



Application

10356 - 2018 Bridges

10650 - CSAH 15 (Shoreline Dr) Bridge Replacement Project

Regional Solicitation - Roadways Including Multimodal Elements

Status: Submitted

Submitted Date: 07/13/2018 2:19 PM

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## Primary Contact

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Salutation First Name Middle Name Last Name

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**Department:**

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1600 Prairie Drive

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

**Phone:\*** 612-596-0395  
Phone Ext.

**Fax:**

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

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## 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

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## Project Information

Project Name

CSAH 015 (Shoreline Dr) Bridge Replacement Project

Primary County where the Project is Located

Hennepin

Cities or Townships where the Project is Located:

Orono

Jurisdictional Agency (If Different than the Applicant):

The project includes the replacement of the CSAH 15 (Shoreline Dr) Bridge over Browns Bay and Tanager Channel located within the City of Orono. CSAH 15 (Shoreline Dr) is classified as an A-Minor Arterial roadway that functions as an expander. Attachment 2 provides an illustration of the project location.

CSAH 15 (Shoreline Dr) is a significant regional corridor, serving users through the Lake Minnetonka Area. Should this bridge be closed to traffic, the resulting detour length is approximately 11 miles, indicating the bridge's function as a critical connection in the area.

The current CSAH 15 (Shoreline Dr) Bridge design includes pre-stressed quad-T beams that are in poor condition. The pile bents have exposed piling (as designed) which are deteriorating at the water level and above. Pre-tensioning strands at the bottom of the beams are exposed at many locations. Furthermore, these strands are exhibiting section loss, resulting in a reduced inventory rating. This bridge is classified as structurally deficient, includes weight restrictions, and has been assigned a sufficiency rating of 32.0. Photos depicting the bridge's current condition are included in Attachment 3.

The project includes a full replacement of the bridge. The current width of the bridge is 36 feet, which includes two 12-foot driving lanes with two 6-foot shoulders. The proposed bridge design will expand the current width to 40 feet, which will include two 12-foot driving lanes with two 8-foot shoulders. It is anticipated that the new bridge would be designed for a 75-year (or greater) service life. The proposed typical section and

**Brief Project Description (Include location, road name/functional class, type of improvement, etc.)**

concept are included in Attachments 4 and 5, respectively.

Additionally, this project will present an opportunity to improve user experience at the existing bridge. First, the new bridge will be realigned to improve sight lines and to provide better access for a nearby residential driveway. Second, the existing height of the bridge will be elevated to better accommodate large boats desiring to pass under the structure. Lastly, staged or accelerated construction methods will be considered during the design phase to allow for the bridge to remain open to traffic during construction and significantly minimize the impact to the travelling public, especially emergency and heavy commercial vehicles.

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

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

CSAH 15 over Tanager Channel in Orono - Replace Bridge #27592

**Project Length (Miles)**

0.15

*to the nearest one-tenth of a mile*

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## Project Funding

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

No

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

**Federal Amount**

\$2,200,000.00

**Match Amount**

\$550,000.00

*Minimum of 20% of project total*

**Project Total**

\$2,750,000.00

**Match Percentage**

20.0%

*Minimum of 20%*

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

**Source of Match Funds**

Hennepin County

*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:**

2022

Select 2020 or 2021 for TDM projects only. For all other applications, select 2022 or 2023.

**Additional Program Years:** 2020, 2021

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

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## Project Information-Roadways

<b>County, City, or Lead Agency</b>	Hennepin County
<b>Functional Class of Road</b>	A-Minor Arterial (Expander)
<b>Road System</b>	CSAH
<i>TH, CSAH, MSAS, CO. RD., TWP. RD., CITY STREET</i>	
<b>Road/Route No.</b>	15
<i>i.e., 53 for CSAH 53</i>	
<b>Name of Road</b>	Shoreline Drive
<i>Example: 1st ST., MAIN AVE</i>	
<b>Zip Code where Majority of Work is Being Performed</b>	55391
<b>(Approximate) Begin Construction Date</b>	06/01/2020
<b>(Approximate) End Construction Date</b>	10/30/2020
<b>TERMINI:(Termini listed must be within 0.3 miles of any work)</b>	
<b>From:</b> <b>(Intersection or Address)</b>	Green Trees Road
<b>To:</b> <b>(Intersection or Address)</b>	Approximately 0.06 miles north of the bridge
<i>DO NOT INCLUDE LEGAL DESCRIPTION</i>	
<b>Or At</b>	
<b>Primary Types of Work</b>	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>	
<b>Old Bridge/Culvert No.:</b>	27592
<b>New Bridge/Culvert No.:</b>	
<b>Structure is Over/Under</b> <b>(Bridge or culvert name):</b>	Tanager Channel / Browns Bay

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## 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 (2015), 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 goals, objectives, and strategies that relate to the project.*

A) Transportation System Stewardship (P 2.17 - 2.19)

The county's annual bridge inspection program ensures planned preservation and maintenance of bridge assets. This project will replace a structurally deficient bridge that serves 16,700 vehicles daily. Bridge construction activities will be staged and/or accelerated to minimize impacts to users; especially emergency and commercial vehicles.

B) Safety/Security (P 2.20 - 2.23)

This project will address structural safety issues for this bridge. The new bridge will be realigned to improve sight lines to benefit pedestrian crossings occurring at the North Shore Marina and provide safer driveway transitions for nearby property owners. Additionally, this bridge is load posted, causing a significant detour for commercial vehicles that exceed weight restrictions. Furthermore, shoulder widths will be increased, providing a safer and more comfortable environment for non-motorized users.

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

C) Access to Destinations (P 2.24 - 2.37)

CSAH 15 (Shoreline Dr) is a regional significant corridor that provides an east/west connection from western Hennepin/Wright County to Highway 12 through the Lake Minnetonka Area. The new bridge could be designed with additional clearance to better accommodate large boats. The nearby Dakota Rail Regional Trail connects users with surrounding recreational destinations. Furthermore, Metro Transit provides service from the Mound, Spring Park, and Orono areas to Downtown Minneapolis along CSAH 15 (Shoreline Dr).

D) Competitive Economy (P 2.38 - 2.41)

CSAH 15 (Shoreline Dr) provides a critical connection for residents to access employment, shopping, and recreation destinations in the Lake Minnetonka Area. The existing bridge includes weight restrictions which impacts freight services carrying time sensitive goods.

E) Healthy Environment (P 2.42 - 2.45)

CSAH 15 (Shoreline Dr) currently serves two transit routes. If the bridge condition continues to decline, causing bridge closure, these routes would experience significant delays and decreased ridership. Additionally, this project will benefit people who choose to walk or bike this route by increasing the shoulder width to 8'.

F) Leveraging Transportation Investments to Guide Land Use (P 2.46 - 2.55)

Development will be primarily limited to subdivision and redevelopment due to surrounding land constraints. A need exists to preserve and enhance existing infrastructure to support transportation and land use in the Lake Minnetonka 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.*

2018-2022 Hennepin County Transportation Capital Improvement Program (Attachment 6)

List the applicable documents and pages:

Hennepin County Board Resolution - 2017  
Operating and Capital Budgets (Attachment 7)

Hennepin County Board Resolution - 2018  
Regional Solicitation (Attachment 8)

4. The project must exclude costs for studies, preliminary engineering, design, or construction engineering. Right-of-way costs are only eligible as part of 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 Modernization and Spot Mobility:** \$1,000,000 to \$7,000,000

**Traffic Management Technologies (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 (ADA).

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

9. In order for a selected project to be included in the Transportation Improvement Program (TIP) and approved by USDOT, the public agency sponsor must either have, or be substantially working towards, completing a current Americans with Disabilities Act (ADA) self-evaluation or transition plan that covers the public right of way/transportation, as required under Title II of the ADA.

The applicant is a public agency that employs 50 or more people and has an adopted ADA transition plan that covers the public right of way/transportation.

Date plan adopted by governing body

The applicant is a public agency that employs 50 or more people and is currently working towards completing an ADA transition plan that covers the public rights of way/transportation.

Yes

05/02/2011

04/06/2020

Date process started

Date of anticipated plan completion/adoption

The applicant is a public agency that employs fewer than 50 people and has a completed ADA self-evaluation that covers the public rights of way/transportation.

Date self-evaluation completed

The applicant is a public agency that employs fewer than 50 people and is working towards completing an ADA self-evaluation that covers the public rights of way/transportation.

Date process started

Date of anticipated plan completion/adoption

**(TDM Applicants Only) The applicant is not a public agency subject to the self-evaluation requirements in Title II of the ADA.**

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

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

11. The owner/operator of the facility must operate and maintain the project year-round for the useful life of the improvement, per FHWA direction established 8/27/2008 and updated 6/27/2017.

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

12. 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**

13. 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**

14. 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**

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## 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 and Spot Mobility 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

**Roadway Expansion, Reconstruction/Modernization and Spot Mobility, and Bridge Rehabilitation/Replacement projects only:**

7. All roadway projects that involve the construction of a new/expanded interchange or new interchange ramps must have approval by the Metropolitan Council/MnDOT Interchange Planning Review Committee prior to application submittal. Please contact Michael Corbett at MnDOT ( Michael.J.Corbett@state.mn.us or 651-234-7793) to determine whether your project needs to go through this process.

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

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## Requirements - Roadways Including Multimodal Elements

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### Specific Roadway Elements

<b>CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES</b>	<b>Cost</b>
Mobilization (approx. 5% of total cost)	\$110,000.00
Removals (approx. 5% of total cost)	\$130,000.00
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	\$60,000.00
Striping	\$0.00
Signing	\$0.00
Lighting	\$0.00
Turf - Erosion & Landscaping	\$0.00
Bridge	\$2,200,000.00
Retaining Walls	\$0.00
Noise Wall (not calculated 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	\$250,000.00
Other Roadway Elements	\$0.00
<b>Totals</b>	<b>\$2,750,000.00</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

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## Totals

Total Cost	\$2,750,000.00
Construction Cost Total	\$2,750,000.00
Transit Operating Cost Total	\$0.00

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## Measure A: Distance to the nearest parallel bridge

*RESPONSE:*

Location of nearest parallel bridge crossing: 3.03 mi (CSAH 101 to the East)

Distance from one end of proposed project to nearest parallel crossing (that is an A-minor arterial or principal arterial) and then back to the other side of the proposed project (calculated by Council Staff): 0

CSAH 15 (Shoreline Dr) is the primary east/west route through the Lake Minnetonka Area; with CSAH 19 (Shadywood Rd) serving as the primary north/south route. However, CSAH 15 (Shoreline Dr/North Shore Dr) provides critical connections over various bays within the Lake Minnetonka Area that offers limited access. Therefore, staff identified CSAH 101 (Bushaway Rd) as the closest parallel A-Minor Arterial roadway that provides similar access across Lake Minnetonka.

CSAH 15 (Shoreline Dr) serves nearly 17,000 vehicles daily and provides users with direct access to commercial areas within Downtown Mound, Spring Park, and Orono from TH 12. Due to the scarcity in nearby crossings, the anticipated detour route during bridge replacement is 11 miles, resulting in significant delays to users.

**Explanation:**

Staff has identified two alternate routes for users when the CSAH 15 (Shoreline Dr) Bridge is under construction. The first route (nicknamed the Ring Route) guides users along the west side of Lake Minnetonka via the following roadways: CSAH 110 (Commerce Blvd), CSAH 151 (West Branch Rd), CSAH 19 (North Shore Dr), McCulley Rd, and CSAH 6. The second route is more direct and guides users along the east side of Lake Minnetonka via CSAH 101 (Bushaway Rd). These routes are illustrated in Attachment 9.

The CSAH 15 (Shoreline Dr) Bridge over Tanager Channel is currently load posted, therefore, further weight restrictions would negatively impact services provided by freight and emergency vehicles. A traffic count collected in 2017 indicated that approximately 3,400 commercial vehicles utilize CSAH 15 (Shoreline Dr) daily as reported in

Attachment 10. Additionally, CSAH 15 (Shoreline Dr) currently serves two transit routes (645 and 677) that extend from Mound to Minneapolis and offer transit service seven days a week.

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

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

Existing Employment within 1 Mile:	1016
Existing Manufacturing/Distribution-Related Employment within 1 Mile:	24
Existing Post-Secondary Students within 1 Mile:	0
Upload Map	1528296127624_2018 RS Map 02 - CSAH 15 (Shoreline Dr) Bridge Replacement Project - Regional Economy.pdf

*Please upload attachment in PDF form.*

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## Measure C: Regional Truck Corridor Tiers

*RESPONSE (Select one for your project, based on the Regional Truck Corridor Study):*

**The project is located on either a Tier 1, Tier 2, or Tier 3 corridor:**

*(65 Points)*

**The project provides a direct and immediate connection (i.e., intersects) with either a Tier 1, Tier 2, or Tier 3 corridor:**

*(10 Points)*

**The project is not located on a Tier 1, Tier 2, or Tier 3 corridor:** Yes

*(0 Points)*

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## Measure A: Current Daily Person Throughput

Location	East of CSAH 51 (North Shore Dr)
Current AADT Volume	16700.0
Existing Transit Routes on the Project:	645, 677
Upload "Transit Connections" map	1528295951624_2018 RS Map 04 - CSAH 15 (Shoreline Dr) Bridge Replacement Project - Transit Connections.pdf

*Please upload attachment in PDF form.*

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## Response: Current Daily Person Throughput

Average Annual Daily Transit Ridership	777.0
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### Measure B: 2040 Forecast ADT

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

If checked, METC Staff will provide Forecast (2040) ADT volume 19700

OR

Identify the approved county or city travel demand model to determine forecast (2040) ADT volume

Forecast (2040) ADT volume

### Measure A: Connection to disadvantaged populations and projects benefits, impacts, and mitigation

Select one:

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

*(up to 100% of maximum score)*

**Project located in Area of Concentrated Poverty:**

*(up to 80% of maximum score )*

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

*(up to 60% of maximum score )*

**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:** Yes

*(up to 40% of maximum score )*

*1.(0 to 3 points) A successful project is one that has actively engaged low-income populations, people of color, children, persons with disabilities, and the elderly during the project's development with the intent to limit negative impacts on them and, at the same time, provide the most benefits.*

*Describe how the project has encouraged or will engage the full cross-section of community in decision-making. Identify the communities to be engaged and where in the project development process engagement has occurred or will occur. Elements of quality engagement include: outreach to specific communities and populations that are likely to be directly impacted by the project; techniques to reach out to populations traditionally not involved in the community engagement related to transportation projects; residents or users identifying potential positive and negative elements of the project; and surveys, study recommendations, or plans that provide feedback from populations that may be impacted by the proposed project. If relevant, describe how NEPA or Title VI regulations will guide engagement activities.*

Hennepin County will engage each of the project stakeholders, including: local residents, business owners, City of Orono, Metro Transit, and the travelling public, during the planning and design stages of the project. Formal relationships will be maintained with critical stakeholders, such as: nearby residents, business owners, or transit users to ensure project impacts are known and understood. Brown's Bay Marina, North Shore Marina, and River Valley Power and Sports are three businesses anticipated to be most impacted by the project. Therefore, strong relationships are key to accommodating any special needs that may be requested.

**Response:**

However, since this project is occurring in rural Hennepin County, communication related to the project status during the construction stages is most critical to keep residents informed of how their transportation may be impacted. Hennepin County will provide project updates across all communication streams, including: the project website, mobile texts, and social media. Additionally, portable message display boards will be deployed prior to construction activities to notify commuters who may not be aware that a project is occurring.

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

*2.(0 to 7 points) Describe the projects benefits to low-income populations, people of color, children, people with disabilities, and the elderly. Benefits could relate to safety; public health; access to destinations; travel time; gap closure; leveraging of other beneficial projects and investments; and/or community cohesion. Note that this is not an exhaustive list.*

This project is located within the City of Orono, which is identified as a census tract that is below the regional average for population in poverty or populations of color. However, this area does include children, people with disabilities, and the elderly; just not in concentrations recognized by the Metropolitan Council.

