



Application

04776 - 2016 Bridges

04849 - CSAH 81 (West Broadway Avenue/Bottineau Boulevard) Bridge Replacement over Lowry Avenue/Oakdale Avenue and Victory Memorial Drive/Theodore Wirth Parkway

Regional Solicitation - Roadways Including Multimodal Elements

Status: Submitted  
Submitted Date: 07/14/2016 12:35 PM

---

## Primary Contact

**Name:** \* Carla J Stueve  
Salutation First Name Middle Name Last Name

**Title:** Transportation Engineer

**Department:**

**Email:** Carla.Stueve@hennepin.us

**Address:** 1600 Prairie Drive

\* Medina Minnesota 55340  
City State/Province Postal Code/Zip

**Phone:** \* 612-596-0356  
Phone Ext.

**Fax:**

**What Grant Programs are you most interested in?** Regional Solicitation - Roadways Including Multimodal Elements

---

## Organization Information

**Name:** HENNEPIN COUNTY

**Jurisdictional Agency (if different):**

**Organization Type:** County Government

**Organization Website:**

**Address:** DPT OF PUBLIC WORKS  
1600 PRAIRIE DR

**\*** MEDINA Minnesota 55340  
City State/Province Postal Code/Zip

**County:** Hennepin

**Phone:\*** 763-745-7600  
Ext.

**Fax:**

**PeopleSoft Vendor Number** 0000028004A9

---

## Project Information

**Project Name** CSAH 81 (West Broadway Avenue/Bottineau Boulevard)  
Bridge Replacement over Lowry Avenue/Oakdale Avenue and  
Victory Memorial Drive/Theodore Wirth Parkway

**Primary County where the Project is Located** Hennepin

**Jurisdictional Agency (If Different than the Applicant):** Hennepin

The project includes a full replacement of the pair of CSAH 81 (West Broadway Avenue/Bottineau Boulevard) bridges, including the northbound (No. 27008) and southbound (No. 27007) bridges. These bridges are located on an A-Minor Arterial roadway that currently carries 12,100 vehicles per day and is located on the border of Minneapolis and Robbinsdale. CSAH 81 is a significant regional corridor, supporting local and regional economic development and is located immediately south of the North Memorial Medical Center, which is one of three Level I Trauma Centers in the Twin Cities metropolitan area, and is the City of Robbinsdale's largest employer with approximately 3,500 employees. The corridor continues to experience increasing traffic volumes due to growth and redevelopment.

The current bridge designs are hinged concrete box girders that extend over Lowry Avenue/Oakdale Avenue and Victory Memorial Drive/Theodore Wirth Parkway. The existing bridges are exhibiting significant deterioration due to chloride infiltration resulting in extensive spalls and reinforcement corrosion at the hinges and abutments. Many of the spalled areas have exposed the reinforcement bars, which are exhibiting section loss. Water, chlorides and debris trapped in the hinge joints, have also caused similar deterioration to the bottom slab of the box sections. If the hinges crack completely, the concern is that the load transfer will be lost and the bridges will experience increased stresses for which they were not designed. Both CSAH 81 bridges are classified as structurally deficient, with the southbound bridge currently load posted. These bridges have the following structurally deficient sufficiency ratings:

Northbound CSAH 81 Bridge (27008): 44.2

**Brief Project Description (Limit 2,800 characters; approximately 400 words)**

Southbound CSAH 81 Bridge (27007): 24.9 (load posted)

For CSAH 81 to continue to deliver safe and efficient transportation service to its users, the project includes a full replacement of these deteriorated bridges with an upgraded design. The current width of these bridges is 35.5 feet, with a pavement width of 30 feet. There are currently two 12-foot travel lanes and two 3-foot shoulders. There is no space on the bridges for pedestrian or bicycle traffic. The new bridges would be designed with a wider cross section to accommodate additional traffic modes. The proposed cross section will include two 12-foot travel lanes, two 4-foot shoulders and a protected shared-use facility for pedestrians and bicyclists on each bridge. The curb barrier and railing would also be upgraded to provide a safer design. The bridge would be designed for a 75-year or greater service life.

*Include location, road name/functional class, type of improvement, etc.*

**TIP Description Guidance (will be used in TIP if the project is selected for funding)**

CSAH 81 OVER LOWRY AVE - REPLACE BR 27007 & 27008

**Project Length (Miles)**

0.15

---

## Project Funding

**Are you applying for funds from another source(s) to implement this project?**

No

**If yes, please identify the source(s)**

**Federal Amount**

\$7,000,000.00

**Match Amount**

\$6,500,000.00

*Minimum of 20% of project total*

**Project Total**

\$13,500,000.00

**Match Percentage**

48.15%

*Minimum of 20%*

*Compute the match percentage by dividing the match amount by the project total*

**Source of Match Funds**

Hennepin County and State

A minimum of 20% of the total project cost must come from non-federal sources; additional match funds over the 20% minimum can come from other federal sources

### Preferred Program Year

Select one: 2021

For TDM projects, select 2018 or 2019. For Roadway, Transit, or Trail/Pedestrian projects, select 2020 or 2021.

### Additional Program Years:

Select all years that are feasible if funding in an earlier year becomes available.

---

## Project Information-Roadways

County, City, or Lead Agency	Hennepin County
Functional Class of Road	Minor Arterial (Augmentor)
Road System	CSAH
<i>TH, CSAH, MSAS, CO. RD., TWP. RD., CITY STREET</i>	
Road/Route No.	81
<i>i.e., 53 for CSAH 53</i>	
Name of Road	West Broadway Avenue/Bottineau Boulevard
<i>Example; 1st ST., MAIN AVE</i>	
Zip Code where Majority of Work is Being Performed	55422
(Approximate) Begin Construction Date	04/15/2021
(Approximate) End Construction Date	11/15/2021
<b>TERMINI:(Termini listed must be within 0.3 miles of any work)</b>	
From: (Intersection or Address)	Abbott Avenue
To: (Intersection or Address)	30th Avenue
<i>DO NOT INCLUDE LEGAL DESCRIPTION</i>	
Or At	
Primary Types of Work	Full Bridge Replacement
<i>Examples: GRADE, AGG BASE, BIT BASE, BIT SURF, SIDEWALK, CURB AND GUTTER, STORM SEWER, SIGNALS, LIGHTING, GUARDRAIL, BIKE PATH, PED RAMPS, BRIDGE, PARK AND RIDE, ETC.</i>	
<b>BRIDGE/CULVERT PROJECTS (IF APPLICABLE)</b>	
Old Bridge/Culvert No.:	27007 and 27008
New Bridge/Culvert No.:	
Structure is Over/Under (Bridge or culvert name):	

---

## Specific Roadway Elements

<b>CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES</b>	<b>Cost</b>
Mobilization (approx. 5% of total cost)	\$0.00
Removals (approx. 5% of total cost)	\$0.00
Roadway (grading, borrow, etc.)	\$0.00
Roadway (aggregates and paving)	\$0.00
Subgrade Correction (muck)	\$0.00
Storm Sewer	\$0.00
Ponds	\$0.00
Concrete Items (curb & gutter, sidewalks, median barriers)	\$0.00
Traffic Control	\$0.00
Striping	\$0.00
Signing	\$0.00
Lighting	\$0.00
Turf - Erosion & Landscaping	\$0.00
Bridge	\$13,500,000.00
Retaining Walls	\$0.00
Noise Wall (do not include in cost effectiveness measure)	\$0.00
Traffic Signals	\$0.00
Wetland Mitigation	\$0.00
Other Natural and Cultural Resource Protection	\$0.00
RR Crossing	\$0.00
Roadway Contingencies	\$0.00
Other Roadway Elements	\$0.00
<b>Totals</b>	<b>\$13,500,000.00</b>

---

## Specific Bicycle and Pedestrian Elements

<b>CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES</b>	<b>Cost</b>
Path/Trail Construction	\$0.00
Sidewalk Construction	\$0.00
On-Street Bicycle Facility Construction	\$0.00
Right-of-Way	\$0.00
Pedestrian Curb Ramps (ADA)	\$0.00

Crossing Aids (e.g., Audible Pedestrian Signals, HAWK)	\$0.00
Pedestrian-scale Lighting	\$0.00
Streetscaping	\$0.00
Wayfinding	\$0.00
Bicycle and Pedestrian Contingencies	\$0.00
Other Bicycle and Pedestrian Elements	\$0.00
<b>Totals</b>	<b>\$0.00</b>

---

## Specific Transit and TDM Elements

<b>CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES</b>	<b>Cost</b>
Fixed Guideway Elements	\$0.00
Stations, Stops, and Terminals	\$0.00
Support Facilities	\$0.00
Transit Systems (e.g. communications, signals, controls, fare collection, etc.)	\$0.00
Vehicles	\$0.00
Contingencies	\$0.00
Right-of-Way	\$0.00
Other Transit and TDM Elements	\$0.00
<b>Totals</b>	<b>\$0.00</b>

---

## Transit Operating Costs

Number of Platform hours	0
Cost Per Platform hour (full loaded Cost)	\$0.00
Subtotal	\$0.00
Other Costs - Administration, Overhead,etc.	\$0.00

---

## Totals

Total Cost	\$13,500,000.00
Construction Cost Total	\$13,500,000.00
Transit Operating Cost Total	\$0.00

---

## Requirements - All Projects

**All Projects**

*1. The project must be consistent with the goals and policies in these adopted regional plans: Thrive MSP 2040 (2014), the 2040 Transportation Policy Plan, the 2040 Regional Parks Policy Plan (2015), and the 2040 Water Resources Policy Plan (2015).*

**Check the box to indicate that the project meets this requirement. Yes**

*2. The project must be consistent with the 2040 Transportation Policy Plan. Reference the 2040 Transportation Plan objectives and strategies that relate to the project.*



The CSAH 81 bridge replacement project is consistent with the 2040 Transportation Policy Plan by meeting the following objectives and strategies:

A) Transportation System Stewardship: Through Hennepin County's annual bridge inspection program we ensure planned preservation and maintenance of our facilities. This project would fully replace two structurally deficient bridges with a design for a 75+ year service life.

B) Safety and Security: The upgraded bridge design would provide a safer bridge design to serve its users and will provide a wider cross section to accommodate a shared-use facility for pedestrians and bicyclists, in addition to a curb barrier and railing.

List the goals, objectives, strategies, and associated pages:

C) Access to Destinations: CSAH 81 is an A-Minor Arterial that functions as an augmentor and carries 12,100 vehicles per day. This roadway provides a vital connection in a fully developed, mature section of the metro area, and is regionally significant for the greater transportation network. These bridges support local transit routes 14 & 32 and provide a critical link for emergency vehicles for the North Memorial Level 1 Trauma Hospital that is located immediately to the north.

D) Competitive Economy: CSAH 81 is a significant regional corridor, supporting local and regional economic development. It is located immediately south of the North Memorial Medical Center, which is one of three Level I Trauma Centers in the Twin Cities metropolitan area, and is the City of Robbinsdale's largest employer with approximately 3,500 employees. The corridor continues to experience increasing traffic volumes due to growth

and redevelopment.

E) Healthy Environment: The proposed replacement of the CSAH 81 bridges includes a shared-use bicycle and pedestrian facility, creating a connection where previously there had been none, thusly creating an alternative transportation mode.

F) Leveraging Transportation Investments to Guide Land Use: The upgraded bridge design will support multi-modal traffic, with the addition of pedestrian and bicycle accommodations. This will provide an alternative local transportation connection bridging mature, walkable neighborhoods. This improved facility will also have the potential to support redevelopment in the project area.

*3. The project or the transportation problem/need that the project addresses must be in a local planning or programming document. Reference the name of the appropriate comprehensive plan, regional/statewide plan, capital improvement program, corridor study document [studies on trunk highway must be approved by the Minnesota Department of Transportation and the Metropolitan Council], or other official plan or program of the applicant agency [includes Safe Routes to School Plans] that the project is included in and/or a transportation problem/need that the project addresses.*

Top 20 Hennepin County Bridge Priority Ranking

MnDOT Bridge Inspection Report (pages attached)

**List the applicable documents and pages:**

MnDOT Structure Inventory Report (pages attached)

*4. The project must exclude costs for studies, preliminary engineering, design, or construction engineering. Right-of-way costs are only eligible as part of bicycle/pedestrian projects, transit stations/stops, transit terminals, park-and-ride facilities, or pool-and-ride lots. Noise barriers, drainage projects, fences, landscaping, etc., are not eligible for funding as a standalone project, but can be included as part of the larger submitted project, which is otherwise eligible.*

**Check the box to indicate that the project meets this requirement. Yes**

*5. Applicants that are not cities or counties in the seven-county metro area with populations over 5,000 must contact the MnDOT Metro State Aid Office prior to submitting their application to determine if a public agency sponsor is required.*

**Check the box to indicate that the project meets this requirement. Yes**

*6. Applicants must not submit an application for the same project elements in more than one funding application category.*

**Check the box to indicate that the project meets this requirement. Yes**

7. The requested funding amount must be more than or equal to the minimum award and less than or equal to the maximum award. The cost of preparing a project for funding authorization can be substantial. For that reason, minimum federal amounts apply. Other federal funds may be combined with the requested funds for projects exceeding the maximum award, but the source(s) must be identified in the application. Funding amounts by application category are listed below.

**Roadway Expansion:** \$1,000,000 to \$7,000,000

**Roadway Reconstruction/ Modernization:** \$1,000,000 to \$7,000,000

**Roadway System Management** \$250,000 to \$7,000,000

**Bridges Rehabilitation/ Replacement:** \$1,000,000 to \$7,000,000

**Check the box to indicate that the project meets this requirement. Yes**

8. The project must comply with the Americans with Disabilities Act.

**Check the box to indicate that the project meets this requirement. Yes**

9. The project must be accessible and open to the general public.

**Check the box to indicate that the project meets this requirement. Yes**

10. The owner/operator of the facility must operate and maintain the project for the useful life of the improvement.

**Check the box to indicate that the project meets this requirement. Yes**

11. The project must represent a permanent improvement with independent utility. The term independent utility means the project provides benefits described in the application by itself and does not depend on any construction elements of the project being funded from other sources outside the regional solicitation, excluding the required non-federal match. Projects that include traffic management or transit operating funds as part of a construction project are exempt from this policy.

**Check the box to indicate that the project meets this requirement. Yes**

12. The project must not be a temporary construction project. A temporary construction project is defined as work that must be replaced within five years and is ineligible for funding. The project must also not be staged construction where the project will be replaced as part of future stages. Staged construction is eligible for funding as long as future stages build on, rather than replace, previous work.

**Check the box to indicate that the project meets this requirement. Yes**

13. The project applicant must send written notification regarding the proposed project to all affected state and local units of government prior to submitting the application.

**Check the box to indicate that the project meets this requirement. Yes**

---

## Roadways Including Multimodal Elements

1. All roadway and bridge projects must be identified as a Principal Arterial (Non-Freeway facilities only) or A-Minor Arterial as shown on the latest TAB approved roadway functional classification map.

**Check the box to indicate that the project meets this requirement. Yes**

### Roadway Expansion and Reconstruction/Modernization projects only:

2. The project must be designed to meet 10-ton load limit standards.

**Check the box to indicate that the project meets this requirement. Yes**

### Bridge Rehabilitation/Replacement projects only:

3. Projects requiring a grade-separated crossing of a Principal Arterial freeway must be limited to the federal share of those project costs identified as local (non-MnDOT) cost responsibility using MnDOT's Cost Participation for Cooperative Construction Projects and Maintenance Responsibilities manual. In the case of a federally funded trunk highway project, the policy guidelines should be read as if the funded trunk highway route is under local jurisdiction.

**Check the box to indicate that the project meets this requirement. Yes**

4. The bridge must carry vehicular traffic. Bridges can carry traffic from multiple modes. However, bridges that are exclusively for bicycle or pedestrian traffic must apply under one of the Bicycle and Pedestrian Facilities application categories. Rail-only bridges are ineligible for funding.

Check the box to indicate that the project meets this requirement. Yes

5. The length of the bridge must equal or exceed 20 feet.

Check the box to indicate that the project meets this requirement. Yes

6. The bridge must have a sufficiency rating less than 80 for rehabilitation projects and less than 50 for replacement projects. Additionally, the bridge must also be classified as structurally deficient or functionally obsolete.

Check the box to indicate that the project meets this requirement. Yes

---

## Requirements - Roadways Including Multimodal Elements

---

### Measure A: Functional Classification

Area	0.624
Project Length	0.154
Average Distance	4.0519
Upload Map	1466525015893_CSAH 081 (Broadway Ave) Bridge - Roadway Area.pdf

---

### Measure B: Project Location Relative to Jobs, Manufacturing, and Education

Existing Employment within 1 Mile:	12868
Existing Manufacturing/Distribution-Related Employment within 1 Mile:	910
Existing Students:	0
Upload Map	1466004290765_CSAH 081 (Broadway Ave) Bridge - Regional Economy.pdf

---

### Measure C: Current Daily Heavy Commercial Traffic

Location	CSAH 81 north of Lowry Avenue bridge
Current Daily Heavy Commercial Traffic Volume	1113.0
Date Heavy Commercial Count Taken:	10/21/2014

---

### Measure D: Freight Elements

The CSAH 81 bridges over Lowry Avenue/Oakdale Avenue and Victory Memorial Drive/Theodore Wirth Parkway is a regionally significant truck route, carrying 1,113 heavy commercial vehicles each day. Traffic trends show an increase in freight and delivery trucks along this corridor and others in the region.

The CSAH 81 northbound and southbound bridges are both classified as structurally deficient with sufficiency ratings below 50. As these bridges continue to deteriorate, both of these bridges will eventually be closed to heavy commercial vehicles, which may occur in the near future. As it stands, the southbound bridge is already load posted.

Response (Limit 1,400 characters; approximately 200 words)

As the needs for freight continue to increase along this corridor, this project will improve the mobility, safety and overall operations for truck traffic. The proposed replacement of the CSAH 81 bridges will support the economic development in the area by providing smooth and efficient traffic flow, by providing access to key destinations along the corridor. The bridge replacement project will eliminate all weight restrictions on this segment of CSAH 81 to continue to provide a regional facility for freight traffic. In addition, the typical roadway section will be widened with this project to better accommodate freight traffic. The project will widen each shoulder from three to four feet to meet current standards.

---

## Measure A: Current Daily Person Throughput

Location	CSAH 81 Bridges
Current AADT Volume	12100.0
Existing Transit Routes on the Project:	14, 19, 32
Upload Transit Map	1466526715540_CSAH 081 (Broadway Ave) Bridge - Transit.pdf

---

## Response: Current Daily Person Throughput

Average Annual Daily Transit Ridership	0
Current Daily Person Throughput	15730.0

---

## Measure B: 2040 Forecast ADT

Use Metropolitan Council model to determine forecast (2040) ADT volume Yes

METC Staff - Forecast (2040) ADT volume 0

OR

Approved county or city travel demand model to determine forecast (2040) ADT volume No

Forecast (2040) ADT volume 24700.0

---

## Measure A: Project Location and Impact to Disadvantaged Populations

Select one:

Project located in Area of Concentrated Poverty with 50% or more of residents are people of color (ACP50): Yes

Project located in Area of Concentrated Poverty:

Projects census tracts are above the regional average for population in poverty or population of color:

Project located in a census tract that is below the regional average for population in poverty or populations of color or includes children, people with disabilities, or the elderly:

The CSAH 81 Bridge is located within an Area of Concentrated Poverty (ACP). According to census data collected over a span of five years, 40% of the residents within the ACP live with incomes below 185% of the federal poverty threshold. Within this ACP, 50% or more of the population are people of color.

Research shows that residents of ACP are three times more likely to lack a high school diploma or GED (differences at higher education levels are less pronounced). Data also indicates a larger immigrant (born outside of the US) presence and a greater share of residents speaking a language other than English at home within ACP areas.

Within and beyond the ACP boundaries at CSAH 81, are neighborhoods that were greatly impacted by the recession of the late 2000's and the associated foreclosure crisis, as well as a tornado in 2011. These neighborhoods are struggling to compete with other surrounding neighborhoods for rare redevelopment opportunities that will bring jobs, quality affordable housing, retail and services to their neighborhood.

In an effort to stabilize these economically challenged neighborhoods, Hennepin County reconstructed a 2.5 mile stretch of Lowry Avenue through North Minneapolis with on-street bicycle lanes, landscaped boulevards, and wider sidewalks between 2006 and 2009. Hennepin County is also currently working to redevelop two key intersections along the corridor. Lowry Avenue travels under the CSAH 81 bridge structure and has entrance ramps that provide access onto CSAH 81.

CSAH 81 is a regionally significant transportation

Response (Limit 2,800 characters; approximately 400 words)

corridor, providing a vital connection to the metropolitan freeway system which ultimately connects residents (inclusive of all races, ethnicity, incomes, and abilities) to jobs and educational opportunities. The replacement of the CSAH 81 bridges is consistent with the goals and desired outcomes in Thrive 2040 and will continue to connect local residents with a safe and reliable transportation system to improve their overall quality of life.

