525          |
| Metro    | 212        | Dahlgren to Carve construct 2 to 4 lane conversion                | \$45,250,000  | 520          |
| Metro    | I-35W      | Construct a NB I-35W to WB I-694 flyover                          | \$24,660,000  | 520          |
| Metro    | I-494      | TH 100 to TH 77 construct 2 additional lanes                      | \$140,820,000 | 520          |
| Metro    | 62         | Penn Ave to TH 169 add additional lanes in each direction         | \$51,670,000  | 520          |
| Metro    | 212        | Cologne to Carver construct 2 to 4 lane conversion                | \$45,250,000  | 515          |
| Metro    | I-494      | TH 100 to TH 77 construct 2 additional lanes & I-35W interchange  | \$220,810,000 | 515          |
| Metro    | I-94       | Fish Lake to Maple Grove construct auxiliary lane both directions | \$12,680,000  | 515          |
| Metro    | 13         | Quentin Ave to Washburn Ave add a new interchange                 | \$33,720,000  | 510          |
| Metro    | 62         | TH 77 to Portland Ave H Ave add auxiliary lane in each direction  | \$19,650,000  | 510          |
| Metro    | 77         | NB TH 77 to WB TH 62 construct flyover ramp                       | \$36,550,000  | 510          |
| Metro    | 97         | I-35 to TH61 expand 2-lanes to 4-lanes                            | \$16,130,000  | 510          |
| Metro    | 65         | Junction 117th Ave construct interchange                          | \$16,110,000  | 505          |
| Metro    | 55         | Expand the roadway from two lanes to four lanes.                  | \$38,920,000  | 500          |



| District | Highway    | Description*  | Cost          | Total Points |
|----------|------------|---|---------------|--------------|
| Metro    | 8          | Expand the roadway from two lanes to four lanes.                    | \$58,520,000  | 495          |
| Metro    | 94/494/694 | Construct two flyover ramps   | \$101,870,000 | 495          |
| Metro    | I-94       | I-94/494/694 interchange reconstruction                             | \$96,790,000  | 490          |
| Metro    | 36         | Junction. Manning Ave construct interchange                         | \$21,170,000  | 485          |
| Metro    | 212        | NYA to Benton construct 2 to 4 lane conversion                      | \$53,730,000  | 480          |
| Metro    | 212        | NYA to Cologne construct 2 to 4 lane conversion                     | \$53,730,000  | 480          |
| Metro    | 36         | N. St. Paul to St. Croix River freeway conversion                   | \$140,170,000 | 480          |
| Metro    | I-94       | TH 52 to Jackson St construct WB buffer lane                        | \$2,510,000   | 475          |
| Metro    | 36         | I-35W to I-35E construct EB auxiliary lane                          | \$26,830,000  | 470          |
| Metro    | 494 / 694  | Expand Tamarack Rd to Co Rd 10 to 6-lanes                           | \$10,300,000  | 470          |
| Metro    | I-94       | Junction. with TH 252 interchange ramp improvement                  | \$1,960,000   | 470          |
| Metro    | 61         | Junction Afton Rd construct interchange                             | \$12,610,000  | 460          |
| Metro    | 36         | I-35 W to I-35 E construct 4 to 6 lane conversion                   | \$93,560,000  | 450          |
| Metro    | I-94       | I-35E to 5th St construct a WB lane addition                        | \$8,500,000   | 450          |
| Metro    | 252        | Extend 3rd lane   | \$17,690,000  | 445          |
| Metro    | I-35W      | Construct an I-694 exit only lane                                   | \$1,950,000   | 440          |
| Metro    | 41         | Chaska to CSAH 61 improvements                                      | \$9,180,000   | 435          |
| Metro    | 101        | Construct interchange from Diamond Lake Rd to I-94                  | \$28,710,000  | 425          |
| Metro    | 55         | Lake St interchange reconstruction                                  | \$3,650,000   | 425          |
| Metro    | 110        | Mendota to Inver Grove freeway conversion                           | \$121,780,000 | 420          |
| Metro    | 62         | Junction TH 77 construct ramps                                      | \$1,300,000   | 415          |
| Metro    | 101        | Construct SB flyover access to I-94                                 | \$41,220,000  | 405          |
| Metro    | 36         | Construct new interchange at Lake Elmo                              | \$31,190,000  | 395          |
| Metro    | 10         | Other: Make Hwy 10 in Blaine at least three lanes in each direction | \$1,400,000   | 390          |
| Metro    | I-35E      | Add lanes from I-35E/I35W split to TH 97                            | \$3,740,000   | 390          |
| Metro    | 61         | Junction TH 10 construct interchange                                | \$25,020,000  | 390          |
| Metro    | 101        | Expand the roadway to 4-lane CSAH 14 to CSAH 61                     | \$32,150,000  | 385          |
| Metro    | I-35W      | CR C to CR D exit lane  | \$1,940,000   | 380          |
| Metro    | 5          | Victoria to Chanhassen construct 2 to 4 lane conversion             | \$21,540,000  | 365          |
| Metro    | 61         | Junction TH 95 construct interchange                                | \$23,290,000  | 365          |
| Metro    | 61         | Junction Warner Rd left turn lane improvement                       | \$590,000     | 355          |
| Metro    | 156        | Barge Channel Rd. Project   | \$27,630,000  | 335          |