**Response:**

The CSAH 15 (Shoreline Dr) Bridge connects residents (inclusive of all races, ethnicity, incomes, and abilities) to jobs and educational opportunities. The replacement of this bridge will maintain a vital east/west connection through the Lake Minnetonka communities. CSAH 15 (Shoreline Dr) serves nearly 17,000 users daily on a roadway that includes two travel lanes with paved shoulders. The project will provide a benefit to walkers and bikers (especially those with limited mobility) by increasing the shoulder width to 8'; resulting in a more comfortable space. This will provide all transportation modes with the freedom to use this facility for commuting, recreational, or social purposes.

All facilities will be upgraded to current ADA standards to ensure accessibility for persons with limited mobility.

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

3. (-3 to 0 points) Describe any negative externalities created by the project along with measures that will be taken to mitigate them. Negative externalities can result in a reduction in points, but mitigation of externalities can offset reductions.

Below is a list of negative impacts. Note that this is not an exhaustive list.

Increased difficulty in street crossing caused by increased roadway width, increased traffic speed, wider turning radii, or other elements that negatively impact pedestrian access.

Increased noise.

Decreased pedestrian access through sidewalk removal / narrowing, placement of barriers along the walking path, increase in auto-oriented curb cuts, etc.

Project elements that are detrimental to location-based air quality by increasing stop/start activity at intersections, creating vehicle idling areas, directing an increased number of vehicles to a particular point, etc.

Increased speed and/or cut-through traffic.

Removed or diminished safe bicycle access.

Inclusion of some other barrier to access to jobs and other destinations.

Displacement of residents and businesses.

Construction/implementation impacts such as dust; noise; reduced access for travelers and to businesses; disruption of utilities; and eliminated street crossings. These tend to be temporary.

Other

Bicyclists and pedestrians who rely on CSAH 15 (Shoreline Dr) for transportation needs are provided with an alternate route on the Dakota Rail Regional Trail during construction activities. Therefore, it's not anticipated that this project will impact this user group significantly.

CSAH 15 (Shoreline Dr) serves nearly 17,000 vehicles per day, therefore, it is anticipated that the construction impacts will be significant. However, staff will provide regular project updates across all communication streams in an effort to keep everyone informed. Portable message boards will be deployed at strategic locations prior to the start of construction activities to notify commuters who likely do not know that a project is planned. Specific dates and instructions will be provided within these messages to make them most effective.

**Response:**

In review of the surrounding roadway network, it will be imperative to communicate with nearby cities, including: Mound, Spring Park, Minnetonka Beach, and Orono, to develop effective strategies for managing impacts, especially cut-through traffic, during construction activities. County staff will investigate the potential to deploy construction staging practices or accelerated bridge construction methods to minimize the duration of full bridge closures. Staff is optimistic that these methods will allow for travel times to remain predictable for users on CSAH 15 (Shoreline Dr).

Hennepin County has a specialized communications team for its Public Works business line who are responsible for responding to various inquiries during the planning, design, and construction phases of a project. This team will be critical in accommodating the needs of those who

are most impacted by the project (nearby residents and business owners). This effort centralizes correspondence related to the project, provides clarity on who to contact, and delivers a consistent message.

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

**Upload Map**

1529338469187\_2018 RS Map 03 - CSAH 15 (Shoreline Dr) Bridge Replacement Project - Socio Economic Conditions.pdf

## Measure B: Affordable Housing

City	Segment Length (For stand-alone projects, enter population from Regional Economy map) within each City/Township	Segment Length/Total Project Length	Score	Housing Score Multiplied by Segment percent
Orono	3003.0	0.87	20.0	17.328
Wayzata	463.0	0.13	76.0	10.152

## Total Project Length

Total Project Length (as entered in the "Project Information" form) 0.15

## Affordable Housing Scoring

Total Project Length (Miles) or Population	3466.0
Total Housing Score	27.48

## Affordable Housing Scoring

## Measure A: Bridge Condition

Bridge Sufficiency Rating 32.0

**Upload Structure Inventory Report**

1530055563608\_Attachment 12 - 2018 MN Bridge Inspection & Structure Inventory Report.pdf

*Please upload attachment in PDF form.*

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## **Measure B: Load-Posting**

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

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

## Bicycle Facilities

This segment of CSAH 15 (Shoreline Dr) is not identified as a bikeway corridor in the Hennepin County 2040 Bicycle Transportation Plan. However, the Dakota Rail Regional Trail extends parallel to CSAH 15 (Shoreline Dr) and provides bicycle users with a high mobility east/west route through the Lake Minnetonka Area (Attachment 13). Additionally, these accommodations for bicyclists align with the Orono Comprehensive Plan (Attachment 14).

CSAH 15 (Shoreline Dr) currently includes 6' paved shoulders on both sides of the roadway. This width will be increased to 8' as part of the project which will improve the comfort level for non-motorized users. Furthermore, the new bridge deck and roadway approaches will be replaced, providing a smoother surface for users. It should be noted that since the proposed roadway shoulders will not be identified as a formal on-road bicycle facility, no costs were not attributed in the Bicycle and Pedestrian Elements section of the Cost Estimate.

Response:

## Pedestrian Facilities

This segment of CSAH 15 (Shoreline Dr) does not currently include pedestrian accommodations. The Dakota Rail Regional Trail currently serves east/west walking trips throughout the Lake Minnetonka Area. However, there is a nearby pedestrian crossing site located at North Shore / Brown's Bay Marina that includes a marked crosswalk and Rectangular Rapid Flashing Beacons (RRFBs) to improve vehicle yielding behavior. The anticipated bridge design will modify the CSAH 15 (Shoreline Dr) alignment to improve driver sight lines in approach of this pedestrian

crossing that experiences high pedestrian activity during the summer months.

## Transit Services

This segment of CSAH 15 (Shoreline Dr) currently serves Metro Transit routes 645 and 677 that provide service between Mound and Downtown Minneapolis. This project will not enhance these services, however, it's critical that this bridge asset is replaced to avoid further weight restrictions that may lead to prohibiting transit vehicles due to their size.

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

---

## Transit Projects Not Requiring Construction

*If the applicant is completing a transit 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 - Construction Projects

### 1)Layout (30 Percent of Points)

*Layout should include proposed geometrics and existing and proposed right-of-way boundaries.*

**Layout approved by the applicant and all impacted jurisdictions (i.e., cities/counties that the project goes through or agencies that maintain the roadway(s)). A PDF of the layout must be attached along with letters from each jurisdiction to receive points.**

100%

#### Attach Layout

*Please upload attachment in PDF form.*

**Layout completed but not approved by all jurisdictions. A PDF of the layout must be attached to receive points.** Yes

50%

#### Attach Layout

*Please upload attachment in PDF form.*

**Layout has not been started**

0%

Anticipated date or date of completion

06/28/2019

**2)Review of Section 106 Historic Resources (20 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%

There are historical/archeological properties present but determination of no historic properties affected is anticipated.

100%

Historic/archeological property impacted; determination of no adverse effect anticipated

80%

Historic/archeological property impacted; determination of adverse effect anticipated

40%

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

0%

Project is located on an identified historic bridge

**3)Right-of-Way (30 Percent of Points)**

Right-of-way, permanent or temporary easements either not required or all have been acquired

100%

Right-of-way, permanent or temporary easements required, plat, legal descriptions, or official map complete

50%

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

Yes

25%

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

0%

Anticipated date or date of acquisition

12/31/2019

**4)Railroad Involvement (20 Percent of Points)**

No railroad involvement on project or railroad Right-of-Way agreement is executed (include signature page, if applicable)

Yes

100%

**Signature Page**

Please upload attachment in PDF form.

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

50%

Railroad Right-of-Way Agreement required; negotiations have not begun.

0%

Anticipated date or date of executed Agreement

---

### Measure A: Cost Effectiveness

Total Project Cost (entered in Project Cost Form):	\$2,750,000.00
Enter Amount of the Noise Walls:	\$0.00
Total Project Cost subtract the amount of the noise walls:	\$2,750,000.00
Points Awarded in Previous Criteria	
Cost Effectiveness	\$0.00

---

### Other Attachments

<b>File Name</b>	<b>Description</b>	<b>File Size</b>
Attachment 00 - List of Attachments.pdf	List of Attachments	46 KB
Attachment 01 - Project Narrative.pdf	Project Narrative	844 KB
Attachment 02 - Project Location Map.pdf	Project Location Map	222 KB
Attachment 03 - Existing Bridge Deficiencies.pdf	Existing Bridge Deficiencies	862 KB
Attachment 04 - Proposed Typical Section.pdf	Proposed Typical Section	618 KB
Attachment 05 - Proposed Concept.pdf	Proposed Concept	715 KB
Attachment 06 - Hennepin County 2018-2022 Transportation Capital Improvement Program.pdf	Hennepin County 2018-2022 Transportation CIP	730 KB
Attachment 07 - Hennepin County Board Resolution - 2017 Operating & Capital Budgets.pdf	Hennepin County Board Resolution - 2017 Operating and Capital Budgets	620 KB
Attachment 08 - Hennepin County Board Resolution - 2018 Regional Solicitation.pdf	Hennepin County Board Resolution - 2018 Regional Solicitation	1.8 MB
Attachment 09 - Lake Minnetonka Alternate Routes.pdf	Lake Minnetonka Alternate Routes	640 KB
Attachment 10 - 2017 Heavy Commercial Count.pdf	2017 HCAADT Report	633 KB
Attachment 11 - MnDOT 50 Series Map.pdf	MnDOT 50 Series Map	1.1 MB
Attachment 12 - 2018 MN Bridge Inspection & Structure Inventory Report.pdf	2018 MN Bridge Inspection and Structure Inventory Report	658 KB
Attachment 13 - 2040 Hennepin County Bicycle Transportation Plan.pdf	2040 Hennepin County Bicycle Transportation Plan	692 KB
Attachment 14 - Draft 2040 Orono Comprehensive Plan.pdf	Draft 2040 Orono Comprehensive Plan	497 KB
Attachment 15 - City of Orono Support Letter.pdf	City of Orono Support Letter	1.4 MB

# Regional Economy

Bridges Project: CSAH 15 (Shoreline Dr) Bridge Replacement Project | Map ID: 1528295123425

## Results

### WITHIN ONE MI of project:

Postsecondary Students: 0

### Totals by City:

#### Orono

Population: 3003

Employment: 852

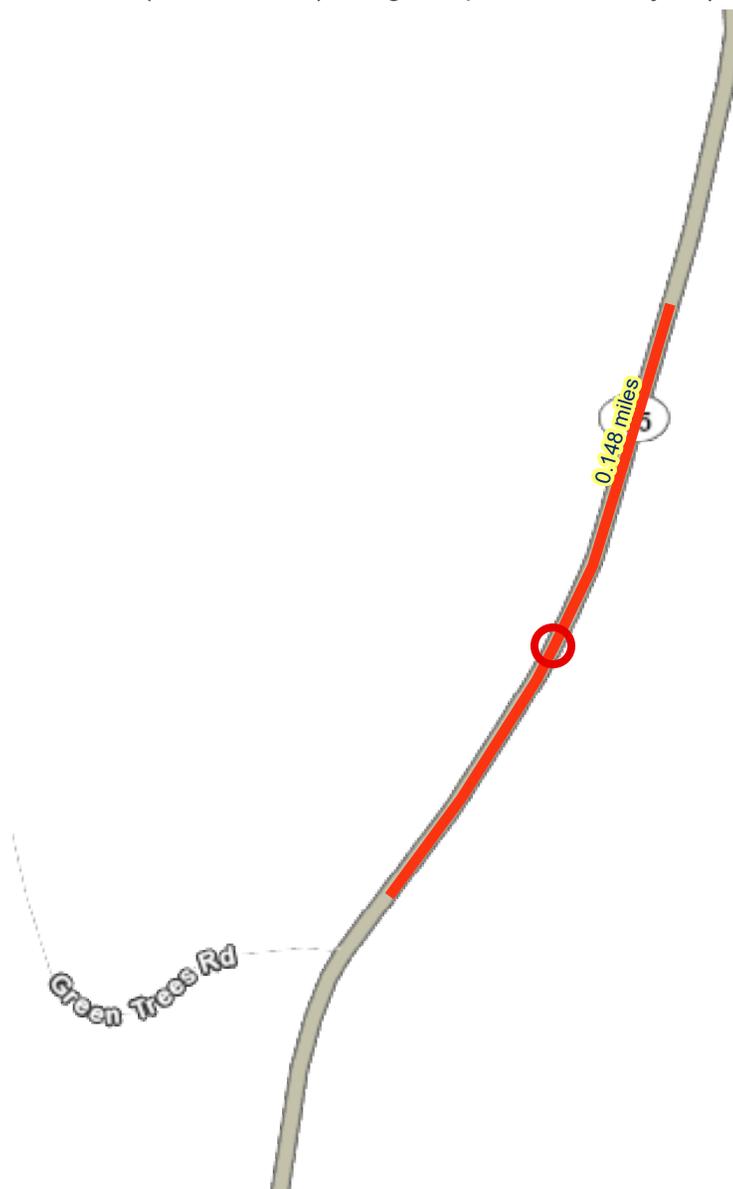
Mfg and Dist Employment: 16

#### Wayzata

Population: 463

Employment: 164

Mfg and Dist Employment: 8



NCompass Technologies

-  Project Points
-  Project
-  Manufacturing/Distribution Centers
-  Job Concentration Centers



Created: 6/6/2018  
LandscapeRSA5



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



# Transit Connections

Bridges Project: CSAH 15 (Shoreline Dr) Bridge Replacement Project | Map ID: 1528295123425

## Results

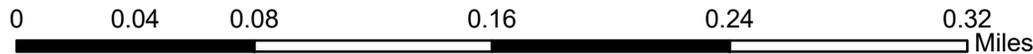
Transit with a Direct Connection to project:  
645 677

