



Application

19841 - 2024 Pedestrian Facilities (Sidewalks, Streetscaping, and ADA)
20256 - CSAH 70 (Medicine Lake Rd) Pedestrian Project
Regional Solicitation - Bicycle and Pedestrian Facilities

Status: Submitted
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Primary Contact

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Name: He/him/his Jason Richard Pieper
Pronouns First Name Middle Name Last Name

Title: Transportation Engineer

Department: Hennepin County - Transportation Department

Email: jason.pieper@hennepin.us

Address: 1600 Prairie Drive

Phone: Medina Minnesota 53340
City State/Province Postal Code/Zip

612-596-0241
Phone Ext.

Fax:

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

Organization Information

Name: HENNEPIN COUNTY

Jurisdictional Agency (if different):

Organization Type: County Government

Organization Website:

Address: DPT OF PUBLIC WORKS
1600 PRAIRIE DR

County: Hennepin

Phone: MEDINA Minnesota 55340
City State/Province Postal Code/Zip

763-745-7600
Ext.

Fax:

PeopleSoft Vendor Number 0000028004A9

Project Information

Project Name CSAH 70 (Medicine Lake Rd) Pedestrian Project

Primary County where the Project is Located Hennepin

Cities or Townships where the Project is Located: Crystal, Golden Valley, New Hope

Jurisdictional Agency (If Different than the Applicant):

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

The proposed project will upgrade pedestrian ramps to be ADA compliant and install Accessible Pedestrian Signals (APS) along the CSAH 70 (Medicine Lake Rd) corridor from Hillsboro Ave to Florida Ave (east junction) in Crystal, Golden Valley, and New Hope. The existing sidewalk facilities along CSAH 70 (Medicine Lake Rd) do not promote a positive user experience for those walking and rolling along the corridor. Many existing pedestrian ramps do not meet current standards and lack truncated domes. Crossing distances are relatively long throughout the corridor, and minimal pedestrian crossing enhancements (such as raised medians) exist along the corridor. At several intersections, existing traffic signal infrastructure obstructs access for those walking and rolling. Attachment 02 provides photos illustrating the current conditions of the corridor, and Attachment 03 provides a map of the project location.

The project objectives include improving accessibility, safety, and comfort for people walking along and across CSAH 70 (Medicine Lake Rd) through the upgrade of pedestrian ramps and implementation of proven traffic calming strategies (such as raised medians, crossing beacons, and streetscaping) to improve the crossing experience and manage vehicle speeds. In particular, pedestrian crossing improvements will be explored at the Robbinsdale Spanish Immersion School, Sandburg Middle School, and Neill Elementary School to create safe, comfortable connections for students walking to school.

This project will include, but is not limited to, the following elements. The specific locations and types of improvements will be determined as part of the design process based on additional community input, data analysis, and environmental review. Attachment 04 includes a potential concept for the corridor.

- Pedestrian improvements; such as, ADA compliant pedestrian ramps, Accessible Pedestrian Signals (APS), and medians to shorten crossing distances for people walking and rolling.

- Traffic signal improvements; such as, the replacement of the Boone Ave traffic signal to include the latest technologies.

(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 70 (Medicine Lake Rd) from Hillsboro Ave to Florida Ave (east junction) in Crystal, Golden Valley, and New Hope

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) 1.7

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) Hennepin County

Federal Amount \$2,000,000.00

Match Amount \$530,000.00

Minimum of 20% of project total

Project Total \$2,530,000.00

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

Match Percentage 20.95%

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:

2029

Select 2026 or 2027 for TDM and Unique projects only. For all other applications, select 2028 or 2029.

Additional Program Years:

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

Project Information

If your project has already been assigned a State Aid Project # (SAP or SP)

Please indicate here SAP/SP#.

Location

County, City, or Lead Agency

Hennepin County

Name of Trail/Ped Facility:

CSAH 70 (Medicine Lake Rd)

(example: CEDAR LAKE TRAIL)

IF TRAIL/PED FACILITY IS ADJACENT TO ROADWAY:

Road System

CSAH

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

Road/Route No.

70

(Example: 53 for CSAH 53)

Name of Road

Medicine Lake Rd

(Example: 1st ST., Main Ave.)

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

From:

City Street

Road System

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

Road/Route No.

(Example: 53 for CSAH 53)

Name of Road

Hillsboro Ave

(Example: 1st ST., Main Ave.)

To:

Local Street

Road System

DO NOT INCLUDE LEGAL DESCRIPTION; INCLUDE NAME OF ROADWAY IF MAJORITY OF FACILITY RUNS ADJACENT TO A SINGLE CORRIDOR

Road/Route No.

Local Street

(Example: 53 for CSAH 53)

Name of Road

Florida Ave (east junction)

(Example: 1st ST., Main Ave.)

