Application

17071 - 2022 Roadway Spot Mobility

17572 - CSAH 61 (Hemlock Ln) Spot Mobility and Safety Project

Regional Solicitation - Roadways Including Multimodal Elements

Status:	Submitted
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Primary Contact

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

Organization Information

Name:	HENNEPIN COUNTY

Jurisdictional Agency (if different):

Organization Type: County Government

Organization Website:

Address: DPT OF PUBLIC WORKS

1600 PRAIRIE DR

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

County: Hennepin

Phone:* 763-745-7600 Ext.

Fax:

PeopleSoft Vendor Number 0000028004A9

Project Information

Project Name CSAH 61 (Hemlock Ln) Spot Mobility and Safety Project

Primary County where the Project is Located Hennepin

Cities or Townships where the Project is Located: Maple Grove

Jurisdictional Agency (If Different than the Applicant):

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

This project will improve mobility and safety at the CSAH 61 (Hemlock Ln) and CSAH 130 (Elm Creek Blvd) intersection in the City of Maple Grove. CSAH 61 (Hemlock Ln) is classified as an A-Minor Reliever, and CSAH 130 (Elm Creek Blvd) is classified as an A-Minor Reliever to the east of the project location, and an A-Minor Expander to the west of the intersection. Both roadways are four-lane divided roadways with free-right turns and double left turn lanes at this intersection. Attachment 2 provides an illustration of the project location.

The existing intersection design is relatively wide and it not only makes it difficult for nonmotorized users to cross, but also presents an uncomfortable experience as people driving can complete right turns at a higher speed due to the presence of channelized right turn islands. It is especially uncomfortable for those using mobility devices and the elderly. Sidewalks and trails exist for nonmotorized users on all four quadrants, providing access to major retail locations, such as the Shoppes at Arbor Lakes. Photos of existing conditions can be found in Attachment 3.

Between 2019-2021, 47 crashes occurred at this intersection; including a high percentage of rear-end (65%) related crashes. Hennepin County's County Road Safety Plan ranks intersections based on their number of risk factors. This intersection is identified as a priority location in both the vehicle related and bike/ped categories. The risk factors for the vehicle related category include traffic control, leg configuration, and adjacent development; and risk factors for the bike/ped related category include traffic control, adjacent development, maximum number of lanes crossed, and pedestrian crossing type.

The project objectives are to improve the accessibility, safety, and mobility for all modes of travel through a more compact intersection design and proven safety countermeasures to address the 47 crashes that have occurred at this intersection between 2019-2021.

The project will include, but is not limited to, the following elements. Specific improvements will be determined as part of the design process. Attachment 4 shows the potential concept for this intersection.

- Elimination of two channelized right-turn islands to introduce a more compact intersection design and slow right-turning vehicles; incorporate smart channel designs in the remaining two quadrants to slow vehicles.

- Remove unnecessary buffer space surrounding right-turn islands as part of a more compact intersection design

- Replace and upgrade the traffic signal to the latest technologies

- Upgrade ADA accommodations to current design standards; including pedestrian ramps, landings, and APS

- Modify the trail alignments on each approach as necessary

(Limit 2,800 characters; approximately 400 words)

TRANSPORTATION IMPROVEMENT PROGRAM (TIP) DESCRIPTION - will be used in TIP if the project is selected for funding. See MnDOT's TIP description guidance.

CSAH 61 (Hemlock Ln) at CSAH 130 (Elm Creek Blvd) in Maple Grove, Reconstruct Intersection

Include both the CSAH/MSAS/TH references and their corresponding street names in the TIP Description (see Resources link on Regional Solicitation webpage for examples).

Project Length (Miles)

0.23

to the nearest one-tenth of a mile

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

$1,856,000.00

Match Amount

$464,000.00

Minimum of 20% of project total

Project Total

$2,320,000.00

For transit projects, the total cost for the application is total cost minus fare revenues.

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:

2026

Select 2024 or 2025 for TDM and Unique projects only. For all other applications, select 2026 or 2027.

Additional Program Years:

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

Project Information: Roadway Projects

County, City, or Lead Agency

Hennepin County

CSAH 61 (Hemlock Ln) - A-Minor Reliever

Functional Class of Road

CSAH 130 (Elm Creek Blvd) - A-Minor Reliever (east of intersection) and A-Minor Expander (west of intersection)

Road System

CSAH

TH, CSAH, MSAS, CO. RD., TWP. RD., CITY STREET

Road/Route No. 61

i.e., 53 for CSAH 53

Name of Road Hemlock Ln

Example; 1st ST., MAIN AVE

Zip Code where Majority of Work is Being Performed 55369

(Approximate) Begin Construction Date 05/01/2026

(Approximate) End Construction Date 10/30/2026

TERMINI:(Termini listed must be within 0.3 miles of any work)

From:
(Intersection or Address)

To:
(Intersection or Address)

DO NOT INCLUDE LEGAL DESCRIPTION

Or At CSAH 61 (Hemlock Ln) and CSAH 130 (Elm Creek Blvd)

Miles of Sidewalk (nearest 0.1 miles) 0

Miles of Trail (nearest 0.1 miles) 0

Miles of Trail on the Regional Bicycle Transportation Network (nearest 0.1 miles) 0

Primary Types of Work REPLACE TRAFFIC SIGNAL, REMOVE CHANNELIZED RIGHT TURN ISLANDS, ADA, CURB AND GUTTER, SIDEWALK, MULTIUSE TRAIL

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.

BRIDGE/CULVERT PROJECTS (IF APPLICABLE)

Old Bridge/Culvert No.:

New Bridge/Culvert No.:

Structure is Over/Under
(Bridge or culvert name):

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 (2018), the 2040 Regional Parks Policy Plan (2018), 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.

Briefly list the goals, objectives, strategies, and associated pages:

A) Transportation System Stewardship (p 2.2-2.4)

Objectives A & B; Strategies A1 & A2

The proposed project is a strategic investment in the County's transportation system to incorporate opportunities for walking, rolling, and biking while promoting safety for all modes by designing a more compact intersection.

B) Safety and Security (p 2.5-2.9)

Objectives A & B; Strategies B1, B3, B4, B6

The objective of the proposed project is to address traffic safety issues due to existing intersection geometry. Two free-right turn lanes will be removed, along with pork chops which lack pedestrian ramps. Where feasible, medians will be added to shorten crossing distances.

C) Access to Destinations (p 2.10-2.25)

Objectives A, B, C, D, and E; Strategies C1, C2, C3, C4, C8, C9, C15, C16, C17

The intersection is a vital crossing for the Shoppes at Arbor Lakes, a major concentration of employment opportunities, daily necessities, and recreation for residents of Maple Grove. Maple Grove Transit Station is southwest of the intersection, providing service to Minneapolis via Metro Transit Routes 781 and 789. The proposed project will provide enhanced connections between residential and commercial destinations as well as first/last mile transit connections.

D) Competitive Economy (p2.26-2.29)

Objectives A, B & C; Strategies D1, D3, D4, D5

Both CSAH 61 and CSAH 130 are Tier 1 routes in the Metropolitan Council's Regional Truck Highway Corridor Study and are essential to the regional economy. Commercial development just south of the intersection is a regionally important center for commerce and employment which will benefit from increased multimodal access through the proposed project.

E) Healthy and Equitable Communities (p 2.30-2.34)

Objectives A, B, C, D; Strategies E1, E3, E4, E5, E6, E7

The proposed project presents an opportunity to improve multimodal infrastructure and promote alternative modes of transportation, connecting residential development north of CSAH 130 safely and comfortably with resources just south of the intersection, particularly for households without a personal vehicle.

F) Leveraging Transportation Investments to Guide Lane Use (p 2.35-2.41)

Objectives: A & C; Strategies: F1, F2, F5, F6, F7

A compact intersection design will improve multimodal connections to the diverse land uses throughout the project area. As the corridor

experiences continued development, sidewalks, ADA improvements and separate bicycle facilities will be considered as feasible and will ensure that users will be able to reach their destination safely and reliably.

Limit 2,800 characters, approximately 400 words

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.

List the applicable documents and pages: Unique projects are exempt from this qualifying requirement because of their innovative nature.

1. Hennepin County Board Resolution 22-0109 (Attachment 5)

2. Hennepin County - County Road Safety Plan (Attachment 6)

- Ranked #324 for priority locations involving people driving at urban intersections (page 1 of 2)

- Ranked #495 for priority locations involving people walking and biking at urban intersections (page 2 of 2)

3. Hennepin County 2040 Transportation Plan (pages 2-11 - 2-18)

Website: hennepin.us/-/media/hennepinus/your-government/projects-initiatives/2040-comprehensive-plan/comp-plan-2040-2-transportation.pdf

4. Hennepin County Climate Action Plan (pages 50-54)

Website: hennepin.us/climate-action/-/media/climateaction/ hennepin-county-climate-action-plan-final.pdf

5. Hennepin County Complete Streets Policy

Website: hennepin.us/completestreets

6. Hennepin County Bike Plan (page 36)

Website: hennepin.us/-/media/hennepinus/residents/transportation/biking/b

icycle-transportation-plan.pdf

7. Hennepin County Pedestrian Plan (page 8)

Website: hennepin.us/-/media/hennepinus/residents/transportation/documents/

8. City of Maple Grove 2040 Transportation Plan (pages 50-55)

Website: maplegrovemn.gov/DocumentCenter/View/1245/2-appendix-a---transportation-plan?bidId=

Limit 2,800 characters, approximately 400 words

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. Unique project costs are limited to those that are federally eligible.

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

5.Applicant is a public agency (e.g., county, city, tribal government, transit provider, etc.) or non-profit organization (TDM and Unique Projects applicants only). Applicants that are not State Aid 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 in Table 1. For unique projects, the minimum award is $500,000 and the maximum award is the total amount available each funding cycle (approximately $4,000,000 for the 2022 funding cycle).
Strategic Capacity (Roadway Expansion): *$1,000,000 to $10,000,000*
Roadway Reconstruction/Modernization: *$1,000,000 to $7,000,000*
Traffic Management Technologies (Roadway System Management): *$500,000 to $3,500,000*
Spot Mobility and Safety: *$1,000,000 to $3,500,000*
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 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 plan must be completed by the local agency before the Regional Solicitation application deadline. For the 2022 Regional Solicitation funding cycle, this requirement may include that the plan is updated within the past five years.

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

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

Date plan completed: 08/31/2015

Link to plan: hennepin.us/-/media/hennepinus/residents/transportation/documents/ada-sidewalk-transition-plan.pdf

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

Date self-evaluation completed:

Link to plan:

Upload plan or self-evaluation if there is no link

Upload as PDF

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. Unique projects are exempt from this qualifying requirement.

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

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 Strategic Capacity 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 and Strategic Capacity 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 MnDOTs 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.

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.

Bridge Rehabilitation/Replacement projects only:

5.The length of the bridge clear span must exceed 20 feet.

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

6. The bridge must have a National Bridge Inventory Rating of 6 or less for rehabilitation projects and 4 or less for replacement projects.

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

Roadway Expansion, Reconstruction/Modernization, 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 as described in Appendix F of the 2040 Transportation Policy Plan.

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

Requirements - Roadways Including Multimodal Elements

Specific Roadway Elements

CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES	Cost
Mobilization (approx. 5% of total cost)	$75,000.00
Removals (approx. 5% of total cost)	$75,000.00
Roadway (grading, borrow, etc.)	$95,000.00
Roadway (aggregates and paving)	$231,000.00
Subgrade Correction (muck)	$0.00
Storm Sewer	$163,000.00
Ponds	$0.00

Concrete Items (curb & gutter, sidewalks, median barriers)	$153,000.00
Traffic Control	$107,000.00
Striping	$27,000.00
Signing	$5,000.00
Lighting	$50,000.00
Turf - Erosion & Landscaping	$27,000.00
Bridge	$0.00
Retaining Walls	$0.00
Noise Wall (not calculated in cost effectiveness measure)	$0.00
Traffic Signals	$640,000.00
Wetland Mitigation	$0.00
Other Natural and Cultural Resource Protection	$0.00
RR Crossing	$0.00
Roadway Contingencies	$495,000.00
Other Roadway Elements	$0.00
Totals	**$2,143,000.00**

Specific Bicycle and Pedestrian Elements

CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES	**Cost**
Path/Trail Construction	$40,000.00
Sidewalk Construction	$4,000.00
On-Street Bicycle Facility Construction	$0.00
Right-of-Way	$0.00
Pedestrian Curb Ramps (ADA)	$20,000.00
Crossing Aids (e.g., Audible Pedestrian Signals, HAWK)	$5,000.00
Pedestrian-scale Lighting	$0.00
Streetscaping	$27,000.00
Wayfinding	$0.00
Bicycle and Pedestrian Contingencies	$41,000.00
Other Bicycle and Pedestrian Elements	$40,000.00
Totals	**$177,000.00**

Specific Transit and TDM Elements

CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES	Cost
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
Totals	**$0.00**

Transit Operating Costs

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

Totals

Total Cost	$2,320,000.00
Construction Cost Total	$2,320,000.00
Transit Operating Cost Total	$0.00

Congestion within Project Area:

Free-Flow Travel Speed:	41
The free-flow travel speed is the black number	
Peak Hour Travel Speed:	18
The peak hour travel speed is the red number	
Percentage Decrease in Travel Speed in Peak Hour Compared to Free-Flow (calculation):	56.1%
Upload the "Level of Congestion" map:	1648498020588_2022 RS Map 01 - CSAH 61 (Hemlock Ln) Spot Mobility and Safety Project - Level of Congestion.pdf

Congestion on adjacent Parallel Routes:

Adjacent Parallel Corridor	Weaver Lake Rd
Adjacent Parallel Corridor Start and End Points:	
Start Point:	Zachary Ln N
End Point:	
Free-Flow Travel Speed:	37
The Free-Flow Travel Speed is black number.	
Peak Hour Travel Speed:	29
The Peak-Hour Travel Speed is red number.	
Percentage Decrease in Travel Speed in Peak Hour Compared to Free-Flow (calculation):	21.62%
Upload the "Level of Congestion" map:	1649522847370_2022 RS Map 01 - CSAH 61 (Hemlock Ln) Spot Mobility and Safety Project - Level of Congestion2.pdf

Principal Arterial Intersection Conversion Study:

Proposed at-grade project that reduces delay at a High Priority Intersection:	
(70 Points)	
Proposed at-grade project that reduces delay at a Medium Priority Intersection:	
(65 Points)	
Proposed at-grade project that reduces delay at a Low Priority Intersection:	
(60 Points)	
Not listed as a priority in the study:	Yes
(0 Points)	

Congestion Management and Safety Plan IV:

Proposed at-grade project that reduces delay at a CMSP opportunity area:	
(70 Points)	
Not listed as a CMSP priority location:	Yes
(0 Points)	

Measure C: Current Heavy Commercial Traffic

RESPONSE: Select one for your project, based on the updated 2021 Regional Truck Corridor Study:

Along Tier 1:	Yes
Miles:	0.23

(to the nearest 0.1 miles)

Along Tier 2:

Miles: 0

(to the nearest 0.1 miles)

Along Tier 3:

Miles: 0

(to the nearest 0.1 miles)

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

None of the tiers:

Measure A: Engagement

i.Describe any Black, Indigenous, and People of Color populations, low-income populations, disabled populations, youth, or older adults within a ½ mile of the proposed project. Describe how these populations relate to regional context. Location of affordable housing will be addressed in Measure C.
ii.Describe how Black, Indigenous, and People of Color populations, low-income populations, persons with disabilities, youth, older adults, and residents in affordable housing were engaged, whether through community planning efforts, project needs identification, or during the project development process.
iii.Describe the progression of engagement activities in this project. A full response should answer these questions:

According to 2020 Census data, the share of Black, Indigenous and People of Color (BIPOC) populations within census tracts 0.5 miles of the CSAH 61 (Hemlock Ln) and CSAH 130 (Elm Creek Blvd) is 30.3% (Census Tract 2705403676). Utilizing 2014-2018 5-year American Community Survey data, the population under the federal poverty level within 0.5 miles of the project area is 4.7%, and 7.1% of the population has a disability of any kind. In addition, 22.7% of the population were under 18, and 13.5% were over 65 within 0.5 miles of the project area.

Response:

While Hennepin County has not launched formal public engagement activities related to this project, if the project is funded, public engagement strategies will engage residents, particularly BIPOC residents, throughout the project development and construction process. As the project will impact all user groups, it will be critical to communicate project impacts during construction including project schedule, road closures, and detour routes as part of the public engagement process. As appropriate, public engagement will include building relationships with key stakeholders such as residents of nearby affordable and market-rate housing developments, business owners of the many shops adjacent to the project area, and the City of Maple Grove. Public engagement strategies will also include staff from the County's Communications and Engagement Team to encourage use of plain language and best practices throughout the design and construction process. It is also anticipated that information will be disseminated through several means, including a dedicated project website which will be updated by County Staff throughout the project design and construction phases.