*\*indicates Planned Alignments*



NCompass Technologies

-  Project Points
-  Active Stop
-  Project
-  Transit Routes



Created: 6/6/2018  
LandscapeRSA3



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

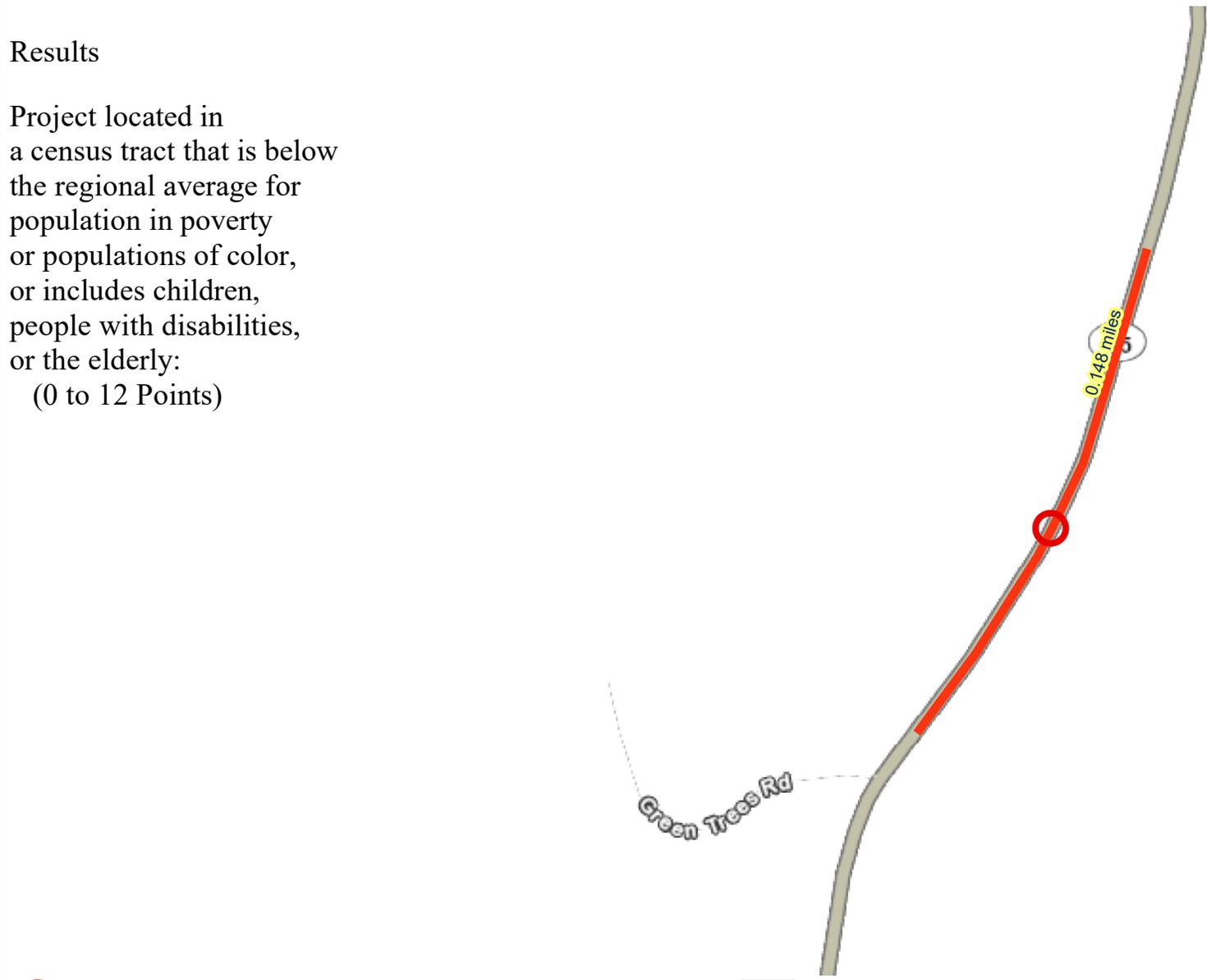


# Socio-Economic Conditions

Bridges Project: CSAH 15 (Shoreline Dr) Bridge Replacement Project | Map ID: 1528295123425

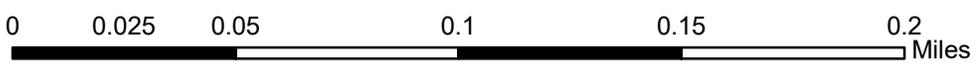
## Results

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:  
(0 to 12 Points)



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

NCompass Technologies



Created: 6/6/2018  
LandscapeRSA2



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## MINNESOTA STRUCTURE INVENTORY REPORT

Bridge ID: 27592 CSAH 15 over BROWNS BAY-TANAGER LK CH

Date: 06/14/2018

+ 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 32.0
County 27 - HENNEPIN	Route Sys/Nbr CSAH 15	Last Inspection Date 07-25-2017
City ORONO	Road Name CSAH 15	Inspection Frequency 12
Township	National Highway System N	Inspector Name HENNEPIN COUNTY
Desc. Loc. 0.9 MI NE OF JCT CSAH 51	Roadway Function MAINLINE	Status B-OPEN (POST REC)
Sect., Twp., Range 11 - 117N - 23W	Roadway Type 2 WAY TRAF	
Latitude 44d 57m 31.94s	Control Section (TH Only)	<b>+ NBI CONDITION RATINGS +</b>
Longitude 93d 33m 32.44s	Ref. Point	Deck 5 % UNSOUND 4
Custodian COUNTY	Date Opened to Traffic 09-01-1979	Superstructure 4
Owner COUNTY	Detour Length 11 mi.	Substructure 5
Inspection By HENNEPIN COUNTY	Lanes 2 Lanes ON Bridge	Channel 7
Year Built 1979	ADT (YEAR) 16,700 (2014)	Culvert N
MN Year Remodeled	HCADT	<b>+ NBI APPRAISAL RATINGS +</b>
FHWA Year Reconstructed	Functional Class. URB/MINOR ART	Structure Evaluation 4
Bridge Plan Location COUNTY		Deck Geometry 4
Potential ABC N.A.	<b>+ RDWY DIMENSIONS +</b>	Underclearances N
	If Divided NB-EB SB-WE	Waterway Adequacy 8
	Roadway Width 36.0 ft	Approach Alignment 8
	Vertical Clearance	<b>+ SAFETY FEATURES +</b>
<b>+ STRUCTURE +</b>	Max. Vert. Clear.	Bridge Railing 1-MEETS STANDARDS
Service On HIGHWAY	Horizontal Clear. 36.0 ft	GR Transition 1-MEETS STANDARDS
Service Under STREAM	Lateral Clr. - Lt/Rt	Appr. Guardrail 1-MEETS STANDARDS
Main Span Type PRESTR QUAD TEE	Appr. Surface Width 36.0 ft	GR Termini 1-MEETS STANDARDS
Main Span Detail	Bridge Roadway Width 36.0 ft	
Appr. Span Type	Median Width on Bridge	<b>+ IN DEPTH INSP. +</b>
Appr. Span Detail		Frac. Critical N
Skew 5R	<b>+ MISC. BRIDGE DATA +</b>	Underwater N
Culvert Type	Structure Flared NO	Pinned Asbly. N
Barrel Length	Parallel Structure NONE	
Number of Spans	Field Conn. ID	<b>+ WATERWAY +</b>
MAIN: 3 APPR: 0 TOTAL: 3	Cantilever ID	Drainage Area
Main Span Length 40.0 ft	Foundations	Waterway Opening 300 sq ft
Structure Length 92.8 ft	Abut. CONC - PILE BENT	Navigation Control NO PRMT REQD
Deck Width 39.6 ft	Pier CONC - PILE BENT	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 1979	<b>+ PAINT +</b>	MN Scour Code I-LOW RISK
Wear Course/Fill Depth 0.17 ft	Year Painted Pct. Unsound	Scour Evaluation Year 1991
Deck Membrane NONE	Painted Area	<b>+ CAPACITY RATINGS +</b>
Deck Rebars NONE	Primer Type	Design Load HS 20
Deck Rebars Install Year	Finish Type	Operating Rating HS 16.60
Structure Area 3,675 sq ft	<b>+ BRIDGE SIGNS +</b>	Inventory Rating HS 10.00
Roadway Area 3,337 sq ft	Posted Load VEHICLE & SEMI	Posting VEH: 24 SEMI: 40 DBL: 40
Sidewalk Width - L/R 0.8 ft 0.8 ft	Traffic NOT REQUIRED	Rating Date 05-17-2018
Curb Height - L/R	Horizontal OBJECT MARKERS	Overweight Permit Codes
Rail Codes - L/R 22 22	Vertical NOT APPLICABLE	A: 2 B: 3 C: X

06/14/2018

**MINNESOTA BRIDGE INSPECTION REPORT**

Inspected by: HENNEPIN COUNTY

**BRIDGE 27592 CSAH 15 OVER BROWNS BAY-TANAGER LK CH****INSP. DATE: 07-25-2017**

County: HENNEPIN

Location: 0.9 MI NE OF JCT CSAH 51

Length: 92.8 ft

City: ORONO

Route: CSAH 15 Ref. Pt.: 011+00.710

Deck Width: 39.6 ft

Township:

Control Section: Maint. Area:

Rdwy. Area / Pct. Unsnd: 3,337 sq ft 5 %

Section: 11 Township: 117N Range: 23W

Local Agency Bridge Nbr:

Paint Area / Pct. Unsnd:

Span Type: PRESTR QUAD TEE

Culvert : N/A

NBI Deck: 4 Super: 4 Sub: 5 Chan: 7 Culv: N

Open, Posted, Closed: POSTING REC Postings: 24 - 40 - 40

MN Scour Code: I-LOW RISK

Def. Stat: S.D. Suff. Rate: 32.0

Appraisal Ratings - Approach: 8 Waterway: 8

Required Bridge Signs - Load Posting: VEHICLE &amp; 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	07-25-2017	1 EA	1	0	0	0
		07-19-2016	1 EA	1	0	0	0
Notes: 800. No critical structural deficiencies or serious safety hazards are present on this structure.							
15	PRESTRESSED CONCRETE TOP FLANGE	07-25-2017	3,675 SF	3,517	75	75	8
		07-19-2016	3,675 SF	3,524	75	76	0
Notes: 15. '16-minor to mod cracks throughout. Mod to large spalls @ T-joints. Areas of delam, minor scaling & map cracks w/ efflor. '17-deteriorating joints between T's have areas of heavy rust and efflor, some spalls >3" deep.							
510	WEARING SURFACE	07-25-2017	3,337 SF	3,282	14	16	25
		07-19-2016	3,337 SF	3,131	195	11	0
Notes: 510. Trans and long cracks in concrete surface, some sealed, most seals deteriorated. Long cracks w/ some large spalls @ top surface @ each quad-T joint-most filled w/ bit sealer, but sealer failing in many areas. '13-large(2' x 1') spall in SBL @ S end. '14-spall in SBL @ S end has been patched w/ bit. Sealer failing in many areas. '15-New sealer in place, some spalled/patched areas are large in size, patch in SBL at S end is failing and the remaining conc pieces are settling '16-11 SF of repaired spall. '17-spalls & delams @ ends of bridge @ CL. Some areas have sealant deterioration & patches-filled w/ bit.							
810	CONC WEAR SURF-CRACKING SEALING	07-25-2017	1,948 LF	1,588	211	149	0
		07-19-2016	1,948 LF	1,948	0	0	0
Notes: 810. Long cracks @ T joints. Some transverse cracks. '11-cracks up to 1" wide and less than 5' in density. '13-unsealed cracks of mod size, density <5'. '14-no change. '15-Cracks sealed. '16-no change. '17-some crack sealant has deteriorated or partially deteriorated. Large crack/spall @ N poured joint in SBL.							
301	POURED SEAL JOINT	07-25-2017	80 LF	78	0	0	2
		07-19-2016	80 LF	61	19	0	0
Notes: 301. Spalls @ intersection of joint and quad-T joint. Joint material missing @ quad-T joints. '13-qty changed. Joints are over piers. Some material only partially adhered @ both. '14-few areas of minor deterioration @ both joints. '15-S joint is severely spalled near centerline. '16-no change. '17-large spall in SBL @ N joint & CL.							
331	REINFORCED CONC BRIDGE RAILING	07-25-2017	187 LF	0	187	0	0
		07-19-2016	187 LF	0	187	0	0
Notes: 331. Numerous vert cracks w/ efflor. Face of west railbase pitted. Form-tie popouts on outside of both railbases. Slight misalignment @ SW corner. Large spall in top of SW railing. Cork in joint is deteriorated. '13-W railing has areas of scale. '14-no change. '15-Misalignment @ SW corner is 3/4". '16-misalignment in NW corner matches SW. Map cracking along both-cracks sealed. Minor scaling on E. W rail is scaled for the majority of its length. '17-most vet cracks are mod in size & sealant has mostly deter. Misalignment in NW is 1-1/8" @ top of rail.							
822	BITUMINOUS APPROACH ROADWAY	07-25-2017	2 EA	2	0	0	0
		07-19-2016	2 EA	0	2	0	0
Notes: 822. Low spot in gutter @ SE driveway. Settled and spalled @ both ends. Badly spalled in NE. '13- 8" spall in SW. Diag crack in SW. '14-spall in SW is patched. N is slightly settled & patched @ deck joint. S has a 1' x 6" spall in NBL near CL. '15-Majority of N joint is spalled in NBL. '16-both apps repaired w/ bit patching. Spall/pothole in NE is 1 SF. Spall @ CL in S has a temp bit repair patch. '17-bit app roadways have new O/L.							
225	STEEL OR CIP PILING	07-25-2017	12 EA	0	4	8	0
		07-19-2016	12 EA	0	4	8	0
Notes: 225. 16" piles of 1/4" thick steel. Pilings are rusted. Paint has peeled, minor section loss on few piles. '13-section loss on some piles. '14-section loss on 1, 3, 4 & 5 from W @ N pier; 1, 2 & 3 from W @ S. '15-no change. '16-visual observation that the section loss is <5%. '17-no change.							

515	STEEL PROTECTIVE COATING	07-25-2017	382 SF	0	222	60	100
		07-19-2016	382 SF	0	244	50	88
	Notes: 515. '16-remaining paint is faded. Paint chipped & peeled in many areas. Areas of complete coating failure and corrosion on piles. '17-few more areas of paint peeling, failure.						
215	REINFORCED CONCRETE ABUTMENT	07-25-2017	97 LF	42	38	17	0
		07-19-2016	97 LF	42	38	17	0
	Notes: 215. Vertical cracks w/ efflor, rust stains @ both abuts. Leakage @ both abuts. NORTH-3 SF delam. '16-11 vert cracks, 6 w/ rust stain. SOUTH-spall on back in SW corner. '13-no change. '14-same. '15-same. '16-6 vert cracks w/ rust stain. '17-no change.						
	Wingwall notes: Vert cracks in wingwalls. NW wall spalled @ wall/abut joint. Form-tie hole popouts on walls. Spall @ SW corner. '13, '14, '15, '16, '17-no change.						
234	REINFORCED CONCRETE PIER CAP	07-25-2017	82 LF	76	4	2	0
		07-19-2016	82 LF	76	4	2	0
	Notes: 234. SOUTH-2 vert cracks. Water leakage and rust stain on the bent cap. '13-now 4 vert cracks. '14-5 minor - mod full height cracks w/ efflor. Minor cracks on S side are full height w/ efflor. NORTH-diagonal and vert cracks w/ efflor @ W end. Vert crack on S side over 3rd pile from W. '13-4 vert cracks on S side. '15-Heavy effl on N face @ W end @ the diag crack. '16-some paint peeling on both. '17-no change.						
109	PRESTRESSED CONC GIRDER OR BEAM	07-25-2017	2,971 LF	2,396	300	190	85
		07-19-2016	2,971 LF	2,422	298	184	67
	Notes: 109. Many quad-T legs cracked, some w/ efflor @ N and S pier cap. 1 quad-T leg cracked @ N abut. 5 legs cracked @ S abut. Some long cracks w/ rust in quad-T legs in center span. 2 west T's have adjoining webs long cracked on each quad for full length in center span. West fascia stringer is chipped in several areas @ bottom of stem in center span. Concrete is cracked w/ efflor over piers on both sides. Crumbled and punky concrete w/ spalled areas @ a few center span bearings-monitor. Stringer has been scraped above channel. Spall @ each end of SW fascia T @ bearing. Joints mostly stained and many spalled. Cracks, spalls and delams on legs of some T's, especially on W side. Full length, 6"-12" deep spall @ joint of E leg of 4th T from W in S span. Strands broke @ leg of west T. All exp reinforcing strands rusty w/ section loss. '13-no change. '14-4th & 5th tees from W have exposed rebar for +10' w/ section loss. 5th tee from W has 1/5 LF spall w/ rebar exp in leg @ S abut; 2nd tee from W leg has 1 LF spall w/ rebar exp @ P1. '15-heavy efflor @ many jts. All jts in span 1 have spalls, 2nd jt from east in main span has a large spall, 1st tee from the west in the S span is cracked in the leg for entire length, S span centerline jt is spalled for entire length. '16-all beam ends have up to 1' of cracks, some w/ spalls & exp rebar. All beams near joints have cracks, spalls, delams & rust stains. Some have extensive decay, heavy build up of efflor. Minor cracks w/ leaching. Minor cracking w/ efflor on sides of legs. '17-west leg of 2nd T from W has a broken strand in spalled area @ bottom. Operations removed strands hanging over channel.						
310	ELASTOMERIC EXPANSION BEARING	07-25-2017	2 EA	2	0	0	0
		07-19-2016	2 EA	2	0	0	0
	Notes: 310. Continuous, full length bearing pads @ each abut. '13-no change. '14, '15, '16, '17-same.						
313	FIXED BEARING	07-25-2017	4 EA	4	0	0	0
		07-19-2016	4 EA	4	0	0	0
	Notes: 313. 2 continuous, full length bearing pads @ each pier. '14-no change. '15, '16, '17-same.						
855	SECONDARY MEMBERS (SUPER)	07-25-2017	1 EA	0	1	0	0
		07-19-2016	1 EA	0	1	0	0
	Notes: 855. Concrete end diaphragms are spalled @ both abuts. '13-no change. '14, '15, '16-same. '17-heavy efflor from diaphragm crack over S side of S cap @ W end.						
881	STEEL SECTION LOSS	07-25-2017	1 EA	0	1	0	0
		07-19-2016	1 EA	0	1	0	0
	Notes: 881. '16-section loss of small areas of piling is visually estimated <5%. '17-no change.						
883	CONCRETE SHEAR CRACKING	07-25-2017	1 EA	0	1	0	0
		07-19-2016	1 EA	0	1	0	0
	Notes: 883. '16-minor, 4' long crack w/ mod efflor in N face of N pier on W end. '17- no change.						
890	LOAD PST OR VERTICAL CLR SIGNING	07-25-2017	1 EA	1	0	0	0
	Notes: 890. '17-load posting signs installed in August. All in place and in new condition.						
891	OTHER BRIDGE SIGNING	07-25-2017	1 EA	1	0	0	0
		07-19-2016	1 EA	1	0	0	0
	Notes: 891. Horiz clearance marker X4-4 @ approach lanes only. No Parking sign @ NW, NE & SW corners. 35 MPH sign @ NE corner. Lake information signs on both fascias. X4-5 @ end of guardrail in NE. No Fishing Or Standing On Bridge in NW & SE. '15, '16, '17-no change.						