\* Highlighted projects in yellow and green indicate those selected in 2017 and 2018 respectively for Corridors of Commerce program funds

Note: MnDOT Office of Transportation System Management - April 30, 2018

# Appendix F: 2021 and 2023 Funding – Regional Connector Project Scoring

## Regional Connector Projects – Final Scoring

| District | Highway   | Description*                              | Cost         | Total Points |
|----------|-----------|---|--------------|--------------|
| 8        | 23        | Jct. TH 9 - Construct grade separation    | \$33,000,000 | 470          |
| 3        | 210 & 371 | Construct grade separation                | \$58,000,000 | 465          |
| 6        | 14        | Jct. CSAH 44 - Construct grade separation | \$60,000,000 | 440          |
| 1        | 53        | Between Eveleth and Virginia improvements | \$18,000,000 | 415          |
| 3        | 15 & 23   | Construct a ramp separation               | \$54,400,000 | 410          |
| 1        | 2 & 169   | Construct a round about                   | \$1,120,000  | 380          |
| 8        | 23        | TH 23 in S. of Willmar extend 4-lane      | \$16,600,000 | 330          |
| 6        | 19        | Northfield gateway improvements           | \$4,070,000  | 235          |
| 6        | I-90      | Add interchange access for CSAH 22        | \$9,160,000  | 235          |
| 8        | 19        | In Redwood Falls - Reconstruction         | \$53,100,000 | 220          |

\* Highlighted projects indicate those selected in 2023 for Regional Connector

Note: MnDOT Office of Transportation System Management - September 30, 2023

# Appendix G: 2023 Funding – Metro Connector Project Scoring

## Metro Connector Projects – Final Scoring

| District | Highway  | Description*   | Cost          | Total Points |
|----------|----------|--|---------------|--------------|
| 3        | I-94     | Albertville and Monticello Lane Expansion - (Full Build)                   | \$78,000,000  | 735          |
| M        | 13       | Quentin Avenue/Savage to Nicollet Avenue/Burnsville - grade separations    | \$96,000,000  | 640          |
| M        | 10       | CSAH 78(Hanson Blvd) to CSAH 9 (Round Lake Blvd) - grade separations       | \$8,000,000   | 605          |
| M        | 65       | 103rd Ave to 117th Ave in Blaine grade separations                         | \$30,000,000  | 560          |
| M        | I-35     | In Lakeville CSAH 46/70 and CSAH 50/172nd Street - I35 south ramps         | \$101,300,000 | 560          |
| M        | 8        | I-35 to Karmel Avenue lane expansion                                       | \$38,300,000  | 555          |
| M        | 36 & 120 | Grade Separation   | \$50,200,000  | 535          |
| M        | 55       | Arrowhead Drive to County Road 19 - 4-lane expansion                       | \$53,500,000  | 515          |
| M        | 5        | 80th St. in Victoria to Century Boulevard in Chanhassen - grade separation | \$62,850,000  | 495          |
| 3        | 169      | Junction. CSAH 4 in Zimmerman - grade separation                           | \$31,000,000  | 490          |
| 3        | 10 & 169 | In Elk River between TH 101 and Anoka County - grade separation            | \$81,300,000  | 480          |
| 3        | 10       | Jct. CSAH 11 in Big Lake/Becker - grade separation                         | \$47,700,000  | 460          |
| M        | 212      | Jct. Carver CSAH 51 - intersection improvements                            | \$7,689,361   | 450          |
| M        | I-35E    | Jct. CR J - Additional ramp  | \$10,800,000  | 430          |
| M        | 169      | In Champlin and Brooklyn Park 109th Avenue North - corridor improvements   | \$3,875,200   | 410          |
| M        | 610      | TH 610 and East River Road   | \$23,100,000  | 410          |
| 3        | 10       | Jct. TH 25 - grade separation  | \$51,900,000  | 365          |
| M        | 47       | In St Francis between Cree St and Ambassador Blvd round about              | \$12,600,000  | 335          |
| M        | 77       | In the City of Apple Valley 138th St. north to 35E - corridor improvements | \$36,750,000  | 320          |