*The response should address the benefits, impacts, and mitigation for the populations affected by the project.*

**Upload Map**

1466096913109\_CSAH 081 (Broadway Ave) Bridge - SocioEconomic.pdf

## Measure B: Affordable Housing

City/Township	Segment Length in Miles (Population)
Minneapolis	22012.0
Robbinsdale	8657.0
Golden Valley	4637.0
	<b>35306</b>

## Total Project Length

Total Project Length (Total Population) 0.15

## Affordable Housing Scoring - To Be Completed By Metropolitan Council Staff

City/Township	Segment Length (Miles)	Total Length (Miles)	Score	Segment Length/Total Length	Housing Score Multiplied by Segment percent
Minneapolis	0.02	35306.0	97.0	0	0
Robbinsdale	0.06	35306.0	61.0	0	0
Item Deleted	0	35306.0	0	0	0
		<b>105918</b>	<b>158</b>	<b>0</b>	<b>0</b>

## Affordable Housing Scoring - To Be Completed By Metropolitan Council Staff



Total Project Length (Miles) 35306.0  
Total Housing Score 0

---

**Measure A: Bridge Condition**

Bridge Sufficiency Rating 24.9

---

**Measure B: Project Improvements**

Load Posted (Check box if the bridge is load-posted): Yes

---

**Measure A: Multimodal Elements and Existing Connections**

Today, the CSAH 81 bridges include two travel lanes in each direction, connecting traffic between Robbinsdale and the northwest metro to Minneapolis. Dedicated pedestrian and bicycle routes do not currently exist on the bridges. Instead, people walking or biking are routed below the bridge on a network of sidewalks and multi-use paths including the Grand Rounds Trail. By traveling below the bridge, pedestrians and bicyclists are able to stay at grade and connect directly into the renowned regional trail system and local sidewalk network. Lowry Avenue, located below the bridge, is served by transit routes 14, 19, and 32, and additionally includes on-street bike lanes east of CSAH 81.

Response (Limit 2,800 characters; approximately 400 words)

While existing sidewalks, bike lanes, and trails provide reasonably direct connections for non-motorized users, there is an opportunity to increase connectivity and provide an even more direct route with the addition of dedicated pedestrian and bicycle facilities on the bridge. The reconstructed CSAH 81 bridges will include multi-use trail facilities adjacent to outside vehicle travel lanes. Further study will be completed to evaluate how to best connect new facilities with the existing network pedestrian and bicycle network. In the interim, there is an opportunity to maximize use and awareness of existing sidewalk and trail connections by enhancing wayfinding north and south of the project area.

Additional concurrent and upcoming multimodal projects will further enhance the role of this location in the pedestrian, bicycle, and transit system. The Crystal Lake Regional Trail, currently in late planning and early implementation stages, will provide a new bikeway and improved pedestrian route through Maple Grove, Brooklyn Park, Crystal,

and Robbinsdale, connecting to the Grand Rounds Trail on the north side of the CSAH 81 bridge project. CSAH 81 is also recognized as an exploration corridor for future BRT expansion, which would elevate the corridor's importance in the regional transit network.

---

## Transit Projects Not Requiring Construction

*If the applicant is completing a transit or TDM application that is operations only, check the box and do not complete the remainder of the form. These projects will receive full points for the Risk Assessment.*

*Park-and-Ride and other transit construction projects require completion of the Risk Assessment below.*

**Check Here if Your Transit Project Does Not Require Construction**

---

## Measure A: Risk Assessment

### 1)Project Scope (5 Percent of Points)

Meetings or contacts with stakeholders have occurred Yes

100%

Stakeholders have been identified

40%

Stakeholders have not been identified or contacted

0%

### 2)Layout or Preliminary Plan (5 Percent of Points)

Layout or Preliminary Plan completed

100%

Layout or Preliminary Plan started

50%

Layout or Preliminary Plan has not been started Yes

0%

Anticipated date or date of completion 06/30/2020

### 3)Environmental Documentation (5 Percent of Points)

EIS

EA

PM Yes

**Document Status:**

Document approved (include copy of signed cover sheet) 100%

Document submitted to State Aid for review

75%

date submitted

Document in progress; environmental impacts identified; review request letters sent

50%

Document not started

Yes

0%

Anticipated date or date of completion/approval

08/31/2020

#### 4)Review of Section 106 Historic Resources (10 Percent of Points)

No known historic properties eligible for or listed in the National Register of Historic Places are located in the project area, and project is not located on an identified historic bridge

Yes

100%

Historic/archeological review under way; determination of no historic properties affected or no adverse effect anticipated

80%

Historic/archeological review under way; determination of adverse effect anticipated

40%

Unsure if there are any historic/archaeological resources in the project area

0%

Anticipated date or date of completion of historic/archeological review:

Project is located on an identified historic bridge

#### 5)Review of Section 4f/6f Resources (10 Percent of Points)

4(f) Does the project impacts any public parks, public wildlife refuges, public golf courses, wild & scenic rivers or public private historic properties?

6(f) Does the project impact any public parks, public wildlife refuges, public golf courses, wild & scenic rivers or historic property that was purchased or improved with federal funds?

No Section 4f/6f resources located in the project area

100%

No impact to 4f property. The project is an independent bikeway/walkway project covered by the bikeway/walkway Negative Declaration statement; letter of support received

100%

Section 4f resources present within the project area, but no known adverse effects

Yes

80%

Project impacts to Section 4f/6f resources likely coordination/documentation has begun

50%

**Project impacts to Section 4f/6f resources likely coordination/documentation has not begun**

30%

**Unsure if there are any impacts to Section 4f/6f resources in the project area**

0%

**6)Right-of-Way (15 Percent of Points)**

**Right-of-way, permanent or temporary easements not required** Yes

100%

**Right-of-way, permanent or temporary easements has/have been acquired**

100%

**Right-of-way, permanent or temporary easements required, offers made**

75%

**Right-of-way, permanent or temporary easements required, appraisals made**

50%

**Right-of-way, permanent or temporary easements required, parcels identified**

25%

**Right-of-way, permanent or temporary easements required, parcels not identified**

0%

**Right-of-way, permanent or temporary easements identification has not been completed**

0%

**Anticipated date or date of acquisition**

**7)Railroad Involvement (25 Percent of Points)**

**No railroad involvement on project** Yes

100%

**Railroad Right-of-Way Agreement is executed (include signature page)** 100%

**Railroad Right-of-Way Agreement required; Agreement has been initiated**

60%

**Railroad Right-of-Way Agreement required; negotiations have begun**

40%

**Railroad Right-of-Way Agreement required; negotiations not begun**

0%

**Anticipated date or date of executed Agreement**

**8)Interchange Approval (15 Percent of Points)\***

*\*Please contact Karen Scheffing at MnDOT (Karen.Scheffing@state.mn.us or 651-234-7784) to determine if your project needs to go through the Metropolitan Council/MnDOT Highway Interchange Request Committee.*

**Project does not involve construction of a new/expanded interchange or new interchange ramps** Yes

100%

**Interchange project has been approved by the Metropolitan Council/MnDOT Highway Interchange Request Committee**

100%

**Interchange project has not been approved by the Metropolitan Council/MnDOT Highway Interchange Request Committee**

0%

**9)Construction Documents/Plan (10 Percent of Points)**

**Construction plans completed/approved (include signed title sheet)**

100%

**Construction plans submitted to State Aid for review**

75%

**Construction plans in progress; at least 30% completion**

50%

**Construction plans have not been started** Yes

0%

**Anticipated date or date of completion** 12/31/2020

**10)Letting**

**Anticipated Letting Date** 04/15/2021

---

**Measure A: Cost Effectiveness**

**Total Project Cost (entered in Project Cost Form):** \$13,500,000.00

**Enter Amount of the Noise Walls:** \$0.00

**Total Project Cost subtract the amount of the noise walls:** \$13,500,000.00

**Points Awarded in Previous Criteria**

**Cost Effectiveness** \$0.00

---

**Other Attachments**

<b>File Name</b>	<b>Description</b>	<b>File Size</b>
Fig 01 - Project Map_CSAH 081Bridges.pdf	Project Map_CSAH 081Bridges	436 KB
Fig 02 - MnDOT Bridge Inspection and Inventory Reports - CSAH 81 NB.pdf	MnDOT Bridge Inspection and Inventory Reports - CSAH 81 NB	99 KB
Fig 03 - MnDOT Bridge Inspection and Inventory Reports - CSAH 81 SB.pdf	MnDOT Bridge Inspection and Inventory Reports - CSAH 81 SB	97 KB
Fig 04 - CSAH 81 Bridge - Existing Typical Section.pdf	CSAH 81 Bridge - Existing Typical Section	158 KB
Fig 05 - CSAH 81 Bridge - Proposed Typical Section.pdf	CSAH 81 Bridge - Proposed Typical Section	213 KB
Fig 06 - Photos of CSAH 81 Bridge Deficiencies.pdf	Photos of CSAH 81 Bridge Deficiencies	716 KB
Fig 07 - CSAH 81 Bridge Heavy Commercial Traffic.pdf	CSAH 81 Bridge Heavy Commercial Traffic	74 KB
Fig 08 - CSAH 081 - 2016 Traffic Volumes.pdf	CSAH 081 - 2016 Traffic Volumes	61 KB
Fig 09 - CSAH 81 Bridge 2040 Forecasts from Mark Filipi.pdf	CSAH 81 Bridge 2040 Forecasts from Mark Filipi	96 KB
Fig 10 - Minneapolis Plan for Sustainable Growth Regional Parks and Trails.pdf	Minneapolis Plan for Sustainable Growth Regional Parks and Trails	407 KB
Fig 11 - Access Minneapolis CitywideActionPlan Transit Oriented Commercial Corridors.pdf	Access Minneapolis CitywideActionPlan Transit Oriented Commercial Corridors	1.2 MB
Fig 12 - GrandRoundsMasterPlan_Map.pdf	Grand Rounds Master Plan Map	77 KB
Fig 13 - Crystal Lake Regional Trail Assessment - Robbinsdale Segment.pdf	Crystal Lake Regional Trail Assessment - Robbinsdale Segment	591 KB
Fig 14 - WestBroadway_RapidBusConcept.pdf	WestBroadway_RapidBusConcept	228 KB
Fig 15 - HCBikePlan_Top25PlannedBikewaySegments.pdf	HC Bike Plan Top25 Planned Bikeway Segments	873 KB
Fig 16 - RobbinsdalePedBikePlan - PriorityIntersections.pdf	Robbinsdale Ped Bike Plan - Priority Intersections	281 KB
Fig 17 - RobbinsdalePedBikePlan - Recommended Network.pdf	Robbinsdale Ped Bike Plan - Recommended Network	280 KB
Fig 18 - Robbinsdale Support Letter.pdf	Robbinsdale Support Letter	47 KB
Fig 19 - Minneapolis Support Letter.pdf	Minneapolis Support Letter	238 KB

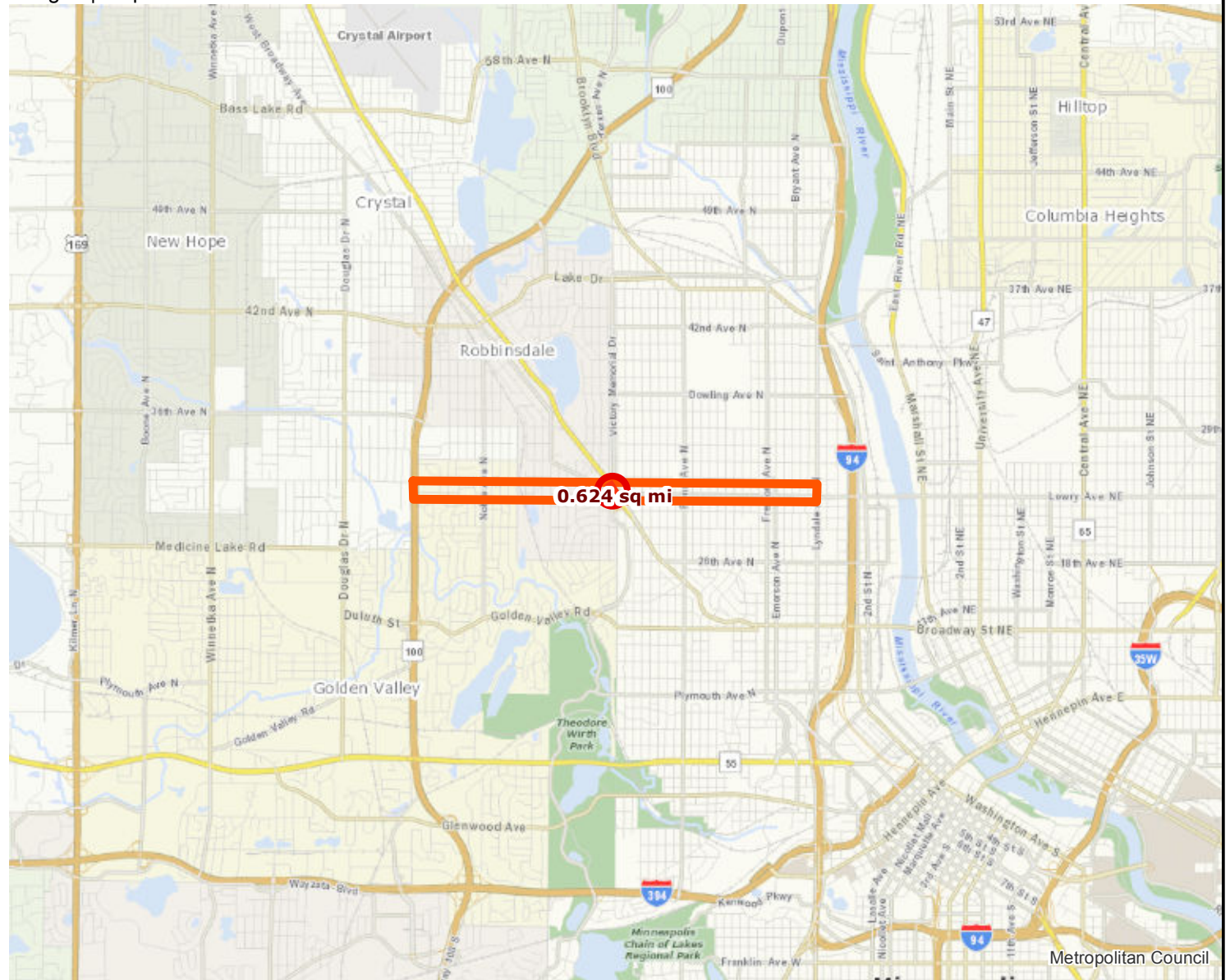
# Roadway Area Definition

Bridges | Map ID: 1465845968274

## Results

Project Length: 0.154 miles

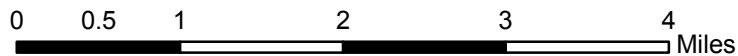
Project Area: 0.624 sq mi



Project Points    Principal Arterials    A Minor Arterials Planned

Project    A Minor Arterials

Project Area    Principal Arterials Planned



Created: 6/13/2016  
LandscapeRSA1



For complete disclaimer of accuracy, please visit  
<http://giswebsite.metc.state.mn.us/gissitenew/notice.aspx>





# Regional Economy

Bridges | Map ID: 1465845968274

## Results

**WITHIN ONE MI of project:**

Totals by City:

### Golden Valley

Population: 4637

Employment: 5077

Mfg and Dist Employment: 756

### Minneapolis

Population: 22012

Employment: 2172

Mfg and Dist Employment: 40

### Robbinsdale

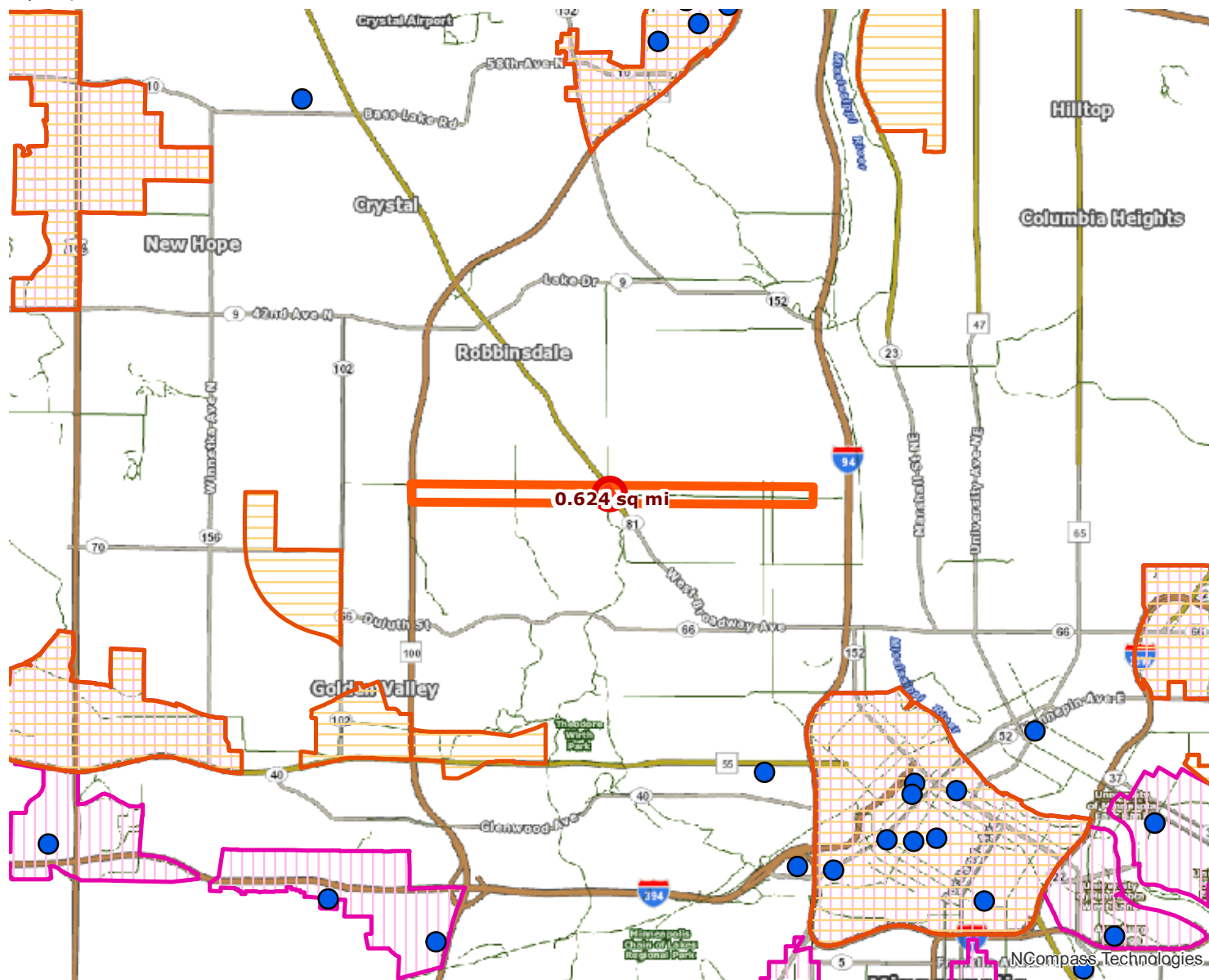
Population: 8657

Employment: 5619

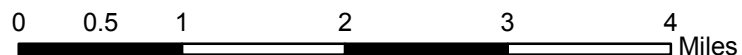
Mfg and Dist Employment: 114

Postsecondary Students:

0



- Project Points
- Project Area
- Manufacturing/Distribution Centers
- Project
- PostSecondary Education Centers
- Job Concentration Centers