# Attachment 12 - 2018 Bridge Inspection and Structure Inventory Report

892	SLOPES & SLOPE PROTECTION	07-25-2017	1 EA	0	0	0	1
		07-19-2016	1 EA	0	0	0	1
Notes: 892. Grouted riprap is cracked @ both abuts. Slope paving pulled away from N and S abuts, 3"-4" horiz and up to 7" vert. Large crack w/ up to 10" shift (@ S slope) near toe of both slopes. Undermined and sand @ toe. Erosion behind NE wingwall. Grouted rip rap @ N slope has slumped 3" horiz and 1" vert away from abut. Erosion behind NE wingwall. '13-N slope has slumped 2"-3" away from abut. '14-SW corner broken off & undermined. N has sunk 1' near top under CL. '15-large cracks @ undermining @ N abut slope. '16-large cracks @ S. New granite rip rap @ channel approaches. '17-no change.							
893	GUARDRAIL	07-25-2017	1 EA	1	0	0	0
		07-19-2016	1 EA	1	0	0	0
Notes: 893. Rail @ SE corner turns for driveway. Rail turned down @ all other corners. Loose bolt in SW. '13-no change. '14-rail turned down @ N ends. SW is continuous from intersection w/ crashworthy end treatment. '15-Small tree has fallen on SW Rail, no damage visible. '16-tree in SW has been removed w/ no visible damage to rail. '17-north ends now have crashworthy treatments.							
894	DECK & APPROACH DRAINAGE	07-25-2017	1 EA	1	0	0	0
		07-19-2016	1 EA	1	0	0	0
Notes: 894. CB in SW approach. '14-water standing in NW corner of deck. '15, '16, '17-no change.							
899	MISCELLANEOUS ITEMS	07-25-2017	1 EA	0	1	0	0
		07-19-2016	1 EA	1	0	0	0
Notes: 899. Four 3.5" dia pipes located in 2nd bay from West. 4 hanger assemblies removed @ N span. Conc ret wall on W side of both abuts. Spalls in ret wall joint by NW abut. Drain outlet is located by SW wall. Several vert cracks w/ efflor in both ret wall railings. Underground telephone cable buried @ W side. B624 curb in NE. '15-no change. '17-several utility support brackets unattached on W side of N span.							
900	PROTECTED SPECIES	07-25-2017	1 EA	0	0	1	0
		07-19-2016	1 EA	0	1	0	0
Notes: 900. 16-swallow nests present. 17-same.							

General Bridge 27592 CSAH 15/Browns Bay-Tanager Lake 7/24/17. PTH, WJM and TSM. Inspected using Tony B's boat.

Notes: Bridge scheduled for replacement in 2020, CP 1634.

### Recommended Repairs:

109. Monitor cracked and deteriorated concrete quad-T beams. Clean, lightly blast and coat exposed prestressing strands on 2 West T's.

225. Clean and paint piling.

510. Fill spalled areas of deck w/ bit patch.

892. Repair slumped slope paving.

899. Notify utility company of missing hanger assemblies in N span.

05/04/2016 Update report created and approved by LH, MnDOT Bridge Office. Report created to correct sync issue.

Deck: [4] '16-large cracks & spalls filled w/ bit at T-joints in wear surface. Spalls, delams at T-joints in under deck.

Appr Guardrail [1] '17-crashworthy ends added to rails at north approaches.

Terminal :

Superstructure: [4] '16-beams cracked and spalled at joints. Prestressed strands cut on west T and exposed on several others. '17-Strand in bottom of 2nd T from west is severed.

Substructure: [5] Cracking of pier caps. Corrosion, section loss of piles.

# CSAH 15 (Shoreline Dr) Bridge Replacement Project

## List of Attachments

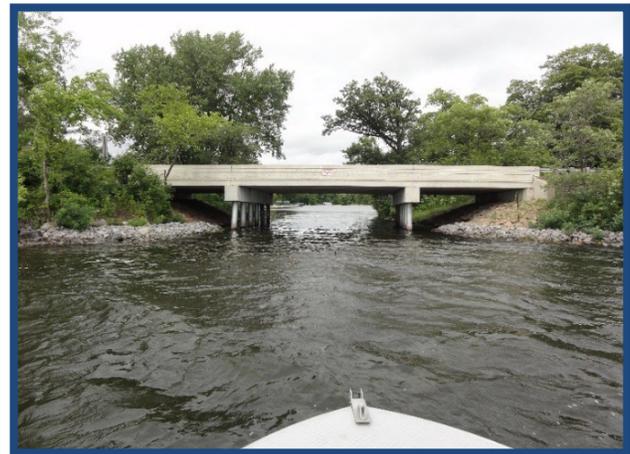
1. Project Narrative
2. Project Location Map
3. Existing Bridge Deficiencies
4. Proposed Typical Section
5. Proposed Concept
6. Hennepin County 2018-2022 Transportation Capital Improvement Program
7. Hennepin County Board Resolution – 2017 Operating and Capital Budgets
8. Hennepin County Board Resolution – 2018 Regional Solicitation
9. Lake Minnetonka Alternate Routes
10. 2017 Heavy Commercial Count
11. MnDOT 50 Series Map
12. 2018 MN Bridge Inspection and Structure Inventory Report
13. 2040 Hennepin County Bicycle Transportation Plan
14. Draft 2040 Orono Comprehensive Plan
15. City of Orono Support Letter



**Project Location**



**Existing Conditions**



**Project Overview**

<b>Project Name:</b>	CSAH 15 (Shoreline Drive) Bridge Replacement Project
<b>Roadway:</b>	CSAH 15 (Shoreline Drive)
<b>Project Termini:</b>	At Tanager Channel / Browns Bay
<b>Project Location:</b>	City of Orono

**Solicitation Information**

<b>Applicant:</b>	Hennepin County
<b>Funding Requested:</b>	\$2,200,000
<b>Total Project Cost:</b>	\$2,750,000

**Project Information**

The proposed project will replace the existing Tanager Bridge (#27592) to extend its service life. Improvements will include a new bridge structure and modifications to the roadway approaches that are impacted by the project.

**Project Benefits**

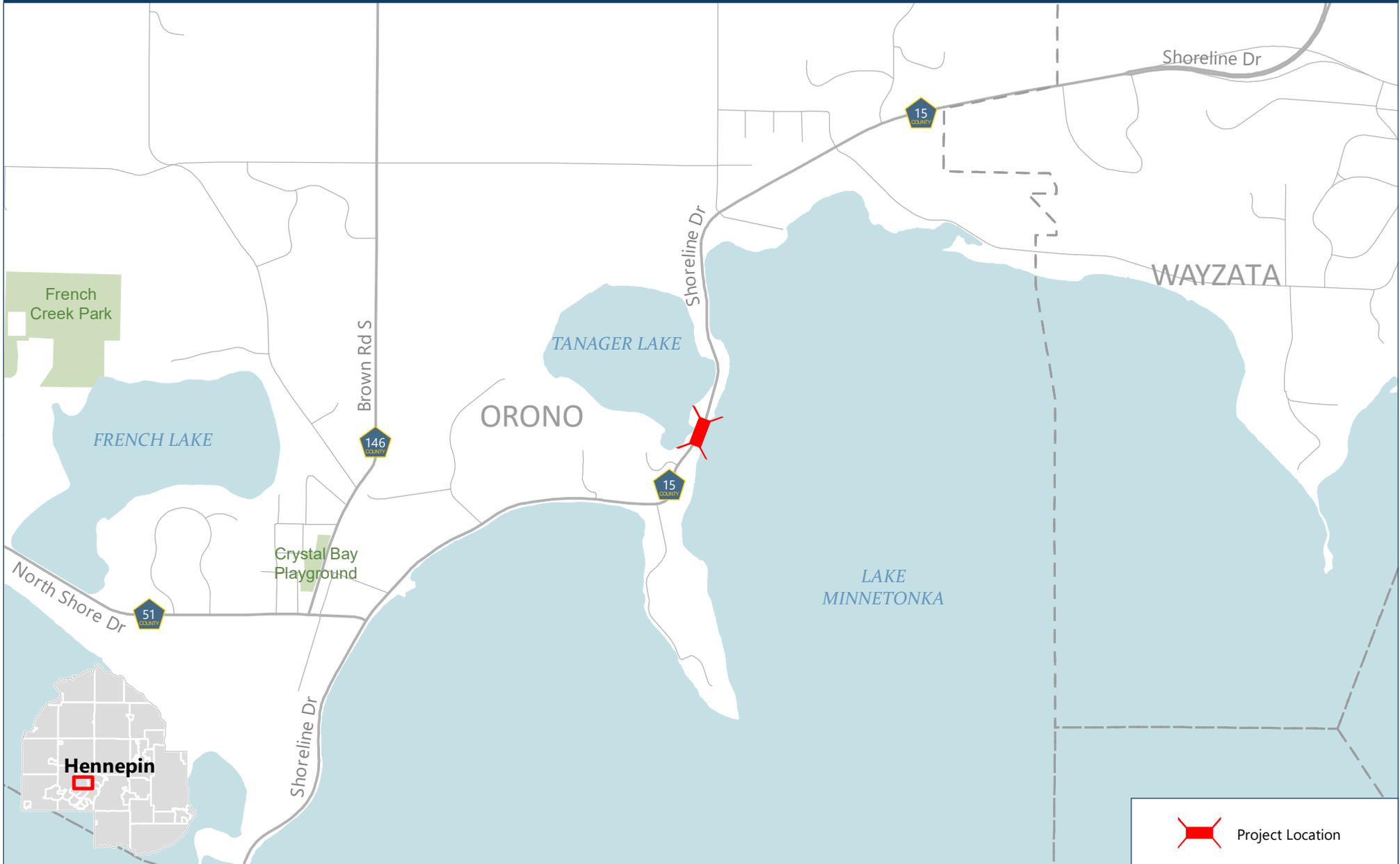
The existing Tanager Bridge (built in 1979) has reached the end of useful life and warrants replacement. Routine maintenance activities (such as sealing, coating, and minor patching) are no longer effective in preserving this critical bridge asset. Various bridge elements (including pile bents and beams) are exhibiting deterioration.

The new bridge will remove current weight restrictions and accommodate all types of users (especially freight and emergency vehicles). The Tanager Bridge is a critical east/west route through the Lake Minnetonka Area, therefore, it's critical to maintain this asset for the travelling public.

# 2018 Regional Solicitation | Project Location Map

HENNEPIN COUNTY  
MINNESOTA

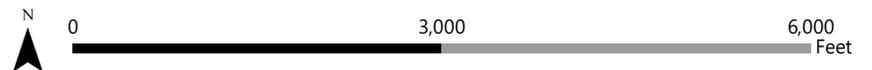
Attachment 2 | CSAH 15 (Shoreline Dr) Bridge Replacement Project



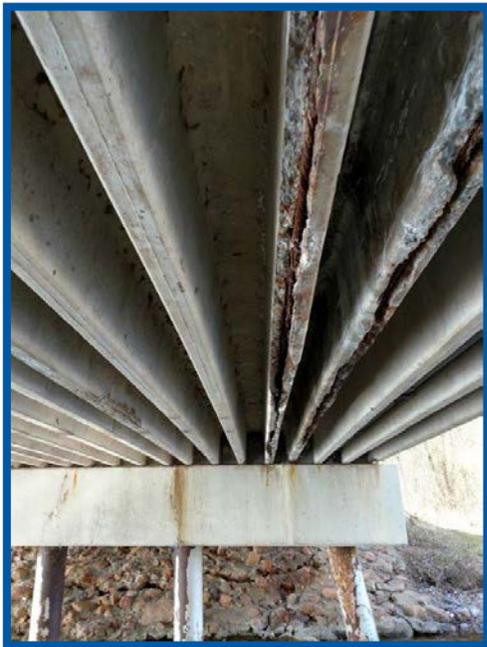
 Project Location

**Disclaimer:** This map (i) is furnished "AS IS" with no representation as to completeness or accuracy; (ii) is furnished with no warranty of any kind; and (iii) is not suitable for legal, engineering or surveying purposes. Hennepin County shall not be liable for any damage, injury or loss resulting from this map.

Publication date: 6/7/2018



Attachment 3 - Existing Bridge Deficiencies



# CSAH 15 (Shoreline Dr) Bridge Replacement Project



# Attachment 5 - Proposed Concept



H:\Projects\11000\11099\CAD\_BIM\Graphics\11099\_gr01\_Shoreline.dgn



## Hennepin County Improvements

CSAH 15 (Shoreline Drive) from Green Trees Road to 150' past bridge  
Orono, MN

Figure 1

# Attachment 6 - Hennepin County 2018-2022 Transportation CIP

**Project Name:** 2163400 CSAH 15 - Replace Bridge #27592 at Tanager Channel  
**Major Program:** Public Works  
**Department:** Transportation Roads & Bridges

**Funding Start:** 2017  
**Funding Completion:** 2020

**Summary:**  
 Replace existing Bridge #27592 along Shoreline Drive (CSAH 15) over Browns Bay and Tanager Channel in the City of Orono.

**Purpose & Description:**  
 The existing bridge, built in 1979, is classified as structurally deficient based on its condition. The existing bridge design consists of pre-stressed quad-T beams that are in relatively poor condition. The pile bents have exposed piling which are deteriorating. Furthermore, pre-tensioning strands at the bottom of the beams are exposed and exhibiting section loss.

The new bridge structure will be constructed to improve sight lines that are currently obstructed for motorists. Additional clearance for boat traffic will be provided underneath the bridge structure. Staff anticipates that the project will include staged construction (through accelerated bridge construction methods) which will allow for traffic to pass over it during construction activities. The detour route for this bridge is 11 miles, which would result in significant delays for motorists; especially for emergency and freight vehicles.