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

Measure B: Equity Population Benefits and Impacts

Describe the projects benefits to Black, Indigenous, and People of Color populations, low-income populations, children, people with disabilities, youth, and older adults. Benefits could relate to:
This is not an exhaustive list. A full response will support the benefits claimed, identify benefits specific to Equity populations residing or engaged in activities near the project area, identify benefits addressing a transportation issue affecting Equity populations specifically identified through engagement, and substantiate benefits with data.
Acknowledge and describe any negative project impacts to Black, Indigenous, and People of Color populations, low-income populations, children, people with disabilities, youth, and older adults. Describe measures to mitigate these impacts. Unidentified or unmitigated negative impacts may result in a reduction in points.
Below is a list of potential negative impacts. This is not an exhaustive list.

Response:

The CSAH 61 (Hemlock Ln) Spot Mobility and Safety Project will provide benefit to Black, Indigenous and People of Color, low-income populations, people with disabilities, youth, and older adults through design interventions focused on improving safety and user comfort for people walking and biking. Often, these households are more likely to walk, roll, cycle or use transit to reach their destination.

The proposed project aims to remove two free-right turn lanes, creating a more compact intersection geometry which reduces crossing distances, slows vehicle speeds and creates greater visibility for pedestrians and bicyclists. Those with limited mobility and vision impairments will particularly benefit from this change, as the existing porkchops at each free-right turn lack truncated domes and sufficient pedestrian ramps. In addition, pedestrian crossing refuge medians for each leg of the intersection will provide safety for those who may need additional time to cross, such as older adults, families with children, or those with disabilities.

For people who cannot or choose not to drive, such as those with disabilities, youth, and seniors, the project will provide significant improvements to the pedestrian realm to ease access to centers of employment and daily necessities (such as grocery stores) south of CSAH 130 (Elm Creek Blvd) at the Shoppes at Arbor Lakes. Attachment 7 highlights key destinations near the project area, including parks, schools, libraries, and community centers, many of which can be reached via the county's trail network that connects through this intersection.

In addition, the project will improve first and last mile transit connections as the Maple Grove Transit Center is directly southwest of the proposed

project. The Maple Grove Transit Center provides weekday express service to Downtown Minneapolis via route 781 and to the University of Minnesota via route 789. Overall, the project will make significant improvements to the multimodal environment at a high-speed and high-traffic intersection that is uncomfortable to cross.

Increased noise and impacts to the roadway, sidewalks, and trails are anticipated during construction. The contractor will be required to follow temporary traffic control plans which provide instructions on detour routes for all people traveling through the corridor.

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

Measure C: Affordable Housing Access

Describe any affordable housing developmentsexisting, under construction, or plannedwithin ½ mile of the proposed project. The applicant should note the number of existing subsidized units, which will be provided on the Socio-Economic Conditions map. Applicants can also describe other types of affordable housing (e.g., naturally-occurring affordable housing, manufactured housing) and under construction or planned affordable housing that is within a half mile of the project. If applicable, the applicant can provide self-generated PDF maps to support these additions. Applicants are encouraged to provide a self-generated PDF map describing how a project connects affordable housing residents to destinations (e.g., childcare, grocery stores, schools, places of worship).

Describe the projects benefits to current and future affordable housing residents within ½ mile of the project. Benefits must relate to affordable housing residents. Examples may include:

This is not an exhaustive list. Since residents of affordable housing are more likely not to own a private vehicle, higher points will be provided to roadway projects that include other multimodal access improvements. A full response will support the benefits claimed, identify benefits specific to residents of affordable housing, identify benefits addressing a transportation issue affecting residents of affordable housing specifically identified through engagement, and substantiate benefits with data.

A total of two affordable, subsidized housing developments were identified within ½ mile of the project area. Attachment 8 provides a map and full detail summary of these locations, including unit sizes and affordability limits based on area median incomes. As identified in the Met Council generated Socio-Economic Conditions map, 222 subsidized units exist in census tracts within ½ mile of the project. Bottineau Ridge Apartments provides 100 units of income-restricted housing just north of the project area which primarily serves families with children. Slightly outside of the ½ mile radius, Arbor Lakes provides 50 units of income-restricted housing specifically for seniors. Both properties represent significant populations of vulnerable road users who benefit the most from enhanced pedestrian and bicycle crossing improvements.

Response:

The proposed project aims to improve safety and user comfort for pedestrian and bicyclists through removing free-right turns, improving ADA ramps, installing Accessible Pedestrian Signals, and improving drainage to address pooling that poses a significant barrier to pedestrians during heavy precipitation events and during the winter months. Improvements to the pedestrian environment will directly benefit the residents of both Bottineau Ridge Apartments and Arbor Lakes as the Shoppes at Arbor Lakes, a significant commercial development providing employment opportunities and daily necessities for residents of affordable housing, is located directly south of CSAH 130 (Elm Creek Blvd). If feasible, off-street bicycle facilities will tie into existing trails south of the project area that provides bicycle access to a number of education centers, including Maple Grove Middle School, Oak View Elementary, and Cedar Island Elementary.

Multimodal and safety improvements in the

proposed project will also improve first and last mile transit connections for residents of affordable housing in the project area. While no transit directly serves CSAH 61 (Hemlock Ln) or CSAH 130 (Elm Creek Blvd), Maple Grove Transit Center is located directly southwest of the proposed project location which provides service to Downtown Minneapolis, a major employment center, via Metro Transit Routes 781 and 789.

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

Measure D: BONUS POINTS

Project is located in an Area of Concentrated Poverty:	
Projects census tracts are above the regional average for population in poverty or population of color (Regional Environmental Justice Area):	
Project located in a census tract that is below the regional average for population in poverty or populations of color (Regional Environmental Justice Area):	Yes
Upload the Socio-Economic Conditions map used for this measure.	1648677621233_2022 RS Map 03 - CSAH 61 (Hemlock Ln) Spot Mobility and Safety Project - Socio Economic Conditions.pdf

Measure A: Congestion Reduction/Air Quality

Total Peak Hour Delay Per Vehicle Without The Project (Seconds/ Vehicle)	Total Peak Hour Delay Per Vehicle With The Project (Seconds/ Vehicle)	Total Peak Hour Delay Per Vehicle Reduced by Project (Seconds/ Vehicle)	Volume without the Project (Vehicles per hour)	Volume with the Project (Vehicles Per Hour):	Total Peak Hour Delay Reduced by the Project:	Total Peak Hour Delay Reduced by the Project:	EXPLANATION of methodology used to calculate railroad crossing delay, if applicable.	Synchro or HCM Reports

24.0	2268.0	-2244	22	2268	-49368	-5089392	N/A	1649523890392_CSAH 61 (Hemlock Ln) Spot Mobility Project - Synchro Report for Congestion.pdf
						-5089392		

Vehicle Delay Reduced

Total Peak Hour Delay Reduced	-49368
Total Peak Hour Delay Reduced	-5089392

Measure B:Roadway projects that do not include new roadway segments or railroad grade-separation elements

Total (CO, NOX, and VOC) Peak Hour Emissions without the Project (Kilograms):	Total (CO, NOX, and VOC) Peak Hour Emissions with the Project (Kilograms):	Total (CO, NOX, and VOC) Peak Hour Emissions Reduced by the Project (Kilograms):
3.61	3.5	0.11
4	**4**	**0**

Total

Total Emissions Reduced:	0.11
Upload Synchro Report	1649524125673_CSAH 61 (Hemlock Ln) Spot Mobility Project - Synchro Report for Emissions.pdf

Please upload attachment in PDF form. (Save Form, then click 'Edit' in top right to upload file.)

Measure B: Roadway projects that are constructing new roadway segments, but do not include railroad grade-separation elements (for Roadway Expansion applications only):

Total (CO, NOX, and VOC) Peak Hour Emissions without the Project (Kilograms):	Total (CO, NOX, and VOC) Peak Hour Emissions with the Project (Kilograms):	Total (CO, NOX, and VOC) Peak Hour Emissions Reduced by the Project (Kilograms):
0	**0**	**0**

Total Parallel Roadway

Emissions Reduced on Parallel Roadways	0

Upload Synchro Report

Please upload attachment in PDF form. (Save Form, then click 'Edit' in top right to upload file.)

New Roadway Portion:

Cruise speed in miles per hour with the project:	0
Vehicle miles traveled with the project:	0
Total delay in hours with the project:	0
Total stops in vehicles per hour with the project:	0
Fuel consumption in gallons:	0
Total (CO, NOX, and VOC) Peak Hour Emissions Reduced or Produced on New Roadway (Kilograms):	0
EXPLANATION of methodology and assumptions used:(Limit 1,400 characters; approximately 200 words)	
Total (CO, NOX, and VOC) Peak Hour Emissions Reduced by the Project (Kilograms):	0.0

Measure B:Roadway projects that include railroad grade-separation elements

Cruise speed in miles per hour without the project:	0
Vehicle miles traveled without the project:	0
Total delay in hours without the project:	0
Total stops in vehicles per hour without the project:	0
Cruise speed in miles per hour with the project:	0
Vehicle miles traveled with the project:	0
Total delay in hours with the project:	0
Total stops in vehicles per hour with the project:	0
Fuel consumption in gallons (F1)	0
Fuel consumption in gallons (F2)	0
Fuel consumption in gallons (F3)	0
Total (CO, NOX, and VOC) Peak Hour Emissions Reduced by the Project (Kilograms):	0
EXPLANATION of methodology and assumptions used:(Limit 1,400 characters; approximately 200 words)	

Measure A: Benefit of Crash Reduction

Attachment 9 lists the reported crashes (2019-2021) along the project, and Attachment 10 lists CMFs applied in the B/C Analysis.

XX) Countermeasure: Crashes Targeted (CMF ID, % Reduction)

Crash Modification Factor Used:

01) Install retroreflective backplates to traffic signals: RE, LT, & RA crashes (CMF 1410, 15.0% reduction)

02) Improve angle of channelized of RT lane: RE crashes involving right-turning vehicles (CMF 8428, 44.2% reduction)

(Limit 700 Characters; approximately 100 words)

Rationale for Crash Modification Selected:

The Benefit/Cost Analysis evaluated each of the crashes to target crash themes. Only one (of the two selected) CMFs was applied to each crash based on the reported crash type, along with the anticipated benefit provided by each safety countermeasure. The assumption below was based on sound engineering judgement and available information at the time of application submittal.

- A crash reduction of 44.2% for RE crashes was assumed in quadrants where channelized RT islands were anticipated to be eliminated; whereas, a crash reduction of 22.1% for RE crashes was assumed in quadrants where channelized RT islands were anticipated to be upgraded to smart channel designs

The expected service life for each improvement was assumed to be 20 years based on service life values included in the 2022 HSIP criteria.

The overall crash reduction from the project is 16% (based on an 84% crash modification factor). Approximately 16% (3 crashes) of the total number of the reported crashes from the years 2019-2021 will be reduced annually through the implementation of various safety countermeasures for this project.

(Limit 1400 Characters; approximately 200 words)

Project Benefit ($) from B/C Ratio	$1,884,052.00
Total Fatal (K) Crashes:	0
Total Serious Injury (A) Crashes:	0
Total Non-Motorized Fatal and Serious Injury Crashes:	0
Total Crashes:	47
Total Fatal (K) Crashes Reduced by Project:	0
Total Serious Injury (A) Crashes Reduced by Project:	0

Total Non-Motorized Fatal and Serious Injury Crashes Reduced by Project:	0
Total Crashes Reduced by Project:	7
Worksheet Attachment	1649895414683_CSAH 61 (Hemlock Ln) Spot Mobility & Safety Project - BC Analysis Worksheets.pdf

Upload Crash Modification Factors and B/C Worksheet in PDF form.

Measure A: Pedestrian Safety

Determine if these measures do not apply to your project. *Does the project match either of the following descriptions?*
If either of the items are checked yes, then ***score for entire pedestrian safety measure is zero****. Applicant does not need to respond to the sub-measures and can proceed to the next section.*

Project is primarily a freeway (or transitioning to a freeway) and does not provide safe and comfortable pedestrian facilities and crossings.	No
Existing location lacks any pedestrian facilities (e.g., sidewalks, marked crossings, wide shoulders in rural contexts) and project does not add pedestrian elements (e.g., reconstruction of a roadway without sidewalks, that doesnt also add pedestrian crossings and sidewalk or sidepath on one or both sides).	No

SUB-MEASURE 1: Project-Based Pedestrian Safety Enhancements and Risk Elements
To receive maximum points in this category, pedestrian safety countermeasures selected for implementation in projects should be, to the greatest extent feasible, consistent with the countermeasure recommendations in the Regional Pedestrian Safety Action Plan and state and national best practices. Links to resources are provided on the Regional Solicitation Resources web page.
Please answer the following two questions with as much detail as possible based on the known attributes of the proposed design. If any aspect referenced in this section is not yet determined, describe the range of options being considered, to the greatest extent available. If there are project elements that may increase pedestrian risk, describe how these risks are being mitigated.
1. Describe how this project will address the safety needs of people crossing the street at signalized intersections, unsignalized intersections, midblock locations, and roundabouts.
Treatments and countermeasures should be well-matched to the roadways context (e.g., appropriate for the speed, volume, crossing distance, and other location attributes). Refer to the Regional Solicitation Resources web page for guidance links.

Response:

The CSAH 61 (Hemlock Ln) and CSAH 130 (Elm Creek Blvd) is a signalized intersection in the City of Maple Grove. Each leg of the intersection has two dedicated left-turn lanes and a free-right turn lane. Existing free-right turn lanes create four porkchops at the intersection, which have pedestrian ramps that are not up to current design standards, and which lack truncated domes.

The proposed project is anticipated to improve safety for those crossing the street at this signalized intersection primarily through the removal of the two existing free-right turns to create a more compact intersection design with smaller turning radii. Curb extensions will be paired with the removal of free-right turns where feasible. While subject to the design process, these interventions will reduce crossing distances as well as increase the visibility of pedestrians walking and rolling through this high-volume, high-speed intersection.

It is also anticipated that the signal at the CSAH 61 (Hemlock Ln) and CSAH 130 (Elm Creek Blvd) intersection will be replaced through the proposed project. Through the design process, the use of protected/permissive left-turn phasing, countdown timers and accessible pedestrian signal upgrades will be evaluated. In addition, the use of ITS strategies, such as signal communications, video detection, and ATMS will allow staff to maintain a reasonable balance of mobility and delay. Furthermore, lighting conditions will be upgraded to provide adequate nighttime visibility.

(Limit 2,800 characters; approximately 400 words)

Is the distance in between signalized intersections increasing (e.g., removing a signal)?

Select one: No

If yes, describe what measures are being used to fill the gap between protected crossing opportunities for pedestrians (e.g., adding High-Intensity Activated Crosswalk beacons to help motorists yield and help pedestrians find a suitable gap for crossing, turning signal into a roundabout to slow motorist speed, etc.).

Response:

As the primary focus of the proposed project is the signalized intersection of CSAH 61 (Hemlock Ln) and CSAH 130 (Elm Creek Blvd), it is not anticipated that the distance between signalized will be impacted.

(Limit 1,400 characters; approximately 200 words)

Will your design increase the crossing distance or crossing time across any leg of an intersection? (e.g., by adding turn or through lanes, widening lanes, using a multi-phase crossing, prohibiting crossing on any leg of an intersection, pedestrian bridge requiring length detour, etc.). This does not include any increases to crossing distances solely due to the addition of bike lanes (i.e., no other through or turn lanes being added or widened).

Select one: No

If yes,
How many intersections will likely be affected?

Response: 0

Describe what measures are being used to reduce exposure and delay for pedestrians (e.g., median crossing islands, curb bulb-outs, etc.)

Response:

Although contingent on the project development process, the removal of two free-right turns and associated "porkchops" to create a more compact intersection design, smart channel design at the remaining two quadrants, and curb extensions are anticipated to reduce exposure and delay for pedestrians.

(Limit 1,400 characters; approximately 200 words)

If grade separated pedestrian crossings are being added and increasing crossing time, describe any features that are included that will reduce the detour required of pedestrians and make the separated crossing a more appealing option (e.g., shallow tunnel that doesnt require much elevation change instead of pedestrian bridge with numerous switchbacks).

Response:

Although contingent on the project development process, no grade separated pedestrian crossings are anticipated to be introduced as part of the CSAH 61 (Hemlock Ln) and CSAH 130 (Elm Creek Blvd) Spot Mobility and Safety Project.

(Limit 1,400 characters; approximately 200 words)

If mid-block crossings are restricted or blocked, explain why this is necessary and how pedestrian crossing needs and safety are supported in other ways (e.g., nearest protected or enhanced crossing opportunity).

Response:

As the project is focusing primarily on the signalized intersection of CSAH 61 (Hemlock Ln) and CSAH 130 (Elm Creek Blvd), no mid-block crossings are anticipated to be prohibited.

(Limit 1,400 characters; approximately 200 words)

2. Describe how motorist speed will be managed in the project design, both for through traffic and turning movements. *Describe any project-related factors that may affect speed directly or indirectly, even if speed is not the intended outcome (e.g., wider lanes and turning radii to facilitate freight movements, adding turn lanes to alleviate peak hour congestion, etc.). Note any strategies or treatments being considered that are intended to help motorists drive slower (e.g., visual narrowing, narrow lanes, truck aprons to mitigate wide turning radii, etc.) or protect pedestrians if increasing motorist speed (e.g., buffers or other separation from moving vehicles, crossing treatments appropriate for higher speed roadways, etc.).*

Response:

The CSAH 61 (Hemlock Ln) Spot Mobility and Safety Project will introduce proven design strategies to promote uniform, safe, and reasonable speeds for people driving through the intersection. It is anticipated that the intersection will be evaluated for the removal of two existing free right turns, and smart channel design may be implemented at the remaining quadrants to create a more compact intersection design, which will encourage slower speeds for people driving.