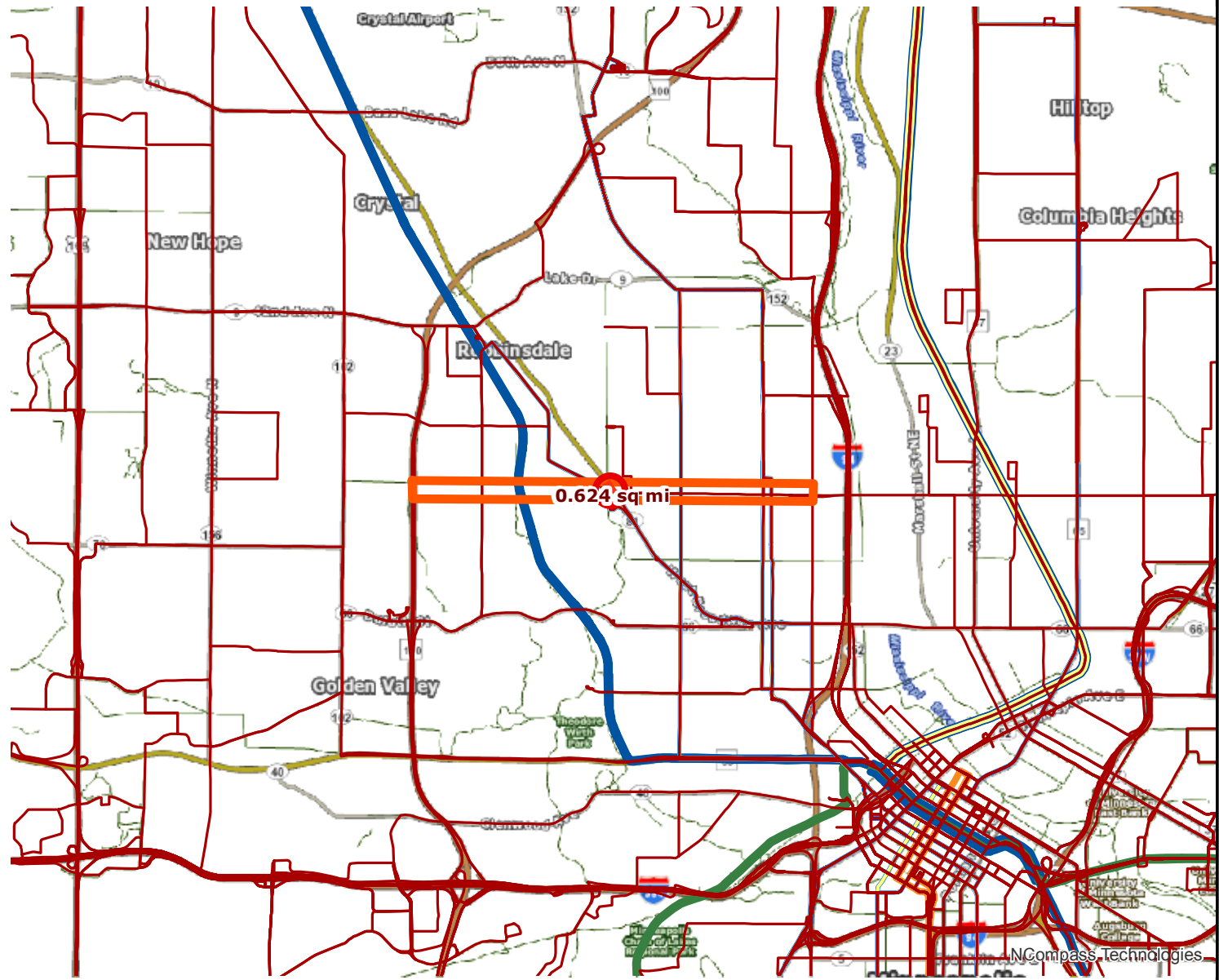


Created: 6/13/2016  
LandscapeRSA5



For complete disclaimer of accuracy, please visit  
<http://giswebsite.metc.state.mn.us/gissitenew/notice.aspx>





Results

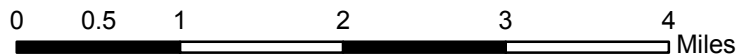
Transit with a Direct Connection to project:

14 19 32

\*West Broadway

\*indicates Planned Alignments

- |  |                |                   |                   |                           |              |                                  |                  |
|--|----------------|-------------------|-------------------|---------------------------|--------------|----------------------------------|------------------|
|  | Project Points | <b>Transitway</b> |                   | Northstar Line            |              | Light Rail, Blue Line Extension  |                  |
|  | Project Area   |                   | Blue / Green Line | <b>Planned Alignments</b> |              | Light Rail, Green Line Extension |                  |
|  | Transit Routes |                   | Blue Line         |                           | Arterial BRT |                                  | BRT, Orange Line |
|  |                |                   | Green Line        |                           |              |                                  |                  |



Created: 6/13/2016  
LandscapeRSA3



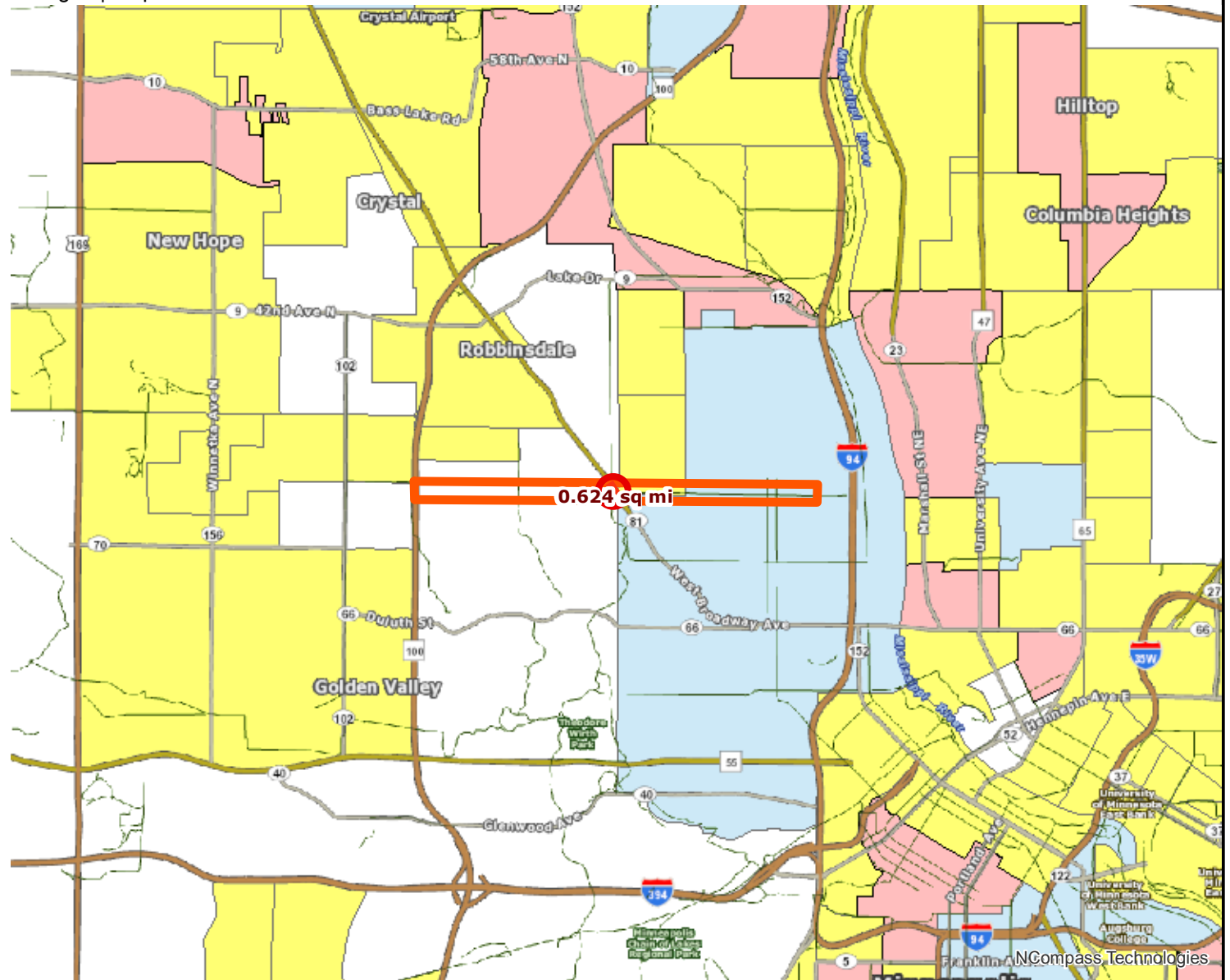
For complete disclaimer of accuracy, please visit  
<http://giswebsite.metc.state.mn.us/gissitenew/notice.aspx>



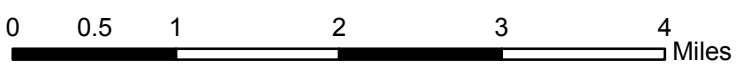
NCompass Technologies

Results

Project located **IN**  
 Area of Concentrated Poverty  
 with 50% or more of residents  
 are people of color (ACP50):  
 (0 to 30 Points)



- Project Points
- ▭ Project Area
- ▭ Area of Concentrated Poverty > 50% residents of color
- ▭ Area of Concentrated Poverty
- ▭ Above reg'l avg conc of race/poverty



Created: 6/13/2016  
 LandscapeRSA2



For complete disclaimer of accuracy, please visit  
<http://giswebsite.metc.state.mn.us/gissitenew/notice.aspx>




# CSAH 81 (W Broadway Ave/Bottineau Blvd) - Bridge Replacement Project

## Figure 01 - Project Location Map



Transportation Planning  
www.hennepin.us  
07/11/2016

 Project Location



## MINNESOTA STRUCTURE INVENTORY REPORT

Bridge ID: 27008

CSAH 81 NB over MSAS 295; STR 184

Date: 06/10/2016

+ GENERAL +	+ ROADWAY +	+ INSPECTION +
Agency Br. No.	Bridge Match ID (TIS) 1	Deficient Status S.D.
District METRO Maint. Area	Roadway O/U Key 1-ON	Sufficiency Rating 44.2
County 27 - HENNEPIN	Route Sys/Nbr CSAH 81	Last Inspection Date 08-25-2015
City ROBBINSDALE	Roadway Name or Description	Inspection Frequency 12
Township	CSAH 81 (BROADWAY) NB	Inspector Name HENNEPIN COUNTY
Desc. Loc. 2.3 MI NW OF JCT TH 94	Roadway Function MAINLINE	Status A-OPEN
Sect., Twp., Range 08 - 029N - 24W	Roadway Type 1 WAY TRAF	+ NBI CONDITION RATINGS +
Latitude 45d 00m 49.36s	Control Section (TH Only)	Deck 5
Longitude 93d 19m 07.33s	Ref. Point 002+00.310	Superstructure 4
Custodian COUNTY	Date Opened to Traffic 01-01-1964	Substructure 5
Owner COUNTY	Detour Length 1 mi.	Channel N
Inspection By HENNEPIN COUNTY	Lanes 2 Lanes ON Bridge	Culvert N
Year Built 1964	ADT (YEAR) 6,250 (2005)	+ NBI APPRAISAL RATINGS +
MN Year Remodeled	HCA DT	Structure Evaluation 4
FHWA Year Reconstructed	Functional Class. URB/MINOR ART	Deck Geometry 4
Bridge Plan Location COUNTY	+ RDWY DIMENSIONS +	Underclearances 2
Potential ABC N.A.	If Divided NB-EB SB-WB	Waterway Adequacy N
	Roadway Width 30.0 ft	Approach Alignment 8
	Vertical Clearance	+ SAFETY FEATURES +
Service On HIGHWAY	Max. Vert. Clear.	Bridge Railing 1-MEETS STANDARDS
Service Under HIGHWAY	Horizontal Clear. 29.9 ft	GR Transition 1-MEETS STANDARDS
Main Span Type CCONC BOX GIR D	Lateral Clr. - Lt/Rt	Appr. Guardrail 1-MEETS STANDARDS
Main Span Detail	Appr. Surface Width 30.0 ft	GR Termini 1-MEETS STANDARDS
Appr. Span Type	Bridge Roadway Width 30.0 ft	+ IN DEPTH INSP. +
Appr. Span Detail	Median Width on Bridge	Frac. Critical
Skew 45R	+ MISC. BRIDGE DATA +	Underwater
Culvert Type	Structure Flared NO	Pinned Asbly.
Barrel Length	Parallel Structure RIGHT	Spec. Feat.
Number of Spans	Field Conn. ID	+ WATERWAY +
MAIN: 4 APPR: 0 TOTAL: 4	Cantilever ID	Drainage Area
Main Span Length 121.6 ft	Foundations	Waterway Opening
Structure Length 426.7 ft	Abut. CONC - FTG PILE	Navigation Control NOT APPL
Deck Width 35.5 ft	Pier CONC - FTG PILE	Pier Protection
Deck Material C-I-P CONCRETE	Historic Status NOT ELIGIBLE	Nav. Vert./Horz. Clr.
Wear Surf Type LOW SLUMP CONC	On - Off System ON	Nav. Vert. Lift Bridge Clear.
Wear Surf Install Year 1978	+ PAINT +	MN Scour Code A-NON WATERWAY
Wear Course/Fill Depth 0.17 ft	Year Painted Pct. Unsound	Scour Evaluation Year 1991
Deck Membrane NONE	Painted Area	+ CAPACITY RATINGS +
Deck Rebars NONE	Primer Type	Design Load HS 20
Deck Rebars Install Year	Finish Type	Operating Rating HS 26.40
Structure Area 15,148 sq ft	+ BRIDGE SIGNS +	Inventory Rating HS 15.80
Roadway Area 12,798 sq ft	Posted Load NOT REQUIRED	Posting
Sidewalk Width - L/R 1.0 ft 1.0 ft	Traffic NOT REQUIRED	Rating Date 02-03-2015
Curb Height - L/R 0.67 ft 0.67 ft	Horizontal OBJECT MARKERS	Overweight Permit Codes
Rail Codes - L/R 29 29	Vertical NOT APPLICABLE	A: N B: N C: N

06/10/2016

## MINNESOTA BRIDGE INSPECTION REPORT

Inspected by: HENNEPIN COUNTY

BRIDGE 27008 CSAH 81 NB OVER MSAS 295; STR 184

INSP. DATE: 08-25-2015

County: HENNEPIN Location: 2.3 MI NW OF JCT TH 94 Length: 426.7 ft  
 City: ROBBINSDALE Route: CSAH 81 Ref. Pt.: 002+00.310 Deck Width: 35.5 ft  
 Township: Control Section: Maint. Area: Rdwy. Area / Pct. Unsnd: 12,798 sq ft  
 Section: 08 Township: 029N Range: 24W Local Agency Bridge Nbr: Paint Area / Pct. Unsnd:  
 Span Type: CCONC BOX GIRD Culvert: N/A  
 NBI Deck: 5 Super: 4 Sub: 5 Chan: N Culv: N  
 Open, Posted, Closed: OPEN  
 Appraisal Ratings - Approach: 8 Waterway: N MN Scour Code: A-NON WATERWAY Def. Stat: S.D. Suff. Rate: 44.2  
 Required Bridge Signs - Load Posting: NOT REQUIRED Traffic: NOT REQUIRED  
 Horizontal: OBJECT MARKERS Vertical: NOT APPLICABLE

ELEM NBR	ELEMENT NAME	INSP. DATE	QUANTITY	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
800	CRITICAL DEFS OR SAFETY HAZARDS	08-25-2015	1 EA	1	0	0	0
Notes: No critical structural deficiencies or serious safety hazards are present on this structure.							
16	REINFORCED CONCRETE TOP FLANGE	08-25-2015	15,148 SF	14,845	0	303	0
Notes: 359. Efflor, much scaling and rust spots on both cantilevers. Conc pattern cracked @ E cantilever. Spalls w/ rebar exp @ both cantilevers. '13-many spalls on cantilevers. '14-no change. '15-51SF of spalling with rebar along W edge, 58SF along E edge							
510	WEARING SURFACE	08-25-2015	12,798 SF	11,518	0	1,280	0
Notes: Low Slump Overlay with Uncoated Rebar Notes: 22. Trans, long and some map cracks. Wear course sealed in '05. Surface scaled @ E side(50' X 5' area +/- 75' from S). Long cracks over each interior web wall. Tined finish is wore off in wheel tracks of right lane. Some small spalls, most @ strip seal joints. Numerous unsealed long, trans and map cracks. Few small patches, up to 2' x 4' in size. Numerous larger cracks in N span, some sealed. '13-cracks are generally larger in size, some up to 1/16". '14-8" x 3' area in left lane @ poured joint over middle column is cracked & sunken 3/8" - 1/2". '15-Left lane @ app has been patched, full land width x 6", sunken area of middle column has been repaired with patch and sealant, remaining deck cracks have been sealed as well							
810	CONC WEAR SURF-CRACKING SEALING	08-25-2015	0 LF	0	0	0	0
Notes: 358. Numerous trans, long and map cracks. Minor in severity. Some sealed. Most cracks in right lane, where tine surface is wore. Most of the cracking in the left lane is @ the N end. '12-some cracks now 1/32"; density < 10'. '13-some cracks up to + / - 1/16" in size. Density <10'. '14-no change. '15-cracks have been sealed							
300	STRIP SEAL DECK JOINT	08-25-2015	72 LF	29	43	0	0
Notes: 300. Joints partially filled w/ sand. 1' X 1' spall @ N joint. '11-both joints almost closed @ 70 deg-same in '12. '12-numerous spalls @ S joint in adj conc in repaired areas. 4' partially out in S; 3' in N. '13-85 degrees, N joint is closed in the middle for about 8'. '14-no change. '15-no change							
301	POURED SEAL JOINT	08-25-2015	325 LF	305	15	0	5
Notes: 301. Material partially missing in some areas. '13-some cracks in material. Deck spall @ middle bridge joint. '14-no change. '15-no change							
302	COMPRESSION DECK JOINT	08-25-2015	69 LF	0	29	0	40
Notes: 302. Joints @ end of bridge. Hot pour over joints has deteriorated. '13-small spalls @ joint in N. '14-more deterioration @ both. '15-no change							
331	REINFORCED CONC BRIDGE RAILING	08-25-2015	853 LF	0	799	54	0
Notes: 331. Numerous vert cracks in rail. Rail spalled @ several joints. Spall w/ rebar exp @ SE endpost. Rust stains @ E wall. Some map cracking on walls. Surface finish has some scale. Cracked and spalled near the top in SE. '13-many posts w/ vert cracks, some spalled. Several small delams on top of E. Long cracks on top of E are sealed. '14-no change. '15-cracks have been sealed							
822	BITUMINOUS APPROACH ROADWAY	08-25-2015	2 EA	0	0	2	0

Notes: 407. Spalls on both ends. Approach roadway on S end is higher than bridge deck, keeping runoff on deck and causing ponding in SW corner. Settled on N end w/ minor spalls & some cracks. Hot pour has deteriorated. '13-large spalls in N. Large crack in middle of S. '14-S approach bit has been milled. '15-no change

105	REINFORCED CONCRETE BOX GIRDER	08-25-2015	427 LF	0	262	162	3
Notes: 105. Numerous vert cracks on sides of girders. Many shear cracks on both sides of girder @ all spans. Numerous trans cracks @ bottom of girder of all spans. Bottom of girders scraped. Girders spalled, some w/ rebar exp @ hinges. Long term deflection apparent-minor. Spalls w/ rebar exp in W face of spans 1 & 2. Repaired areas in span 1 are spalled on E and W sides. Repaired W side hinge joint cracks and spall in '01 and '04. 3 SF patch on E side. Some spalling, delam and rusted rebar on W side. Spalls & delam in bottom of girder @ N joint. '13-repaired areas are spalling again. 60 SF of spalls @ N hinge. 1 SF delam over N abut between 2 W bearings. Trans cracks spaced 2'-3' apart in N half of 2 N spans. Density is less on S half of these spans. 2nd span from S has same density from hinge to 20' S of column 2. S span density is 2'-3' in S 2/3 of span. Minor-mod shear cracking on both sides of girder. CS 3-150' from shear(structural cracks) and 15' from deterioration @ hinges. '14-2 W bea							
205	REINFORCED CONCRETE COLUMN	08-25-2015	3 EA	3	0	0	0
Notes: 205. Hairline vert cracks. Map cracking in pier columns. '13-cracks are minor in size. '14-scrapes @ base of S column. '15-very few coin sized popouts on all columns							
215	REINFORCED CONCRETE ABUTMENT	08-25-2015	119 LF	30	65	24	0
Notes: [2016] Migrator added 40 LF to abutment quantity to account for wingwalls (CS1:30 CS2:10 CS3:0 CS4:0). 215. Horiz and vert cracks in both. Rust @ seats & faces. Leakage from utility blockout in parapet @ both. South- masonry spalled @ SW corner. 1.5' X 2' X 2" deep spall w/ rebar exp @ center on face and seat. Small spall in SE seat. Leakage thru parapet wall @ S where electrical conduit exits. '13-spall on face and seat is now 3" deep. Leakage @ conduit is heavy. Spalls & leakage @ blockouts. North-parapet wall cracked and spalled @ NW corner. 2' X 2' X 5" deep spall @ NW seat. NE parapet wall spalled @ joint. NW seat has 4' X 1' delam. '13-delam in NW is now a spall. '14-no change. '15-3 spalls along S face, 1.5'x2'x3", 1.5'x3'x2" and 1'x1'. Spall in NW seat has been repaired  Wingwall notes: 387. Horiz and vert cracks w/ efflor in NW. Large spall in SE. '13-no change. '14-same. '15-no change							
311	EXPANSION BEARING	08-25-2015	20 EA	0	6	0	14
Notes: 311. Exterior bearings rusted @ strip seal joints. Bearings @ S abut have some sheet rust. Some abut bearings frozen. NW exterior corner of box cracking. Surface rust on rest of bearings. '13-N abut bearings have some sheet rust. Mod rust on all lower bearing assemblies @ N. Little if any movement @ many abut bearings. Ext bearing seats of both hinges spalled. Interior hinge bearings appear OK. '14-NW abut bearing has 1 lateral restraint guide broken off of masonry plate. '15-no change							
851	CONCRETE HINGE ASSEMBLY	08-25-2015	2 EA	0	0	1	1
Notes: 379. Repaired severe cracks and spalls @ W side of N hinge-6' X 3' X 3" in '01 and '04. Spalling w/ rebar exp @ both hinges. Expanded metal bird screen placed @ all hinges in '04. Some bird screen loose from girder. N joint badly spalled and part of bird screen is gone. S joint spalled @ W side. '13-S joint spalled on both sides. Some section loss of rebar. Bird screens have been removed since last inspection. '14-most patches @ N are spalled off. 5" x 3' gone @ edge w/ section loss of exp rebar. 2 W bearing seats @ N hinge have cracks w/ rust stains. '15-N half of N hinge has no patchwork remaining, total spall area is 28SF on N half & 17SF in W corner. Majority of patchwork on S joint is in tact, majority of spalls along W edge of girder							
883	CONCRETE SHEAR CRACKING	08-25-2015	1 EA	0	0	1	0
Notes: 965. '13-element added. Shear cracks in many areas of girders. Most are minor but some are moderate in size(<1/32"). '14-no change. '15-no change							
891	OTHER BRIDGE SIGNING	08-25-2015	1 EA	0	0	1	0
Notes: 981. Horiz clearance marker X4-4 @ SE approach. Plow up/down X4-5 @ S approaches. '13-missing X4-4 in SW. '14-X4-4 in SW has been replaced. Merge sign in NE. Keep Right missing @ median nose for NB Victory Memorial Drive. '15-no change							
892	SLOPES & SLOPE PROTECTION	08-25-2015	1 EA	0	0	0	1
Notes: 985. S slope settled 3"-5" @ abut. Some slope paving cracked. Joint sealed @ top. 2004-new joint seal @ abut slope paving(W.R. Meadows Seal Tight). Small spall @ bottom of S slope paving. Erosion @ NW corner. '11-20' of joint seal loose @ both abuts. Horiz cracks in N. '13-S slope is pulled away from abut 6"-7". '14-seal @ S abut is broken. '15-new seal has been installed along N & S abut							
893	GUARDRAIL	08-25-2015	1 EA	0	1	0	0

Notes: 982. Guardrail in place @ S corners. Crashworthy end treatments. Rail not attached to several posts in SW. '13-no change. '14-spacer block missing in SE. '15-SW rail is now reattached

894	DECK & APPROACH DRAINAGE	08-25-2015	1 EA	0	1	0	0
Notes: 984. Deck drains are plugged w/ conc. Some delams around drains @ NW side. Bit roadway @ S end is raised above deck so some runoff stays on deck. '13-no change. '14-same. '15-no change							
895	SIDEWALK, CURB, & MEDIAN	08-25-2015	1 EA	0	0	0	1
Notes: 986. Trans, long and map cracks @ curb. S approach curbs severely spalled w/ rebar exp. Few vert cracks. '13-no change. '14-same. '15-cracks in curblines have been sealed							
899	MISCELLANEOUS ITEMS	08-25-2015	1 EA	1	0	0	0
Notes: 988. Lights attached to 2 southerly columns. Light attached to bottom of girder behind walk in S span. '14-2 street lights on E rail.							
900	PROTECTED SPECIES	08-25-2015	1 EA	1	0	0	0
Notes: Use this element to track the presence of protected species living on this structure.							