REVENUES	Budget to Date	12/31/17 Act & Enc	Balance	2018 Budget	2019 Estimate	2020 Estimate	2021 Estimate	2022 Estimate	Beyond 2022	Total
Mn/DOT State Aid - Regular	100,000	-	100,000	350,000	-	2,900,000	-	-	-	3,350,000
<b>Total</b>	<b>100,000</b>	-	<b>100,000</b>	<b>350,000</b>	-	<b>2,900,000</b>	-	-	-	<b>3,350,000</b>
EXPENDITURES	Budget to Date	12/31/17 Act & Enc	Balance	2018 Budget	2019 Estimate	2020 Estimate	2021 Estimate	2022 Estimate	Beyond 2022	Total
Land	50,000	-	50,000	25,000	-	-	-	-	-	75,000
Construction	-	-	-	-	-	2,900,000	-	-	-	2,900,000
Consulting	50,000	-	50,000	325,000	-	-	-	-	-	375,000
Equipment	-	-	-	-	-	-	-	-	-	-
Furnishings	-	-	-	-	-	-	-	-	-	-
Other Costs	-	-	-	-	-	-	-	-	-	-
Contingency	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>100,000</b>	-	<b>100,000</b>	<b>350,000</b>	-	<b>2,900,000</b>	-	-	-	<b>3,350,000</b>

## Attachment 6 - Hennepin County 2018-2022 Transportation CIP

<b>Project Name:</b> 2163400 CSAH 15 - Replace Bridge #27592 at Tanager Channel				<b>Funding Start:</b> 2017				
<b>Major Program:</b> Public Works				<b>Funding Completion:</b> 2020				
<b>Department:</b> Transportation Roads & Bridges								
Current Year's CIP Process Summary	Budget to Date	2018 Budget	2019 Estimate	2020 Estimate	2021 Estimate	2022 Estimate	Beyond 2022	Total
Department Requested	100,000	350,000	-	2,900,000	-	-	-	3,350,000
Administrator Proposed	100,000	350,000	-	2,900,000	-	-	-	3,350,000
CBTF Recommended	100,000	350,000	-	2,900,000	-	-	-	3,350,000
Board Approved Final	100,000	350,000	-	2,900,000	-	-	-	3,350,000
<b>Scheduling Milestones (major phases only):</b>				<b>Board Resolutions / Supplemental Information:</b>				
Scoping: 2016-2018								
Design: 2019								
Procurement: Q1 2020								
Construction: 2020								
Completion: 2020								
<b>Project's Effect on Annual Operating Budget:</b>								
No impact to department staff or annual operating costs are anticipated by this project.								
Annual Impact for Requesting Department:				0				
Annual Impact for all other Depts:				0				
<b>Total</b>				<b>0</b>				
<b>Changes from Prior CIP:</b>								
<ul style="list-style-type: none"> <li>• \$25,000 right of way cost increase reflects current experience.</li> <li>• \$325,000 consultant cost increase reflects decision to have consultant do design.</li> <li>• \$400,000 construction cost increase based upon concept update.</li> <li>• Increased costs financed with State Aid.</li> </ul>								
Last Year's CIP Process Summary	Budget to Date	2017	2018	2019	2020	2021	Beyond	Total
Department Requested	-	100,000	-	-	2,500,000	-	-	2,600,000
Administrator Proposed	-	100,000	-	-	2,500,000	-	-	2,600,000
CBTF Recommended	-	100,000	-	-	2,500,000	-	-	2,600,000
Board Approved Final	-	100,000	-	-	2,500,000	-	-	2,600,000

# Attachment 7 - Hennepin County Board Resolution - 2017 Operating and Capital Budgets

Hennepin County, Minnesota

RESOLUTION NO. 16-0338R1

The following Resolution was offered by

WHEREAS, the Budget and Capital Investment Committee of the Hennepin County Board of Commissioners has conducted a series of public meetings for the purpose of hearing public testimony and reviewing the County Administrator's proposed 2017 budget for the departments of the county;

BE IT RESOLVED, that the Hennepin County Board of Commissioners adopt a final net tax levy of \$759,408,857 and budget of \$1,937,726,503 for 2017; and

BE IT FURTHER RESOLVED, that the 2017 Operating and Capital Budgets as proposed by the County Administrator on September 13, 2016 be amended as follows:

1. That the Human Services and Public Health Department's 2017 revenue and expenditure budget be increased by \$687,000, and the 2017 staff complement be increased by 1.0 FTE for the Nurse-Family Partnership Program;
2. That the Human Services and Public Health Department's 2017 revenue and expenditure budget be increased by \$88,000 and staff complement be increased by 1.0 grant FTE for the Pre-Exposure Prophylaxis project;
3. That the Human Services and Public Health Department's 2017 revenue and expenditure budget be increased by \$35,000 for the Health Care for the Homeless medical respite care program;
4. That the Human Services and Public Health Department's 2017 revenue and expenditure budget be increased by \$519,000; and the 2017 staffing complement be increased by 1.0 grant FTE for the purchase of medical and support services for persons living with HIV/AIDS.
5. That the Department of Community Corrections and Rehabilitation 2017 revenue and expenditure budget be increased by \$60,379 to account for the grant funding from the US Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention to perform a research study on trauma and justice involved youth;
6. That the Human Resources Department 2017 revenue and expenditure budget be increased by \$1,375,000 for Hennepin Workforce Career Connections programming; that the Department of Community Corrections and Rehabilitation's 2017 revenue and expenditure budget be increased by \$200,000 for contextualized GED and construction training services provided by Summit Academy OIC through the amended agreement A154775; and that the increase be funded by a Minnesota Department of Employment and Economic Development's career pathways using the Hennepin Career Connections Framework grant appropriation of \$200,000; and that the Department of Community Corrections and Rehabilitation's 2017 revenue and expenditure budget be increased by \$115,800 to develop employer-recognized certificates and training programs to prepare clients for employment along with earning a wage during the training program;
7. That the 2017 Public Works revenue and expenditure budget be increased by \$400,000 to account for additional state aid for transportation maintenance funding from the Minnesota Department of Transportation;
8. That the Hennepin Justice Integration Program 2017 revenue and expenditure budget be increased by \$150,000 to create a unique juvenile identifier to share appropriate information between Human Services and Public Safety Justice Partners;

Attachment 7 - Hennepin County Board Resolution - 2017 Operating and Capital Budgets

9. That the Hennepin County Sheriff's Office 2017 revenue and expenditure budget be increased by \$100,000 to pay for personal services associated with the Presidential Inauguration detail;
10. That the Hennepin County Sheriff's Office 2017 revenue and expenditure budget be increased by \$90,046 to pay for training, software upgrades, and subcontracting needed to improve forensic science services;
11. That the 2017 Capital Budget be decreased by \$6,671,000 in bond funding, due to a \$4,000,000 deferral in project 1002293 HCMC Surgery Center Expansion & Relocation from 2017 to 2018 and a \$2,671,000 deferral in project 1003286 Southdale Courts Relocation from 2017 to 2018 within the 2017-2021 Capital Improvement Program;
12. That the reconstruction of CSAH 61 / Flying Cloud Drive (CP 2090400), for the 2017 Capital Budget be increased by \$6,783,000 and the 2017-2021 CIP and total project budget be decreased by a net of \$2,150,000; for the reconstruction of CSAH 81 / Bottineau Blvd (CP 2020300), that the 2017 Capital Budget be increased by \$1,893,359 and the 2017-2021 CIP and total project budget be decreased by a net of \$106,641; for the reconstruction of CSAH 102 / Douglas Drive (CP 2100700), that the 2017 Capital Budget be increased by \$1,673,086 and the 2017-2021 CIP and total project budget be increased by the same amount; and for the reconstruction of CSAH 112 (CP 2091101), that the 2017 Capital Budget be increased by \$3,000,000 and the total project budget be increased by a net of \$688,348;
13. That Hennepin County has reviewed the pertinent data on bridges requiring replacement, rehabilitation, or removal, and has identified and prioritized these deficient bridges that require upgrades and that Hennepin County intends to upgrade the bridges as soon as funds are available; that CP 2167600 replacing deficient bridges numbered 27007 and 27008 running northbound and southbound across Lowry Avenue and CP 2167500 replacing bridge number 27006 crossing Victory Memorial Parkway be added as provisional projects within the 2017-2021 Capital Improvement Program; and further, that the Prioritized Bridge Improvement List be hereby approved, and Hennepin County hereby requests financial assistance from the Minnesota Department of Transportation with eligible approach grading and engineering costs on bridges as provided by law;

Project Number and Name	Bridge Number	Year Built	Avg. Daily Traffic	Sufficiency Rating	Estimated Construction Cost	Proposed Construction Year
2111500 CSAH 146 (Brown Road): Replace Bridge over Long Lake Creek, south of Fox St., in Orono	90622	1921	1,250	48.9	\$1,390,000	2017
2040800 CR 202 (Elm Creek Road): Replace Bridge over Elm Creek within the Elm Creek Park Reserve in Dayton	8081	1973	580	20.5	\$2,534,000	2018
2163400 CSAH 15 (Shoreline Drive): Replace bridge over Browns Bay & Tanager Channel in Orono	27592	1979	19,700	41.5	\$2,500,000	2020
2167500 CSAH 81 (W Broadway Avenue): Replace bridge at Victory Memorial Parkway in Robbinsdale	27006	1964	3,550	68.7	\$1,500,000	2021
2167600 CSAH 81 (W Broadway Avenue): Replace northbound and southbound bridges over Lowry Avenue in Robbinsdale	27007 27008	1964	14,300	44.2	\$13,500,000	2021

Attachment 7 - Hennepin County Board Resolution - 2017 Operating and Capital Budgets

2163500 CSAH 19 (Shadywood Road): Rehabilitate bridge over Narrows Channel of Lake Minnetonka, on the border between the cities of Orono and Tonka Bay	27516	1958	5,800	76.7	\$2,500,000	2021
CSAH 158 (Vernon Avenue): Replace bridge over Canadian Pacific Railroad in Edina	4510	1927	20,400	26.0	\$2,500,000	Post 2021
CSAH 51 (North Shore Drive): Replace bridge over Hendrickson Channel in Orono	7258	1959	4,550	38.4	\$2,000,000	Post 2021
CSAH 152 (Washington Avenue): Replace Bassett Creek Tunnel culvert in Minneapolis	91333	1923	9,700	39.0	\$1,500,000	Post 2021
CSAH 66 (Golden Valley Road): Replace Bassett Creek culvert in Golden Valley	90605	1953	9,400	40.3	\$1,300,000	Post 2021
CSAH 4 (Eden Prairie Road): Replace bridge over Twin Cities and Western Railroad in Eden Prairie	27502	1960	14,800	55.9	\$1,800,000	Post 2021
CSAH 51 (North Shore Drive): Replace bridge over Noerenberg Channel in Orono	7194	1961	4,600	60.6	\$2,000,000	Post 2021
CSAH 10: Replace bridge over Rush Creek in Corcoran	90462	1921	2,700	70.3	\$750,000	Post 2021

14. That the 2017 Capital Budget be decreased by \$3,340,000 for capital project 2961701 - the reconstruction of CSAH 24 from CSAH 201 to 0.4 miles east;
15. That the project budget for CP 2155600, TH 252 Improvements from I-694 to TH 610, be increased by \$100,000 in state aid to support planning and concept development of safety improvements, including necessary access modifications, along the Trunk Highway 252 corridor by Brooklyn Center, Brooklyn Park, the Minnesota Department of Transportation and Metro Transit;
16. That the Facility Services 2017 revenue and expenditure budget be decreased by \$243,048 to reflect the reduction in costs due to the vacating of staff and closure of Century Plaza and that the 2017 Hennepin County contingency budget be increased by \$243,048;
17. That the 2017 Hennepin County Emergency Management revenue and expenditure budget be increased by \$120,000 to purchase additional equipment, perform maintenance updates along with software upgrades to the Outdoor Warning Siren System, and the 2017 Contingency expenditure budget and property tax requirement be decreased by \$120,000;
18. That the Hennepin County Attorney's Office 2017 revenue and expenditure budget be increased by \$120,000 and 2.0 FTEs for the remaining portion of the African American Advocacy services and Victim Emergency funds grant in which \$100,000 will be received from the State of Minnesota, Department of Public Safety and \$20,000 for the county match; and the 2017 Contingency expenditure and property tax budget be decreased by \$20,000;
19. That the Hennepin County Board of Commissioners supports the recommendations for the advancement of the Child Protection system developed by the Child Protection Oversight Committee as noted below:



## Hennepin County, Board of Commissioners

### **RESOLUTION 18-0258**

2018

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The following resolution was moved by Commissioner Mike Opat and seconded by Commissioner Debbie Goettel:

WHEREAS, the Metropolitan Council has given notice that funding through the Regional Solicitation is available; and

WHEREAS, a board resolution must be submitted with the application for Regional Solicitation funding;

BE IT RESOLVED, that Hennepin County be authorized to apply for funding grants through the Regional Solicitation and recognize its role as the public agency sponsor for the following projects (separated by category), if funding is awarded:

#### **Roadway reconstruction/modernization**

- Programmed in 2018-2022 CIP
- 1. County State Aid Highway 5 (CSAH 5) (Minnetonka Boulevard) from Trunk Highway 100 to France Avenue in Saint Louis Park - CP 2168100
- 2. CSAH 152 (Osseo Rd) from CSAH 2 (Penn Avenue) to 49th Avenue in Minneapolis - CP 2174100
- 3. CSAH 153 (Lowry Avenue) from Washington Street NE to Johnson Street NE in Minneapolis - CP 1001648 & 2140900
  - Project Not Programmed in 2018-2022 CIP
- 4. CSAH 23 (Marshall St NE) from 16th Avenue NE to 27th Avenue NE in Minneapolis - CP 2984500

#### **Roadway expansion**

- Programmed in 2018-2022 CIP
- 5. CSAH 109 (85th Avenue) at TH 252 in Brooklyn Park - CP 2167700

#### **Bridges**

- Programmed in 2018-2022 CIP
- 6. CSAH 15 (Shoreline Drive) Bridge #27592 over Tanager Channel in Orono - CP 2163400
  - Projects Not Programmed in 2018-2022 CIP
- 7. CSAH 152 (Washington Avenue) Bridge #91333 at Bassett Creek in Minneapolis - CP 2176400
- 8. CSAH 158 (Vernon Avenue) Bridge #4510 over CP Rail in Edina - CP 2176600

#### **Multi-use trails and bicycle facilities**

- Programmed in 2018-2022 CIP
- 9. Midtown Greenway ramp access between Garfield Avenue and Harriet Avenue in Minneapolis - CP 0031547
- 10. CSAH 10 (Bass Lake Road) from CSAH 8 (West Broadway Avenue) to Xenia Avenue in Crystal - CP 2172800
- 11. CSAH 52 (Hennepin Avenue/First Avenue) from CSAH 23 (Main Street NE) to Eighth Street SE in Minneapolis - CP 2182100
- 12. CSAH 36 (University Avenue)/CSAH 37 (Fourth Street) from I-35W to Oak Street SE in Minneapolis - CP 2167301
- 13. CSAH 81 (Bottineau Boulevard) from CSAH 109 (85th Avenue) to First Avenue NW in Brooklyn Park and Osseo - CP 2182200

#### **Pedestrian facilities**

## Attachment 8 - Hennepin County Board Resolution - 2018 Regional Solicitation

- Programmed in 2018-2022 CIP

14. Americans with Disabilities Act retrofits at various locations to complement bus rapid transit and light rail transit services - CP 2999965

The question was on the adoption of the resolution and there were 7 YEAS and 0 NAYS, as follows:

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**County of Hennepin  
Board of County Commissioners**