(Limit 2,800 characters; approximately 400 words)

If known, what are the existing and proposed design, operation, and posted speeds? Is this an increase or decrease from existing conditions?

Response:

The current posted speed limit along CSAH 61 (Helmlock Ln) is 45 mph. The current post speed limit along CSAH 130 (Elm Creek Blvd N) is 40 mph for westbound traffic and 45 mph for eastbound traffic.

The proposed design speed limit(s) will be determined as part of the project development process based on data analysis, stakeholder input, and environmental review. At this time, an increase in the existing speed limit is not anticipated. Project elements such as raised medians, curb extensions, streetscaping, and lane widths will support the proposed design speed limit(s).

(Limit 1,400 characters; approximately 200 words)

SUB-MEASURE 2: Existing Location-Based Pedestrian Safety Risk Factors

These factors are based on based on trends and patterns observed in pedestrian crash analysis done for the Regional Pedestrian Safety Action Plan. Check off how many of the following factors are present. Applicants receive more points if more risk factors are present.

Existing road configuration is a One-way, 3+ through lanes or	
Existing road configuration is a Two-way, 4+ through lanes	Yes
Existing road has a design speed, posted speed limit, or speed study/data showing 85th percentile travel speeds in excess of 30 MPH or more	Yes

Existing road has AADT of greater than 15,000 vehicles per day	Yes
List the AADT	38000

SUB-MEASURE 3: Existing Location-Based Pedestrian Safety Exposure Factors

These factors are based on based on trends and patterns observed in pedestrian crash analysis done for the Regional Pedestrian Safety Action Plan. Check off how many of the following existing location exposure factors are present. Applicants receive more points if more risk factors are present.

Existing road has transit running on or across it with 1+ transit stops in the project area (If flag-stop route with no fixed stops, then 1+ locations in the project area where roadside stops are allowed. Do not count portions of transit routes with no stops, such as non-stop freeway sections of express or limited-stop routes. If service was temporarily reduced for the pandemic but is expected to return to 2019 levels, consider 2019 service for this item.)	
Existing road has high-frequency transit running on or across it and 1+ high-frequency stops in the project area (high-frequency defined as service at least every 15 minutes from 6am to 7pm weekdays and 9am to 6pm Saturdays. If service frequency was temporarily reduced for the pandemic but is expected to return to 2019 levels, consider 2019 frequency for this item.)	
Existing road is within 500 of 1+ shopping, dining, or entertainment destinations (e.g., grocery store, restaurant)	Yes

If checked, please describe:

CSAH 61 (Hemlock Ln) and CSAH 130 (Elm Creek Blvd) border the Shoppes at Arbor Lakes, a regionally important center for shopping, dining, and entertainment as well as a source of significant employment. Although the Shoppes at Arbor Lakes contains uses ranging from grocery stores, restaurants, and hotels, the following are destinations which fall within 500' of the project location:

-Benihana (Restaurant)

-Ichiddo Ramen (Restaurant)

-Crisp & Green (Restaurant)

-TGI Friday's (Restaurant)

-Old National Bank (Financial Services)

-Chick-Fil-A (Restaurant)

-Jared Jewelry (Shopping)

-BMO Harris Bank (Financial Services)

-WellHaven Pet Health (Veterinarian)

-Spavia Day Spa (Entertainment)

(Limit 1,400 characters; approximately 200 words)

Existing road is within 500 of other known pedestrian generators (e.g., school, civic/community center, senior housing, multifamily housing, regulatorily-designated affordable housing)

Yes

If checked, please describe:

The CSAH 61 (Hemlock Ln) and CSAH 130 (Elm Creek Blvd) corridors are home to diverse residential and civic uses which are significant generators of pedestrian traffic. However, due to the suburban context of the project area many pedestrian generators are just outside the 500' buffer (Maple Grove Transit Center, Bottineau Ridge Apartments, The Reserve at Arbor Lakes). Within the 500' buffer, however, is the Village Arbor Lakes development, which will provide 198 units of senior housing directly northeast of the proposed project. In addition, significant healthcare providers are located in the building directly northwest of the intersection, including pediatricians and dentists.

(Limit 1,400 characters; approximately 200 words)

Measure A: Multimodal Elements and Existing Connections

This application will improve conditions for people walking, biking and using mobility devices by eliminating the two free-right turn lanes and implementing smart channel designs in the remaining two quadrants. The reduced turning radius should slow motor vehicle traffic and improve visibility between motor vehicle users and people crossing. Attachment 11 highlights multimodal connections near the project location.

The project will include multiuse trail in all four quadrants and connect to the existing trails.

The signal will be updated to accessible pedestrian signals and new accessibility ramps will replace the existing noncompliant ADA ramps. Drainage will be improved so water does not pool in the pedestrian ramps as it does today.

Response:

CSAH 130 (Elm Creek Blvd) is a Regional Bicycle Transportation Network Tier 1 corridor through this intersection. Improving this intersection will create a more direct and visible crossing for people biking this route, resulting in improved safety.

The intersection's ramps and signal are identified as deficient in Hennepin County's ADA transition plan.

The intersection currently does not carry regular fixed route transit. It is, however, less than a half mile from Maple Grove Transit Station and likely carries pedestrian and bicycle traffic en route to the station, with service from routes 781 and 789.

The intersection currently has multiuse trails on all four quadrants connecting to multiuse trails on all

four legs. The intersection has free-right turn lanes for each leg and "pork chop" islands where people walking and biking are expected to activate pedestrian signals and wait in the middle of the pork chop, whose ramps are not ADA compliant. This project will remove two of those free rights, tighten the turning radius and making the intersection more accessible and safe for people walking, biking and using mobility devices.

(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.Public Involvement (20 Percent of Points)

Projects that have been through a public process with residents and other interested public entities are more likely than others to be successful. The project applicant must indicate that events and/or targeted outreach (e.g., surveys and other web-based input) were held to help identify the transportation problem, how the potential solution was selected instead of other options, and the public involvement completed to date on the project. The focus of this section is on the opportunity for public input as opposed to the quality of input. NOTE: A written response is required and failure to respond will result in zero points.

Multiple types of targeted outreach efforts (such as meetings or online/mail outreach) specific to this project with the general public and partner agencies have been used to help identify the project need.

100%

At least one meeting specific to this project with the general public has been used to help identify the project need.

50%

At least online/mail outreach effort specific to this project with the general public has been used to help identify the project need.

50%

No meeting or outreach specific to this project was conducted, but the project was identified through meetings and/or outreach related to a larger planning effort.

25%

No outreach has led to the selection of this project. Yes

0%

Describe the type(s) of outreach selected for this project (i.e., online or in-person meetings, surveys, demonstration projects), the method(s) used to announce outreach opportunities, and how many people participated. Include any public website links to outreach opportunities.

Response:

The CSAH 61 (Hemlock Ln) Spot Mobility and Safety Project was selected for the pursuit of Regional Solicitation funding based on the recent crash rate experienced at the intersection when compared to similar locations countywide.

At this time, county staff have not begun public engagement specific to the project. However, county staff worked closely with MnDOT and transportation safety professionals in the development of the County Road Safety Plan. The CSAH 61 (Hemlock Ln) and CSAH 130 (Elm Creek Blvd) intersection includes a number of design deficiencies that have shown to create the potential for high crash frequencies.

If funded, Hennepin County will coordinate with the City of Maple Grove to determine an appropriate plan for moving forward with engagement, which would likely include engaging nearby residents and people who frequently travel through the intersection.

(Limit 2,800 characters; approximately 400 words)

2.Layout (25 Percent of Points)

Layout includes proposed geometrics and existing and proposed right-of-way boundaries. A basic layout should include a base map (north arrow; scale; legend; city and/or county limits; existing ROW, labeled; existing signals;* and bridge numbers*) and design data (proposed alignments; bike and/or roadway lane widths; shoulder width;* proposed signals;* and proposed ROW). An aerial photograph with a line showing the projects termini does not suffice and will be awarded zero points. *If applicable*

Layout approved by the applicant and all impacted jurisdictions (i.e., cities/counties/MnDOT. If a MnDOT trunk highway is impacted, approval by MnDOT must have occurred to receive full points. A PDF of the layout must be attached along with letters from each jurisdiction to receive points.

100%

A layout does not apply (signal replacement/signal timing, stand-alone streetscaping, minor intersection improvements). Applicants that are not certain whether a layout is required should contact Colleen Brown at MnDOT Metro State Aid colleen.brown@state.mn.us.

100%

For projects where MnDOT trunk highways are impacted and a MnDOT Staff Approved layout is required. Layout approved by the applicant and all impacted local jurisdictions (i.e., cities/counties), and layout review and approval by MnDOT is pending. A PDF of the layout must be attached along with letters from each jurisdiction to receive points.

75%

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

50%

Layout has been started but is not complete. A PDF of the layout must be attached to receive points.

25%

Layout has not been started

0%

Attach Layout 1649525334149_Attachment 04 - Potential Concept.pdf

Please upload attachment in PDF form.

Additional Attachments

Please upload attachment in PDF form.

3.Review of Section 106 Historic Resources (15 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

4.Right-of-Way (25 Percent of Points)

Right-of-way, permanent or temporary easements, and MnDOT agreement/limited-use permit either not required or all have been acquired	Yes
100%	
Right-of-way, permanent or temporary easements, and/or MnDOT agreement/limited-use permit required - plat, legal descriptions, or official map complete	
50%	
Right-of-way, permanent or temporary easements, and/or MnDOT agreement/limited-use permit required - parcels identified	
25%	
Right-of-way, permanent or temporary easements, and/or MnDOT agreement/limited-use permit required - parcels not all identified	
0%	

5.Railroad Involvement (15 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%	

Measure A: Cost Effectiveness

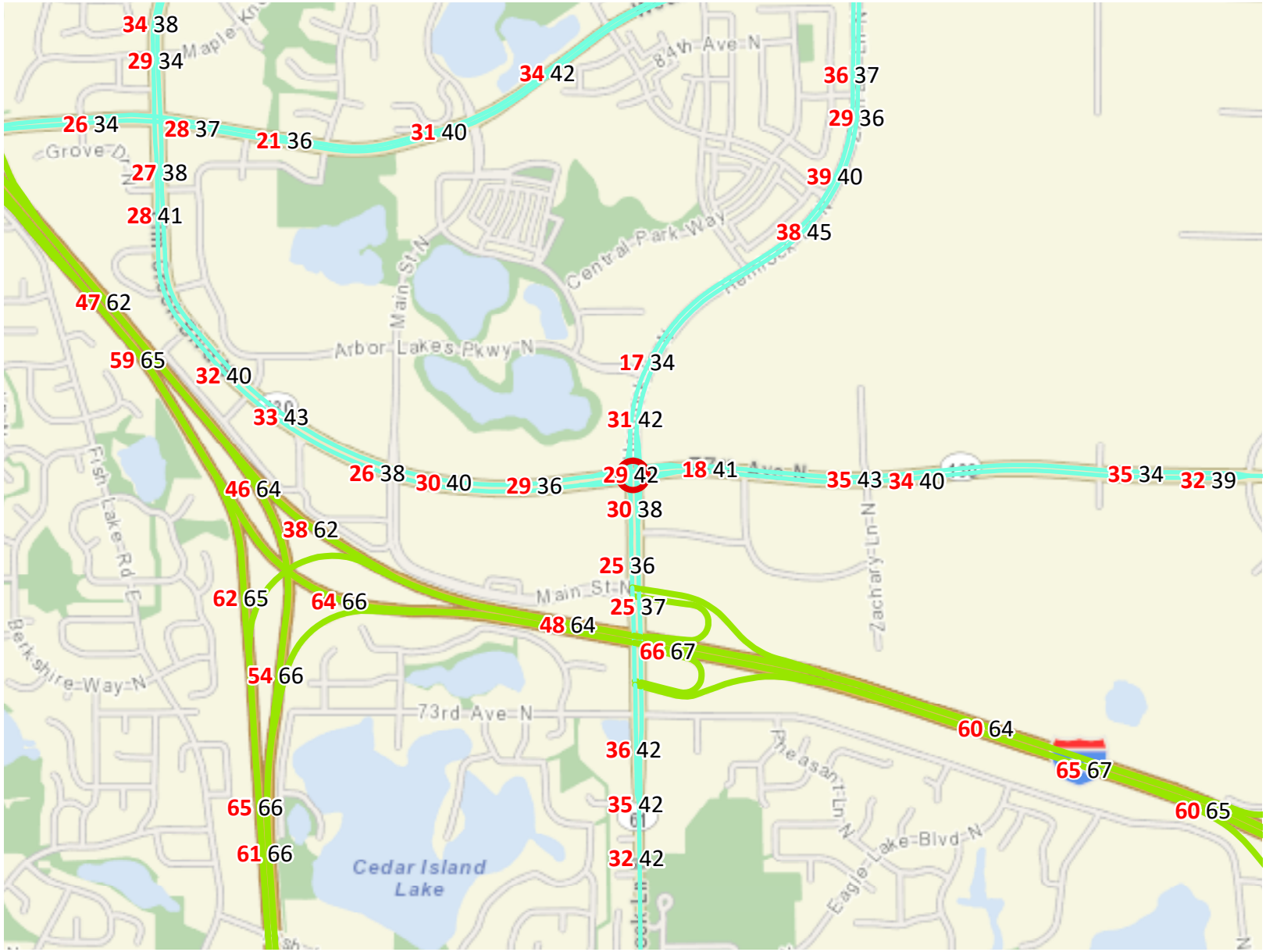
Total Project Cost (entered in Project Cost Form):	$2,320,000.00
Enter Amount of the Noise Walls:	$0.00
Total Project Cost subtract the amount of the noise walls:	$2,320,000.00
Enter amount of any outside, competitive funding:	$0.00
Attach documentation of award:	
Points Awarded in Previous Criteria	
Cost Effectiveness	$0.00

Other Attachments

File Name	Description	File Size
Attachment 00 - List of Attachments.pdf	Attachment 00 - List of Attachments	60 KB
Attachment 01 - Project Narrative.pdf	Attachment 01 - Project Narrative	172 KB
Attachment 02 - Project Location Map.pdf	Attachment 02 - Project Location Map	636 KB
Attachment 03 - Existing Roadway Condition Photos.pdf	Attachment 03 - Existing Roadway Condition Photos	121 KB
Attachment 04 - Potential Concept.pdf	Attachment 04 - Potential Concept	1.3 MB
Attachment 05 - County Board Resolution 22-0109.pdf	Attachment 05 - County Board Resolution 22-0109	280 KB
Attachment 06 - CRSP Risk Factors.pdf	Attachment 06 - CRSP Risk Factors	200 KB
Attachment 07 - Socio-Economic Equity Map.pdf	Attachment 07 - Socio-Economic Equity Map	382 KB
Attachment 08 - Affordable Housing Access Map and Detail Summary.pdf	Attachment 08 - Affordable Housing Access Map and Detail Summary	359 KB
Attachment 09 - Crash Map and Detail Listing.pdf	Attachment 09 - Crash Map and Detail Listing	884 KB
Attachment 10 - Crash Modification Factors.pdf	Attachment 10 - Crash Modification Factors	451 KB
Attachment 11 - Multimodal Connections Map.pdf	Attachment 11 - Multimodal Connections Map	743 KB
Attachment 12 - Support Letter - City of Maple Grove.pdf	Attachment 12 - Support Letter - City of Maple Grove	147 KB

Level of Congestion

Roadway Spot Mobility & Safety Project: CSAH 61 (Hemlock Ln) Spot Mobility and Safety Project | Map ID: 1646858227335