General \*Bridge 27008 NB CSAH 81 (Broadway Ave)/Victory Mem Dr and Lowry Ave. 8/25/15. WJM and JDE.

Notes:

Recommended Repairs:

- 22. Patch spalls @ N exp joint.
- 105. Monitor box girder shear cracks and girders near outside bearings @ abuts.
- 105. Clean out numerous pigeon droppings inside box girder near hinge areas. Poses health risk for inspection and operations personnel.
- 215. Repair abut spalls.
- 300. Monitor strip seals. Seals are virtually closed.
- 301. Replace any missing or deteriorated poured joint material.
- 302. Reseal deck joints @ abut w/ hot pour.
- 311. Replace broken lateral restraint @ NW abut bearing.
- 331. Repair spall in SE approach railing.
- 379. Monitor deteriorated hinges. Repair box girder spalls and deterioration @ hinges.
- 407. Replace hot pour material @ S approach panel & seal long bit cracks in approach.
- 981. Replace horiz clearance marker(X4-4) in SW corner.
- 986. Repair curbs in SE & SW.



## MINNESOTA BRIDGE INSPECTION REPORT OLD ELEMENT SYSTEM

06/10/2016

Inspected by: HENNEPIN COUNTY

**BRIDGE 27008 CSAH 81 NB OVER MSAS 295; STR 184****INSP. DATE: 08-25-2015**

ELEM NBR	ELEMENT NAME	ENV	INSP. DATE	QUANTITY	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4	QTY CS 5
22	LS O/L (CONC DECK)	3	08-25-2015 08-26-2014	15,145 SF 15,145 SF	0 0	0 0	15,145 15,145	0 0	0 0
Notes:  22. Trans, long and some map cracks. Wear course sealed in '05. Surface scaled @ E side(50' X 5' area +/- 75' from S). Long cracks over each interior web wall. Tined finish is wore off in wheel tracks of right lane. Some small spalls, most @ strip seal joints. Numerous unsealed long, trans and map cracks. Few small patches, up to 2' x 4' in size. Numerous larger cracks in N span, some sealed. '13-cracks are generally larger in size, some up to 1/16". '14-8" x 3' area in left lane @ poured joint over middle column is cracked & sunken 3/8" - 1/2". '15-Left lane @ app has been patched, full land width x 6", sunken area of middle column has been repaired with patch and sealant, remaining deck cracks have been sealed as well									
300	STRIP SEAL JOINT	3	08-25-2015 08-26-2014	72 LF 72 LF	29 29	43 43	0 0	N/A N/A	N/A N/A
Notes:  300. Joints partially filled w/ sand. 1' X 1' spall @ N joint. '11-both joints almost closed @ 70 deg-same in '12. '12-numerous spalls @ S joint in adj conc in repaired areas. 4' partially out in S; 3' in N. '13-85 degrees, N joint is closed in the middle for about 8'. '14-no change. '15-no change									
301	POURED DECK JOINT	3	08-25-2015 08-26-2014	325 LF 325 LF	305 305	15 15	5 5	N/A N/A	N/A N/A
Notes:  301. Material partially missing in some areas. '13-some cracks in material. Deck spall @ middle bridge joint. '14-no change. '15-no change									
302	COMPRESSION JOINT	3	08-25-2015 08-26-2014	69 LF 69 LF	0 0	29 29	40 40	N/A N/A	N/A N/A
Notes:  302. Joints @ end of bridge. Hot pour over joints has deteriorated. '13-small spalls @ joint in N. '14-more deterioration @ both. '15-no change									
407	BITUMINOUS APPROACH	2	08-25-2015 08-26-2014	2 EA 2 EA	0 0	0 0	2 2	0 0	N/A N/A
Notes:  407. Spalls on both ends. Approach roadway on S end is higher than bridge deck, keeping runoff on deck and causing ponding in SW corner. Settled on N end w/ minor spalls & some cracks. Hot pour has deteriorated. '13-large spalls in N. Large crack in middle of S. '14-S approach bit has been milled. '15-no change									
331	CONCRETE RAILING	3	08-25-2015 08-26-2014	853 LF 853 LF	0 0	799 799	54 54	0 0	N/A N/A
Notes:  331. Numerous vert cracks in rail. Rail spalled @ several joints. Spall w/ rebar exp @ SE endpost. Rust stains @ E wall. Some map cracking on walls. Surface finish has some scale. Cracked and spalled near the top in SE. '13-many posts w/ vert cracks, some spalled. Several small delams on top of E. Long cracks on top of E are sealed. '14-no change. '15-cracks have been sealed									
105	CONCRETE BOX GIRDER	4	08-25-2015 08-26-2014	427 LF 427 LF	0 0	262 262	162 162	3 3	N/A N/A
Notes:  105. Numerous vert cracks on sides of girders. Many shear cracks on both sides of girder @ all spans. Numerous trans cracks @ bottom of girder of all spans. Bottom of girders scraped. Girders spalled, some w/ rebar exp @ hinges. Long term deflection apparent-minor. Spalls w/ rebar exp in W face of spans 1 & 2. Repaired areas in span 1 are spalled on E and W sides. Repaired W side hinge joint cracks and spall in '01 and '04. 3 SF patch on E side. Some spalling, delam and rusted rebar on W side. Spalls & delam in bottom of girder @ N joint. '13-repaired areas are spalling again. 60 SF of spalls @ N hinge. 1 SF delam over N abut between 2 W bearings. Trans cracks spaced 2'-3' apart in N half of 2 N spans. Density is less on S half of these spans. 2nd span from S has same density from hinge to 20' S of column 2. S span density is 2'-3' in S 2/3 of span. Minor-mod shear cracking on both sides of girder. CS 3-150' from shear(structural cracks) and 15' from deterioration @ hinges. '14-2 W bearing pedestals @ S abut have cracks. 3 LF of spall w/ rebar exp & section loss @ N hinge. '15-no change									
Interior inspection of beam A and D: Good condition inside. 1 small delam. Shear and tension cracks visible but OK. 1 slab crack w/ efflor @ N span. Remove numerous pigeon droppings inside box girder near hinge areas. Health risk for inspection and operations personnel.									

## MINNESOTA BRIDGE INSPECTION REPORT OLD ELEMENT SYSTEM

06/10/2016

Inspected by: HENNEPIN COUNTY

BRIDGE 27008 CSAH 81 NB OVER MSAS 295; STR 184

INSP. DATE: 08-25-2015

ELEM NBR	ELEMENT NAME	ENV	INSP. DATE	QUANTITY	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4	QTY CS 5
379	CONCRETE HINGE	4	08-25-2015 08-26-2014	2 EA 2 EA	0 0	0 0	1 1	1 1	N/A N/A
Notes:  379. Repaired severe cracks and spalls @ W side of N hinge-6' X 3' X 3" in '01 and '04. Spalling w/ rebar exp @ both hinges. Expanded metal bird screen placed @ all hinges in '04. Some bird screen loose from girder. N joint badly spalled and part of bird screen is gone. S joint spalled @ W side. '13-S joint spalled on both sides. Some section loss of rebar. Bird screens have been removed since last inspection. '14-most patches @ N are spalled off. 5" x 3' gone @ edge w/ section loss of exp rebar. 2 W bearing seats @ N hinge have cracks w/ rust stains. '15-N half of N hinge has no patchwork remaining, total spall area is 28SF on N half & 17SF in W corner. Majority of patchwork on S joint is in tact, majority of spalls along W edge of girder									
311	EXPANSION BEARING	4	08-25-2015 08-26-2014	20 EA 20 EA	0 0	6 6	14 14	N/A N/A	N/A N/A
Notes:  311. Exterior bearings rusted @ strip seal joints. Bearings @ S abut have some sheet rust. Some abut bearings frozen. NW exterior corner of box cracking. Surface rust on rest of bearings. '13-N abut bearings have some sheet rust. Mod rust on all lower bearing assemblies @ N. Little if any movement @ many abut bearings. Ext bearing seats of both hinges spalled. Interior hinge bearings appear OK. '14-NW abut bearing has 1 lateral restraint guide broken off of masonry plate. '15-no change									
205	CONCRETE COLUMN	4	08-25-2015 08-26-2014	3 EA 3 EA	3 3	0 0	0 0	0 0	N/A N/A
Notes:  205. Hairline vert cracks. Map cracking in pier columns. '13-cracks are minor in size. '14-scrapes @ base of S column. '15-very few coin sized popouts on all columns									
215	CONCRETE ABUTMENT	4	08-25-2015 08-26-2014	79 LF 79 LF	0 0	55 55	24 24	0 0	N/A N/A
Notes:  215. Horiz and vert cracks in both. Rust @ seats & faces. Leakage from utility blockout in parapet @ both. South-masonry spalled @ SW corner. 1.5' X 2' X 2" deep spall w/ rebar exp @ center on face and seat. Small spall in SE seat. Leakage thru parapet wall @ S where electrical conduit exits. '13-spall on face and seat is now 3" deep. Leakage @ conduit is heavy. Spalls & leakage @ blockouts. North-parapet wall cracked and spalled @ NW corner. 2' X 2' X 5" deep spall @ NW seat. NE parapet wall spalled @ joint. NW seat has 4' X 1' delam. '13-delam in NW is now a spall. '14-no change. '15-3 spalls along S face, 1.5'x2'x3", 1.5'x3'x2" and 1'x1'. Spall in NW seat has been repaired									
387	CONCRETE WINGWALL	4	08-25-2015 08-26-2014	4 EA 4 EA	3 3	1 1	0 0	0 0	N/A N/A
Notes:  387. Horiz and vert cracks w/ efflor in NW. Large spall in SE. '13-no change. '14-same. '15-no change									
358	CONC DECK CRACKING	2	08-25-2015 08-26-2014	1 EA 1 EA	0 0	1 0	0 1	0 0	N/A N/A
Notes:  358. Numerous trans, long and map cracks. Minor in severity. Some sealed. Most cracks in right lane, where tine surface is wore. Most of the cracking in the left lane is @ the N end. '12-some cracks now 1/32"; density < 10'. '13-some cracks up to +/- 1/16" in size. Density < 10'. '14-no change. '15-cracks have been sealed									
359	CONC DECK UNDERSIDE	3	08-25-2015 08-26-2014	1 EA 1 EA	0 0	1 1	0 0	0 0	0 0
Notes:  359. Efflor, much scaling and rust spots on both cantilevers. Conc pattern cracked @ E cantilever. Spalls w/ rebar exp @ both cantilevers. '13-many spalls on cantilevers. '14-no change. '15-51SF of spalling with rebar along W edge, 58SF along E edge									
964	CRITICAL FINDING	2	08-25-2015 08-26-2014	1 EA 1 EA	1 1	0 0	N/A N/A	N/A N/A	N/A N/A
Notes:  964.									
965	SHEAR CRACKING	2	08-25-2015 08-26-2014	1 EA 1 EA	0 0	0 0	1 1	0 0	N/A N/A
Notes:  965. '13-element added. Shear cracks in many areas of girders. Most are minor but some are moderate in size(<1/32"). '14-no change. '15-no change									

## MINNESOTA BRIDGE INSPECTION REPORT OLD ELEMENT SYSTEM

06/10/2016

Inspected by: HENNEPIN COUNTY

**BRIDGE 27008 CSAH 81 NB OVER MSAS 295; STR 184****INSP. DATE: 08-25-2015**

ELEM NBR	ELEMENT NAME	ENV	INSP. DATE	QUANTITY	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4	QTY CS 5
981	SIGNING	2	08-25-2015	1 EA	0	0	1	0	0
			08-26-2014	1 EA	0	0	1	0	0
Notes:  981. Horiz clearance marker X4-4 @ SE approach. Plow up/down X4-5 @ S approaches. '13-missing X4-4 in SW. '14-X4-4 in SW has been replaced. Merge sign in NE. Keep Right missing @ median nose for NB Victory Memorial Drive. '15-no change									
982	GUARDRAIL	2	08-25-2015	1 EA	0	1	0	N/A	N/A
			08-26-2014	1 EA	0	1	0	N/A	N/A
Notes:  982. Guardrail in place @ S corners. Crashworthy end treatments. Rail not attached to several posts in SW. '13-no change. '14-spacer block missing in SE. '15-SW rail is now reattached									
984	DRAINAGE	2	08-25-2015	1 EA	0	1	0	N/A	N/A
			08-26-2014	1 EA	0	1	0	N/A	N/A
Notes:  984. Deck drains are plugged w/ conc. Some delams around drains @ NW side. Bit roadway @ S end is raised above deck so some runoff stays on deck. '13-no change. '14-same. '15-no change									
985	SLOPES	2	08-25-2015	1 EA	0	0	1	N/A	N/A
			08-26-2014	1 EA	0	0	1	N/A	N/A
Notes:  985. S slope settled 3"-5" @ abut. Some slope paving cracked. Joint sealed @ top. 2004-new joint seal @ abut slope paving(W.R. Meadows Seal Tight). Small spall @ bottom of S slope paving. Erosion @ NW corner. '11-20' of joint seal loose @ both abuts. Horiz cracks in N. '13-S slope is pulled away from abut 6"-7". '14-seal @ S abut is broken. '15-new seal has been installed along N & S abut									
986	CURB & SIDEWALK	2	08-25-2015	1 EA	0	0	1	N/A	N/A
			08-26-2014	1 EA	0	0	1	N/A	N/A
Notes:  986. Trans, long and map cracks @ curb. S approach curbs severely spalled w/ rebar exp. Few vert cracks. '13-no change. '14-same. '15-cracks in curbline have been sealed									
988	MISCELLANEOUS	2	08-25-2015	1 EA	1	0	0	N/A	N/A
			08-26-2014	1 EA	1	0	0	N/A	N/A
Notes:  988. Lights attached to 2 southerly columns. Light attached to bottom of girder behind walk in S span. '14-2 street lights on E rail.									

General Notes: \*Bridge 27008 NB CSAH 81 (Broadway Ave)/Victory Mem Dr and Lowry Ave. 8/25/15. WJM and JDE.

## Recommended Repairs:

- 22. Patch spalls @ N exp joint.
- 105. Monitor box girder shear cracks and girders near outside bearings @ abuts.
- 105. Clean out numerous pigeon droppings inside box girder near hinge areas. Poses health risk for inspection and operations personnel.
- 215. Repair abut spalls.
- 300. Monitor strip seals. Seals are virtually closed.
- 301. Replace any missing or deteriorated poured joint material.
- 302. Reseal deck joints @ abut w/ hot pour.
- 311. Replace broken lateral restraint @ NW abut bearing.
- 331. Repair spall in SE approach railing.
- 379. Monitor deteriorated hinges. Repair box girder spalls and deterioration @ hinges.
- 407. Replace hot pour material @ S approach panel & seal long bit cracks in approach.
- 981. Replace horiz clearance marker(X4-4) in SW corner.
- 986. Repair curbs in SE & SW.

## MINNESOTA STRUCTURE INVENTORY REPORT

Bridge ID: 27007

CSAH 81(SB ) over MSAS 295; STR 184

Date: 06/10/2016

+ GENERAL +	+ ROADWAY +	+ INSPECTION +
Agency Br. No.	Bridge Match ID (TIS) 1	Deficient Status S.D.
District METRO Maint. Area	Roadway O/U Key 1-ON	Sufficiency Rating 24.9
County 27 - HENNEPIN	Route Sys/Nbr CSAH 81	Last Inspection Date 08-25-2015
City ROBBINSDALE	Roadway Name or Description	Inspection Frequency 12
Township	CSAH 81 (BROADWAY) SB	Inspector Name HENNEPIN COUNTY
Desc. Loc. 2.3 MI NW OF JCT TH 94	Roadway Function MAINLINE	Status P-LOAD POSTED
Sect., Twp., Range 08 - 029N - 24W	Roadway Type 1 WAY TRAF	+ NBI CONDITION RATINGS +
Latitude 45d 00m 48.38s	Control Section (TH Only)	Deck 5 % UNSOUND 5
Longitude 93d 19m 07.99s	Ref. Point	Superstructure 4
Custodian COUNTY	Date Opened to Traffic 01-01-1964	Substructure 6
Owner COUNTY	Detour Length 1 mi.	Channel N
Inspection By HENNEPIN COUNTY	Lanes 2 Lanes ON Bridge	Culvert N
Year Built 1964	ADT (YEAR) 6,250 (2005)	+ NBI APPRAISAL RATINGS +
MN Year Remodeled	HCA DT	Structure Evaluation 2
FHWA Year Reconstructed	Functional Class. URB/MINOR ART	Deck Geometry 4
Bridge Plan Location COUNTY	+ RDWY DIMENSIONS +	Underclearances 6
Potential ABC N.A.	If Divided NB-EB SB-WB	Waterway Adequacy N
	Roadway Width 30.0 ft	Approach Alignment 8
	Vertical Clearance	+ SAFETY FEATURES +
Service On HIGHWAY	Max. Vert. Clear.	Bridge Railing 1-MEETS STANDARDS
Service Under HIGHWAY	Horizontal Clear. 29.9 ft	GR Transition 1-MEETS STANDARDS
Main Span Type CCONC BOX GIR D	Lateral Clr. - Lt/Rt	Appr. Guardrail 1-MEETS STANDARDS
Main Span Detail	Appr. Surface Width 30.0 ft	GR Termini 1-MEETS STANDARDS
Appr. Span Type	Bridge Roadway Width 30.0 ft	+ IN DEPTH INSP. +
Appr. Span Detail	Median Width on Bridge	Frac. Critical
Skew	+ MISC. BRIDGE DATA +	Underwater
Culvert Type	Structure Flared NO	Pinned Asbly.
Barrel Length	Parallel Structure LEFT	Spec. Feat.
Number of Spans	Field Conn. ID	+ WATERWAY +
MAIN: 5 APPR: 0 TOTAL: 5	Cantilever ID	Drainage Area
Main Span Length 102.5 ft	Foundations	Waterway Opening
Structure Length 374.2 ft	Abut. CONC - FTG PILE	Navigation Control NOT APPL
Deck Width 35.5 ft	Pier CONC - FTG PILE	Pier Protection
Deck Material C-I-P CONCRETE	Historic Status NOT ELIGIBLE	Nav. Vert./Horz. Clr.
Wear Surf Type LOW SLUMP CONC	On - Off System ON	Nav. Vert. Lift Bridge Clear.
Wear Surf Install Year 1978	+ PAINT +	MN Scour Code A-NON WATERWAY
Wear Course/Fill Depth 0.17 ft	Year Painted Pct. Unsound	Scour Evaluation Year 1991
Deck Membrane NONE	Painted Area	+ CAPACITY RATINGS +
Deck Rebars NONE	Primer Type	Design Load HS 20
Deck Rebars Install Year	Finish Type	Operating Rating HS 14.80
Structure Area 13,284 sq ft	+ BRIDGE SIGNS +	Inventory Rating HS 8.80
Roadway Area 11,227 sq ft	Posted Load VEHICLE & SEMI	Posting VEH: 24 SEMI: 32 DBL: 32
Sidewalk Width - L/R 1.1 ft 1.1 ft	Traffic NOT REQUIRED	Rating Date 01-09-2014
Curb Height - L/R 0.67 ft 0.67 ft	Horizontal OBJECT MARKERS	Overweight Permit Codes
Rail Codes - L/R 29 29	Vertical NOT APPLICABLE	A: N B: N C: N