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<b>YEAS</b>	<b>NAYS</b>	<b>ABSTAIN</b>	<b>ABSENT</b>
Mike Opat			
Linda Higgins			
Marion Greene			
Peter McLaughlin			
Debbie Goettel			
Jan Callison			
Jeff Johnson			

**RESOLUTION ADOPTED ON**            **6/26/2018**

**ATTEST:**

*M. Roge*

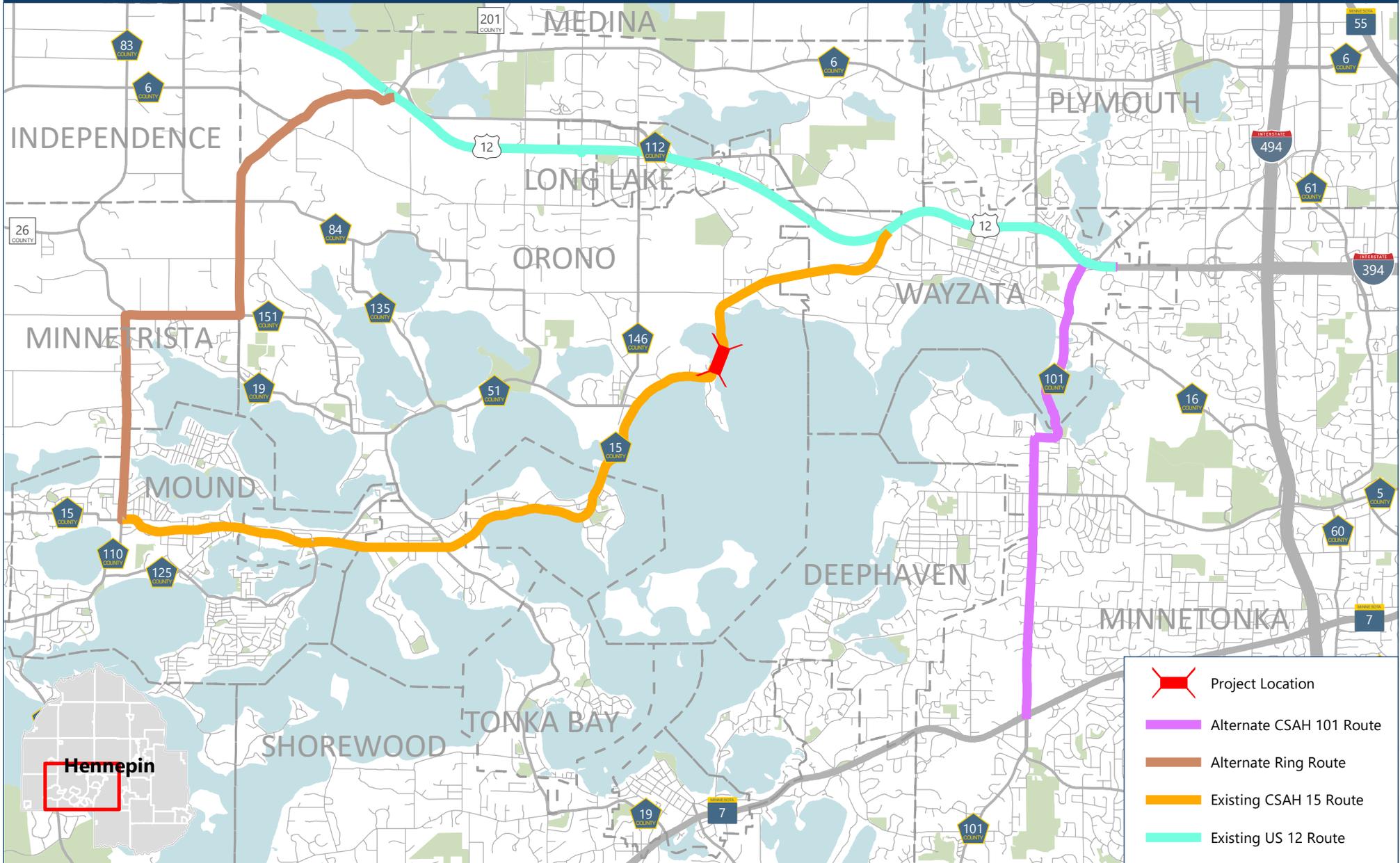
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**Deputy/Clerk to the County Board**

# Lake Minnetonka Area Routes

Attachment 9 | CSAH 15 (Shoreline Dr) Bridge Replacement Project

HENNEPIN COUNTY  
MINNESOTA



**Disclaimer:** This map (i) is furnished "AS IS" with no representation as to completeness or accuracy; (ii) is furnished with no warranty of any kind; and (iii) is not suitable for legal, engineering or surveying purposes. Hennepin County shall not be liable for any damage, injury or loss resulting from this map.

Publication date: 6/14/2018



# Attachment 10 - 2017 Heavy Commercial Count

## HENNEPIN COUNTY TRANSPORTATION PLANNING DIVISION

VEHICLE CLASSIFICATION DATA  
CSAH 15 S. OF T.H. 12  
TRUCK STATION

Site: 527  
Monday, 11/6/2017 12:00 PM -  
Thursday, 11/9/2017 11:00 AM

### Classification Grand Totals

Hourly Averages															
E.B.															
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	
12:00 AM	13.3	0.0	9.0	3.3	0.3	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
1:00 AM	9.3	0.0	7.7	1.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2:00 AM	7.3	0.0	6.0	1.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
3:00 AM	16.7	0.0	13.0	3.0	0.0	0.3	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	
4:00 AM	72.3	0.0	50.3	19.3	0.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
5:00 AM	305.3	0.0	201.3	87.3	0.3	15.3	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	
6:00 AM	747.7	0.0	542.3	168.3	3.3	29.3	0.3	0.0	3.3	0.3	0.0	0.3	0.0	0.0	
7:00 AM	1343.7	0.3	1035.3	244.7	7.0	48.7	1.7	0.0	6.0	0.0	0.0	0.0	0.0	0.0	
8:00 AM	1127.7	0.0	831.7	238.3	4.0	45.0	0.7	1.0	6.0	0.7	0.0	0.3	0.0	0.0	
9:00 AM	749.3	0.0	527.0	166.7	7.7	42.0	1.0	0.3	4.3	0.3	0.0	0.0	0.0	0.0	
10:00 AM	610.3	0.3	400.0	149.3	7.3	40.3	1.3	1.0	9.0	1.0	0.3	0.3	0.0	0.0	
11:00 AM	636.0	0.0	420.0	153.0	9.5	38.5	3.0	0.5	11.0	0.5	0.0	0.0	0.0	0.0	
12:00 PM	525.3	0.0	350.0	118.7	6.3	39.7	1.7	0.3	7.3	1.0	0.3	0.0	0.0	0.0	
1:00 PM	536.0	0.3	349.3	129.7	7.3	35.0	3.3	0.3	10.7	0.0	0.0	0.0	0.0	0.0	
2:00 PM	520.0	0.0	337.0	133.0	7.3	35.0	2.7	0.3	3.7	1.0	0.0	0.0	0.0	0.0	
3:00 PM	547.0	0.3	358.0	150.3	3.0	27.0	2.0	0.0	6.0	0.0	0.3	0.0	0.0	0.0	
4:00 PM	532.3	0.7	360.3	127.3	4.7	32.0	0.7	0.3	5.3	1.0	0.0	0.0	0.0	0.0	
5:00 PM	503.0	0.0	346.0	111.7	6.7	26.3	1.3	0.0	10.7	0.3	0.0	0.0	0.0	0.0	
6:00 PM	353.0	0.0	255.7	78.7	2.7	12.3	0.0	0.0	3.3	0.3	0.0	0.0	0.0	0.0	
7:00 PM	203.7	0.0	155.0	38.7	1.3	7.7	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	
8:00 PM	174.7	0.0	135.7	29.3	1.7	7.0	0.3	0.0	0.7	0.0	0.0	0.0	0.0	0.0	
9:00 PM	127.0	0.0	104.7	20.0	0.7	1.3	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	
10:00 PM	64.0	0.0	53.3	10.0	0.0	0.3	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	
11:00 PM	27.3	0.0	20.0	6.0	0.3	0.7	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	
Daily Average	9752.3	2.0	6868.7	2189.0	82.2	487.2	20.0	4.2	90.3	6.8	1.0	1.0	0.0	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		
E.B.	28621	6	20186	6414	237	1423	57	12	260	20	3	3	0	0	
		0.0 %	70.5 %	22.4 %	0.8 %	5.0 %	0.2 %	0.0 %	0.9 %	0.1 %	0.0 %	0.0 %	0.0 %	0.0 %	

SUM OF EASTBOUND CLASSES ONLY	= 693
SUM OF WESTBOUND CLASSES ONLY	= 2963
SUM OF DAILY CLASS TOTAL	= 3656 / ADJ FACTOR OF 1.093 = 3345
SUM OF DAILY NON COMMERCIAL	= 17781 / 1.093 = 16268, 3345 / 16286 = %
PERCENTAGE OF HEAVY COMMERCIAL	= 20.6 %

Attachment 10 - 2017 Heavy Commercial Count

**HENNEPIN COUNTY  
TRANSPORTATION PLANNING DIVISION**

VEHICLE CLASSIFICATION DATA  
CSAH 15 S. OF T.H. 12  
TRUCK STATION

Site: 527  
Monday, 11/6/2017 12:00 PM -  
Thursday, 11/9/2017 11:00 AM

Classification Grand Totals

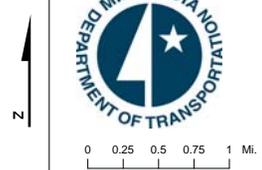
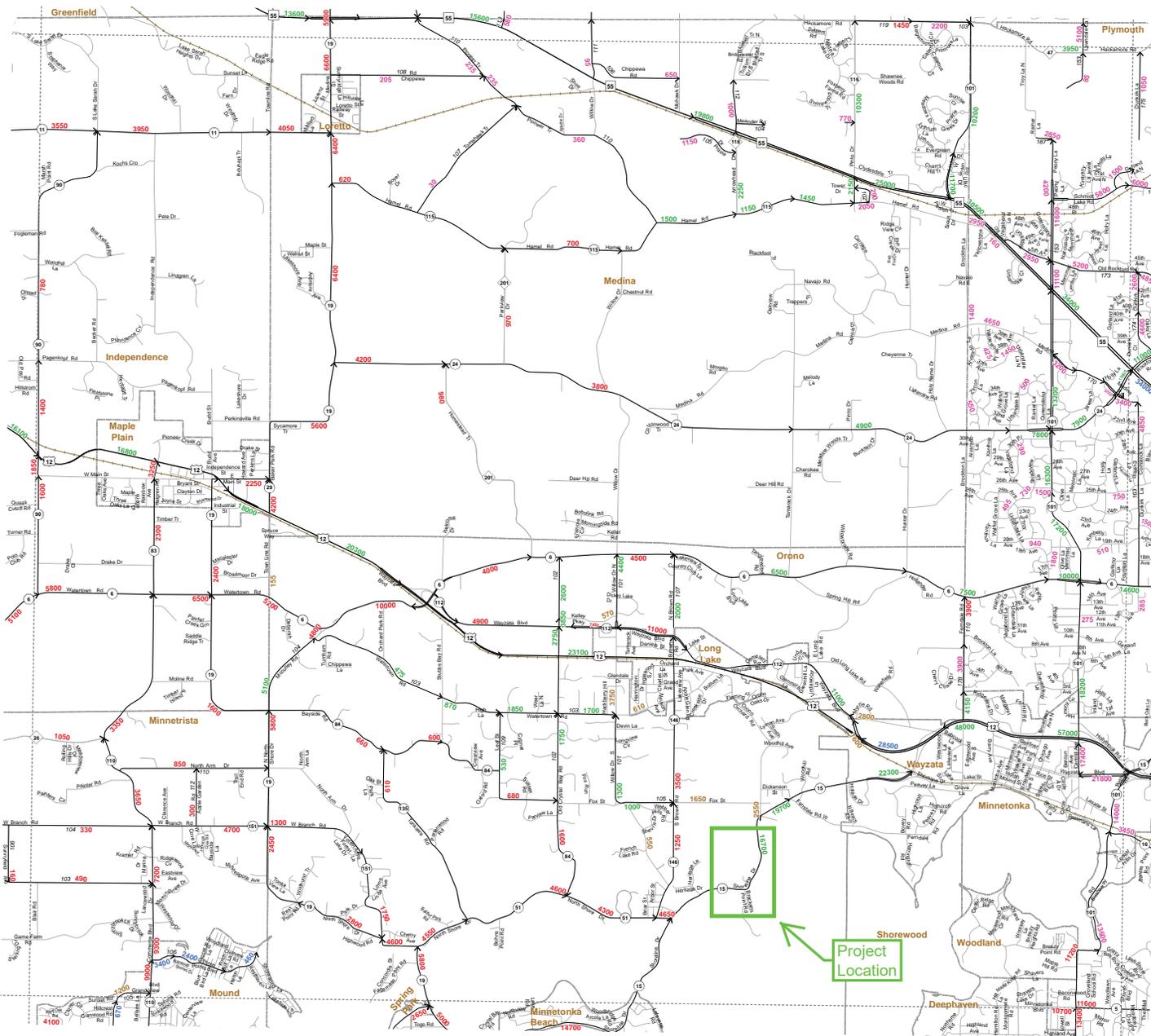
**Hourly Averages**

W.B.

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
12:00 AM	49.7	0.0	27.7	7.3	0.0	14.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1:00 AM	14.3	0.0	7.7	2.0	0.0	4.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2:00 AM	16.3	0.3	7.7	2.7	0.7	4.7	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0
3:00 AM	11.0	0.0	6.3	0.7	0.0	3.7	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0
4:00 AM	23.7	0.0	13.0	3.7	0.3	6.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5:00 AM	84.3	0.3	44.7	12.3	6.3	19.3	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0
6:00 AM	293.3	3.0	138.0	42.0	9.7	95.7	0.0	0.0	4.7	0.3	0.0	0.0	0.0	0.0
7:00 AM	444.7	3.0	200.7	67.3	18.7	148.7	0.7	0.0	5.7	0.0	0.0	0.0	0.0	0.0
8:00 AM	576.0	3.0	280.3	92.0	19.3	170.7	1.3	0.3	8.3	0.3	0.3	0.0	0.0	0.0
9:00 AM	479.7	3.3	231.0	82.0	16.3	138.0	1.3	0.0	6.3	1.0	0.0	0.3	0.0	0.0
10:00 AM	486.3	2.7	251.0	89.3	16.0	117.3	0.0	0.3	9.0	0.7	0.0	0.0	0.0	0.0
11:00 AM	527.0	5.0	317.5	109.0	12.0	74.5	2.0	0.5	5.0	1.0	0.0	0.5	0.0	0.0
12:00 PM	557.3	3.0	342.7	116.3	13.0	75.3	0.7	0.7	5.3	0.3	0.0	0.0	0.0	0.0
1:00 PM	594.0	2.0	360.0	118.3	12.3	92.7	1.7	1.0	5.0	1.0	0.0	0.0	0.0	0.0
2:00 PM	752.3	3.3	460.3	142.3	13.3	123.7	1.0	0.7	6.3	1.0	0.0	0.3	0.0	0.0
3:00 PM	1079.3	4.7	637.3	191.0	22.0	217.3	0.3	0.7	5.3	0.0	0.3	0.3	0.0	0.0
4:00 PM	1403.0	5.0	828.3	230.3	34.3	300.0	0.7	0.3	4.0	0.0	0.0	0.0	0.0	0.0
5:00 PM	1555.0	3.3	915.3	288.3	29.0	310.0	0.0	0.3	8.3	0.0	0.0	0.3	0.0	0.0
6:00 PM	971.7	3.3	574.7	151.0	17.3	221.7	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0
7:00 PM	634.7	1.7	376.7	89.7	7.3	157.7	0.3	0.0	1.3	0.0	0.0	0.0	0.0	0.0
8:00 PM	485.0	2.0	291.3	58.7	5.0	125.7	1.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0
9:00 PM	396.0	3.3	229.0	56.0	2.0	105.3	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0
10:00 PM	173.3	0.3	102.7	22.3	0.3	47.3	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0
11:00 PM	77.7	0.7	40.0	11.0	0.0	26.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Daily Average	11685.7	53.3	6683.8	1985.7	255.3	2600.5	11.7	4.8	82.3	5.7	0.7	1.8	0.0	0.0
<b>Study Grand Totals</b>														
	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
W.B.	34530	155 0.4 %	19734 57.2 %	5848 16.9 %	754 2.2 %	7727 22.4 %	33 0.1 %	14 0.0 %	242 0.7 %	16 0.0 %	2 0.0 %	5 0.0 %	0 0.0 %	0 0.0 %