Project Points

A Minor Arterials

A Minor Arterials Planned

Principal Arterials

Principal Arterials Planned

0 0.175 0.35 0.7 1.05 1.4 Miles

Created: 3/9/2022

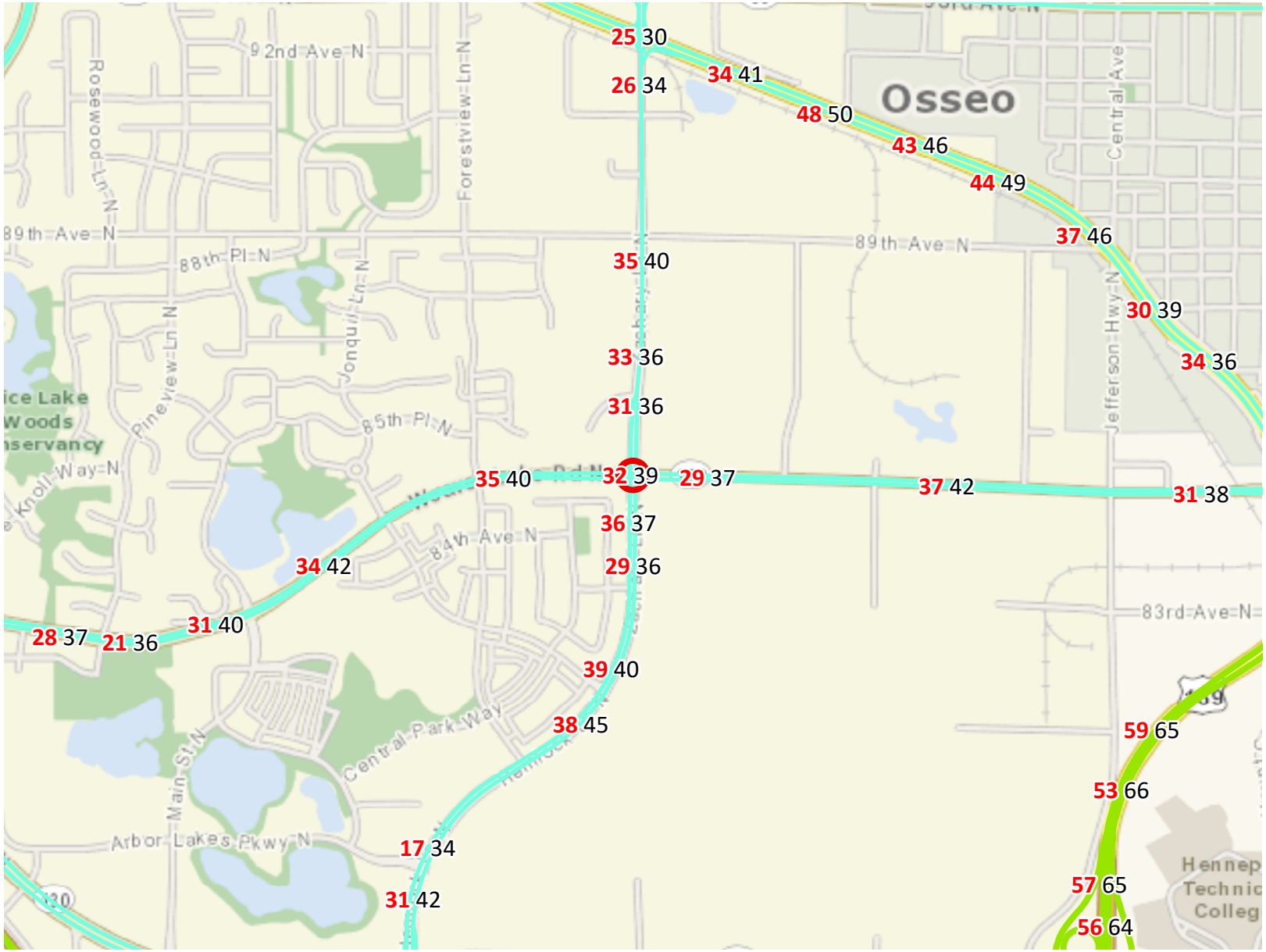
LandscapeRSA1

For complete disclaimer of accuracy, please visit https://giswebsite.metc.state.mn.us/gissite/notice.aspx

METROPOLITAN COUNCIL

Level of Congestion

Roadway Spot Mobility & Safety Project: CSAH 61 (Hemlock Ln) Spot Mobility and Safety Project | Map ID: 1649522671886



Project Points
A Minor Arterials
A Minor Arterials Planned
Principal Arterials
Principal Arterials Planned

0 0.175 0.35 0.7 1.05 1.4 Miles

Created: 4/9/2022
LandscapeRSA1

For complete disclaimer of accuracy, please visit https://giswebsite.metc.state.mn.us/gissite/notice.aspx

METROPOLITAN COUNCIL

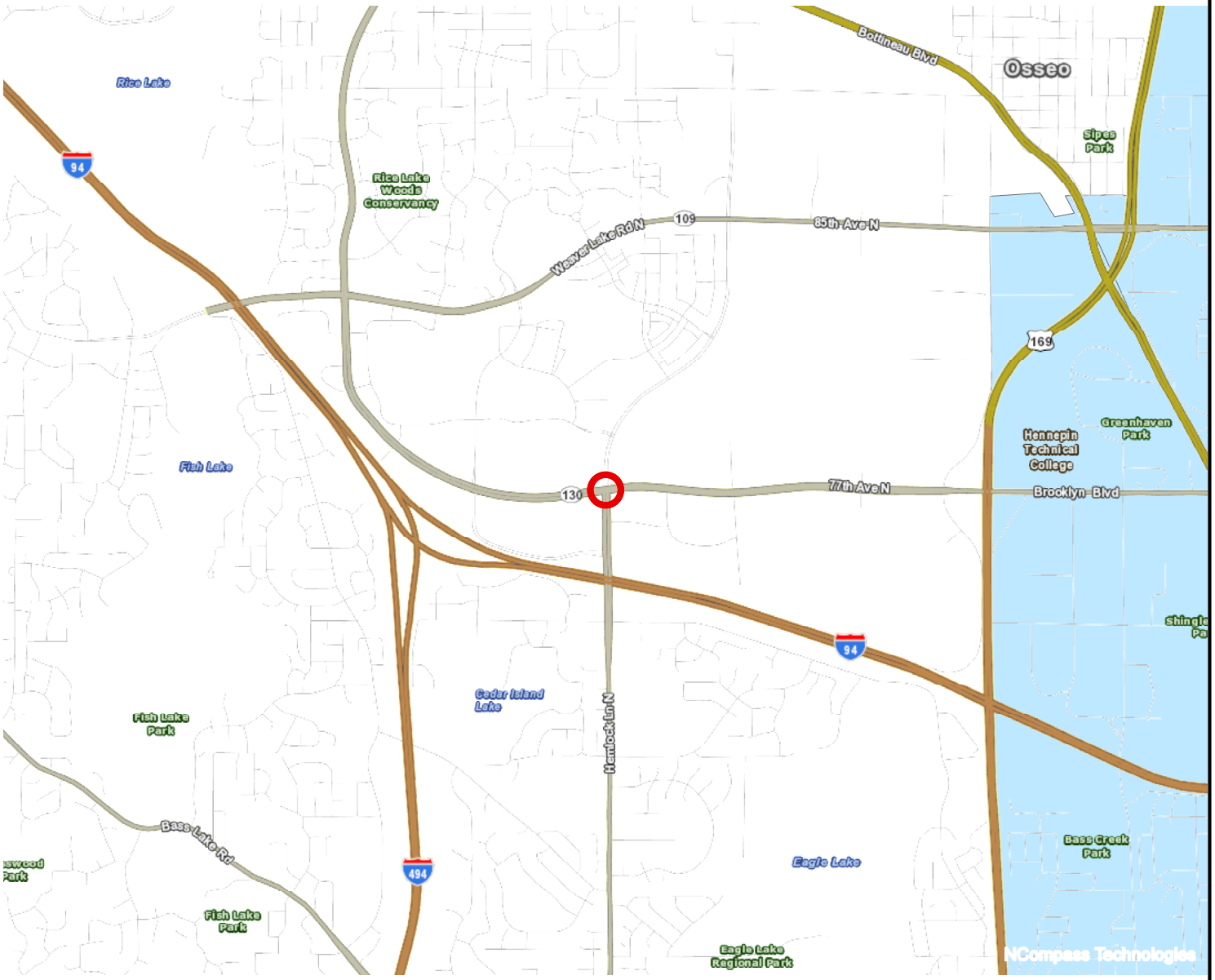
Socio-Economic Conditions

Roadway Spot Mobility & Safety Project: CSAH 61 (Hemlock Ln) Spot Mobility and Safety Project | Map ID: 1646858227335

Results

Total of publicly subsidized rental housing units in census tracts within 1/2 mile: 222

Project located in census tracts that are BELOW the regional average for population in poverty or population of color.



Points

Regional Environmental Justice Area

Area of Concentrated Poverty

0 0.35 0.7 1.4 2.1 2.8 Miles

Created: 3/9/2022
LandscapeRSA2

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

METROPOLITAN COUNCIL

CSAH 61 (Hemlock Ln) Spot Mobility and Safety Project

Synchro Report – Congestion Reduction

Existing conditions (AM Peak)

Elm Creek Blvd RS 04/03/2022
Existing AM

3: Hemlock Ln & Elm Creek Blvd

Direction	All
Future Volume (vph)	2268
Total Delay / Veh (s/v)	24
CO Emissions (kg)	2.53
NOx Emissions (kg)	0.49
VOC Emissions (kg)	0.59

Proposed conditions (AM Peak)

Elm Creek Blvd RS 04/03/2022
Build AM

3: Hemlock Ln & Elm Creek Blvd

Direction	All
Future Volume (vph)	2268
Total Delay / Veh (s/v)	22
CO Emissions (kg)	2.45
NOx Emissions (kg)	0.48
VOC Emissions (kg)	0.57

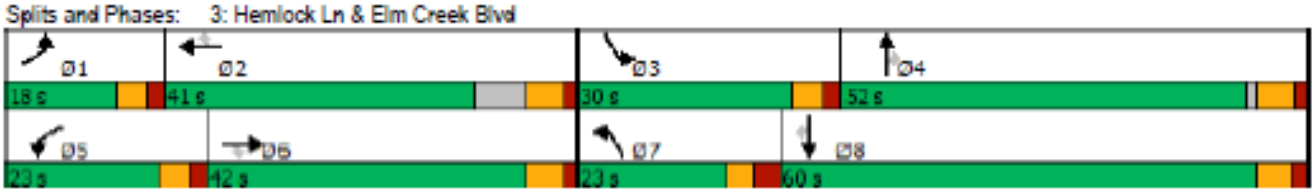
Elm Creek Blvd RS
Existing AM

04/03/2022
3: Hemlock Ln & Elm Creek Blvd

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	164	152	174	127	53	180	525	101	59	714	13
Future Volume (vph)	6	164	152	174	127	53	180	525	101	59	714	13
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases			6			2			4			8
Detector Phase	1	6	6	5	2	2	7	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	6.0	12.0	12.0	6.0	12.0	12.0	6.0	10.0	10.0	6.0	10.0	10.0
Minimum Split (s)	11.5	42.0	42.0	11.5	41.0	41.0	12.0	39.0	39.0	11.5	39.0	39.0
Total Split (s)	18.0	42.0	42.0	23.0	41.0	41.0	23.0	52.0	52.0	30.0	60.0	60.0
Total Split (%)	12.2%	28.4%	28.4%	15.5%	27.7%	27.7%	15.5%	35.1%	35.1%	20.3%	40.5%	40.5%
Yellow Time (s)	3.5	4.5	4.5	3.5	4.5	4.5	3.0	4.5	4.5	3.5	4.0	4.0
All-Red Time (s)	2.0	1.5	1.5	2.0	1.5	1.5	3.0	1.5	1.5	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	6.0	6.0	5.5	6.0	6.0	6.0	6.0	6.0	5.5	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	6.1	12.5	12.5	10.1	26.2	26.2	10.2	26.2	26.2	7.2	19.9	19.9
Actuated g/C Ratio	0.08	0.16	0.16	0.13	0.34	0.34	0.13	0.34	0.34	0.09	0.26	0.26
v/c Ratio	0.03	0.31	0.42	0.42	0.11	0.09	0.43	0.47	0.17	0.20	0.59	0.03
Control Delay	37.3	32.0	9.5	34.9	20.7	0.3	34.8	22.4	2.4	36.2	26.9	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.3	32.0	9.5	34.9	20.7	0.3	34.8	22.4	2.4	36.2	26.9	0.1
LOS	D	C	A	C	C	A	C	C	A	D	C	A
Approach Delay		21.5			24.6			22.6			27.2	
Approach LOS		C			C			C			C	

Intersection Summary	
Cycle Length: 148	
Actuated Cycle Length: 76.5	
Natural Cycle: 105	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.59	
Intersection Signal Delay: 24.3	Intersection LOS: C
Intersection Capacity Utilization 53.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 3: Hemlock Ln & Elm Creek Blvd



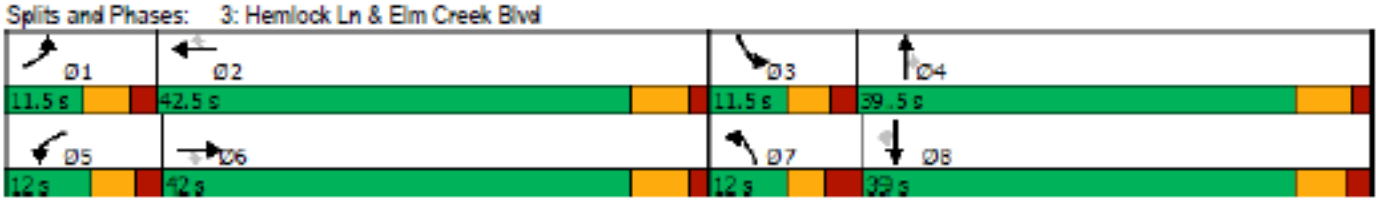
Elm Creek Blvd RS
Build AM

04/03/2022
3: Hemlock Ln & Elm Creek Blvd

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	164	152	174	127	53	180	525	101	59	714	13
Future Volume (vph)	6	164	152	174	127	53	180	525	101	59	714	13
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases			6			2			4			8
Detector Phase	1	6	6	5	2	2	7	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	6.0	12.0	12.0	6.0	12.0	12.0	6.0	10.0	10.0	6.0	10.0	10.0
Minimum Split (s)	11.5	42.0	42.0	11.5	41.0	41.0	12.0	39.0	39.0	11.5	39.0	39.0
Total Split (s)	11.5	42.0	42.0	12.0	42.5	42.5	12.0	39.5	39.5	11.5	39.0	39.0
Total Split (%)	11.0%	40.0%	40.0%	11.4%	40.5%	40.5%	11.4%	37.6%	37.6%	11.0%	37.1%	37.1%
Yellow Time (s)	3.5	4.5	4.5	3.5	4.5	4.5	3.0	4.5	4.5	3.5	4.0	4.0
All-Red Time (s)	2.0	1.5	1.5	2.0	1.5	1.5	3.0	1.5	1.5	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	6.0	6.0	5.5	6.0	6.0	6.0	6.0	6.0	5.5	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	6.0	12.1	12.1	6.5	22.0	22.0	6.0	22.7	22.7	6.0	17.4	17.4
Actuated g/C Ratio	0.09	0.18	0.18	0.10	0.34	0.34	0.09	0.35	0.35	0.09	0.27	0.27
v/c Ratio	0.02	0.27	0.39	0.55	0.12	0.09	0.62	0.47	0.17	0.20	0.58	0.03
Control Delay	29.0	25.2	7.9	35.8	18.2	0.3	39.8	19.4	2.6	30.6	22.5	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.0	25.2	7.9	35.8	18.2	0.3	39.8	19.4	2.6	30.6	22.5	0.1
LOS	C	C	A	D	B	A	D	B	A	C	C	A
Approach Delay		17.1			24.1			21.8			22.8	
Approach LOS		B			C			C			C	

Intersection Summary	
Cycle Length: 105	
Actuated Cycle Length: 65.5	
Natural Cycle: 105	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.62	
Intersection Signal Delay: 21.8	Intersection LOS: C
Intersection Capacity Utilization 53.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 3: Hemlock Ln & Elm Creek Blvd



CSAH 61 (Hemlock Ln) Spot Mobility and Safety Project

Synchro Report – Emission Reduction

Existing conditions (AM Peak)

Elm Creek Blvd RS 04/03/2022
Existing AM

3: Hemlock Ln & Elm Creek Blvd

Direction	All
Future Volume (vph)	2268
Total Delay / Veh (s/v)	24
CO Emissions (kg)	2.53
NOx Emissions (kg)	0.49
VOC Emissions (kg)	0.59

Proposed conditions (AM Peak)

Elm Creek Blvd RS 04/03/2022
Build AM

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Direction	All
Future Volume (vph)	2268
Total Delay / Veh (s/v)	22
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Elm Creek Blvd RS
Existing AM

04/03/2022
3: Hemlock Ln & Elm Creek Blvd

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Permitted Phases			6			2			4			8
Detector Phase	1	6	6	5	2	2	7	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	6.0	12.0	12.0	6.0	12.0	12.0	6.0	10.0	10.0	6.0	10.0	10.0
Minimum Split (s)	11.5	42.0	42.0	11.5	41.0	41.0	12.0	39.0	39.0	11.5	39.0	39.0
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Yellow Time (s)	3.5	4.5	4.5	3.5	4.5	4.5	3.0	4.5	4.5	3.5	4.0	4.0
All-Red Time (s)	2.0	1.5	1.5	2.0	1.5	1.5	3.0	1.5	1.5	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	6.0	6.0	5.5	6.0	6.0	6.0	6.0	6.0	5.5	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	6.1	12.5	12.5	10.1	26.2	26.2	10.2	26.2	26.2	7.2	19.9	19.9
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LOS	D	C	A	C	C	A	C	C	A	D	C	A
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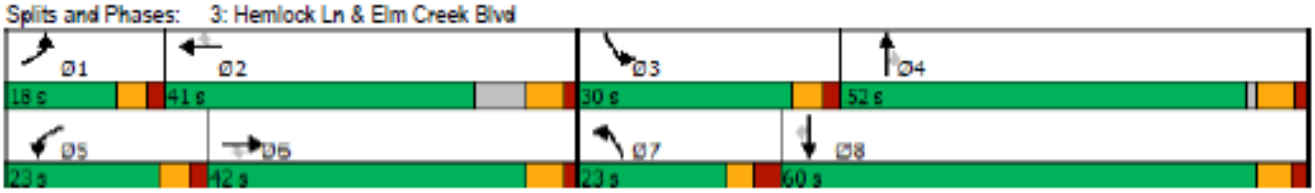
Splits and Phases: 3: Hemlock Ln & Elm Creek Blvd