06/10/2016

## MINNESOTA BRIDGE INSPECTION REPORT

Inspected by: HENNEPIN COUNTY

BRIDGE 27007 CSAH 81(SB ) OVER MSAS 295; STR 184

INSP. DATE: 08-25-2015

County: HENNEPIN Location: 2.3 MI NW OF JCT TH 94 Length: 374.2 ft  
 City: ROBBINSDALE Route: CSAH 81 Ref. Pt.: 002+00.310 Deck Width: 35.5 ft  
 Township: Control Section: Maint. Area: Rdwy. Area / Pct. Unsnd: 11,227 sq ft 5 %  
 Section: 08 Township: 029N Range: 24W Local Agency Bridge Nbr: Paint Area / Pct. Unsnd:  
 Span Type: CCONC BOX GIRL Culvert : N/A  
 NBI Deck: 5 Super: 4 Sub: 6 Chan: N Culv: N  
 Open, Posted, Closed: LOAD POSTED Postings: 24 - 32 - 32  
 Appraisal Ratings - Approach: 8 Waterway: N MN Scour Code: A-NON WATERWAY Def. Stat: S.D. Suff. Rate: 24.9  
 Required Bridge Signs - Load Posting: VEHICLE & SEMI Traffic: NOT REQUIRED  
 Horizontal: OBJECT MARKERS Vertical: NOT APPLICABLE

ELEM NBR	ELEMENT NAME	INSP. DATE	QUANTITY	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
800	CRITICAL DEFS OR SAFETY HAZARDS	08-25-2015	1 EA	1	0	0	0
Notes: No critical structural deficiencies or serious safety hazards are present on this structure.							
16	REINFORCED CONCRETE TOP FLANGE	08-25-2015	13,284 SF	13,018	0	266	0
Notes: 359. Coping cracked and delam'd w/ rebar exp. Delam, efflor and rust on cantilevers. '14-160' along edge of deck on W side & 25' on E side is spalled w/ rebar exp. '15-no change.							
510	WEARING SURFACE	08-25-2015	11,227 SF	10,104	0	1,123	0
Notes: Low Slump Overlay with Uncoated Rebar Notes: 22. Large trans and long cracks. Map cracking @ N span. Surface scaled near both gutters. Conc scaled and spalled @ each side of all 3 expansion joints. Diag crack in NE and NW. '11-severe (3"-4" deep) spalls @ joint @ N abut-'12-spalls repaired w/ bit. '13-no change. '14-bit patch @ N abut spill is deteriorated/spalled. '15-deteriorated bit patch @ N abut has been patched again. Cracks were recently epoxy sealed.							
810	CONC WEAR SURF-CRACKING SEALING	08-25-2015	0 LF	0	0	0	0
Notes: 358. Cracks are 5'-10', some are measurable in size, most unsealed. '13-no change. '14-few large cracks & some cracks are spalled. Crack in E double yellow is 1" wide. '15-all cracks recently epoxy sealed.							
300	STRIP SEAL DECK JOINT	08-25-2015	115 LF	0	77	0	38
Notes: 300. Joints partially filled w/ sand. Conc repaired @ joints in '05. '11-joints almost closed @ 70 deg(top of gland from 1 side to other). '12-conc spalls adj to joints. '13-85 deg - S joint opened +/- 3/8"; mid jt 1/8"; N jt closed. '14-conc spalled @ all of S joint; 15' of spill @ middle joint & 18' spalled @ N. Temp = 65 deg. N joint is still closed. Mid & S are open 3/8". '15-temp 60 Deg. N jt-1/4"; Mid jt-3/8" & S jt-1/4".							
301	POURED SEAL JOINT	08-25-2015	144 LF	139	5	0	0
Notes: 301. 4 joints in deck. Some joint material deteriorated and/or missing. '13-more material deteriorated. '14-joints from S to N; S is OK; next has 2' not adhered; next has 1' not adhered; N has 1' deck spill & 1' not adhered. '15-no change.							
302	COMPRESSION DECK JOINT	08-25-2015	69 LF	30	21	0	18
Notes: 302. Joints @ N and S abuts. Hot pour over compression seals. '13-S joint looks good. N joint is deteriorated. '14-5' is badly spalled @ N abut. '15-no change.							
331	REINFORCED CONC BRIDGE RAILING	08-25-2015	748 LF	0	723	25	0
Notes: 331. Railing cracked and weathered. Conc spalled w/ rebar exp. Rust on conc. Cracks epoxy sealed in '05. Large spalls & rust in NE corner. '13-no change. '14-same. '15-cracks have recently been sealed.							
822	BITUMINOUS APPROACH ROADWAY	08-25-2015	2 EA	1	1	0	0
Notes: 407. Long cracks in S. S is settled w/ spalls in O/L. '13-no change. '14-N is spalled @ deck. Long cracks in S are large. '15-spalls in N are repaired. Settlement in S has been patched w/ bit.							
105	REINFORCED CONCRETE BOX GIRDER	08-25-2015	374 LF	0	345	25	4

Notes: 105. Large conc spall @ NE corner w/ rebar exp near bearing and deck. SE corner cracked and spalled w/ rebar exp. Shear cracks near columns. Water leakage under E side @ columns 2 and 3. Many vert cracks on sides of girders. Long term deflection apparent-minor. 2' X 2' spall w/ rebar exp in bottom of girder @ hinge in span 4. Numerous pigeon droppings inside girder near hinge areas. Diag cracks in conc above NW and SE corner bearing. Spalled @ E bearing pad @ S hinge. Spalled @ S hinge. Spalls w/ rebar exp on both sides @ all hinges-no loss under bearings, and many other spalls @ hinges. Many fine tension cracks in bottom. Haunch above bearing in NE, NW and SE is cracked. NW is also spalled w/ rebar exp. Tension cracks in all fascias near abuts. Trans cracks on cantilever of box girders in all spans. Many spalls w/ rebar exp in W cantilever. '13-scrape on underside @ WB left turn. Spall @ bearing in NE has gotten larger. Only conc left is just above bearing plate. NW has several mod cr

205	REINFORCED CONCRETE COLUMN	08-25-2015	4 EA	4	0	0	0
Notes: 205. Map cracks in pier columns. '13-'15-no change.							
215	REINFORCED CONCRETE ABUTMENT	08-25-2015	109 LF	20	88	1	0
Notes: [2016] Migrator added 40 LF to abutment quantity to account for wingwalls (CS1:20 CS2:20 CS3:0 CS4:0). 215. Utility opening bricks repaired @ S abut in '05. Horiz and vert cracks in both. Cracked and delam'd conc. Some rust staining. Major leakage in SE and in NE @ utility blockout. '13-S abut patch below 2nd bearing from E is delaminating. '14-efflor in parapet @ NW & NE. 15' of minor to mod horiz cracks w/ rust stains in S. 1 SF spall in SW corner. '15-no change.  Wingwall notes: 387. A spall on roadway side of each S wall. '13-spalls have rebars exp. '14-SW & SE have minor spalls w/ rebar exp. Minor horiz crack in NW @ bottom. '15-no change.							
311	EXPANSION BEARING	08-25-2015	25 EA	10	5	0	10
Notes: 311. Most exterior bearings @ strip seals significantly rusted. Some bearings @ abuts have pack rust and are frozen. Conc cracked and broken above and around NE bearing, slight loss of bearing area. Steel pad placed @ NE bearing for support if failure occurs. Exterior bearings @ S abut and W bearing @ N abut appear to have the start of the same problem. '13-all bearings @ abuts have pack rust & are frozen. '14-conc above NW bearing is cracked. Conc spalled above 2nd E bearing @ S abut. '15-conc spalled w/ rebar exp above all 4 corner bearings.							
851	CONCRETE HINGE ASSEMBLY	08-25-2015	3 EA	0	1	2	0
Notes: 379. Trans cracks in bottom. Conc deteriorated and spalled w/ rebar exp in span 4. Large spalls w/ rebar exp @ E & W fascia of span 3. Some large spalls @ span 3 are repaired. Numerous spalls @ bottom span 2. Large spall, efflor, cracking, delams and rebar showing @ span 2. Wire screen loose @ all hinges. '13-conc deteriorated & spalled w/ rebar exp in all 3 spans. '14-1' x 6" spall w/ rebar exp @ N hinge. 1.5' x 8" spall w/ rebar exp @ N hinge on E side. '15-no change.							
883	CONCRETE SHEAR CRACKING	08-25-2015	1 EA	0	1	0	0
Notes: 965. '13-minor shear cracking of box girders present. '14-'15-no change.							
890	LOAD PST OR VERTICAL CLR SIGNING	08-25-2015	1 EA	1	0	0	0
Notes: [2016] Structure requires a vertical clearance sign or load posting sign.							
891	OTHER BRIDGE SIGNING	08-25-2015	1 EA	1	0	0	0
Notes: 981. Horiz clearance markers X4-4 @ N approach. 15 mph exit sign @ SW corner. '13-'14-no change. '15-load posting signs added @ bridge & SB approach in March.							
892	SLOPES & SLOPE PROTECTION	08-25-2015	1 EA	0	0	0	1
Notes: 985. S slope protection settled 3"-4". Slope paving has some cracks. '04-new joint seal @ abut slope paving(W.R. Meadows seal tight). 15' loose @ both abuts. N slope settled +/- 1". '13-no change. '14-mod diag crack in N @ bottom W corner. (3-4) 3' trans cracks in N @ top on both sides. '15-new belting attached to N abut.							
893	GUARDRAIL	08-25-2015	1 EA	1	0	0	0
Notes: 982. Guardrail attached @ NW and NE corners. '13-in good condition. '14-same. '15-no change.							
894	DECK & APPROACH DRAINAGE	08-25-2015	1 EA	1	0	0	0
Notes: 984. Drains have been plugged w/ conc.							
895	SIDEWALK, CURB, & MEDIAN	08-25-2015	1 EA	0	1	0	0

Notes: 986. Some trans and long cracks in curbs. Repaired numerous areas of severely spalled curb on E rail in '05. Small spall @ SW & NE approach. Small spalls in patched curb on E side. '13-no change. '14-cracks are mod in size & rust stained. '15-cracks have recently been epoxy sealed.

---

899	MISCELLANEOUS ITEMS	08-25-2015	1 EA	1	0	0	0
-----	---------------------	------------	------	---	---	---	---

Notes: 988. Bit pavement under is uneven. Roadway and curb settlement on Lowry +/- 75' W of SB Theo Wirth Pkwy. 3 lights mounted on center pier columns. Electrical conduit inside both fascias & outside W fascia. 2 new lights & conduit behind W rail. '13-new bit on Lowry W of Theo Wirth. Curb & gutter, CB & bit median improvements and repairs to Lowry EB & WB.

---

900	PROTECTED SPECIES	08-25-2015	1 EA	1	0	0	0
-----	-------------------	------------	------	---	---	---	---

Notes: Use this element to track the presence of protected species living on this structure.

---

General \*Bridge 27007 SB CSAH 81 (Broadway Ave)/EB Lowry, Victory Mem Pkwy 8/25/15 WJM and JDE.

Notes:

Recommended Repairs:

- 22. Repair spalls @ strip seal joints.
- 105. Remove numerous pigeon droppings inside girders near hinge areas. Health risk to inspection and operations personnel.
- 105. Monitor box girders near over bearings @ abuts.
- 105. Repair conc @ hinge joints and copings of boxes.
- 105. Monitor deteriorated bottom of girders.
- 311. Monitor blocked up bearing @ NE corner. Clean/blast/repair bearings @ abuts.
- 359. Repair spalls @ deck edges & cantilevers.
- 379. Repair box girder spalls and deterioration @ hinges.

## MINNESOTA BRIDGE INSPECTION REPORT OLD ELEMENT SYSTEM

06/10/2016

Inspected by: HENNEPIN COUNTY

**BRIDGE 27007 CSAH 81(SB ) OVER MSAS 295; STR 184****INSP. DATE: 08-25-2015**

ELEM NBR	ELEMENT NAME	ENV	INSP. DATE	QUANTITY	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4	QTY CS 5
22	LS O/L (CONC DECK)	3	08-25-2015 08-26-2014	13,283 SF 13,283 SF	0 0	0 0	13,283 13,283	0 0	0 0
Notes:  22. Large trans and long cracks. Map cracking @ N span. Surface scaled near both gutters. Conc scaled and spalled @ each side of all 3 expansion joints. Diag crack in NE and NW.'11-severe (3"-4" deep) spalls @ joint @ N abut-'12-spalls repaired w/ bit. '13-no change. '14-bit patch @ N abut spall is deteriorated/spalled. '15-deteriorated bit patch @ N abut has been patched again. Cracks were recently epoxy sealed.]									
300	STRIP SEAL JOINT	3	08-25-2015 08-26-2014	115 LF 115 LF	0 0	77 77	38 38	N/A N/A	N/A N/A
Notes:  300. Joints partially filled w/ sand. Conc repaired @ joints in '05. '11-joints almost closed @ 70 deg(top of gland from 1 side to other). '12-conc spalls adj to joints. '13-85 deg - S joint opened +/- 3/8"; mid jt 1/8"; N jt closed. '14-conc spalled @ all of S joint; 15' of spall @ middle joint & 18' spalled @ N. Temp = 65 deg. N joint is still closed. Mid & S are open 3/8". '15-temp 60 Deg. N jt-1/4"; Mid jt-3/8" & S jt-1/4".]									
301	POURED DECK JOINT	3	08-25-2015 08-26-2014	144 LF 144 LF	139 139	5 5	0 0	N/A N/A	N/A N/A
Notes:  301. 4 joints in deck. Some joint material deteriorated and/or missing. '13-more material deteriorated. '14-joints from S to N; S is OK; next has 2' not adhered; next has 1' not adhered; N has 1' deck spall & 1' not adhered. '15-no change.]									
302	COMPRESSION JOINT	3	08-25-2015 08-26-2014	69 LF 69 LF	30 30	21 21	18 18	N/A N/A	N/A N/A
Notes:  302. Joints @ N and S abuts. Hot pour over compression seals. '13-S joint looks good. N joint is deteriorated. '14-5' is badly spalled @ N abut. '15-no change.]									
407	BITUMINOUS APPROACH	2	08-25-2015 08-26-2014	2 EA 2 EA	1 0	1 2	0 0	0 0	N/A N/A
Notes:  407. Long cracks in S. S is settled w/ spalls in O/L. '13-no change. '14-N is spalled @ deck. Long cracks in S are large. '15-spalls in N are repaired. Settlement in S has been patched w/ bit.]									
331	CONCRETE RAILING	3	08-25-2015 08-26-2014	748 LF 748 LF	0 0	723 723	25 25	0 0	N/A N/A
Notes:  331. Railing cracked and weathered. Conc spalled w/ rebar exp. Rust on conc. Cracks epoxy sealed in '05. Large spalls & rust in NE corner. '13-no change. '14-same. '15-cracks have recently been sealed.]									
105	CONCRETE BOX GIRDER	4	08-25-2015 08-26-2014	374 LF 374 LF	0 0	345 347	25 25	4 2	N/A N/A
Notes:  105. Large conc spall @ NE corner w/ rebar exp near bearing and deck. SE corner cracked and spalled w/ rebar exp. Shear cracks near columns. Water leakage under E side @ columns 2 and 3. Many vert cracks on sides of girders. Long term deflection apparent-minor. 2' X 2' spall w/ rebar exp in bottom of girder @ hinge in span 4. Numerous pigeon droppings inside girder near hinge areas. Diag cracks in conc above NW and SE corner bearing. Spalled @ E bearing pad @ S hinge. Spalled @ S hinge. Spalls w/ rebar exp on both sides @ all hinges-no loss under bearings, and many other spalls @ hinges. Many fine tension cracks in bottom. Haunch above bearing in NE, NW and SE is cracked. NW is also spalled w/ rebar exp. Tension cracks in all fascias near abuts. Trans cracks on cantilever of box girders in all spans. Many spalls w/ rebar exp in W cantilever. '13-scrape on underside @ WB left turn. Spall @ bearing in NE has gotten larger. Only conc left is just above bearing plate. NW has several mod cracks just above bearing. Engineer's opinion that no immediate repairs or new load rating required. '14-mod long cracks w/ efflor & rust stains in E coping @ P3. Bottom of box cracked & spalled @ N abut above 2nd bearing from E. Diag cracks in conc above NW & SE bearings are mod in size. 4 SF spall w/ rebar exp @ hinge in span 4 is now 3' x 3'. 2 SF & 1 SF spall w/ rebar exp in E face of box @ P2. 2' x 6" spall @ drain tube near N hinge on W side. 225 LF of vert cracks in W side & 175 LF in E side of box. 50 SF of spall w/ rebar exp in coping(above vert face of box). Spall w/ rebar exp in E side of box @ S hinge. '15-1 SF spall w/ rebar exp above NW & SE bearings; .5 SF spall w/ rebar exp & diag cracks above SW bearing.]									



# MINNESOTA BRIDGE INSPECTION REPORT

## OLD ELEMENT SYSTEM

06/10/2016

Inspected by: HENNEPIN COUNTY

**BRIDGE 27007 CSAH 81(SB ) OVER MSAS 295; STR 184****INSP. DATE: 08-25-2015**

ELEM NBR	ELEMENT NAME	ENV	INSP. DATE	QUANTITY	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4	QTY CS 5
379	CONCRETE HINGE	4	08-25-2015 08-26-2014	3 EA 3 EA	0 0	1 1	2 2	0 0	N/A N/A
Notes:  379. Trans cracks in bottom. Conc deteriorated and spalled w/ rebar exp in span 4. Large spalls w/ rebar exp @ E & W fascia of span 3. Some large spalls @ span 3 are repaired. Numerous spalls @ bottom span 2. Large spall, efflor, cracking, delams and rebar showing @ span 2. Wire screen loose @ all hinges. '13-conc deteriorated & spalled w/ rebar exp in all 3 spans. '14-1' x 6" spall w/ rebar exp @ N hinge. 1.5' x 8" spall w/ rebar exp @ N hinge on E side. '15-no change.]									
311	EXPANSION BEARING	4	08-25-2015 08-26-2014	25 EA 25 EA	10 10	5 5	10 10	N/A N/A	N/A N/A
Notes:  311. Most exterior bearings @ strip seals significantly rusted. Some bearings @ abuts have pack rust and are frozen. Conc cracked and broken above and around NE bearing, slight loss of bearing area. Steel pad placed @ NE bearing for support if failure occurs. Exterior bearings @ S abut and W bearing @ N abut appear to have the start of the same problem. '13-all bearings @ abuts have pack rust & are frozen. '14-conc above NW bearing is cracked. Conc spalled above 2nd E bearing @ S abut. '15-conc spalled w/ rebar exp above all 4 corner bearings.]									
205	CONCRETE COLUMN	4	08-25-2015 08-26-2014	4 EA 4 EA	4 4	0 0	0 0	0 0	N/A N/A
Notes:  205. Map cracks in pier columns. '13-'15-no change.]									
215	CONCRETE ABUTMENT	4	08-25-2015 08-26-2014	69 LF 69 LF	0 0	68 68	1 1	0 0	N/A N/A
Notes:  215. Utility opening bricks repaired @ S abut in '05. Horiz and vert cracks in both. Cracked and delam'd conc. Some rust staining. Major leakage in SE and in NE @ utility blockout. '13-S abut patch below 2nd bearing from E is delaminating. '14-efflor in parapet @ NW & NE. 15' of minor to mod horiz cracks w/ rust stains in S. 1 SF spall in SW corner. '15-no change.]									
387	CONCRETE WINGWALL	4	08-25-2015 08-26-2014	4 EA 4 EA	2 2	2 2	0 0	0 0	N/A N/A
Notes:  387. A spall on roadway side of each S wall. '13-spalls have rebars exp. '14-SW & SE have minor spalls w/ rebar exp. Minor horiz crack in NW @ bottom. '15-no change.]									
358	CONC DECK CRACKING	2	08-25-2015 08-26-2014	1 EA 1 EA	1 0	0 0	0 0	0 1	N/A N/A
Notes:  358. Cracks are 5'-10', some are measurable in size, most unsealed. '13-no change. '14-few large cracks & some cracks are spalled. Crack in E double yellow is 1" wide. '15-all cracks recently epoxy sealed.]									
359	CONC DECK UNDERSIDE	3	08-25-2015 08-26-2014	1 EA 1 EA	0 0	1 1	0 0	0 0	0 0
Notes:  359. Coping cracked and delam'd w/ rebar exp. Delam, efflor and rust on cantilevers. '14-160' along edge of deck on W side & 25' on E side is spalled w/ rebar exp. '15-no change.]									
964	CRITICAL FINDING	2	08-25-2015 08-26-2014	1 EA 1 EA	1 1	0 0	N/A N/A	N/A N/A	N/A N/A
Notes:  964.]									
965	SHEAR CRACKING	2	08-25-2015 08-26-2014	1 EA 1 EA	0 0	1 1	0 0	0 0	N/A N/A
Notes:  965. '13-minor shear cracking of box girders present. '14-'15-no change.]									
981	SIGNING	2	08-25-2015 08-26-2014	1 EA 1 EA	1 1	0 0	0 0	0 0	0 0
Notes:  981. Horiz clearance markers X4-4 @ N approach. 15 mph exit sign @ SW corner. '13-'14-no change. '15-load posting signs added @ bridge & SB approach in March.]									
982	GUARDRAIL	2	08-25-2015 08-26-2014	1 EA 1 EA	1 1	0 0	0 0	N/A N/A	N/A N/A
Notes:  982. Guardrail attached @ NW and NE corners. '13-in good condition. '14-same. '15-no change.]									