# Attachment 11 - MnDOT 50 Series Map

## 2015 Publication Traffic Volumes Metro Street Series - 5E



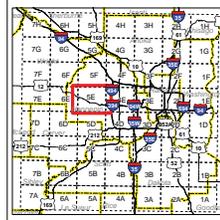
Numerals Indicate Average Annual Daily Traffic (AADT) Volumes on Designated Roads

Traffic Volumes are Subject to Variability and Construction Effects  
For More Info Visit:  
<http://www.dot.state.mn.us/traffic/data/call-method.html>

Minnesota Department of Transportation  
Office of Transportation Data and Analysis  
Traffic Volume Program  
<http://www.dot.state.mn.us/traffic/data/index.html>

### MAP LEGEND

- AADT Year
  - 2015 2014
  - 2013 2012
  - 2011 and older
- Interstate
- US Highway
- MN Highway
- CSAH
- MSAS
- County Road
- Other Roads
- Railroads
- Street Series Grid
- Cities
- COUNTIES
- Lakes
- Rivers
- Perennial Streams
- Ditches
- National Forests
- National Parks
- Tribal Gov'ts
- State Forests
- State Parks



Map Source:  
Minnesota Department of Transportation  
Office of Transportation Data and Analysis  
Traffic Volume Program  
2015 AADT Product  
<http://www.dot.state.mn.us/traffic/data/data-products.html>

## MINNESOTA STRUCTURE INVENTORY REPORT

Bridge ID: 27592 CSAH 15 over BROWNS BAY-TANAGER LK CH

Date: 06/14/2018

+ 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 32.0
County 27 - HENNEPIN	Route Sys/Nbr CSAH 15	Last Inspection Date 07-25-2017
City ORONO	Road Name CSAH 15	Inspection Frequency 12
Township	National Highway System N	Inspector Name HENNEPIN COUNTY
Desc. Loc. 0.9 MI NE OF JCT CSAH 51	Roadway Function MAINLINE	Status B-OPEN (POST REC)
Sect., Twp., Range 11 - 117N - 23W	Roadway Type 2 WAY TRAF	
Latitude 44d 57m 31.94s	Control Section (TH Only)	<b>+ NBI CONDITION RATINGS +</b>
Longitude 93d 33m 32.44s	Ref. Point	Deck 5 % UNSOUND 4
Custodian COUNTY	Date Opened to Traffic 09-01-1979	Superstructure 4
Owner COUNTY	Detour Length 11 mi.	Substructure 5
Inspection By HENNEPIN COUNTY	Lanes 2 Lanes ON Bridge	Channel 7
Year Built 1979	ADT (YEAR) 16,700 (2014)	Culvert N
MN Year Remodeled	HCADT	<b>+ NBI APPRAISAL RATINGS +</b>
FHWA Year Reconstructed	Functional Class. URB/MINOR ART	Structure Evaluation 4
Bridge Plan Location COUNTY		Deck Geometry 4
Potential ABC N.A.	<b>+ RDWY DIMENSIONS +</b>	Underclearances N
	If Divided NB-EB SB-WE	Waterway Adequacy 8
	Roadway Width 36.0 ft	Approach Alignment 8
	Vertical Clearance	<b>+ SAFETY FEATURES +</b>
	Max. Vert. Clear.	Bridge Railing 1-MEETS STANDARDS
	Horizontal Clear. 36.0 ft	GR Transition 1-MEETS STANDARDS
	Lateral Clr. - Lt/Rt	Appr. Guardrail 1-MEETS STANDARDS
	Appr. Surface Width 36.0 ft	GR Termini 1-MEETS STANDARDS
	Bridge Roadway Width 36.0 ft	<b>+ IN DEPTH INSP. +</b>
	Median Width on Bridge	Frac. Critical N
	<b>+ MISC. BRIDGE DATA +</b>	Underwater N
	Structure Flared NO	Pinned Asbly. N
	Parallel Structure NONE	
	Field Conn. ID	<b>+ WATERWAY +</b>
	Cantilever ID	Drainage Area
	Foundations	Waterway Opening 300 sq ft
	Abut. CONC - PILE BENT	Navigation Control NO PRMT REQD
	Pier CONC - PILE BENT	Pier Protection
	Historic Status NOT ELIGIBLE	Nav. Vert./Horz. Clr.
	On - Off System ON	Nav. Vert. Lift Bridge Clear.
	<b>+ PAINT +</b>	MN Scour Code I-LOW RISK
	Year Painted Pct. Unsound	Scour Evaluation Year 1991
	Painted Area	<b>+ CAPACITY RATINGS +</b>
	Primer Type	Design Load HS 20
	Finish Type	Operating Rating HS 16.60
	<b>+ BRIDGE SIGNS +</b>	Inventory Rating HS 10.00
	Posted Load VEHICLE & SEMI	Posting VEH: 24 SEMI: 40 DBL: 40
	Traffic NOT REQUIRED	Rating Date 05-17-2018
	Horizontal OBJECT MARKERS	Overweight Permit Codes
	Vertical NOT APPLICABLE	A: 2 B: 3 C: X
<b>+ STRUCTURE +</b>		
Service On HIGHWAY		
Service Under STREAM		
Main Span Type PRESTR QUAD TEE		
Main Span Detail		
Appr. Span Type		
Appr. Span Detail		
Skew 5R		
Culvert Type		
Barrel Length		
Number of Spans		
MAIN: 3 APPR: 0 TOTAL: 3		
Main Span Length 40.0 ft		
Structure Length 92.8 ft		
Deck Width 39.6 ft		
Deck Material C-I-P CONCRETE		
Wear Surf Type LOW SLUMP CONC		
Wear Surf Install Year 1979		
Wear Course/Fill Depth 0.17 ft		
Deck Membrane NONE		
Deck Rebars NONE		
Deck Rebars Install Year		
Structure Area 3,675 sq ft		
Roadway Area 3,337 sq ft		
Sidewalk Width - L/R 0.8 ft 0.8 ft		
Curb Height - L/R		
Rail Codes - L/R 22 22		

06/14/2018

**MINNESOTA BRIDGE INSPECTION REPORT**

Inspected by: HENNEPIN COUNTY

**BRIDGE 27592 CSAH 15 OVER BROWNS BAY-TANAGER LK CH****INSP. DATE: 07-25-2017**

County: HENNEPIN

Location: 0.9 MI NE OF JCT CSAH 51

Length: 92.8 ft

City: ORONO

Route: CSAH 15 Ref. Pt.: 011+00.710

Deck Width: 39.6 ft

Township:

Control Section: Maint. Area:

Rdwy. Area / Pct. Unsd: 3,337 sq ft 5 %

Section: 11 Township: 117N Range: 23W

Local Agency Bridge Nbr:

Paint Area / Pct. Unsd:

Span Type: PRESTR QUAD TEE

Culvert : N/A

NBI Deck: 4 Super: 4 Sub: 5 Chan: 7 Culv: N

Open, Posted, Closed: POSTING REC Postings: 24 - 40 - 40

MN Scour Code: I-LOW RISK

Def. Stat: S.D. Suff. Rate: 32.0

Appraisal Ratings - Approach: 8 Waterway: 8

Required Bridge Signs - Load Posting: VEHICLE &amp; 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	07-25-2017	1 EA	1	0	0	0
		07-19-2016	1 EA	1	0	0	0
Notes: 800. No critical structural deficiencies or serious safety hazards are present on this structure.							
15	PRESTRESSED CONCRETE TOP FLANGE	07-25-2017	3,675 SF	3,517	75	75	8
		07-19-2016	3,675 SF	3,524	75	76	0
Notes: 15. '16-minor to mod cracks throughout. Mod to large spalls @ T-joints. Areas of delam, minor scaling & map cracks w/ efflor. '17-deteriorating joints between T's have areas of heavy rust and efflor, some spalls >3" deep.							
510	WEARING SURFACE	07-25-2017	3,337 SF	3,282	14	16	25
		07-19-2016	3,337 SF	3,131	195	11	0
Notes: 510. Trans and long cracks in concrete surface, some sealed, most seals deteriorated. Long cracks w/ some large spalls @ top surface @ each quad-T joint-most filled w/ bit sealer, but sealer failing in many areas. '13-large(2' x 1') spall in SBL @ S end. '14-spall in SBL @ S end has been patched w/ bit. Sealer failing in many areas. '15-New sealer in place, some spalled/patched areas are large in size, patch in SBL at S end is failing and the remaining conc pieces are settling '16-11 SF of repaired spall. '17-spalls & delams @ ends of bridge @ CL. Some areas have sealant deterioration & patches-filled w/ bit.							
810	CONC WEAR SURF-CRACKING SEALING	07-25-2017	1,948 LF	1,588	211	149	0
		07-19-2016	1,948 LF	1,948	0	0	0
Notes: 810. Long cracks @ T joints. Some transverse cracks. '11-cracks up to 1" wide and less than 5' in density. '13-unsealed cracks of mod size, density <5'. '14-no change. '15-Cracks sealed. '16-no change. '17-some crack sealant has deteriorated or partially deteriorated. Large crack/spall @ N poured joint in SBL.							
301	POURED SEAL JOINT	07-25-2017	80 LF	78	0	0	2
		07-19-2016	80 LF	61	19	0	0
Notes: 301. Spalls @ intersection of joint and quad-T joint. Joint material missing @ quad-T joints. '13-qty changed. Joints are over piers. Some material only partially adhered @ both. '14-few areas of minor deterioration @ both joints. '15-S joint is severely spalled near centerline. '16-no change. '17-large spall in SBL @ N joint & CL.							
331	REINFORCED CONC BRIDGE RAILING	07-25-2017	187 LF	0	187	0	0
		07-19-2016	187 LF	0	187	0	0
Notes: 331. Numerous vert cracks w/ efflor. Face of west railbase pitted. Form-tie popouts on outside of both railbases. Slight misalignment @ SW corner. Large spall in top of SW railing. Cork in joint is deteriorated. '13-W railing has areas of scale. '14-no change. '15-Misalignment @ SW corner is 3/4". '16-misalignment in NW corner matches SW. Map cracking along both-cracks sealed. Minor scaling on E. W rail is scaled for the majority of its length. '17-most vet cracks are mod in size & sealant has mostly deter. Misalignment in NW is 1-1/8" @ top of rail.							
822	BITUMINOUS APPROACH ROADWAY	07-25-2017	2 EA	2	0	0	0
		07-19-2016	2 EA	0	2	0	0
Notes: 822. Low spot in gutter @ SE driveway. Settled and spalled @ both ends. Badly spalled in NE. '13- 8" spall in SW. Diag crack in SW. '14-spall in SW is patched. N is slightly settled & patched @ deck joint. S has a 1' x 6" spall in NBL near CL. '15-Majority of N joint is spalled in NBL. '16-both apps repaired w/ bit patching. Spall/pothole in NE is 1 SF. Spall @ CL in S has a temp bit repair patch. '17-bit app roadways have new O/L.							
225	STEEL OR CIP PILING	07-25-2017	12 EA	0	4	8	0
		07-19-2016	12 EA	0	4	8	0
Notes: 225. 16" piles of 1/4" thick steel. Pilings are rusted. Paint has peeled, minor section loss on few piles. '13-section loss on some piles. '14-section loss on 1, 3, 4 & 5 from W @ N pier; 1, 2 & 3 from W @ S. '15-no change. '16-visual observation that the section loss is <5%. '17-no change.							

515	STEEL PROTECTIVE COATING	07-25-2017	382 SF	0	222	60	100
		07-19-2016	382 SF	0	244	50	88
	Notes: 515. '16-remaining paint is faded. Paint chipped & peeled in many areas. Areas of complete coating failure and corrosion on piles. '17-few more areas of paint peeling, failure.						
215	REINFORCED CONCRETE ABUTMENT	07-25-2017	97 LF	42	38	17	0
		07-19-2016	97 LF	42	38	17	0
	Notes: 215. Vertical cracks w/ efflor, rust stains @ both abuts. Leakage @ both abuts. NORTH-3 SF delam. '16-11 vert cracks, 6 w/ rust stain. SOUTH-spall on back in SW corner. '13-no change. '14-same. '15-same. '16-6 vert cracks w/ rust stain. '17-no change.						
	Wingwall notes: Vert cracks in wingwalls. NW wall spalled @ wall/abut joint. Form-tie hole popouts on walls. Spall @ SW corner. '13, '14, '15, '16, '17-no change.						
234	REINFORCED CONCRETE PIER CAP	07-25-2017	82 LF	76	4	2	0
		07-19-2016	82 LF	76	4	2	0
	Notes: 234. SOUTH-2 vert cracks. Water leakage and rust stain on the bent cap. '13-now 4 vert cracks. '14-5 minor - mod full height cracks w/ efflor. Minor cracks on S side are full height w/ efflor. NORTH-diagonal and vert cracks w/ efflor @ W end. Vert crack on S side over 3rd pile from W. '13-4 vert cracks on S side. '15-Heavy effl on N face @ W end @ the diag crack. '16-some paint peeling on both. '17-no change.						
109	PRESTRESSED CONC GIRDER OR BEAM	07-25-2017	2,971 LF	2,396	300	190	85
		07-19-2016	2,971 LF	2,422	298	184	67
	Notes: 109. Many quad-T legs cracked, some w/ efflor @ N and S pier cap. 1 quad-T leg cracked @ N abut. 5 legs cracked @ S abut. Some long cracks w/ rust in quad-T legs in center span. 2 west T's have adjoining webs long cracked on each quad for full length in center span. West fascia stringer is chipped in several areas @ bottom of stem in center span. Concrete is cracked w/ efflor over piers on both sides. Crumbled and punky concrete w/ spalled areas @ a few center span bearings-monitor. Stringer has been scraped above channel. Spall @ each end of SW fascia T @ bearing. Joints mostly stained and many spalled. Cracks, spalls and delams on legs of some T's, especially on W side. Full length, 6"-12" deep spall @ joint of E leg of 4th T from W in S span. Strands broke @ leg of west T. All exp reinforcing strands rusty w/ section loss. '13-no change. '14-4th & 5th tees from W have exposed rebar for +10' w/ section loss. 5th tee from W has 1/5 LF spall w/ rebar exp in leg @ S abut; 2nd tee from W leg has 1 LF spall w/ rebar exp @ P1. '15-heavy efflor @ many jts. All jts in span 1 have spalls, 2nd jt from east in main span has a large spall, 1st tee from the west in the S span is cracked in the leg for entire length, S span centerline jt is spalled for entire length. '16-all beam ends have up to 1' of cracks, some w/ spalls & exp rebar. All beams near joints have cracks, spalls, delams & rust stains. Some have extensive decay, heavy build up of efflor. Minor cracks w/ leaching. Minor cracking w/ efflor on sides of legs. '17-west leg of 2nd T from W has a broken strand in spalled area @ bottom. Operations removed strands hanging over channel.						
310	ELASTOMERIC EXPANSION BEARING	07-25-2017	2 EA	2	0	0	0
		07-19-2016	2 EA	2	0	0	0
	Notes: 310. Continuous, full length bearing pads @ each abut. '13-no change. '14, '15, '16, '17-same.						
313	FIXED BEARING	07-25-2017	4 EA	4	0	0	0
		07-19-2016	4 EA	4	0	0	0
	Notes: 313. 2 continuous, full length bearing pads @ each pier. '14-no change. '15, '16, '17-same.						
855	SECONDARY MEMBERS (SUPER)	07-25-2017	1 EA	0	1	0	0
		07-19-2016	1 EA	0	1	0	0
	Notes: 855. Concrete end diaphragms are spalled @ both abuts. '13-no change. '14, '15, '16-same. '17-heavy efflor from diaphragm crack over S side of S cap @ W end.						
881	STEEL SECTION LOSS	07-25-2017	1 EA	0	1	0	0
		07-19-2016	1 EA	0	1	0	0
	Notes: 881. '16-section loss of small areas of piling is visually estimated <5%. '17-no change.						
883	CONCRETE SHEAR CRACKING	07-25-2017	1 EA	0	1	0	0
		07-19-2016	1 EA	0	1	0	0
	Notes: 883. '16-minor, 4' long crack w/ mod efflor in N face of N pier on W end. '17- no change.						
890	LOAD PST OR VERTICAL CLR SIGNING	07-25-2017	1 EA	1	0	0	0
	Notes: 890. '17-load posting signs installed in August. All in place and in new condition.						
891	OTHER BRIDGE SIGNING	07-25-2017	1 EA	1	0	0	0
		07-19-2016	1 EA	1	0	0	0
	Notes: 891. Horiz clearance marker X4-4 @ approach lanes only. No Parking sign @ NW, NE & SW corners. 35 MPH sign @ NE corner. Lake information signs on both fascias. X4-5 @ end of guardrail in NE. No Fishing Or Standing On Bridge in NW & SE. '15, '16, '17-no change.						