Elm Creek Blvd RS
Build AM

04/03/2022
3: Hemlock Ln & Elm Creek Blvd

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Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases			6			2			4			8
Detector Phase	1	6	6	5	2	2	7	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	6.0	12.0	12.0	6.0	12.0	12.0	6.0	10.0	10.0	6.0	10.0	10.0
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Total Split (%)	11.0%	40.0%	40.0%	11.4%	40.5%	40.5%	11.4%	37.6%	37.6%	11.0%	37.1%	37.1%
Yellow Time (s)	3.5	4.5	4.5	3.5	4.5	4.5	3.0	4.5	4.5	3.5	4.0	4.0
All-Red Time (s)	2.0	1.5	1.5	2.0	1.5	1.5	3.0	1.5	1.5	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	6.0	6.0	5.5	6.0	6.0	6.0	6.0	6.0	5.5	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	6.0	12.1	12.1	6.5	22.0	22.0	6.0	22.7	22.7	6.0	17.4	17.4
Actuated g/C Ratio	0.09	0.18	0.18	0.10	0.34	0.34	0.09	0.35	0.35	0.09	0.27	0.27
v/c Ratio	0.02	0.27	0.39	0.55	0.12	0.09	0.62	0.47	0.17	0.20	0.58	0.03
Control Delay	29.0	25.2	7.9	35.8	18.2	0.3	39.8	19.4	2.6	30.6	22.5	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.0	25.2	7.9	35.8	18.2	0.3	39.8	19.4	2.6	30.6	22.5	0.1
LOS	C	C	A	D	B	A	D	B	A	C	C	A
Approach Delay		17.1			24.1			21.8			22.8	
Approach LOS		B			C			C			C	

Intersection Summary	
Cycle Length: 105	
Actuated Cycle Length: 65.5	
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Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.62	
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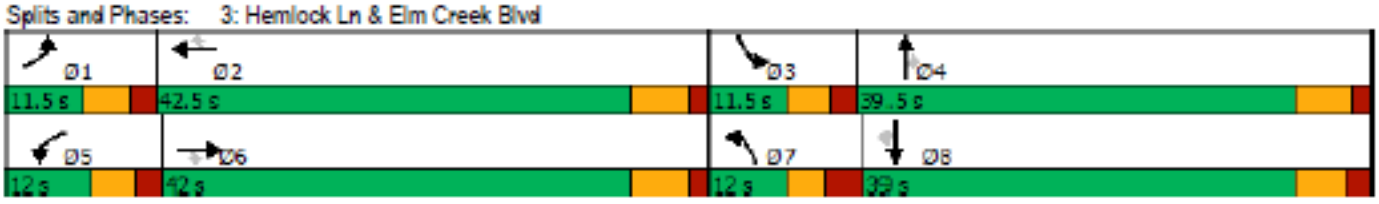
Splits and Phases: 3: Hemlock Ln & Elm Creek Blvd



Traffic Safety Benefit-Cost Calculation

Highway Safety Improvement Program (HSIP) Reactive Project

DEPARTMENT OF TRANSPORTATION

A. Roadway Description

Route	CSAH 61	**District**	Metro	**County**	Hennepin County
Begin RP	24.78	**End RP**	24.81	**Miles**	0.03
Location	At CSAH 130 (Elm Creek Boulevard)				

B. Project Description

Proposed Work	Remove channelized RT islands in NW & NE quads; modify channelized RT islands in SW & SE quads Install retroreflective backplates to traffic signal heads		
Project Cost*	$2,320,000	**Installation Year**	2026
Project Service Life	20 years	**Traffic Growth Factor**	0.5%

** exclude Right of Way from Project Cost*

C. Crash Modification Factor

	Fatal (K) Crashes	**Reference**	CMF 08428: Improve angle of channelized RT island (44.2% reduction)
	Serious Injury (A) Crashes		CMF 01410: Install retroreflective backplaces (15.0% reduction)
0.96	**Moderate Injury (B) Crashes**	**Crash Type**	CMF 08428: RT
0.85	**Possible Injury (C) Crashes**		CMF 01410: RE, LT, & RA
0.83	**Property Damage Only Crashes**		www.CMFclearinghouse.org

D. Crash Modification Factor (optional second CMF)

	Fatal (K) Crashes	**Reference**	
	Serious Injury (A) Crashes		
	Moderate Injury (B) Crashes	**Crash Type**	
	Possible Injury (C) Crashes		
	Property Damage Only Crashes		www.CMFclearinghouse.org

E. Crash Data

Begin Date	1/1/2019	**End Date**	12/31/2021	3 years
Data Source	MnCMAT Version 2.0			

Crash Severity	CMF 08428: RT CMF 01410: RE, LT, & RA	None
K crashes	0	
A crashes	0	
B crashes	4	
C crashes	10	
PDO crashes	33	

F. Benefit-Cost Calculation

$1,884,052	**Benefit (present value)**	**B/C Ratio = 0.82**
$2,320,000	**Cost**	

Proposed project expected to reduce 3 crashes annually, 0 of which involving fatality or serious injury.

F. Analysis Assumptions

Crash Severity	Crash Cost
K crashes	$1,500,000
A crashes	$750,000
B crashes	$230,000
C crashes	$120,000
PDO crashes	$13,000

Link: mndot.gov/planning/program/appendix_a.html

Real Discount Rate	0.7%
Traffic Growth Rate	0.5%
Project Service Life	20 years

G. Annual Benefit

Crash Severity	Crash Reduction	Annual Reduction	Annual Benefit
K crashes	0.00	0.00	$0
A crashes	0.00	0.00	$0
B crashes	0.15	0.05	$11,653
C crashes	1.49	0.50	$59,600
PDO crashes	5.71	1.90	$24,739
			$95,992

H. Amortized Benefit

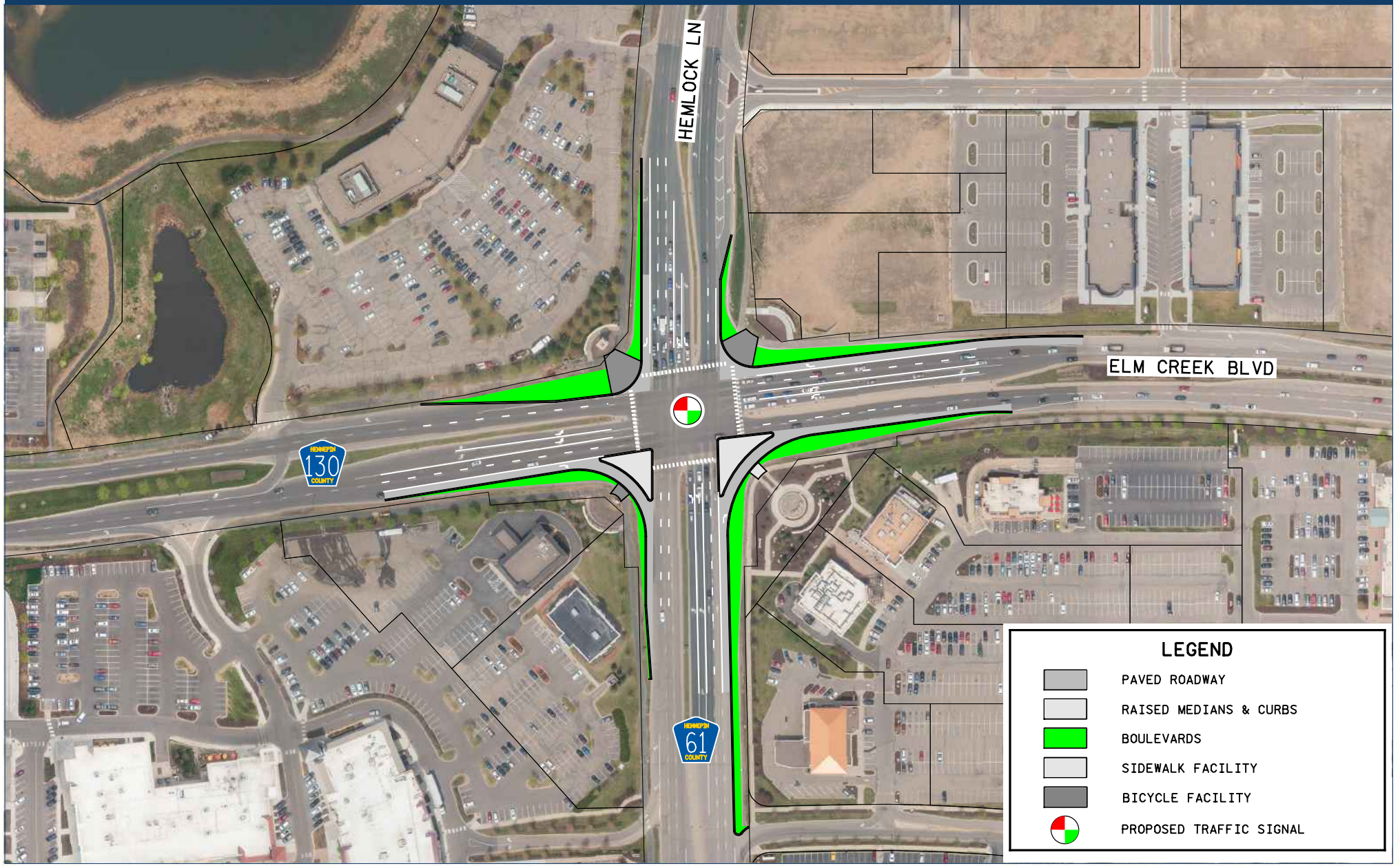
Year	Crash Benefits	Present Value
2026	$95,992	$95,992
2027	$96,472	$95,802
2028	$96,955	$95,611
2029	$97,439	$95,422
2030	$97,927	$95,232
2031	$98,416	$95,043
2032	$98,908	$94,854
2033	$99,403	$94,666
2034	$99,900	$94,478
2035	$100,399	$94,290
2036	$100,901	$94,103
2037	$101,406	$93,916
2038	$101,913	$93,729
2039	$102,422	$93,543
2040	$102,935	$93,357
2041	$103,449	$93,172
2042	$103,967	$92,987
2043	$104,486	$92,802
2044	$105,009	$92,618
2045	$105,534	$92,434
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0

Total = $1,884,052

CSAH 61 (Hemlock Ln) Spot Mobility & Safety Project

HENNEPIN COUNTY
MINNESOTA

Attachment 04 | Potential Concept



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SCALE IN FEET

N

Job #14870
4/7/2022
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CSAH 61 (Hemlock Ln) Spot Mobility & Safety Project

List of attachments

1. Project Narrative
2. Project Location Map
3. Existing Roadway Condition Photos
4. Potential Concept
5. County Board Resolution 22-0109
6. CRSP Intersection Risk Factors
7. Socio-Economic Equity Map
8. Affordable Housing Access Map and Detail Summary
9. Crash Map and Detail Listing
10. Crash Modification Factors
11. Multimodal Connections Map
12. Support Letter – City of Maple Grove

CSAH 61 (Hemlock Ln) Spot Mobility & Safety Project

Attachment 01 | Project Narrative

HENNEPIN COUNTY
MINNESOTA

Project Name
CSAH 61 (Hemlock Ln) Spot Mobility & Safety Project

City(ies)
Maple Grove

Commissioner District(s)
7

Capital Project Number
CP 2220500

Project Category
Spot Mobility and Safety

Scoping Manager
Emily Buell

Scoping Form Revision Dates
4/9/2022

Project Map

Project Summary
Safety improvements at the intersection of Hemlock Lane (CSAH 61) and Elm Creek Boulevard (CSAH 130) in the City of Maple Grove.

Roadway History
The existing intersection of Hemlock Lane (CSAH 61) and Elm Creek Boulevard (CSAH 130) experiences a relatively high number of crashes when compared to similar intersections throughout the county. The predominant crash type at this intersection is rear-end related. The existing design includes channelized right-turn islands in all four quadrants that present sight distance challenges for right-turning vehicles. In addition, relatively long crossing distances are required for people walking, rolling, and biking through the intersection.

Project Timeline

Scoping:	Q1 2022 - Q4 2023
Design:	Q1 2024 - Q4 2025
R/W Acquisition:	Q1 2025 - Q4 2025
Bid Advertisement:	Q1 2026
Construction:	Q2 2026 - Q4 2026

Project Delivery Responsibilities

Preliminary Design:	Consultant
Final Design:	Consultant
Construction Services:	Consultant

Project Description and Benefits
The proposed project will improve accessibility, mobility, and safety by implementing the following project elements that aim to address crash themes:

- Elimination of two channelized right-turn islands and introduction of smart channel design at the remaining two quadrants to slow vehicles
- Remove unnecessary buffer space surrounding right-turn islands
- Replacement and upgrading of the existing traffic signal system
- Upgrade of ADA accommodations to current design standards
- Modification of trail and sidewalk alignments on approaches (as necessary)

Project Budget -		Project Level
Construction:	$	1,780,000
Cost Estimate Year:		2022
Construction Year:		2026
Annual Inflation Rate:		2.0%
Inflated Construction:	$	1,930,000
Design Services:	$	290,000
R/W Acquisition:	$	-
Other (Utility Burial):	$	-
Construction Services:	$	190,000
Contingency:	$	540,000
Total Project Budget:	**$**	**2,950,000**

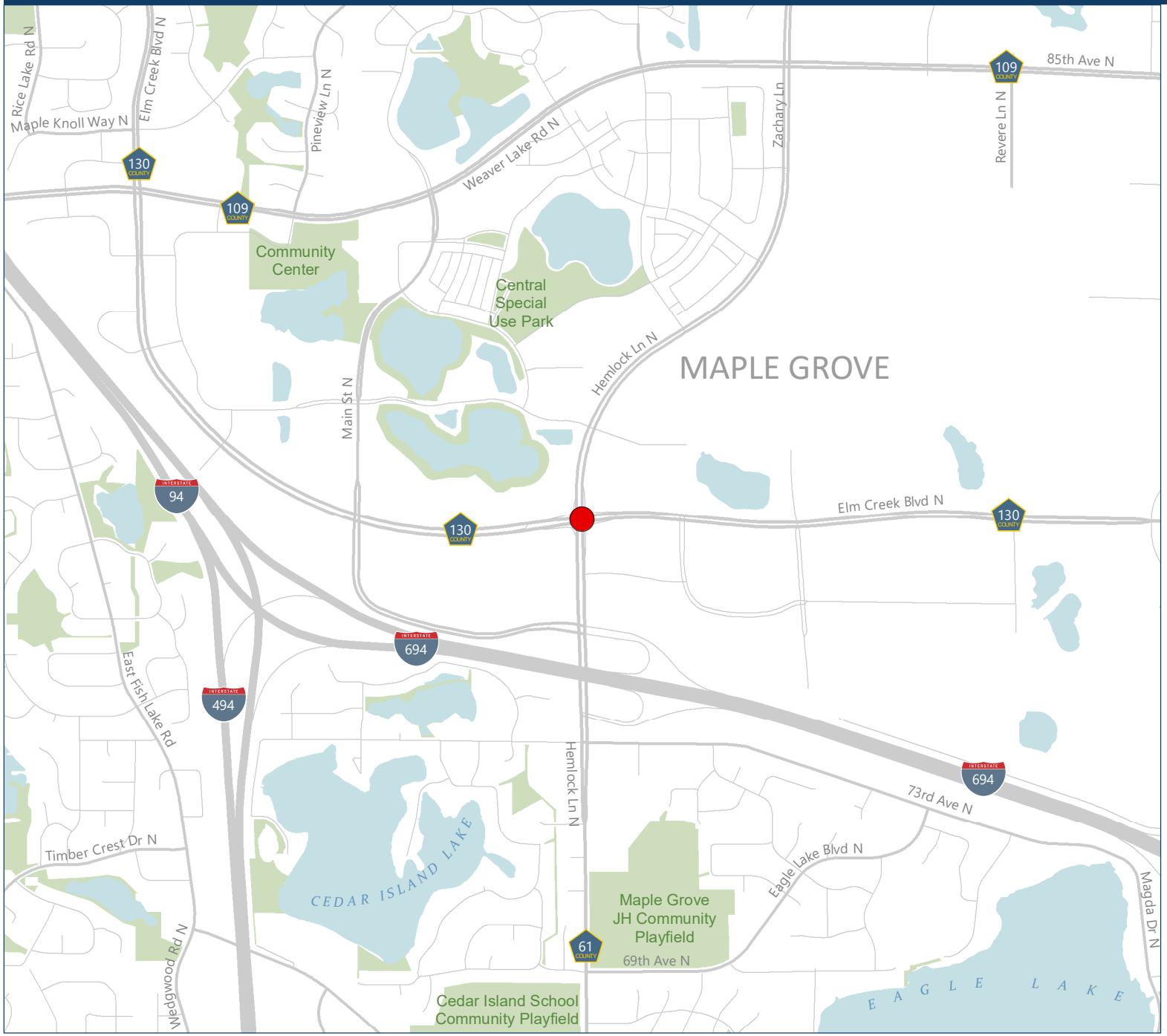
Project Risks & Uncertainties
Coordination to engage the public will be discussed among key stakeholders, including the City of Maple Grove

Funding Notes
This project is eligible for federal funding through the Metropolitan Council's Regional Solicitation due to the two roadways' functional classification as A-Minor Arterials.