## MINNESOTA BRIDGE INSPECTION REPORT OLD ELEMENT SYSTEM

06/10/2016

Inspected by: HENNEPIN COUNTY

**BRIDGE 27007 CSAH 81(SB ) OVER MSAS 295; STR 184****INSP. DATE: 08-25-2015**

ELEM NBR	ELEMENT NAME	ENV	INSP. DATE	QUANTITY	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4	QTY CS 5
984	DRAINAGE	2	08-25-2015 08-26-2014	1 EA 1 EA	1 1	0 0	0 0	N/A N/A	N/A N/A
Notes:  984. Drains have been plugged w/ conc.									
985	SLOPES	2	08-25-2015 08-26-2014	1 EA 1 EA	0 0	0 0	1 1	N/A N/A	N/A N/A
Notes:  985. S slope protection settled 3"-4". Slope paving has some cracks. '04-new joint seal @ abut slope paving(W.R. Meadows seal tight). 15' loose @ both abuts. N slope settled +/- 1". '13-no change. '14-mod diag crack in N @ bottom W corner. (3-4) 3' trans cracks in N @ top on both sides. '15-new belting attached to N abut.									
986	CURB & SIDEWALK	2	08-25-2015 08-26-2014	1 EA 1 EA	0 0	1 1	0 0	N/A N/A	N/A N/A
Notes:  986. Some trans and long cracks in curbs. Repaired numerous areas of severely spalled curb on E rail in '05. Small spall @ SW & NE approach. Small spalls in patched curb on E side. '13-no change. '14-cracks are mod in size & rust stained. '15-cracks have recently been epoxy sealed.									
988	MISCELLANEOUS	2	08-25-2015 08-26-2014	1 EA 1 EA	1 1	0 0	0 0	N/A N/A	N/A N/A
Notes:  988. Bit pavement under is uneven. Roadway and curb settlement on Lowry +/- 75' W of SB Theo Wirth Pkwy. 3 lights mounted on center pier columns. Electrical conduit inside both fascias & outside W fascia. 2 new lights & conduit behind W rail. '13-new bit on Lowry W of Theo Wirth. Curb & gutter, CB & bit median improvements and repairs to Lowry EB & WB.									

General Notes: \*Bridge 27007 SB CSAH 81 (Broadway Ave)/EB Lowry, Victory Mem Pkwy 8/25/15 WJM and JDE.

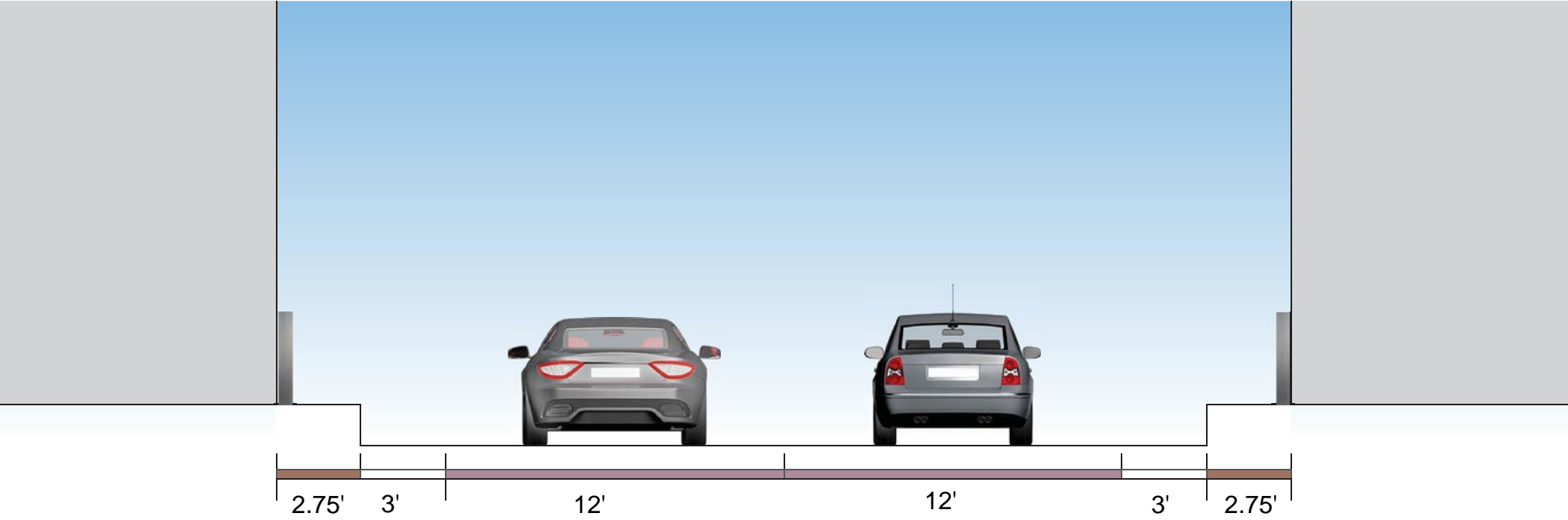
### Recommended Repairs:

- 22. Repair spalls @ strip seal joints.
- 105. Remove numerous pigeon droppings inside girders near hinge areas. Health risk to inspection and operations personnel.
- 105. Monitor box girders near over bearings @ abuts.
- 105. Repair conc @ hinge joints and copings of boxes.
- 105. Monitor deteriorated bottom of girders.
- 311. Monitor blocked up bearing @ NE corner. Clean/blast/repair bearings @ abuts.
- 359. Repair spalls @ deck edges & cantilevers.
- 379. Repair box girder spalls and deterioration @ hinges.

# CSAH 081 (Bottineau Boulevard) - Northbound Bridge

## Existing Typical Cross Section

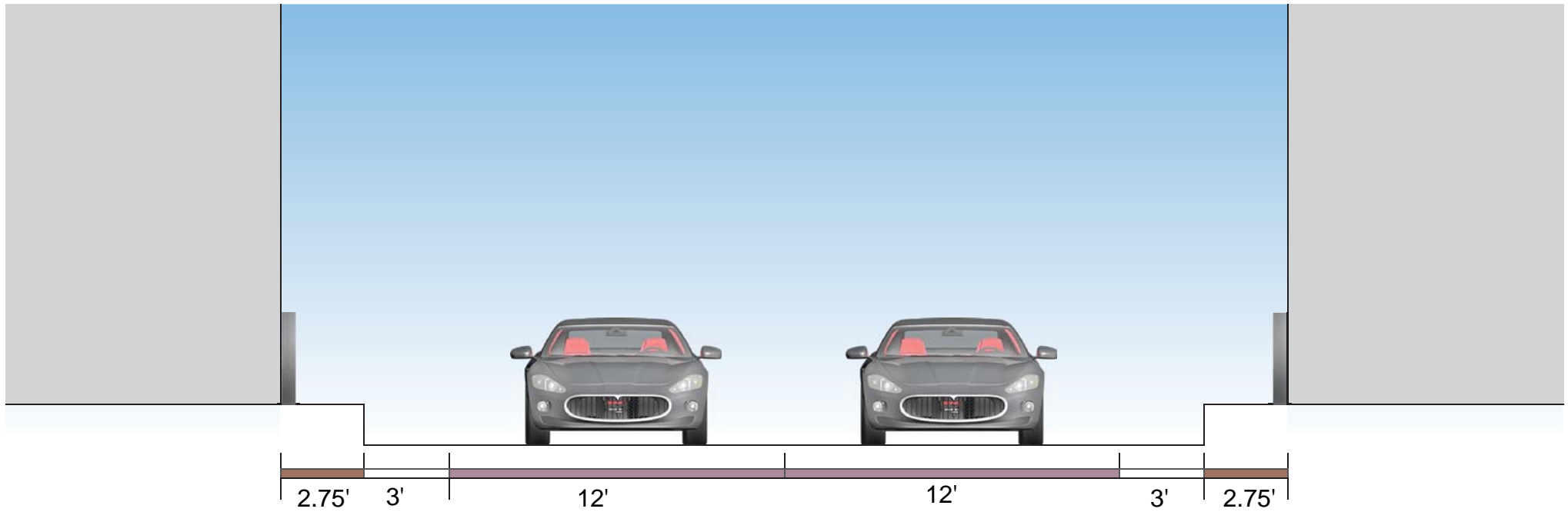
Total Width: 35.5 ft



# CSAH 081 (Bottineau Boulevard) - Southbound Bridge

## Existing Typical Cross Section

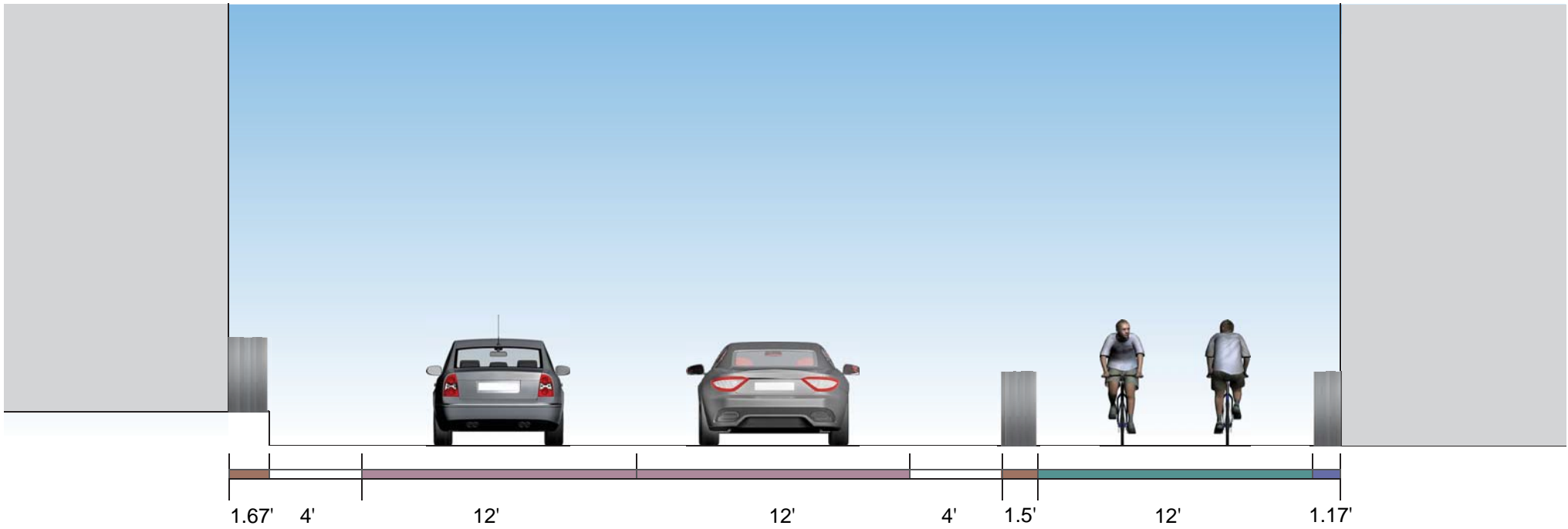
Total Width: 35.5 ft



# CSAH 081 (Bottineau Boulevard) - Northbound Bridge

## Proposed Typical Cross Section

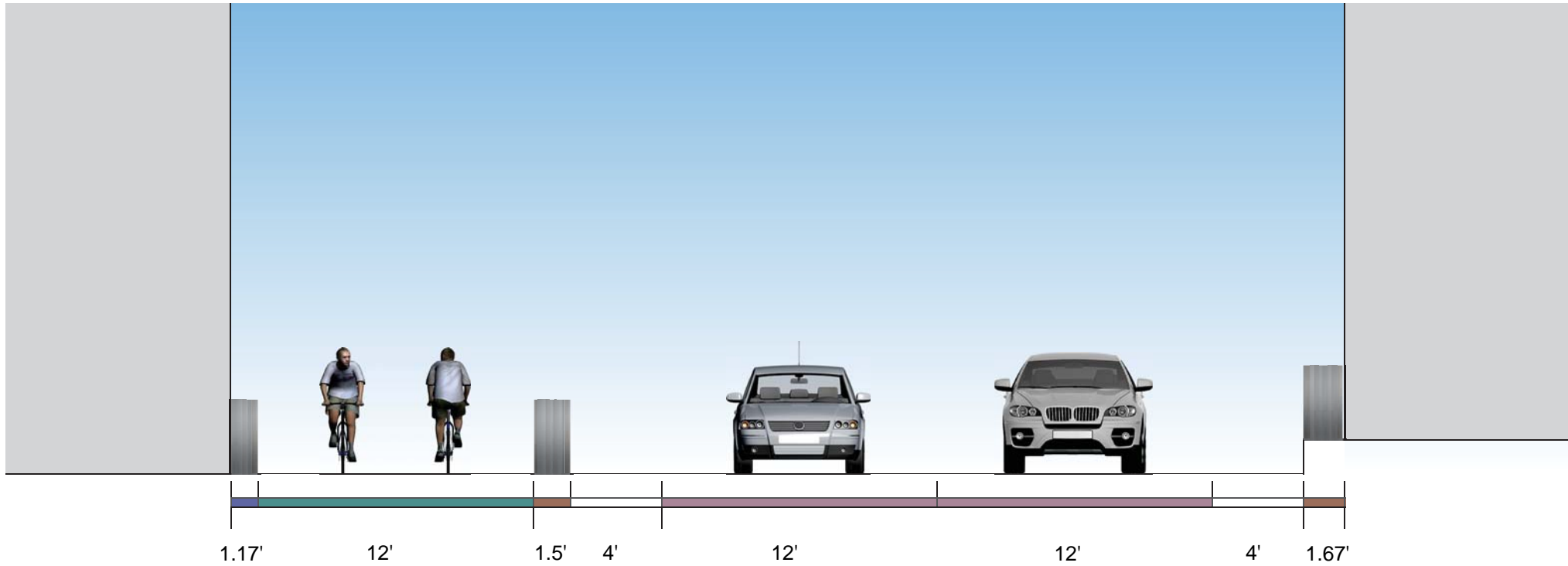
Total Width: 48.34 ft



# CSAH 081 (Bottineau Boulevard) - Southbound Bridge

## Proposed Typical Cross Section

Total Width: 48.34 ft





**HENNEPIN COUNTY  
TRANSPORTATION PLANNING DIVISION**

CLASS COUNT DATA  
CSAH 81 N. OF LOWRY AVE. BRIDGE

Site: 01  
Monday, 10/20/2014 9:00 AM -  
Wednesday, 10/22/2014 9:00 AM

Classification Grand Totals

**Hourly Averages**

NB.

Interval Start	Total	Motor Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axle Double	5 Axle Double	>6 Axle Double	<6 Axle Multi	6 Axle Multi	>6 Axle Multi	Tailgating
12:00 AM	51.0	0.5	40.5	8.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1:00 AM	30.0	0.0	24.5	4.5	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2:00 AM	22.0	0.0	17.5	3.5	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3:00 AM	22.0	0.0	15.0	3.5	0.0	3.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
4:00 AM	71.5	0.5	57.5	8.0	1.5	3.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
5:00 AM	140.5	0.5	109.0	18.0	5.0	6.5	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0
6:00 AM	276.5	1.0	194.5	44.5	9.0	23.5	1.0	0.0	2.5	0.0	0.0	0.5	0.0	0.0	0.0
7:00 AM	389.0	3.0	270.5	59.5	14.5	31.5	2.0	0.0	5.5	1.0	0.5	0.5	0.0	0.5	0.0
8:00 AM	370.0	3.5	264.0	66.0	11.0	23.0	1.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0
9:00 AM	321.0	1.5	220.5	68.5	6.5	20.5	1.0	0.0	1.5	1.0	0.0	0.0	0.0	0.0	0.0
10:00 AM	328.5	3.0	232.5	65.5	4.0	19.5	0.0	0.0	3.5	0.0	0.0	0.5	0.0	0.0	0.0
11:00 AM	344.0	3.0	251.0	61.0	5.0	16.5	1.5	1.0	3.5	1.0	0.0	0.5	0.0	0.0	0.0
12:00 PM	396.0	3.5	282.0	72.0	13.5	19.0	3.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0
1:00 PM	411.5	4.0	298.5	73.5	12.0	18.0	1.5	0.0	2.5	1.0	0.0	0.5	0.0	0.0	0.0
2:00 PM	479.5	9.0	334.0	96.0	11.0	22.0	0.0	0.0	4.5	1.5	0.5	1.0	0.0	0.0	0.0
3:00 PM	588.0	5.5	438.5	93.0	15.0	27.5	2.5	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0
4:00 PM	753.0	9.5	587.0	102.0	18.0	22.5	1.0	0.0	11.5	1.0	0.0	0.5	0.0	0.0	0.0
5:00 PM	807.5	9.0	626.0	96.5	22.5	36.5	3.0	0.0	12.0	0.5	0.0	1.0	0.0	0.5	0.0
6:00 PM	543.5	5.0	428.5	69.5	12.5	22.0	0.0	0.0	5.5	0.0	0.0	0.5	0.0	0.0	0.0
7:00 PM	354.5	4.0	277.0	54.0	1.5	14.5	0.5	0.0	2.5	0.0	0.0	0.5	0.0	0.0	0.0
8:00 PM	272.5	2.0	215.5	39.0	2.0	11.0	0.5	0.0	2.0	0.0	0.0	0.5	0.0	0.0	0.0
9:00 PM	204.5	2.5	165.5	27.0	1.0	7.5	0.5	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
10:00 PM	167.0	0.5	136.0	21.0	0.5	7.5	0.0	0.0	1.0	0.0	0.5	0.0	0.0	0.0	0.0
11:00 PM	77.0	0.0	65.0	9.5	0.0	1.5	0.5	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
Daily Average	7420.5	71.0	5550.5	1163.5	166.0	360.5	19.5	1.0	72.5	7.0	1.5	6.5	0.0	1.0	0.0

**Study Grand Totals**

	Total	Motor Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axle Double	5 Axle Double	>6 Axle Double	<6 Axle Multi	6 Axle Multi	>6 Axle Multi	Tailgating
NB.	14841	142	11101	2327	332	721	39	2	145	14	3	13	0	2	0
		1.0 %	74.8 %	15.7 %	2.2 %	4.9 %	0.3 %	0.0 %	1.0 %	0.1 %	0.0 %	0.1 %	0.0 %	0.0 %	0.0 %

**NORTHBOUND - SUM OF THE DAILY AVERAGE OF CLASSES 4 THROUGH 13 = 638**

**SOUTHBOUND - SUM OF THE DAILY AVERAGE OF CLASSES 4 THROUGH 13 = 475**

**DAILY TOTAL OF HEAVY COMMERCIAL VEHICLES =**

**1,113**



**HENNEPIN COUNTY  
TRANSPORTATION PLANNING DIVISION**

CLASS COUNT DATA  
CSAH 81 N. OF LOWRY AVE. BRIDGE

Site: 01  
Monday, 10/20/2014 9:00 AM -  
Wednesday, 10/22/2014 9:00 AM

Classification Grand Totals

**Hourly Averages**

SB.