# Attachment 12 - 2018 Bridge Inspection and Structure Inventory Report

892	SLOPES & SLOPE PROTECTION	07-25-2017	1 EA	0	0	0	1
		07-19-2016	1 EA	0	0	0	1
Notes: 892. Grouted riprap is cracked @ both abuts. Slope paving pulled away from N and S abuts, 3"-4" horiz and up to 7" vert. Large crack w/ up to 10" shift (@ S slope) near toe of both slopes. Undermined and sand @ toe. Erosion behind NE wingwall. Grouted rip rap @ N slope has slumped 3" horiz and 1" vert away from abut. Erosion behind NE wingwall. '13-N slope has slumped 2"-3" away from abut. '14-SW corner broken off & undermined. N has sunk 1' near top under CL. '15-large cracks @ undermining @ N abut slope. '16-large cracks @ S. New granite rip rap @ channel approaches. '17-no change.							
893	GUARDRAIL	07-25-2017	1 EA	1	0	0	0
		07-19-2016	1 EA	1	0	0	0
Notes: 893. Rail @ SE corner turns for driveway. Rail turned down @ all other corners. Loose bolt in SW. '13-no change. '14-rail turned down @ N ends. SW is continuous from intersection w/ crashworthy end treatment. '15-Small tree has fallen on SW Rail, no damage visible. '16-tree in SW has been removed w/ no visible damage to rail. '17-north ends now have crashworthy treatments.							
894	DECK & APPROACH DRAINAGE	07-25-2017	1 EA	1	0	0	0
		07-19-2016	1 EA	1	0	0	0
Notes: 894. CB in SW approach. '14-water standing in NW corner of deck. '15, '16, '17-no change.							
899	MISCELLANEOUS ITEMS	07-25-2017	1 EA	0	1	0	0
		07-19-2016	1 EA	1	0	0	0
Notes: 899. Four 3.5" dia pipes located in 2nd bay from West. 4 hanger assemblies removed @ N span. Conc ret wall on W side of both abuts. Spalls in ret wall joint by NW abut. Drain outlet is located by SW wall. Several vert cracks w/ efflor in both ret wall railings. Underground telephone cable buried @ W side. B624 curb in NE. '15-no change. '17-several utility support brackets unattached on W side of N span.							
900	PROTECTED SPECIES	07-25-2017	1 EA	0	0	1	0
		07-19-2016	1 EA	0	1	0	0
Notes: 900. 16-swallow nests present. 17-same.							

General Bridge 27592 CSAH 15/Browns Bay-Tanager Lake 7/24/17. PTH, WJM and TSM. Inspected using Tony B's boat.  
 Notes: Bridge scheduled for replacement in 2020, CP 1634.

### Recommended Repairs:

- 109. Monitor cracked and deteriorated concrete quad-T beams. Clean, lightly blast and coat exposed prestressing strands on 2 West T's.
- 225. Clean and paint piling.
- 510. Fill spalled areas of deck w/ bit patch.
- 892. Repair slumped slope paving.
- 899. Notify utility company of missing hanger assemblies in N span.

05/04/2016 Update report created and approved by LH, MnDOT Bridge Office. Report created to correct sync issue.

Deck: [4] '16-large cracks & spalls filled w/ bit at T-joints in wear surface. Spalls, delams at T-joints in under deck.

Appr Guardrail [1] '17-crashworthy ends added to rails at north approaches.

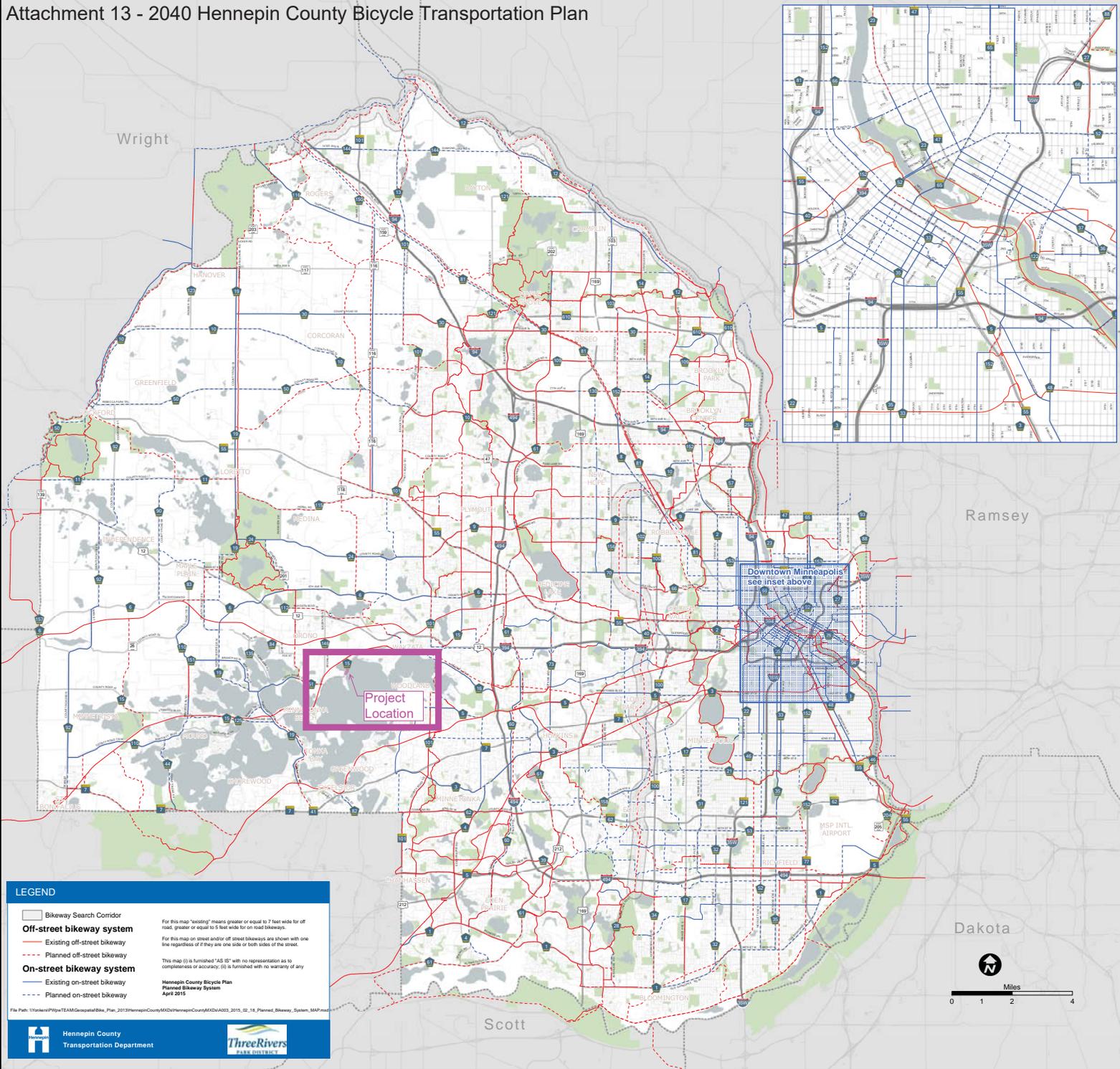
Terminal :

Superstructure: [4] '16-beams cracked and spalled at joints. Prestressed strands cut on west T and exposed on several others. '17-Strand in bottom of 2nd T from west is severed.

Substructure: [5] Cracking of pier caps. Corrosion, section loss of piles.

# Hennepin County Bicycle Transportation Plan Planned bikeway system - April 2015

## Attachment 13 - 2040 Hennepin County Bicycle Transportation Plan



**LEGEND**

- Bikeway Search Corridor
- Off-street bikeway system**
- Existing off-street bikeway
- Planned off-street bikeway
- On-street bikeway system**
- Existing on-street bikeway
- Planned on-street bikeway

For this map "width" means greater or equal to 7 feet wide for off road, greater or equal to 5 feet wide for on road bikeways.  
For this map on street and/or off street bikeways are shown with one line regardless of if they are one side or both sides of the street.

This map (i) is furnished "AS IS" with no representation as to completeness or accuracy; (ii) is furnished with no warranty of any kind.

Hennepin County Bicycle Plan  
Planned Bikeway System  
April 2015

File Path: \\hennepin\p\p\p\TEAM\GIS\Map\Bike\_Plan\_2013\HennepinCounty\Map\Bike\HennepinCounty\Map\Bike\2040\_02\_19\_Planned\_Bikeway\_System\_MAP



# Attachment 14 - Draft 2040 Orono Comprehensive Plan 2040 Comprehensive Plan

Orono, MN

Existing Non-Motorized Facilities & RBTN

March 2018



Real People. Real Solutions.

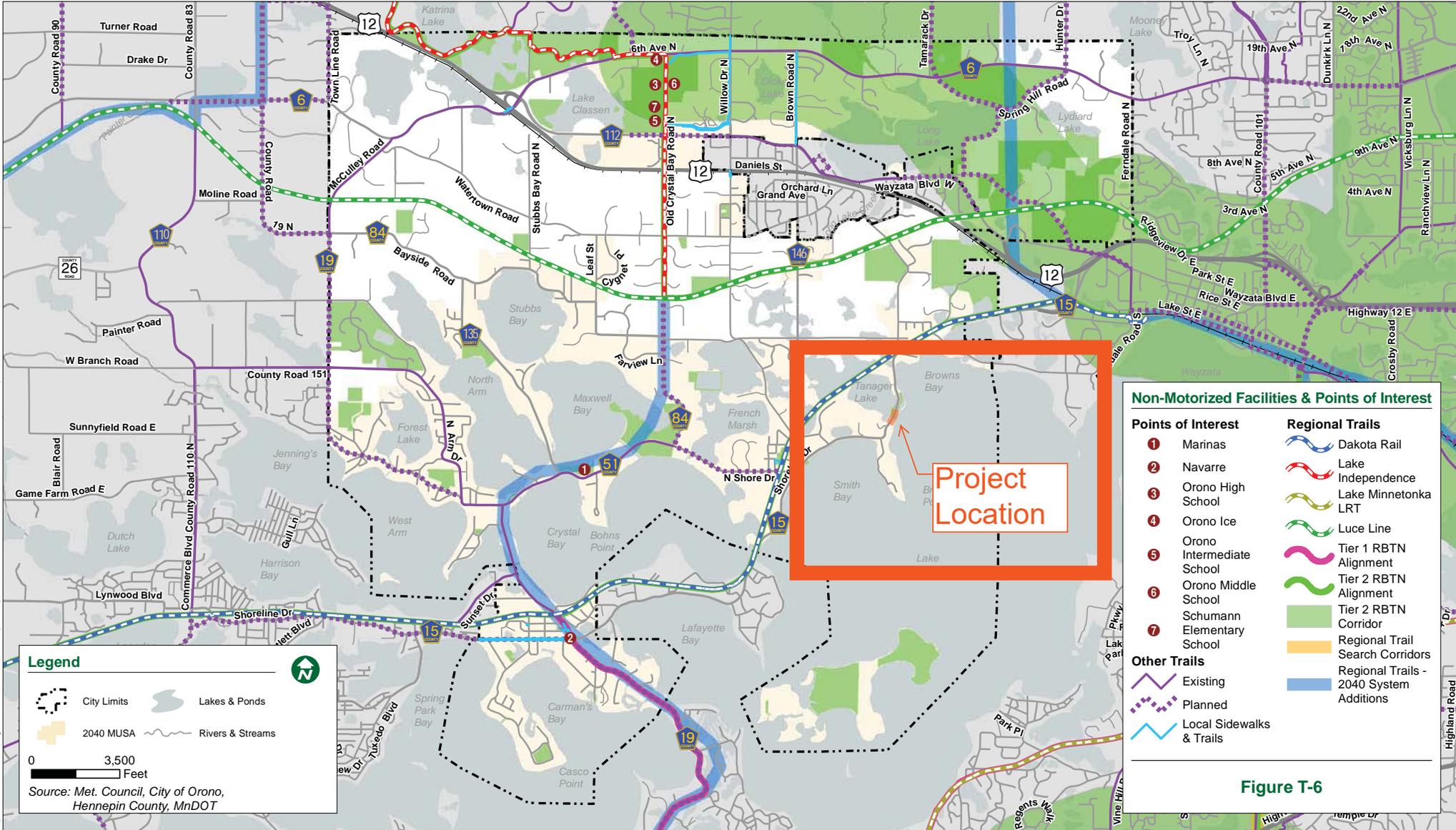


Figure T-6

Map Document: \\arscserver1\gs\ORNO\OC\317148\14\ESR\Map\Facilities\RBTN\_11\171.mxd | Date Saved: 3/16/2018 10:41:19 PM



## CITY OF ORONO

Street Address:  
2750 Kelley Parkway  
Orono, MN 55356

Mailing Address:  
P.O. Box 66  
Crystal Bay, MN 55323

Telephone (952) 249-4600  
Fax (952) 249-4616  
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### Attachment 15 - City of Orono Support Letter

May 29<sup>th</sup>, 2018

Carla Stueve, P.E., P.T.O.E  
Hennepin County Engineer  
Transportation Project Delivery  
1600 Prairie Drive  
Medina, MN 55340

RE: Support for Regional Solicitation Application  
Shoreline Dr (CSAH 15) Bridge #27592 Project over Tanager Channel

Dear Ms. Stueve:

The City of Orono hereby expresses its support for the Hennepin County Regional Solicitation federal funding application for the proposed bridge replacement project on CSAH 15 (Shoreline Dr) for Bridge #27592 over Tanager Channel.

The existing bridge structure includes weight restrictions and is structurally deficient. A new bridge structure will be constructed to improve sight lines that are currently obstructed for motorists. Additional clearance for boat traffic will be provided underneath the bridge structure.

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,

Adam Edwards, P.E.  
Director of Public Works/ City Engineer  
Orono