CSAH 61 (Hemlock Ln) Spot Mobility & Safety Project

Attachment 2 | Project Location Map

HENNEPIN COUNTY
MINNESOTA



Key

Project Location

0 0.25 0.5 Miles

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.

Published date: 3/23/2022

N

CSAH 61 (Hemlock Ln) Spot Mobility and Safety Project

Attachment 03 | Existing Roadway Condition Photos

View of existing intersection, facing northwest at the southeast quadrant. Note the lack of truncated domes at the intersection porkchop.

Eastbound free-right turn, demonstrating a lack of a marked crossing.

Hennepin County Public Works
1600 Prairie Drive, Medina, MN 55340
612-596-0300 | hennepin.us

CSAH 61 (Hemlock Ln) Spot Mobility and Safety Project

Attachment 03 | Existing Roadway Condition Photos

(Above) Crossing to the northwest intersection porkchop, which lacks truncated domes.

(Left) Pedestrian crossing across Hemlock Lane on the north side of the intersection demonstrating the lack of a pedestrian refuge and an exceptionally long crossing distance.

CSAH 61 (Hemlock Ln) Spot Mobility & Safety Project

HENNEPIN COUNTY
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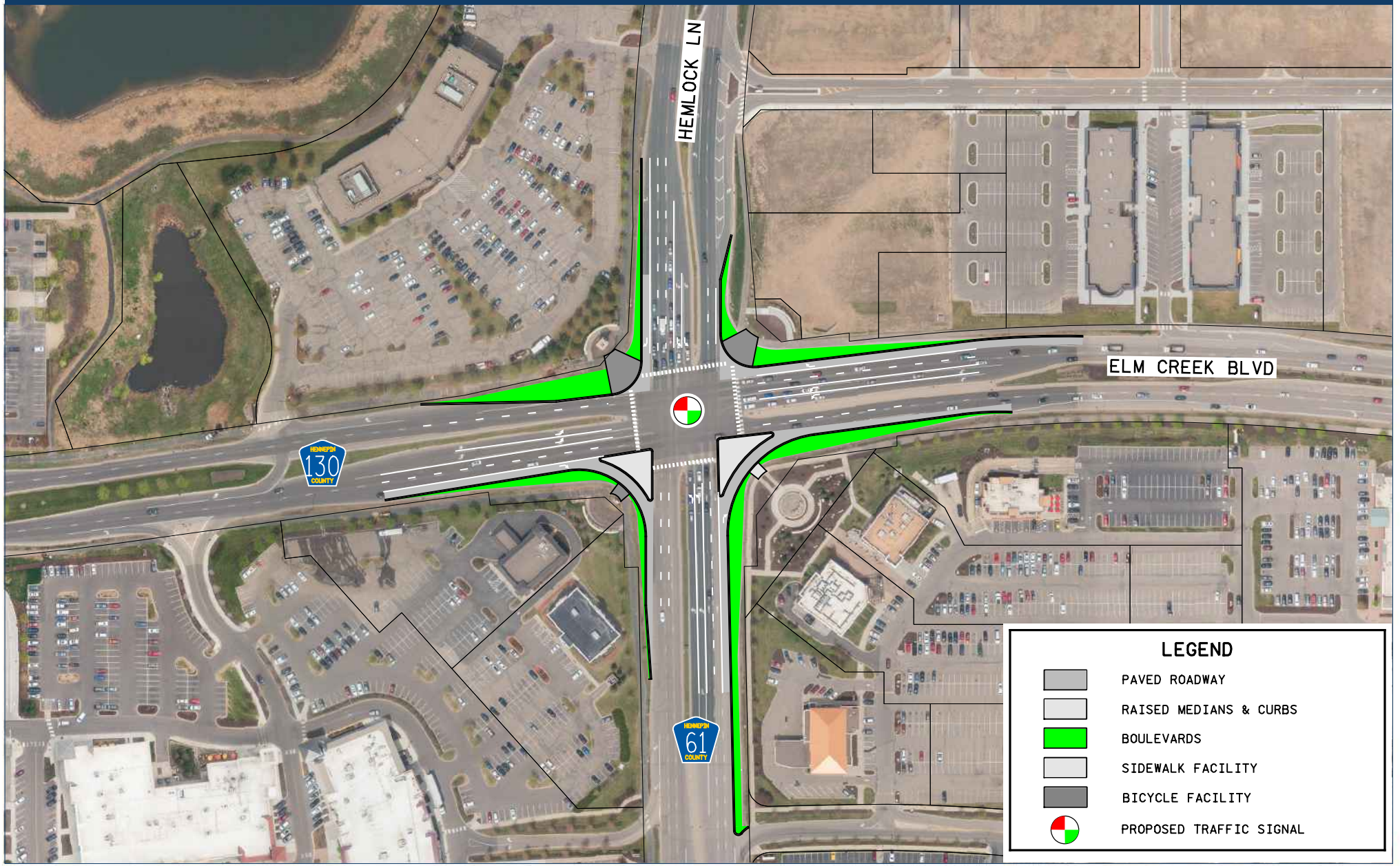
Attachment 04 | Potential Concept



0 100 200
SCALE IN FEET

N

Job #14870
4/7/2022
H:\Projects\14000\14870\Design\Graphics\Concept Graphics\CSAH 61 & CSAH 130\14870_gr01_CSAH61&CSAH130.dgn

HENNEPIN COUNTY
MINNESOTA

Hennepin County, Board of Commissioners

RESOLUTION 22-0109

2022

The following resolution was moved by Commissioner Angela Conley and seconded by Commissioner Debbie Goettel:

BE IT RESOLVED, that Hennepin County be authorized to apply for federal funding through the Regional Solicitation for the following projects (separated by category) on various County State Aid Highways (CSAHs) throughout the county:

Roadway Reconstruction/Modernization

Projects programmed in the 2022-2026 CIP:

- Franklin Avenue (CSAH 5) from Lyndale Avenue (CSAH 22) to Blaisdell Avenue in Minneapolis
- Dayton River Road (CSAH 12) from Colburn Street to North Diamond Lake Road (CSAH 144) in Dayton and Champlin
- Lyndale Avenue (CSAH 22) from the Hennepin County Regional Railroad Authority (HCRRA) bridge to Franklin Avenue (CSAH 5) in Minneapolis

Projects identified in the county's 10-year work-plan, but not programmed in the 2022-2026 CIP:

- Penn Avenue (CSAH 32) from 75th Street to the Trunk Highway 62 South Ramp in Richfield
- Cedar Avenue (CSAH 152) from Lake Street (CSAH 3) to 24th Street in Minneapolis

Bridge Rehabilitation/Replacement

Project programmed in the 2022-2026 CIP:

- Bass Lake Road (CSAH 10) bridge over the Twin Lakes Inlet in Brooklyn Center and Crystal

Projects identified in the county's 10-year work-plan, but not programmed in the 2022-2026 CIP:

- Pioneer Trail (CSAH 1) bridge over the HCRRA corridor in Eden Prairie
- Eden Prairie Road (CSAH 4) bridge over Twin Cities and Western Railroad in Eden Prairie

Multiuse Trails/Bicycle and Pedestrian Facilities (sidewalks, streetscaping and improved accessibility)

Project partially programmed in the 2022-2026 CIP:

- Lake Street (CSAH 3) from Dupont Avenue to the Mississippi River

Project identified in the county's 10-year work-plan, but not programmed in the 2022-2026 CIP:

- Marshall Street NE (CSAH 23) from Third Avenue NE to Lowry Avenue NE (CSAH 153).

Project not currently identified in the county's 2022-2026 CIP or 10-year work-plan:

- Park Avenue (CSAH 33) and Portland Avenue (CSAH 35) from Lake Street (CSAH 3) to the I-94/I-35W Bridge in Minneapolis

Mobility and Safety

Projects not currently identified in the county's 10-year work-plan or 5-year CIP:

- Rockford Road (CSAH 9) and Northwest Boulevard (CSAH 61) in Plymouth
- Hemlock Lane (CSAH 61) and Elm Creek Boulevard (CSAH 130) in Maple Grove

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

County of Hennepin
Board of County Commissioners

YEAS	NAYS	ABSTAIN	ABSENT
Marion Greene			
Debbie Goettel			
Irene Fernando			
Angela Conley			
Jeff Lunde			
Chris LaTondresse			
Kevin Anderson			

RESOLUTION ADOPTED ON **3/22/2022**

ATTEST: M. Rose

Deputy/Clerk to the County Board

DRAFT

Urban Intersection Prioritization Hennepin County - VEHICLE RELATED

List No.	County Rank	County ID	Route System	Route No.	County	Description	Risk Factors: Area Type	Traffic Control	Entering ADT OR Cross Product	Leg Configuration	Adjacent Development	Major Approach Left Turn Phasing	Total Stars	Tiebreaker: Crash Cost
910	323	1010034	NV	101	Hennepin	County Road 101 at State Highway 7		★	★	★	★		★★★★	$14,723,400
799	324	610288	NV	61	Hennepin	County Road 61 at CSAH 130 (Elm Creek Boulevard North / 77th Avenue North)	★	★		★	★		★★★★	$13,891,800
1118	325	1560000	NV	156	Hennepin	County Road 156 at State Highway 55		★		★	★	★	★★★★	$13,262,600
477	326	320063	NV	32	Hennepin	County Road 32 at Interstate 494 Ramps	★	★	★	★			★★★★	$13,135,800
515	327	340012	NV	34	Hennepin	County Road 34 at 98th Street West		★	★	★	★		★★★★	$12,915,200
643	328	480040	NV	48	Hennepin	County Road 48 at 32nd Street East / 28th Avenue South		★		★	★	★	★★★★	$12,232,400
279	329	140002	NV	14	Hennepin	County Road 14 at Brookdale Drive North	★	★		★	★		★★★★	$12,173,600
927	330	1010170	NV	101	Hennepin	County Road 101 at State Highway 55 (West Junction) / Sioux Drive		★		★	★	★	★★★★	$12,167,200
471	331	320032	NV	32	Hennepin	County Road 32 at 90th Street West	★	★		★	★		★★★★	$12,067,200
472	332	320040	NV	32	Hennepin	County Road 32 at 86th Street West		★	★	★		★	★★★★	$11,864,800
549	333	350126	NV	35	Hennepin	County Road 35 at 64th Street East		★	★	★		★	★★★★	$11,825,800
85	334	30172	NV	3	Hennepin	County Road 3 at 32nd Street West	★	★	★			★	★★★★	$11,788,400
316	335	170022	NV	17	Hennepin	County Road 17 at 90th Street West	★	★		★	★		★★★★	$11,745,400
1013	336	1460032	NV	146	Hennepin	County Road 146 at CSAH 112 (Wayzata Boulevard West)		★		★	★	★	★★★★	$11,383,000
1116	337	1530129	NV	153	Hennepin	County Road 153 at Autumn Woods Apartment Entrance		★	★	★	★		★★★★	$11,000,000
556	338	350154	NV	35	Hennepin	County Road 35 at Interstate 494 Westbound Ramp / 78th Street East		★		★	★	★	★★★★	$10,389,600
14	339	10250	NV	1	Hennepin	County Road 1 at Interstate 494 Ramps	★	★	★	★			★★★★	$6,966,800
52	340	50236	NV	5	Hennepin	County Road 5 at 4th Avenue South	★	★		★		★	★★★★	$6,684,200
565	341	360001	NV	36	Hennepin	County Road 36 at Golden View Drive		★	★	★	★		★★★★	$5,449,600
827	342	660128	NV	66	Hennepin	County Road 66 at Johnson Street Northeast		★	★	★		★	★★★★	$5,410,200
45	343	50169	NV	5	Hennepin	County Road 5 at State Highway 100 Southbound Ramps	★	★	★	★			★★★★	$4,959,600
876	344	810070	NV	81	Hennepin	County Road 81 at CSAH 10 (Bass Lake Road)		★	★	★	★		★★★★	$4,018,200
676	345	520094	NV	52	Hennepin	County Road 52 at 1st Street North / 1st Street South	★	★		★	★		★★★★	$3,932,200
689	346	520148	NV	52	Hennepin	County Road 52 at Johnson Street Northeast / Interstate 35W Southbound Ramp / 10th Avenue Southeast		★		★	★	★	★★★★	$3,524,200
315	347	170018	NV	17	Hennepin	County Road 17 at 98th Street West	★	★		★	★		★★★★	$3,133,400
331	348	170064	NV	17	Hennepin	County Road 17 at 65th Street West	★	★		★	★		★★★★	$3,120,800
1107	349	1530064	NV	153	Hennepin	County Road 153 at 2nd Street Northeast		★		★	★	★	★★★★	$2,830,600
55	350	20052	NV	2	Hennepin	County Road 2 at CSAH 81 (West Broadway)		★	★		★	★	★★★★	$2,705,800
919	351	1010102	NV	101	Hennepin	County Road 101 at Highway 12 Eastbound Ramps		★	★	★		★	★★★★	$2,686,200
421	352	270012	NV	27	Hennepin	County Road 27 at CSAH 88 (New Brighton Boulevard)	★	★		★	★		★★★★	$2,597,200
405	353	230046	NV	23	Hennepin	County Road 23 at St Anthony Parkway		★	★	★		★	★★★★	$2,554,800
183	354	80044	NV	8	Hennepin	County Road 8 at CSAH 10 (56th Avenue North)	★	★		★	★		★★★★	$2,509,200
840	355	730022	NV	73	Hennepin	County Road 73 at CSAH 5 (Minnetonka Boulevard)		★	★	★		★	★★★★	$2,370,600
475	356	320061	NV	32	Hennepin	County Road 32 at American Boulevard West		★	★	★	★		★★★★	$2,364,400
107	357	30244	NV	3	Hennepin	County Road 3 at 3rd Avenue South	★	★	★	★			★★★★	$2,291,000
941	358	1020040	NV	102	Hennepin	County Road 102 at 36th Avenue North		★	★	★	★		★★★★	$2,274,000
74	359	30084	NV	3	Hennepin	County Road 3 at 5th Avenue South	★	★		★	★		★★★★	$2,269,600
798	360	610284	NV	61	Hennepin	County Road 61 at Main Street North	★	★		★	★		★★★★	$2,257,000
625	361	460050	NV	46	Hennepin	County Road 46 at Hiawatha Avenue	★	★		★	★		★★★★	$2,237,600
1113	362	1530106	NV	153	Hennepin	County Road 153 at Johnson Street Northeast		★	★	★		★	★★★★	$2,199,000
670	363	520072	NV	52	Hennepin	County Road 52 at CSAH 53 (66th Street)		★		★	★	★	★★★★	$2,180,600
356	364	200000	NV	20	Hennepin	County Road 20 at CSAH 3 (Excelsior Boulevard)	★	★		★	★		★★★★	$2,174,600
1132	365	1560080	NV	156	Hennepin	County Road 156 at 49th Avenue North		★	★	★		★	★★★★	$2,133,800
947	366	1020082	NV	102	Hennepin	County Road 102 at CSAH 8 (West Broadway Avenue)		★	★		★	★	★★★★	$2,074,600
1029	367	1520056	NV	152	Hennepin	County Road 152 at 28th Street East		★	★	★		★	★★★★	$2,018,400
1082	368	1520275	NV	152	Hennepin	County Road 152 at 55th Avenue North		★	★	★	★		★★★★	$2,008,000

DRAFT

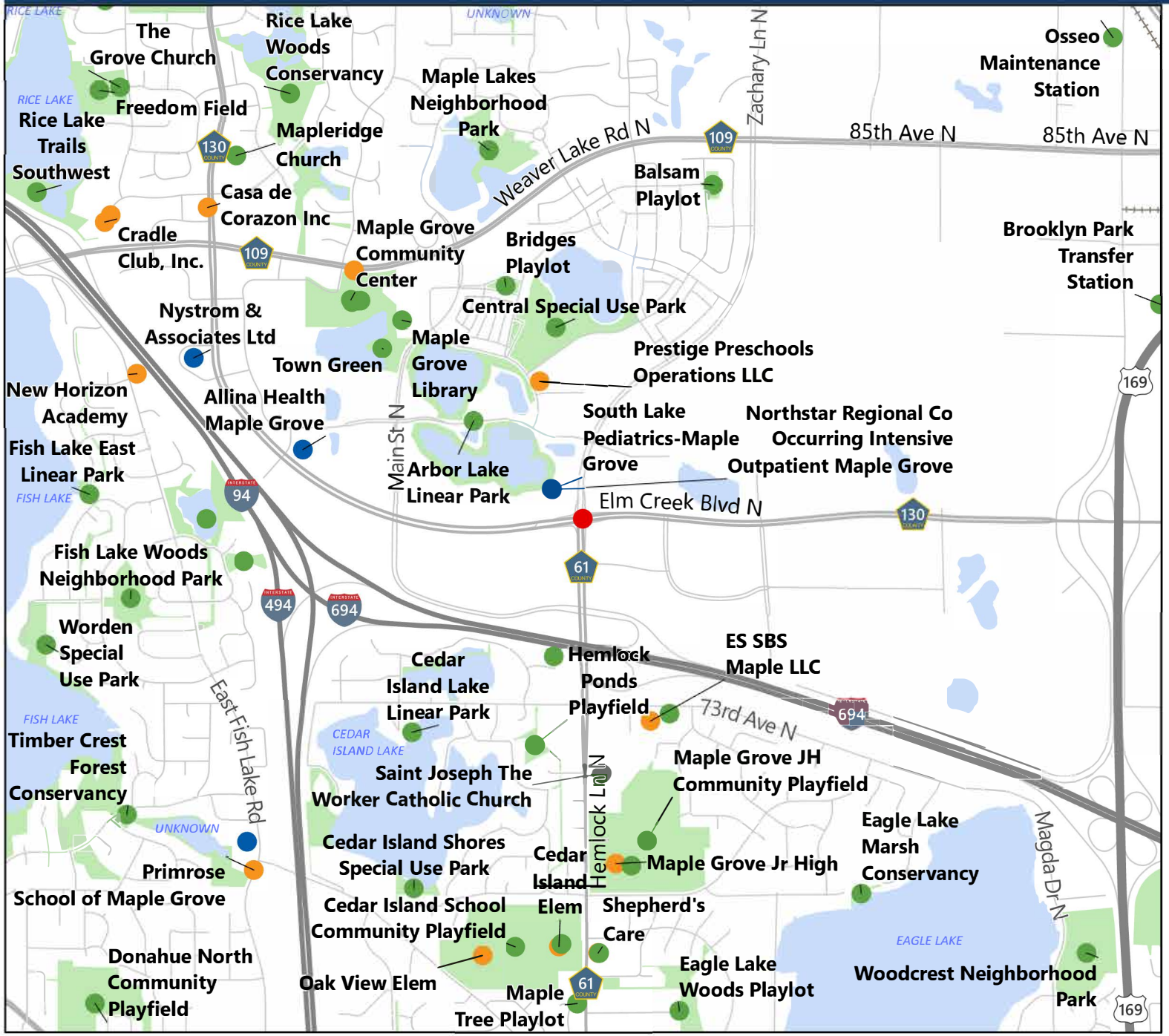
Urban Intersection Prioritization for Hennepin County - PED/BIKE RELATED