Interval Start	Total	Motor Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axle Double	5 Axle Double	>6 Axle Double	<6 Axle Multi	6 Axle Multi	>6 Axle Multi	Tailgating
12:00 AM	57.5	0.5	47.5	9.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1:00 AM	45.5	0.5	32.0	12.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2:00 AM	27.5	0.0	24.0	3.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3:00 AM	21.5	0.0	17.0	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4:00 AM	37.0	0.0	25.5	9.5	0.5	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0
5:00 AM	113.0	0.5	81.5	27.5	0.5	2.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6:00 AM	282.0	2.0	198.5	56.5	10.5	8.0	0.5	0.0	5.0	0.5	0.0	0.0	0.0	0.5	0.0
7:00 AM	622.5	1.5	460.0	105.5	21.0	13.5	1.0	0.0	13.0	1.5	0.0	5.0	0.0	0.0	0.5
8:00 AM	566.5	3.0	399.5	94.0	30.0	23.0	2.5	0.0	9.5	2.5	0.0	1.5	0.0	1.0	0.0
9:00 AM	370.0	1.0	255.5	82.5	9.0	12.0	2.0	0.5	6.0	0.5	0.0	0.5	0.5	0.0	0.0
10:00 AM	347.0	2.0	244.5	80.0	8.0	6.5	1.5	0.0	3.0	0.5	0.0	0.5	0.0	0.0	0.5
11:00 AM	370.0	1.0	268.5	77.5	5.0	10.0	3.5	0.5	1.5	1.5	0.0	1.0	0.0	0.0	0.0
12:00 PM	398.0	3.5	288.5	74.5	7.5	15.5	2.0	0.5	3.5	0.5	0.0	2.0	0.0	0.0	0.0
1:00 PM	414.0	1.0	304.0	81.0	8.5	10.5	1.5	0.0	5.5	0.5	0.0	1.5	0.0	0.0	0.0
2:00 PM	456.0	1.5	328.0	94.5	14.0	10.5	0.5	0.5	6.0	0.0	0.0	0.5	0.0	0.0	0.0
3:00 PM	540.0	2.0	411.5	93.5	8.5	11.5	3.0	0.0	8.0	1.0	0.0	1.0	0.0	0.0	0.0
4:00 PM	601.0	1.5	451.0	106.0	22.0	11.5	0.0	0.5	7.0	0.5	0.0	0.5	0.0	0.0	0.5
5:00 PM	590.0	2.5	463.0	95.0	13.0	6.5	0.0	0.0	8.0	0.0	0.0	2.0	0.0	0.0	0.0
6:00 PM	452.0	1.5	352.5	79.5	10.0	4.5	0.0	0.0	2.5	0.0	0.0	1.0	0.0	0.0	0.5
7:00 PM	367.5	1.0	292.0	64.5	4.0	3.5	0.5	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
8:00 PM	294.0	0.5	239.5	44.5	1.5	4.5	0.0	0.0	2.5	0.0	0.0	0.5	0.0	0.5	0.0
9:00 PM	215.5	0.0	178.5	33.0	1.0	2.0	0.5	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
10:00 PM	157.5	0.5	131.0	23.5	0.0	2.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
11:00 PM	98.5	1.0	82.5	13.5	0.5	0.5	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
Daily Average	7444.0	28.5	5576.0	1364.5	176.0	159.0	20.0	2.5	86.0	9.5	0.0	17.5	0.5	2.0	2.0

**Study Grand Totals**

	Total	Motor Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axle Double	5 Axle Double	>6 Axle Double	<6 Axle Multi	6 Axle Multi	>6 Axle Multi	Tailgating
SB.	14888	57 0.4 %	11152 74.9 %	2729 18.3 %	352 2.4 %	318 2.1 %	40 0.3 %	5 0.0 %	172 1.2 %	19 0.1 %	0 0.0 %	35 0.2 %	1 0.0 %	4 0.0 %	4 0.0 %

**HENNEPIN COUNTY  
TRANSPORTATION PLANNING DIVISION**

TOTAL VOLUME DATA  
CSAH # 81 @ LOWRY AVE. BRIDGE/  
NB, # 81 / STUDY # 4062

Site: 01

Weekly Volume, per Channel

Interval Start	N.B.							Mon - Fri Average	Weekly Average
	Mon 5/16/2016	Tue 5/17/2016	Wed 5/18/2016	Thu 5/19/2016	Fri 5/20/2016	Sat 5/21/2016	Sun 5/22/2016		
12:00 AM	-	44	58	-	-	-	-	51.0	51.0
1:00 AM	-	24	30	-	-	-	-	27.0	27.0
2:00 AM	-	20	17	-	-	-	-	18.5	18.5
3:00 AM	-	18	16	-	-	-	-	17.0	17.0
4:00 AM	-	29	25	-	-	-	-	27.0	27.0
5:00 AM	-	80	70	-	-	-	-	75.0	75.0
6:00 AM	-	128	120	-	-	-	-	124.0	124.0
7:00 AM	-	222	225	-	-	-	-	223.5	223.5
8:00 AM	-	216	215	-	-	-	-	215.5	215.5
9:00 AM	-	178	205	-	-	-	-	191.5	191.5
10:00 AM	-	222	216	-	-	-	-	219.0	219.0
11:00 AM	232	244	-	-	-	-	-	238.0	238.0
12:00 PM	256	284	-	-	-	-	-	270.0	270.0
1:00 PM	307	260	-	-	-	-	-	283.5	283.5
2:00 PM	300	344	-	-	-	-	-	322.0	322.0
3:00 PM	408	370	-	-	-	-	-	389.0	389.0
4:00 PM	508	576	-	-	-	-	-	542.0	542.0
5:00 PM	544	586	-	-	-	-	-	565.0	565.0
6:00 PM	335	351	-	-	-	-	-	343.0	343.0
7:00 PM	255	258	-	-	-	-	-	256.5	256.5
8:00 PM	210	219	-	-	-	-	-	214.5	214.5
9:00 PM	166	174	-	-	-	-	-	170.0	170.0
10:00 PM	108	145	-	-	-	-	-	126.5	126.5
11:00 PM	78	70	-	-	-	-	-	74.0	74.0
Totals	3707	5062	1197	0	0	0	0	4983.0	4983.0

**Peak Hours**

12:00 AM - 12:00 PM Volume	11:00 AM 232	11:00 AM 244	7:00 AM 225	-	-	-	-	11:00 AM 238.0	11:00 AM 238.0
12:00 PM - 12:00 AM Volume	5:00 PM 544	5:00 PM 586	-	-	-	-	-	5:00 PM 565.0	5:00 PM 565.0

RAW TOTAL: 13,540  
ADJUSTMENT FACTOR: 1.122

**2016 AADT: 12,100**

---



---

**HENNEPIN COUNTY  
TRANSPORTATION PLANNING DIVISION**

TOTAL VOLUME DATA  
CSAH # 81 @ LOWRY AVE. BRIDGE /  
SB. # 81 / STUDY # 4063

Site: 01

Weekly Volume, per Channel

Interval Start	S.B.							Mon - Fri Average	Weekly Average
	Mon 5/16/2016	Tue 5/17/2016	Wed 5/18/2016	Thu 5/19/2016	Fri 5/20/2016	Sat 5/21/2016	Sun 5/22/2016		
12:00 AM	-	62	56	-	-	-	-	59.0	59.0
1:00 AM	-	27	32	-	-	-	-	29.5	29.5
2:00 AM	-	20	26	-	-	-	-	23.0	23.0
3:00 AM	-	30	36	-	-	-	-	33.0	33.0
4:00 AM	-	114	125	-	-	-	-	119.5	119.5
5:00 AM	-	344	360	-	-	-	-	352.0	352.0
6:00 AM	-	879	818	-	-	-	-	848.5	848.5
7:00 AM	-	714	682	-	-	-	-	698.0	698.0
8:00 AM	-	384	414	-	-	-	-	399.0	399.0
9:00 AM	-	358	356	-	-	-	-	357.0	357.0
10:00 AM	374	388	-	-	-	-	-	381.0	381.0
11:00 AM	418	440	-	-	-	-	-	429.0	429.0
12:00 PM	442	453	-	-	-	-	-	447.5	447.5
1:00 PM	504	461	-	-	-	-	-	482.5	482.5
2:00 PM	598	578	-	-	-	-	-	588.0	588.0
3:00 PM	659	648	-	-	-	-	-	653.5	653.5
4:00 PM	640	725	-	-	-	-	-	682.5	682.5
5:00 PM	508	521	-	-	-	-	-	514.5	514.5
6:00 PM	376	384	-	-	-	-	-	380.0	380.0
7:00 PM	365	350	-	-	-	-	-	357.5	357.5
8:00 PM	274	316	-	-	-	-	-	295.0	295.0
9:00 PM	210	242	-	-	-	-	-	226.0	226.0
10:00 PM	133	133	-	-	-	-	-	133.0	133.0
11:00 PM	64	72	-	-	-	-	-	68.0	68.0
Totals	5565	8643	2905	0	0	0	0	8556.5	8556.5

**Peak Hours**

12:00 AM - 12:00 PM	11:00 AM	6:00 AM	6:00 AM	-	-	-	-	6:00 AM	6:00 AM
Volume	418	879	818	-	-	-	-	848.5	848.5
12:00 PM - 12:00 AM	3:00 PM	4:00 PM	-	-	-	-	-	4:00 PM	4:00 PM
Volume	659	725	-	-	-	-	-	682.5	682.5

**From:** [Filipi, Mark](#)  
**To:** [Sierra Saunders](#)  
**Cc:** [Jason R Pieper](#); [Jason D Gottfried](#); [Carla J Stueve](#); [Robert H. Byers](#)  
**Subject:** RE: 2016 Regional Solicitation - Forecast AADT's  
**Date:** Thursday, June 16, 2016 10:23:49 AM  
**Attachments:** [image006.png](#)  
[image008.png](#)  
[image010.png](#)

---

Sierra,

Here is the data you requested. It is generated from the model runs from the most recent update of the Council's 2040 Transportation Policy Plan and is based in the four-step trip-based regional travel demand forecast model.

Project	Forecast Volume
CSAH 15 (Shoreline Dr) Bridge Replacement	20,900
CSAH 19 (Manitou Rd/Shadywood Rd) Bridge Rehabilitation	16,200
CSAH 23 (Marshall St NE)	10,500
CSAH 32 (Penn Ave) Reconstruction you cite of 12,800 is actually outside your project area. 10,800 is the only AADT reported in your project area)	16,200 (Note: The 2014 AADT 10,800)
CSAH 66 (Golden Valley Rd) Reconstruction	19,900 (West of Noble Ave.) 10,200 (East of Indiana Ave.)
CSAH 81 (Bottineau Blvd) Expansion	51,100
CSAH 81 (Broadway Ave) Bridge Replacement	24,700
CSAH 152 (Webber Pkwy) Reconstruction	This roadway is not in the regional model. The model links in the area show an annualized growth rate of 0.5%. When applied to the 13,700 2013 volume, this grows to 16,100.

If you have any questions, please feel free to contact me.



**Mark Filipi, AICP PTP**

Manager, Technical Planning Support  
Metropolitan Transportation Services  
mark.filipi@metc.state.mn.us  
P.651.602.1725 | F.651.602.1739  
390 North Robert Street | St. Paul, MN | 55101 | [metro council.org](http://metro council.org)

CONNECT WITH US



**From:** Sierra Saunders [mailto:Sierra.Saunders@hennepin.us]  
**Sent:** Wednesday, June 15, 2016 8:02 AM  
**To:** Filipi, Mark <Mark.Filipi@metc.state.mn.us>  
**Cc:** Jason R Pieper <Jason.Pieper@hennepin.us>; Jason Gottfried <Jason.gottfried@hennepin.us>;  
Carla Stueve <Carla.Stueve@hennepin.us>; Robert H. Byers <Robert.Byers@hennepin.us>  
**Subject:** 2016 Regional Solicitation - Forecast AADT's

Greetings Mark,

I'm writing to request 2040 Forecast AADT information for the Regional Solicitation. Below is the list of projects with our most recent adjusted traffic counts. Project location maps are attached, in the same order as the list below:

- CSAH 15 (Shoreline Dr) Bridge Replacement (Over Browns Bay/Tanager Channel): **16,500** (2014 AADT)
- CSAH 19 (Manitou Rd/Shadywood Rd) Bridge Rehabilitation (Over Narrows Channel): **11,900** (2016 AADT)
- CSAH 23 (Marshall St NE) Reconstruction: **8,800** (2016 AADT)
- CSAH 32 (Penn Ave) Reconstruction: **12,800** (2014 AADT)
- CSAH 66 (Golden Valley Rd) Reconstruction: **11,900** (2016 AADT)
- CSAH 81 (Bottineau Blvd) Expansion (4-lane divided to 6-lane divided): **21,400** (2013 AADT)
- CSAH 81 (Broadway Ave) Bridge Replacement (Over CSAH 153 [Lowry Ave]): **12,100** (2016 AADT)
- CSAH 152 (Webber Pkwy) Reconstruction: **13,700** (2013 AADT)

Please let me know if you need any additional information, and thank you!

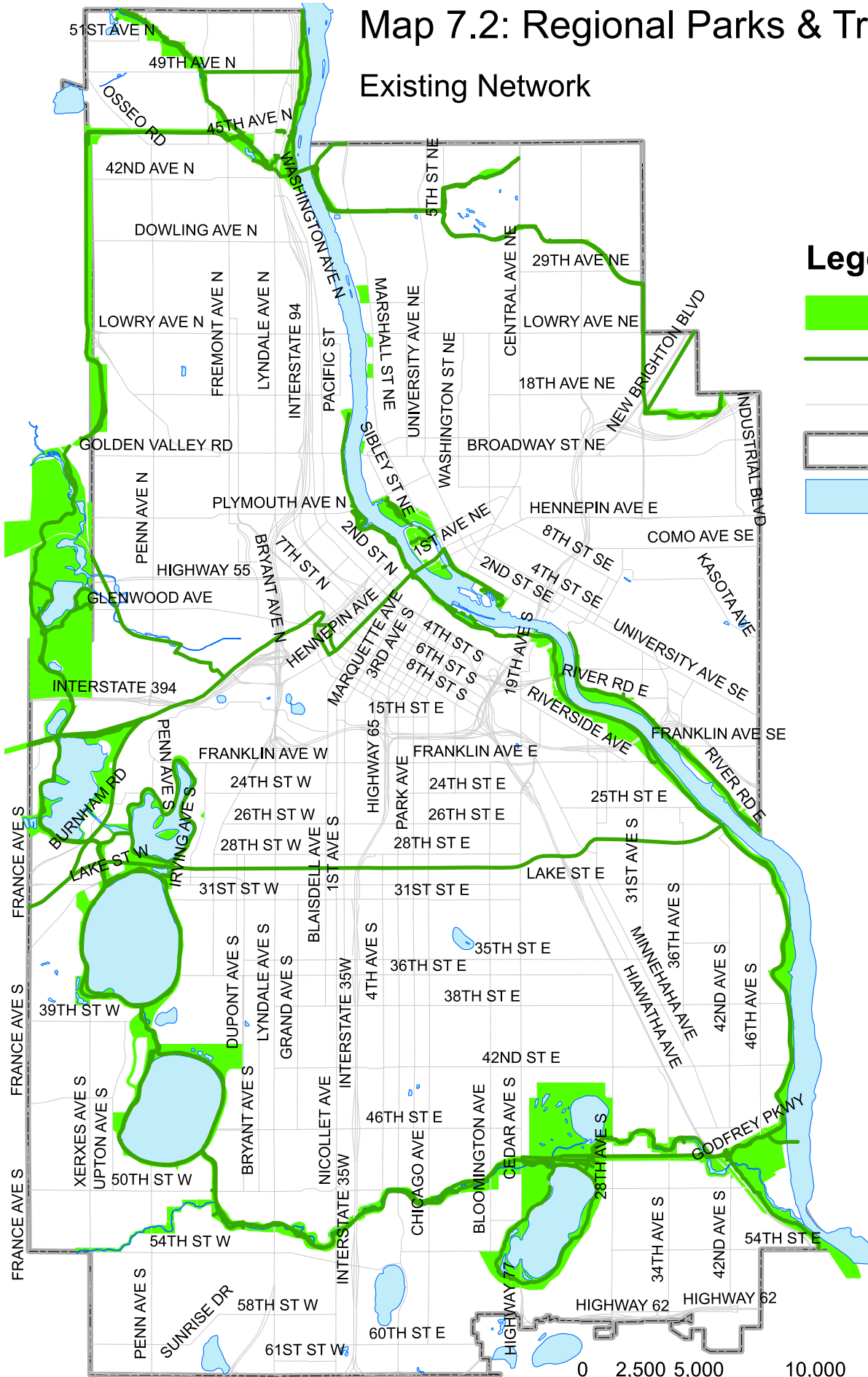
Sierra Saunders  
Multimodal Planner  
Hennepin County Public Works  
1600 Prairie Drive, Medina, MN 55340

Office: 612.596.0364  
[sierra.saunders@hennepin.us](mailto:sierra.saunders@hennepin.us)

**Disclaimer:** If you are not the intended recipient of this message, please immediately notify the sender of the transmission error and then promptly delete this message from your computer system.

# Map 7.2: Regional Parks & Trails

## Existing Network



### Legend

- Regional Parks
- Regional Trails
- Major Roads
- City Boundary
- Water



Sources:  
 Minneapolis Park and Recreation Board and Metropolitan Council

Created by:  
 Minneapolis Community Planning and Economic Development Department  
 Planning Division  
 Adopted by City Council  
 October 2, 2009

0 2,500 5,000 10,000 15,000

Feet 7-16

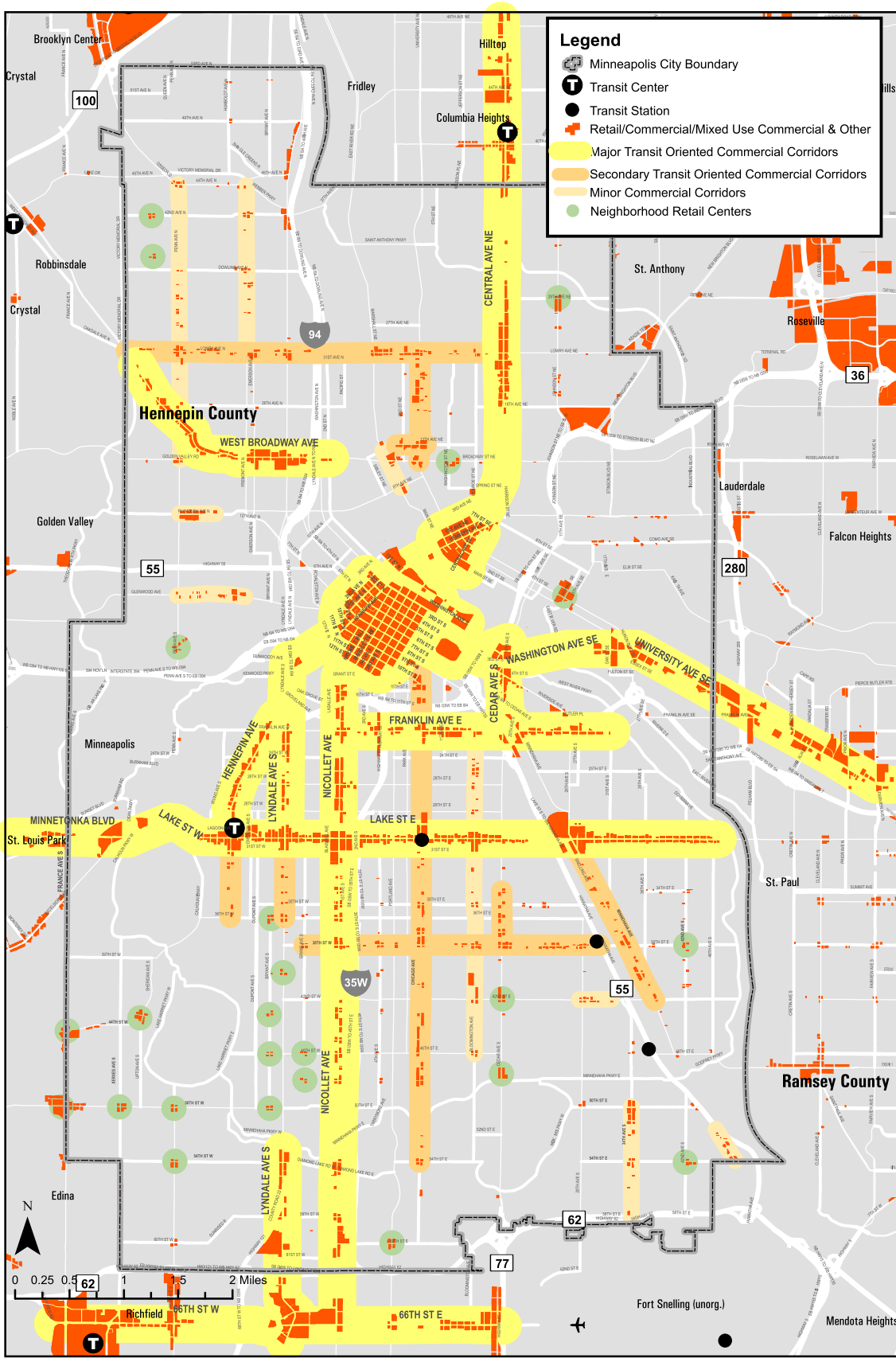
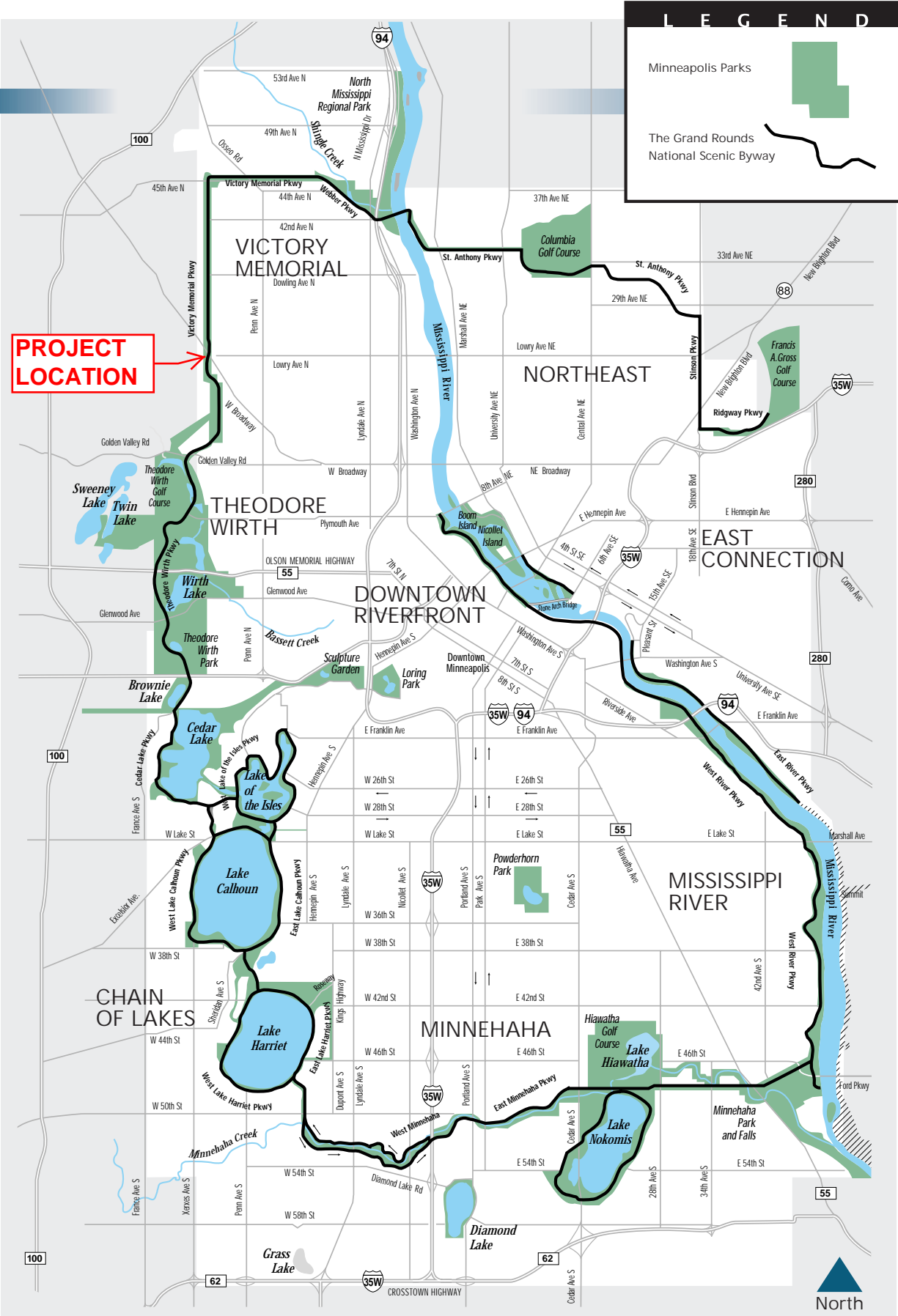