\* Highlighted projects indicate those selected in 2023 for Metro Connector

Note: MnDOT Office of Transportation System Management - September 30, 2023

# Appendix H: 2023 Funding – Metro Core Project Scoring

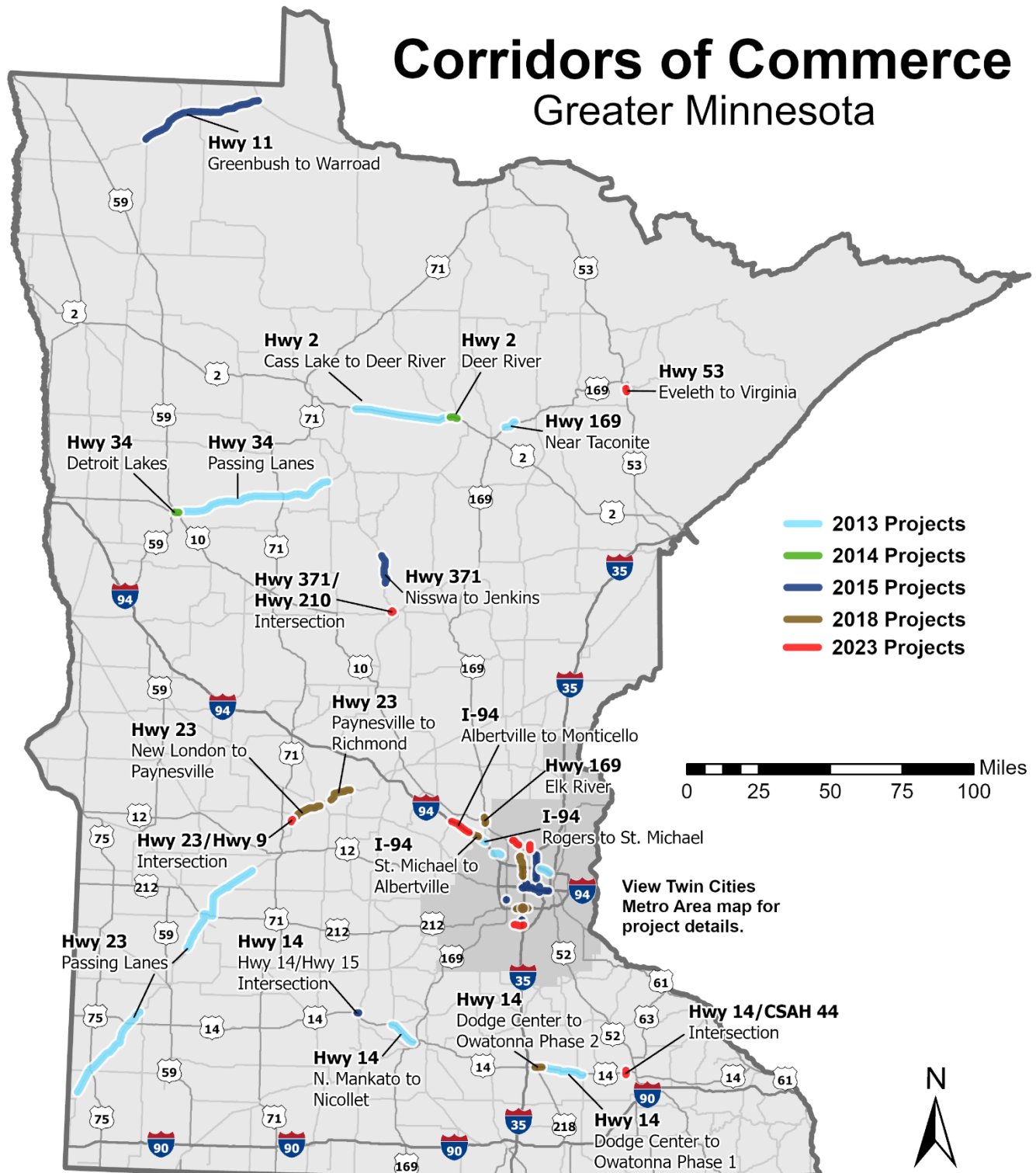
## *Metro Core Projects – Final Scoring*

| District | Highway | Description   | Cost          | Total Points |
|----------|---------|---|---------------|--------------|
| M        | 494     | 35W and TH 77 - Easy Pass expansion   | \$177,600,000 | 625          |
| M        | I-94    | Fish Lake Interchange: WB I-94/NB I-494 Merge Added Lane & WB I-94 Auxiliary Lane           | \$11,200,000  | 540          |
| M        | I-94    | Fish Lake Interchange (I-94 / I-494 / I-694): Added Lane to the I-94 WB Merge with NB I-494 | \$5,720,000   | 535          |
| M        | I-94    | Fish Lake Interchange: WB I-94 Auxiliary Lane Between Hemlock Lane & Weaver Lake Road       | \$5,410,000   | 525          |
| M        | 494     | MnPASS I-35W to Bloomington (SB only)   | \$72,900,000  | 510          |
| M        | 62      | Highway 62 between Portland Ave. and Highway 77 (Cedar Ave.) - Lane addition                | \$27,800,000  | 450          |

*Note: MnDOT Office of Transportation System Management - September 30, 2023*

# Appendix I: Maps

## Corridors of Commerce Greater Minnesota



# Corridors of Commerce

## Twin Cities Metro Area