List No.	County Rank	CRSP 2 ID	Route System	Route No.	County	Description	Risk Factors: Traffic Control	Entering ADT	Adjacent Development	Max Number of Lanes Crossed	Presence of Refuge Island	Pedestrian Crossing Type	Presence of Transit Stop	Total Stars	Tiebreaker: Crash Cost
1004	451	1360004	NV	136	Hennepin	County Road 136 at CSAH 153 (Kenzie Terrace Northeast) / Saint Anthony Boulevard	★		★	★		★	★	★★★★★	$172,800
684	452	520126	NV	52	Hennepin	County Road 52 at 4th Street Northeast	★		★		★	★	★	★★★★★	$149,400
340	453	170100	NV	17	Hennepin	County Road 17 at 49th 1/2 Street West	★		★	★	★	★		★★★★★	$133,800
368	454	210054	NV	21	Hennepin	County Road 21 at Bryant Avenue South			★	★	★	★	★	★★★★★	$133,800
672	455	520076	NV	52	Hennepin	County Road 52 at 65th Street West	★		★		★	★	★	★★★★★	$133,800
777	456	610182	NV	61	Hennepin	County Road 61 at Sunset Trail North	★			★	★	★	★	★★★★★	$118,200
68	457	30036	NV	3	Hennepin	County Road 3 at Williston Road	★		★		★	★	★	★★★★★	$118,200
1141	458	1580046	NV	158	Hennepin	County Road 158 at Link Road	★		★	★		★	★	★★★★★	$118,200
610	459	430001	NV	43	Hennepin	County Road 43 at Emerson Avenue South	★		★		★	★	★	★★★★★	$110,400
1036	460	1520076	NV	152	Hennepin	County Road 152 at 7th Street South (South Junction) / I-94 Westbound Ramp	★	★		★	★	★		★★★★★	$110,400
531	461	350036	NV	35	Hennepin	County Road 35 at 24th Street East	★		★		★	★	★	★★★★★	$110,400
794	462	610272	NV	61	Hennepin	County Road 61 at West Eagle Lake Drive (North Junction)	★		★	★		★	★	★★★★★	$110,400
970	463	1090014	NV	109	Hennepin	County Road 109 at Valley Forge Lane North	★		★	★	★	★		★★★★★	$110,400
197	464	90019	NV	9	Hennepin	County Road 9 at Interstate 494 Northbound Ramps	★	★	★		★	★		★★★★★	$102,600
847	465	730055	NV	73	Hennepin	County Road 73 at Wayzata Boulevard (North Junction)	★		★	★		★	★	★★★★★	$102,600
920	466	1010103	NV	101	Hennepin	County Road 101 at Highway 12 Westbound Ramps	★	★		★	★	★		★★★★★	$102,600
697	467	530000	NV	53	Hennepin	County Road 53 at Drew Avenue South	★		★	★		★	★	★★★★★	$102,600
712	468	530100	NV	53	Hennepin	County Road 53 at State Highway 55 Southbound Ramps	★		★	★		★	★	★★★★★	$102,600
786	469	610216	NV	61	Hennepin	County Road 61 at Medicine Lake Drive West	★			★	★	★	★	★★★★★	$102,600
902	470	930004	NV	93	Hennepin	County Road 93 at Highcrest Road			★	★	★	★	★	★★★★★	$87,000
348	471	190026	NV	19	Hennepin	County Road 19 at Smithtown Road	★		★	★		★	★	★★★★★	$70,200
788	472	610226	NV	61	Hennepin	County Road 61 at 42nd Place North	★	★	★	★		★		★★★★★	$54,600
599	473	400078	NV	40	Hennepin	County Road 40 at Morgan Avenue North	★		★		★	★	★	★★★★★	$46,800
1139	474	1580030	NV	158	Hennepin	County Road 158 at Tracy Avenue	★	★			★	★	★	★★★★★	$39,000
529	475	350024	NV	35	Hennepin	County Road 35 at 16th Street East	★		★		★	★	★	★★★★★	$39,000
21	476	30086	NV	3	Hennepin	County Road 3 at Highway 169 Northbound Ramps	★	★		★		★	★	★★★★★	$31,200
365	477	210040	NV	21	Hennepin	County Road 21 at James Avenue South	★		★		★	★	★	★★★★★	$31,200
993	478	1300037	NV	130	Hennepin	County Road 130 at Highway 169 Northbound Ramps	★	★		★	★	★		★★★★★	$31,200
741	479	610020	NV	61	Hennepin	County Road 61 at Fountain Place	★	★	★	★		★		★★★★★	$31,200
753	480	610044	NV	61	Hennepin	County Road 61 at Rowland Road		★	★	★		★	★	★★★★★	$31,200
759	481	610064	NV	61	Hennepin	County Road 61 at Ktel Drive	★		★	★		★	★	★★★★★	$31,200
775	482	610170	NV	61	Hennepin	County Road 61 at Wayzata Boulevard	★		★	★		★	★	★★★★★	$31,200
846	483	730054	NV	73	Hennepin	County Road 73 at Interstate 394 Westbound Ramps	★	★		★		★	★	★★★★★	$23,400
319	484	170039	NV	17	Hennepin	County Road 17 at Interstate 494 Eastbound Ramp	★		★	★		★	★	★★★★★	$23,400
585	485	370022	NV	37	Hennepin	County Road 37 at Interstate 35W Southbound Ramps	★		★	★	★	★		★★★★★	$15,600
686	486	520130	NV	52	Hennepin	County Road 52 at 2nd Street Northeast	★		★	★	★	★		★★★★★	$7,800
521	487	350006	NV	35	Hennepin	County Road 35 at 5th Street South	★		★	★	★	★		★★★★★	$7,800
848	488	730056	NV	73	Hennepin	County Road 73 at Fairfield Road	★		★	★		★	★	★★★★★	$7,800
611	489	430004	NV	43	Hennepin	County Road 43 at Girard Avenue South	★		★		★	★	★	★★★★★	$0
258	490	120012	NV	12	Hennepin	County Road 12 at State Highway 610 Westbound Ramps	★	★	★			★	★	★★★★★	$0
522	491	350008	NV	35	Hennepin	County Road 35 at 6th Street South	★	★	★		★	★		★★★★★	$0
169	492	60096	NV	6	Hennepin	County Road 6 at Dunkirk Lane North	★	★		★	★	★		★★★★★	$0
532	493	350040	NV	35	Hennepin	County Road 35 at 26th Street East	★	★			★	★	★	★★★★★	$0
977	494	1090034	NV	109	Hennepin	County Road 109 at College Parkway	★		★	★	★	★		★★★★★	$0
799	495	610288	NV	61	Hennepin	County Road 61 at CSAH 130 (Elm Creek Boulevard North / 77th Avenue North)	★		★	★		★		★★★★	$13,891,800
783	496	610208	NV	61	Hennepin	County Road 61 at State Highway 55	★	★		★		★		★★★★	$13,449,000
1118	497	1560000	NV	156	Hennepin	County Road 156 at State Highway 55	★		★	★		★		★★★★	$13,262,600
1086	498	1520294	NV	152	Hennepin	County Road 152 at 65th Avenue North	★				★	★	★	★★★★	$13,002,200
489	499	330000	NV	33	Hennepin	County Road 33 at CSAH 46 (46th Street East)	★				★	★	★	★★★★	$12,963,000
515	500	340012	NV	34	Hennepin	County Road 34 at 98th Street West	★	★	★			★		★★★★	$12,915,200

CSAH 61 (Hemlock Ln) Spot Mobility & Safety Project

Attachment 7 | Socio-Economic Access Map

HENNEPIN COUNTY
MINNESOTA



Key

- Project Location

Resource Category

- Healthcare Facilities
- Schools & Childcare
- Community Facilities
- Homeless Shelters
- Food Shelves

0 0.25 0.5 Miles

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.

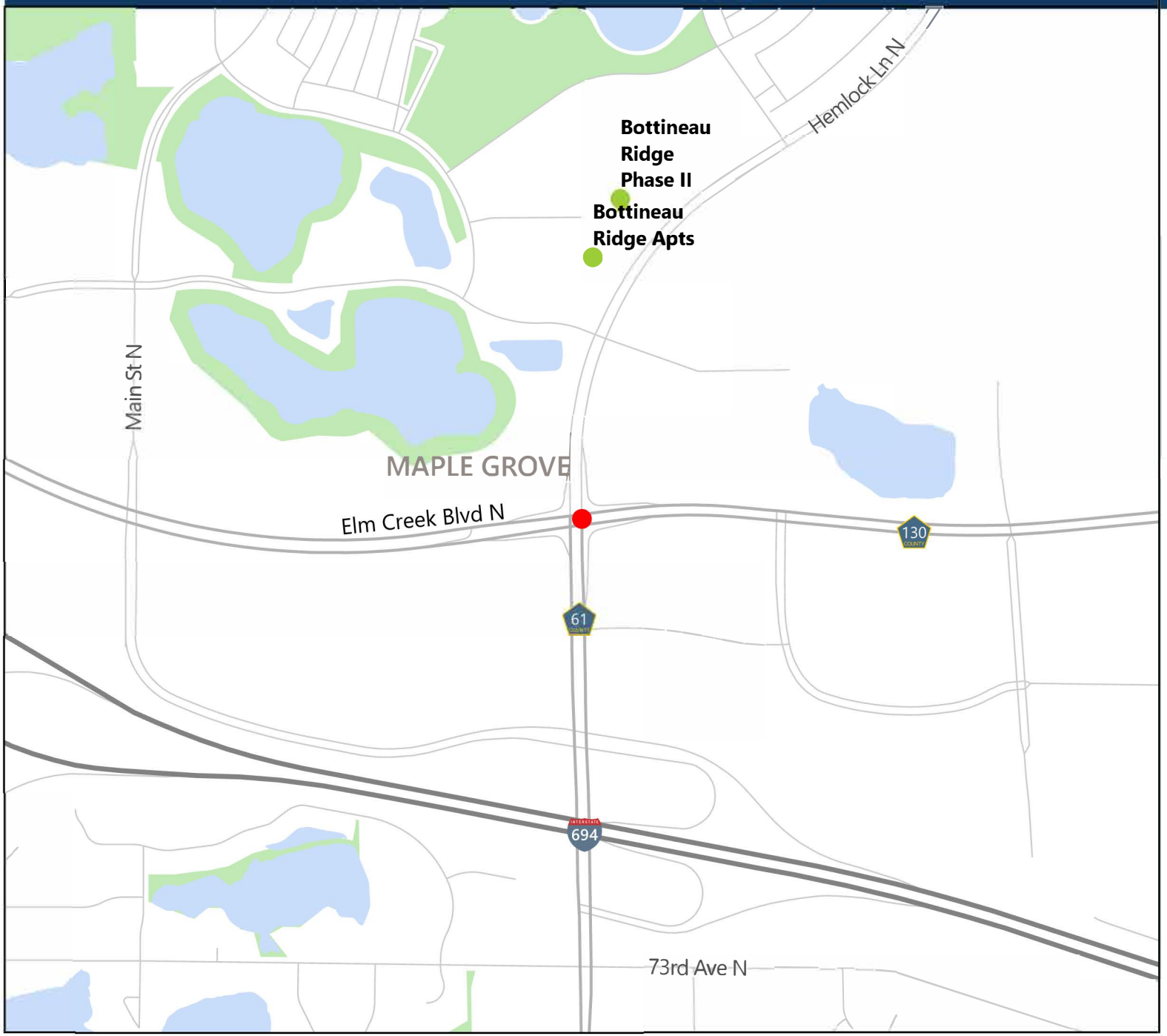
Published date: 3/22/2022

N

CSAH 61 (Hemlock Ln) Spot Mobility & Safety Project

Attachment 08 | Affordable Housing Access Map and Detail Summary

HENNEPIN COUNTY
MINNESOTA



Key

- Project Location

Population Served

- Family
- Elderly
- People with Disabilities
- Multiple
- Homeless
- No Information

Construction Status

- Existing Affordable Housing
- Proposed or Under Construction

Affordable Units

- 1-10
- 11-49
- 50-100
- 101-150

0 0.1 0.2 Miles

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.

Published date: 3/3/2022

N

Hennepin

CSAH 61 (Hemlock Ln) Spot Mobility & Safety Project

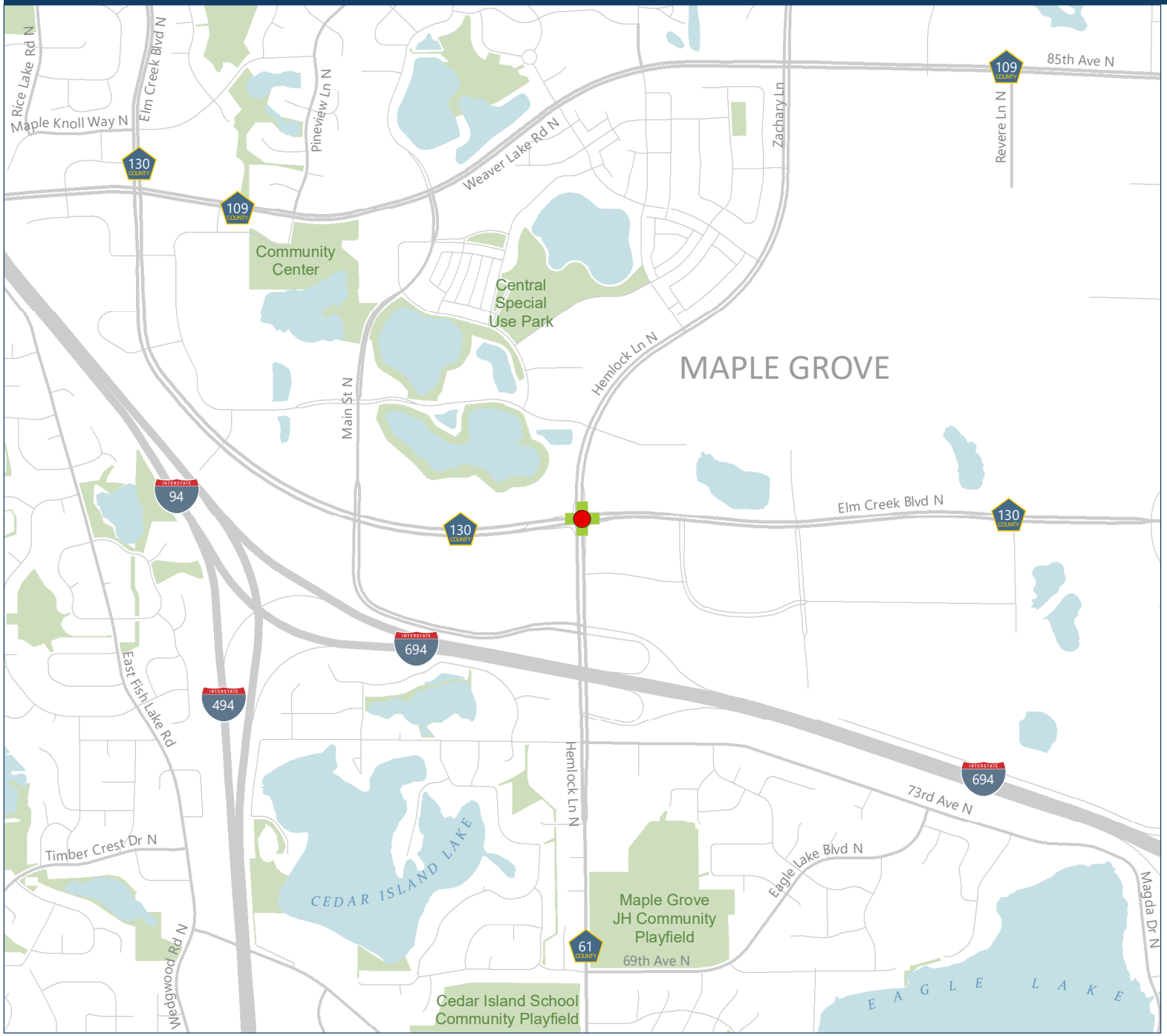
Attachment 8: Affordable Housing Access Map and Detail Summary

Location Name	Total Units	Affordable Units	30% AMI	50% AMI	60% AMI	0 BR	1 BR	2 BR	3 BR	4+ BR
Bottineau Ridge Apts	50	50	4	46	0	0	24	20	0	0
Bottineau Ridge Phase II	50	50	26	24	0	0	6	24	16	4

CSAH 61 (Hemlock Ln) Spot Mobility & Safety Project

Attachment 09 | Crash Map and Detail Listing

HENNEPIN COUNTY
MINNESOTA



Key

- Project Location
- Crash Analysis Intersection

0 0.25 0.5 Miles

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.