FIGURE 4 - HISTORIC DEVELOPMENT & TRANSPORTATION PATTERNS

# THE GRAND ROUNDS



**PROJECT LOCATION**

**LEGEND**

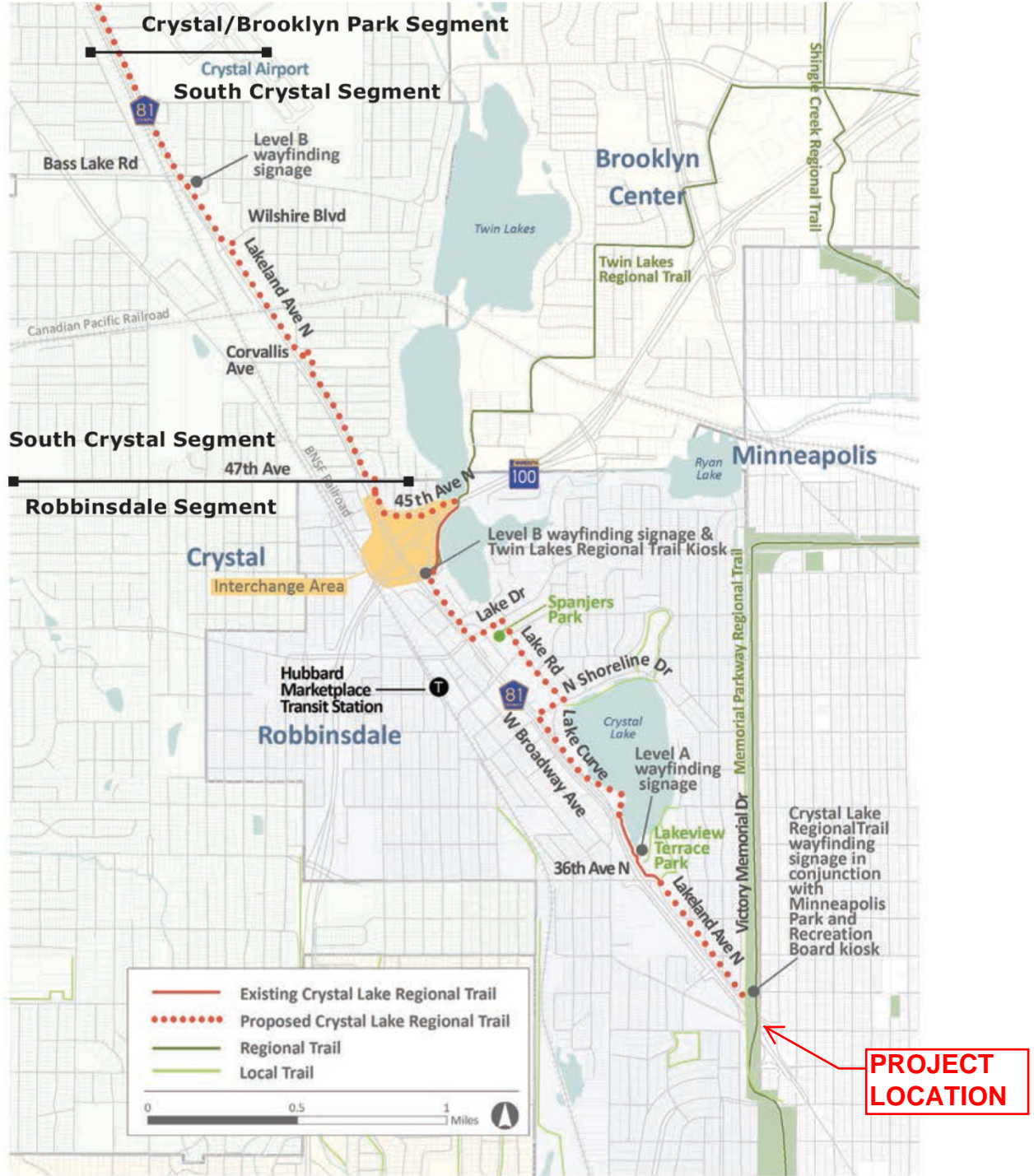
Minneapolis Parks

The Grand Rounds National Scenic Byway





Figure 2: Robbinsdale Segment of Crystal Lake Regional Trail



# WEST BROADWAY AVENUE

## RAPID BUS CONCEPT



# Full Listing of Planned 2040 Bikeway System Segments

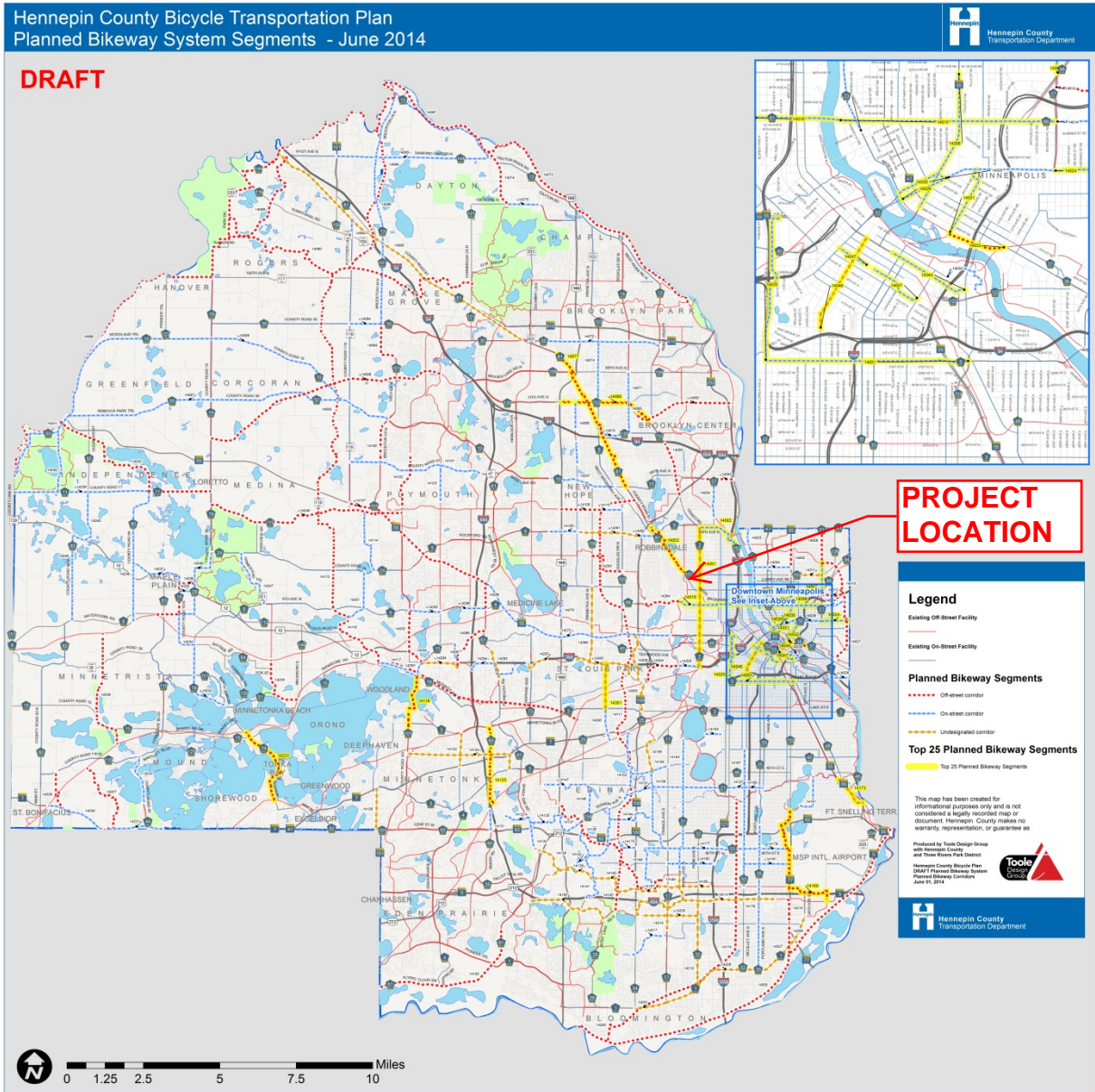
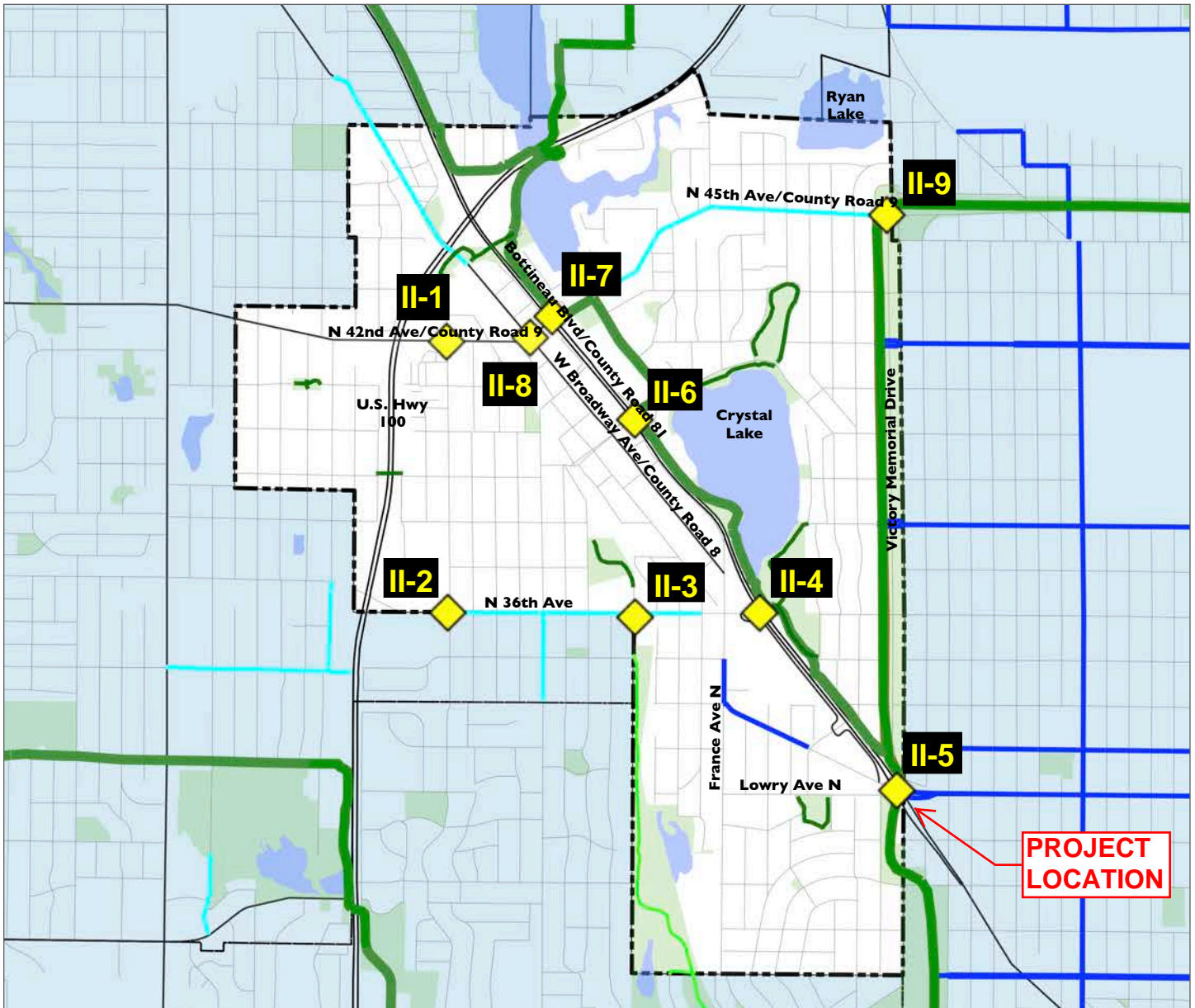


Figure 1 Planned 2040 Bikeway System Corridors Map

### 4.4.2 - Recommended Intersection/Crossing Improvements



**Recommended Treatments**

- Intersections/Crossings Recommended for Improvement (II)

**Existing Off-Road Facilities**

- Paved Trails/Shared-Use Paths
- Unpaved Shared-Use Trails
- Existing (or Planned) Regional Shared-Use Trails

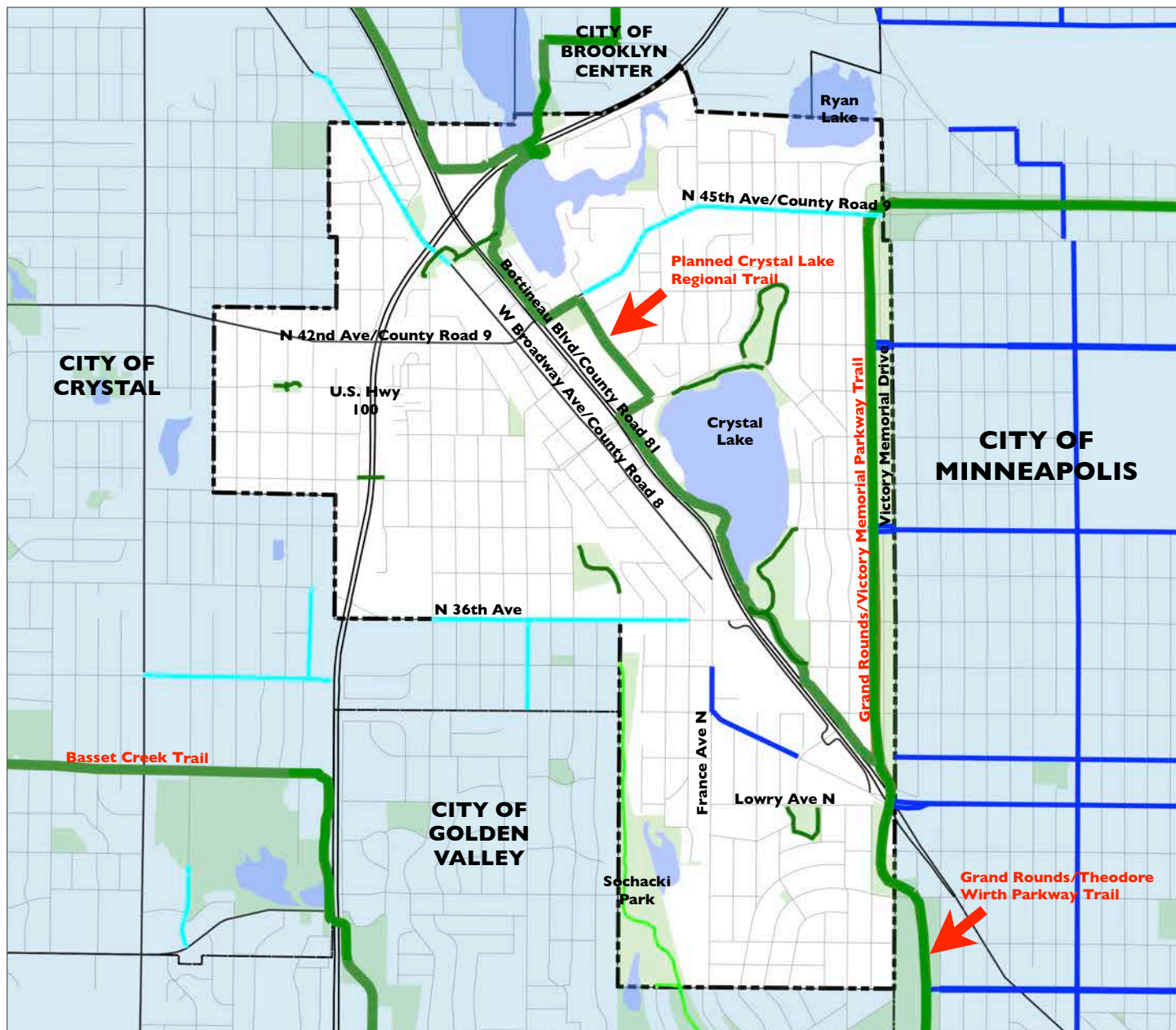
**Existing On-Road Facilities**

- On-Road Bicycle Lane
- Paved Shoulder Bicycle Facility

Data Source: City of Robbinsdale, MetroGIS



### 3.2.4 - Existing Network of On-Street Bike and Off-Road Shared-Use Facilities



Off-Road Facilities

- Paved Trails/Shared-Use Paths
- Unpaved Shared-Use Trails
- Existing or Planned Regional Shared-Use Trails

On-Road Facilities

- On-Road Bicycle Lane
- Paved Shoulder Bicycle Facility

Data Source: City of Robbinsdale, MetroGIS



# City of Robbinsdale

4100 Lakeview Avenue North • Robbinsdale • Minnesota • 55422-2280  
Phone (763)531-1258 • Fax (763)531-1291  
Website [www.robbinsdalemn.com](http://www.robbinsdalemn.com)

June 22, 2016

James N. Grube, P.E.  
Hennepin County Engineer  
Transportation Department  
1600 Prairie Drive  
Medina, Minnesota 55340

Re: Support for Regional Solicitation Application  
CSAH 81 (West Broadway Ave./Bottineau Blvd.) Bridge Replacement at Lowry Avenue/  
Oakdale Avenue and Victory Memorial Drive/Theodore Wirth Parkway

Dear Mr. Grube:

The City of Robbinsdale supports Hennepin County's federal funding application through the Regional Solicitation for the proposed CSAH 81 (West Broadway Avenue/Bottineau Boulevard) bridge replacement project over Lowry Avenue/Oakdale Avenue and Victory Memorial Drive/Theodore Wirth Parkway.

The city supports this county project to replace the deteriorated bridges with an upgraded design. This bridge replacement project will enhance the livability and quality of life for Robbinsdale and Hennepin County residents.

Thank you for making us aware of this application effort and the opportunity to provide support. The city looks forward to working with you on this project.

Sincerely,

Marcia Glick  
City Manager  
City of Robbinsdale, Minnesota

June 20, 2016

James N. Grube, P.E.  
Director of Transportation and County Engineer  
Transportation Department  
1600 Prairie Drive  
Medina, Minnesota 55340

Re: Support for Regional Solicitation Application  
CSAH 81 (West Broadway Ave./Bottineau Blvd.) Bridge Replacement at Lowry Avenue/ Oakdale  
Avenue and Victory Memorial Drive/Theodore Wirth Parkway

Dear Mr. Grube:

The City of Minneapolis supports Hennepin County's federal funding application through the Regional Solicitation for the proposed CSAH 81 (West Broadway Avenue/Bottineau Boulevard) bridge replacement project over Lowry Avenue/Oakdale Avenue and Victory Memorial Drive/Theodore Wirth Parkway.

The City of Minneapolis supports this Hennepin County project to replace the deteriorated bridges with an upgraded design. This bridge replacement project will enhance the livability and quality of life for Minneapolis and Hennepin County residents.

Thank you for making us aware of this application effort and the opportunity to provide support. The city looks forward to working with you on this project.

Sincerely,



Lisa Cerney  
Director of Public Works