Published date: 4/8/2022

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Hennepin

CSAH 61 (Hemlock Ln) Spot Mobility Safety Project

Attachment 09 | Crash Map and Detail Listing

Intersection A l At CSAH 130 (Elm Creek Boulevard)

Incident ID	Roadway	Month	Day	Year	Hour	Sev	Number K's	Number of Veh	Contributing Factor	Latitude	Longitude
718510	HEMLOCK LA	5	8	2019	10	5	0	2	4	45.09386	-93.4313838
800044	HEMLOCK LA	2	22	2020	11	5	0	3	1	45.09425	-93.4318247
773238	HEMLOCK LA	12	20	2019	16	5	0	2	4	45.0943	-93.4318266
725934	HEMLOCK LA	6	10	2019	17	5	0	2	10	45.09433	-93.4318276
736801	HEMLOCK LA	7	29	2019	12	4	0	2	1	45.09433	-93.4318279
914053	HEMLOCK LA	3	25	2021	18	4	0	2	1	45.09433	-93.4318279
706253	HEMLOCK LA	4	26	2019	16	5	0	2	1	45.0942	-93.4313969
861155	HEMLOCK LA	11	4	2020	12	5	0	2	99	45.09426	-93.4313992
730239	HEMLOCK LA	6	29	2019	12	5	0	2	74	45.0943	-93.4314011
683172	HEMLOCK LA	2	4	2019	14	5	0	3	90	45.09432	-93.4314018
733710	ELM CREEK BLVD	7	15	2019	18	5	0	2	2	45.09457	-93.4318327
678846	HEMLOCK LA	1	24	2019	18	5	0	2	1	45.09439	-93.4314044
815073	HEMLOCK LA	6	17	2020	19	5	0	2	1	45.09439	-93.4314043
817216	HEMLOCK LA	6	30	2020	13	3	0	1	1	45.09446	-93.431407
930049	ELM CREEK BLVD	7	23	2021	10	4	0	3	63	45.09468	-93.431833
863102	ELM CREEK BLVD	11	11	2020	16	5	0	3	99	45.09459	-93.431412
804029	ELM CREEK BLVD	3	14	2020	14	4	0	2	2	45.0947	-93.4314163
917864	ELM CREEK BLVD	7	13	2021	12	5	0	2	10	45.0947	-93.4314161
968475	ELM CREEK BLVD	10	22	2021	9	3	0	2	63	45.09478	-93.4314192
699064	ELM CREEK BLVD	3	20	2019	15	5	0	2	2	45.09454	-93.4334614
733842	ELM CREEK BLVD	7	16	2019	12	4	0	2	90	45.09434	-93.4331208
743558	ELM CREEK BLVD	8	18	2019	23	4	0	1	90	45.09466	-93.4324742
721195	ELM CREEK BLVD	5	18	2019	15	5	0	2	1	45.09438	-93.4326029
728420	ELM CREEK BLVD	6	21	2019	13	5	0	2	1	45.09471	-93.4320644
766679	ELM CREEK BLVD	11	30	2019	17	5	0	2	1	45.09439	-93.4325138
703452	ELM CREEK BLVD	4	11	2019	16	3	0	2	2	45.09439	-93.4324967
720057	ELM CREEK BLVD	5	6	2019	19	4	0	2	70	45.0944	-93.4323092
773894	ELM CREEK BLVD	12	23	2019	18	5	0	3	74	45.09441	-93.4322383
928638	ELM CREEK BLVD	7	16	2021	9	5	0	2	4	45.09441	-93.4321952
701650	HEMLOCK LA	4	4	2019	9	5	0	2	4	45.09477	-93.4316258
939261	ELM CREEK BLVD	9	8	2021	14	5	0	2	1	45.09443	-93.4320085
701452	HEMLOCK LA	4	3	2019	6	5	0	2	2	45.0948	-93.4314399
737233	ELM CREEK BLVD	7	30	2019	8	5	0	2	1	45.09443	-93.4319448
735085	ELM CREEK BLVD	7	20	2019	21	5	0	2	1	45.09444	-93.4319177
978317	ELM CREEK BLVD	12	7	2021	12	5	0	2		45.09443	-93.4319283
674156	ELM CREEK BLVD	1	5	2019	16	4	0	2	74	45.09444	-93.4318395
746722	ELM CREEK BLVD	9	11	2019	13	4	0	2	1	45.09444	-93.4318398
933298	77TH AVE	8	9	2021	12	4	0	2	63	45.09446	-93.4316414
839021	77TH AVE	9	4	2020	19	5	0	2	1	45.09442	-93.4315346
935985	77TH AVE	8	23	2021	11	5	0	2	99	45.09482	-93.431036
891786	77TH AVE	2	19	2021	21	5	0	2	99	45.09447	-93.431513
754983	77TH AVE	10	16	2019	14	5	0	2	4	45.09483	-93.4308887
758854	77TH AVE	11	1	2019	15	5	0	2	1	45.09484	-93.4306714
873904	77TH AVE	1	11	2021	18	5	0	2	1	45.09484	-93.4306317
762168	77TH AVE	11	13	2019	1	3	0	2	62	45.09454	-93.4305393
903212	HEMLOCK LA	4	30	2021	19	5	0	2	90	45.09476	-93.4318297
977111	HEMLOCK LA	12	2	2021	14	5	0	3	1	45.09523	-93.4318097

Subtotal: **47**

Project Total: **47**

Note: Crashes highlighted in **red** were determined to not be located within the project limits.

CSAH 61 (Hemlock Ln) Spot Mobility & Safety Project

Attachment 10 | Crash Modification Factors

RF DETAILS

CMF ID: 1410

ADD 3-INCH YELLOW RETROREFLECTIVE SHEETING TO SIGNAL BACKPLATES

DESCRIPTION:

PRIOR CONDITION: *NO PRIOR CONDITION(S)*

CATEGORY: INTERSECTION TRAFFIC CONTROL

STUDY: *SAFETY IMPACT OF INCREASED TR*

Rating Points Total:	120

Crash Modification Factor (CMF)

Value:	0.85
Adjusted Standard Error:	
Unadjusted Standard Error:	0.005

Crash Reduction Factor (CRF)

Value:	15 *(This value indicates a **decrease** in crashes)*
Adjusted Standard Error:	
Unadjusted Standard Error:	0.5

Applicability

Crash Type:	All
Crash Severity:	All
Roadway Types:	Not specified
Number of Lanes:	
Road Division Type:	
Speed Limit:	
Area Type:	Urban
Traffic Volume:	
Average Traffic Volume:	
Time of Day:	All

CSAH 61 (Hemlock Ln) Spot Mobility & Safety Project

Attachment 10 | Crash Modification Factors

Intersection Geometry:	
Traffic Control:	Signalized
Major Road Traffic Volume:	
Minor Road Traffic Volume:	
Average Major Road Volume :	
Average Minor Road Volume :	

Development Details

Date Range of Data Used:	
Municipality:	
State:	
Country:	
Type of Methodology Used:	2
Sample Size (sites):	17 sites after

Other Details

Included in Highway Safety Manual?	No
Date Added to Clearinghouse:	Dec-01-2009
Comments:	The number of crashes in the after period were not reported in this study, however, they have been recorded as 300 t points as a beneift of doubt for one or more of the following: (1) number of miles/sites in the reference/treatment gro number of crashes in the references/treatment group, (3) reporting AADTs for the aggregate dataset but not for the d dataset used for CMF development.

VIEW THE FULL STUDY DETA

EXPORT DETAIL PAGE AS A P

This site is funded by the **U.S. Department of Transportation Federal Highway Administration** and maintained by the **University of North Carolina Highway Safety Research Center**

For more information, contact Karen Scurry at **karen.scurry@dot.gov**

CSAH 61 (Hemlock Ln) Spot Mobility & Safety Project

Attachment 10 | Crash Modification Factors

CMF / CRF DETAILS

CMF ID: 8428

IMPROVE ANGLE OF CHANNELIZED RIGHT TURN LANE

DESCRIPTION: CHANGES MADE TO THE STUDY APPROACHES INCLUDE: SHARPENING THE FLAT APPROACH ANGLE TYPICAL IN TRADITIONAL DESIGNS, REDUCING THE RADIUS, ADJUSTING THE STOP BAR POSITION, AND MODIFYING THE CO INCREASE THE LINE OF SIGHT OF APPROACHING THROUGH TRAFFIC.

PRIOR CONDITION: VARIED DEPENDING ON INTERSECTION

CATEGORY: INTERSECTION GEOMETRY

STUDY: *SAFETY IMPACTS OF A MODIFIED RIGHT TURN LANE DESIGN AT INTERSECTIONS*, SCHATTLER AND HANSON, 2016

Star Quality Rating:	★★★★☆ [VIEW SCORE DETAILS]
Rating Points Total:	110

Crash Modification Factor (CMF)

Value:	0.558
Adjusted Standard Error:	
Unadjusted Standard Error:	0.114

Crash Reduction Factor (CRF)

Value:	44.2 *(This value indicates a **decrease** in crashes)*
Adjusted Standard Error:	
Unadjusted Standard Error:	11.4

Applicability

Crash Type:	All
Crash Severity:	All
Roadway Types:	Not specified
Number of Lanes:	1 to 3
Road Division Type:	
Speed Limit:	
Area Type:	Not specified
Traffic Volume:	
Average Traffic Volume:	
Time of Day:	All

CSAH 61 (Hemlock Ln) Spot Mobility & Safety Project

Attachment 10 | Crash Modification Factors

Intersection Type:	Roadway/roadway (not interchange related)
Intersection Geometry:	Not specified
Traffic Control:	Other
Major Road Traffic Volume:	
Minor Road Traffic Volume:	
Average Major Road Volume :	
Average Minor Road Volume :	

Development Details

Date Range of Data Used:	2003 to 2016
Municipality:	Peoria
State:	IL
Country:	USA
Type of Methodology Used:	2
Sample Size (crashes):	274 crashes before, 161 crashes after
Sample Size (sites):	7 sites before, 7 sites after
Sample Size (site-years):	21 site-years before, 21 site-years after

Other Details

Included in Highway Safety Manual?	No
Date Added to Clearinghouse:	Jan-17-2017
Comments:	Total intersection AADT ranged from 3300 to 41300. Group of intersections analyzed included both signalized and s controlled intersections.

VIEW THE FULL STUDY DETA

EXPORT DETAIL PAGE AS A P

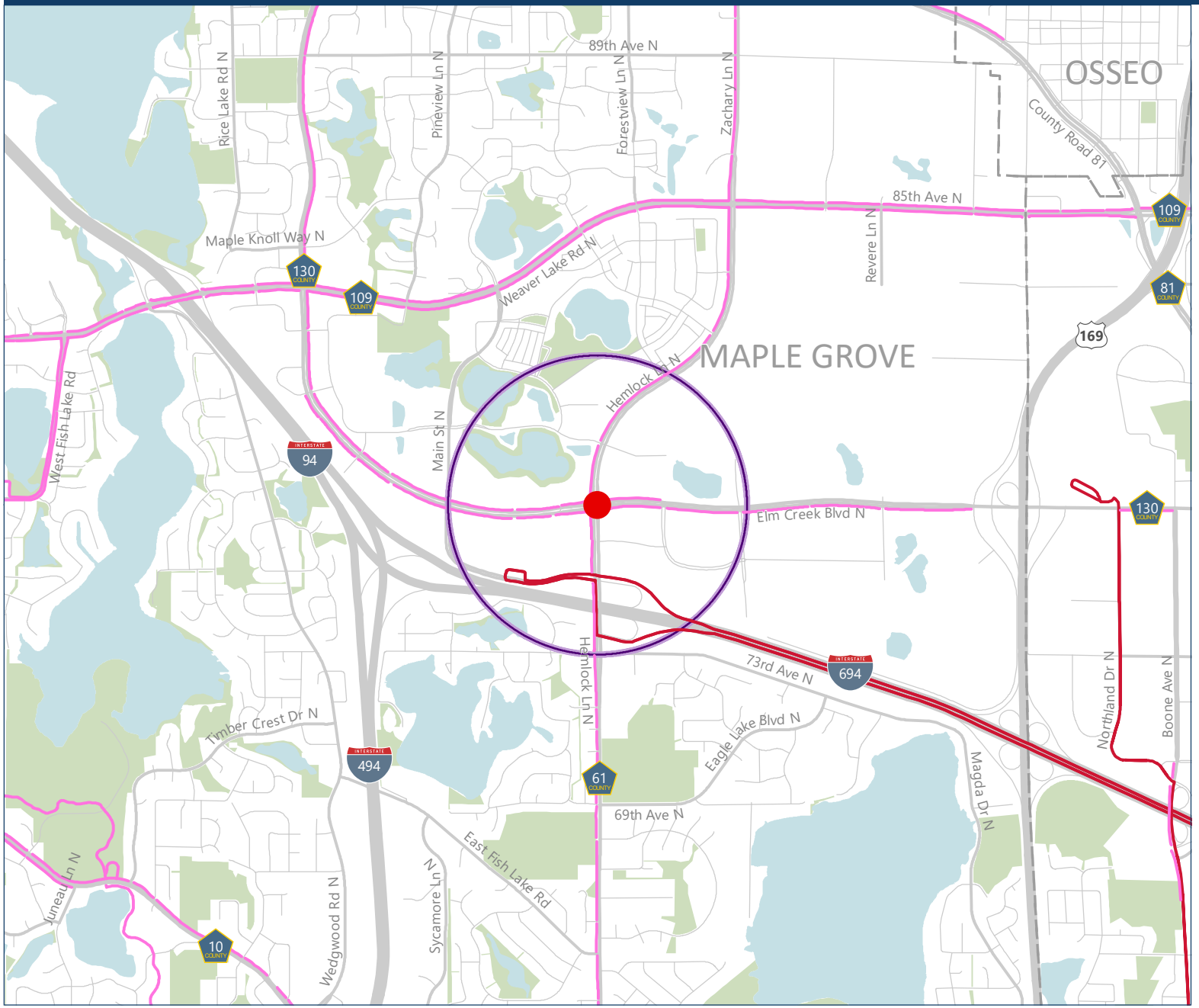
This site is funded by the **U.S. Department of Transportation Federal Highway Administration** and maintained by the **University of North Carolina Highway Safety Research Center**

For more information, contact Karen Scurry at **karen.scurry@dot.gov**

CSAH 61 (Hemlock Ln) Spot Mobility and Safety Project

Attachment 11 | Multimodal Connections Map

HENNEPIN COUNTY
MINNESOTA



Key

- Project Location
- 1/2 mi Buffer
- Transit Routes

Bikeways

- Off-Street

0 0.25 0.5 Miles

N

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Published date: 3/23/2022

City of Maple Grove
12800 Arbor Lakes Parkway, Maple Grove, MN 55369-7064 763-494-6000

March 9, 2021

Carla Stueve, P.E.
Director and County Highway Engineer
Hennepin County Transportation Project Delivery
1600 Prairie Drive
Medina, MN 55340

Dear Ms. Stueve:

The City of Maple Grove hereby expresses its support for Hennepin County's Regional Solicitation federal funding application for the proposed safety project at the CSAH 61 (Hemlock Lane) and CSAH 130 (Elm Creek Boulevard) intersection in Maple Grove.

This project will involve safety improvements at the intersection, which may include the replacement of the existing traffic signal, modification of the channelized right turn islands, adjustments to lane configurations, and upgrades to existing ADA accommodations. This project will address a top crash location in Hennepin County and provide additional accessibility and mobility for people walking, using transit, biking, and driving, thereby enhancing the livability and quality of life for Maple Grove and Hennepin County residents.

The City of Maple Grove acknowledges that the city may be required to cost participate in this project as outlined in the county's cost participation policy. Specific details regarding cost participation and maintenance responsibilities are anticipated to be determined during the design process as project development is advanced.

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

Sincerely,

Ken Ashfeld, P.E.
Public Works Director/City Engineer

cc: Jupe Hale, P.E., Assistant Public Works Director/Assistant City Engineer, Maple Grove
John Hagen, P.E., PTOE, Transportation Operations Engineer, Maple Grove