In the City/Cities of:

Crystal, Golden Valley, and New Hope

(List all cities within project limits)

IF TRAIL/PED FACILITY IS NOT ADJACENT TO ROADWAY:

Termini: Termini listed must be within 0.3 miles of any work

From:

To:

Or

At:

In the City/Cities of:

(List all cities within project limits)

Primary Types of Work (Check all that apply)

Multi-Use Trail

Reconstruct Trail

Resurface Trail

Bituminous Pavement

Concrete Walk

Pedestrian Bridge

Signal Revision

Yes

Landscaping

Other (do not include incidental items)

Pedestrian Ramps, APS, Medians, Signal Modifications

BRIDGE/CULVERT PROJECTS (IF APPLICABLE)

Old Bridge/Culvert No.:

New Bridge/Culvert No.:

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

Zip Code where Majority of Work is Being Performed	55427
<u>Approximate</u> Begin Construction Date (MOYR)	05/01/2029
<u>Approximate</u> End Construction Date (MOYR)	10/31/2029
Miles of Pedestrian Facility/Trail (nearest 0.1 miles):	0
Miles of trail on the Regional Bicycle Transportation Network (nearest 0.1 miles):	0
Is this a new trail?	No

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 roadway currently has insufficient curb ramps and lack of truncated domes throughout the project area as well as outdated traffic signals. The project will use low-cost strategies to invest in ADA improvements along the corridor. Nearby sidewalks with deficiencies will be replaced as incidentals to improve accessibility. Signals will be modified to maintain a state of good repair.

B) Safety and security (p 2.5-2.9)

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

Updating curb ramps to be ADA accessible will improve safety outcomes for people walking and rolling at intersections. Raised medians will be added at key crossing locations to support traffic calming while serving as a pedestrian refuge if needed.

C) Access to destinations (p 2.10-2.25)

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

The project will improve the quality and availability of pedestrian facilities, making walking and rolling a more convenient choice to local destinations. The project corridor provides access to residential, commercial, and recreational destinations, including multiple elementary schools. The roadway is along the Tier 2 corridor centerline on the RBTN that will be enhanced by the intersection and traffic calming improvements.

D) Competitive economy (p 2.26-2.29)

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

Project ADA upgrades, pedestrian crossing improvements and signal improvements will enhance a multimodal transportation system for communities in New Hope and Crystal. These modal improvements will promote mode choices which will attract residents and businesses to the area.

E) Healthy and equitable communities (p 2.30-2.34)

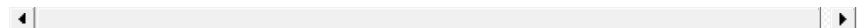
Objectives A, B, C & D; Strategies E1, E2, E3, E4, E5, E6 & E7

The project will encourage people to walk and roll more in the area. The corridor has higher volumes of young people walking to two elementary schools along the roadway. The pedestrian crossing improvements will make it safer for this more vulnerable population to cross the roadway.

F) Leveraging transportation investments to guide land use (p 2.35-2.41)

Objectives A & C; Strategies F1, F2, F3, F5, F6, F7

The project improvements benefit a Complete Streets design conducive to the suburban context. Enhancements to walking and rolling will enhance the adjacent land use, making it safer and more convenient to access parks, schools and adjacent residences along the corridor.



(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 2040 Transportation Plan (pages 2-11 - 2-18)

URL: hennepin.us/-/media/hennepinus/your-government/projects-initiatives/2040-comprehensive-plan/2040-comprehensive-plan-full.pdf

2) Hennepin County Climate Action Plan (pages 50-54)

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

3) Hennepin County Complete and Green Streets Policy (pages 10-11)

URL: hennepin.us/-/media/hennepinus/your-government/projects-initiatives/complete-streets/Complete-and-Green-Streets-Policy_Oct2023.pdf

4) Hennepin County Pedestrian Plan (page 8)

URL: hennepin.us/-/media/hennepinus/residents/transportation/documents/pedestrian-plan.pdf

5) Crystal 2040 Comprehensive Plan (page 40-41 (41-42 of 66))

URL: cdnsm5-hosted.civiclive.com/UserFiles/Servers/Server_10879634/File/Resident/Community%20Development/2040%20Comp%20Plan/2040Comp.pdf

6) New Hope 2040 Comprehensive Plan (page 85 and 179)

URL: cdnsm5-hosted.civiclive.com/UserFiles/Servers/Server_9826625/File/City%20Hall/Community%20Development/2040%20Comprehensive%20Plan%20Final%20W%20Apndx%20FINAL.pdf

(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 in more than one funding sub-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 2024 funding cycle).

Multiuse Trails and Bicycle Facilities: \$250,000 to \$5,500,000

Pedestrian Facilities (Sidewalks, Streetscaping, and ADA): \$250,000 to \$2,000,000

Safe Routes to School: \$250,000 to \$1,000,000

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 future Regional Solicitation funding cycles, this requirement may include that the plan has undergone a recent update, e.g., within five years prior to application.

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

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. This includes assurance of year-round use of bicycle, pedestrian, and transit facilities, per FHWA direction established 8/27/2008 and updated 4/15/2019. 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

Requirements - Bicycle and Pedestrian Facilities Projects

1. All projects must relate to surface transportation. As an example, for multiuse trail and bicycle facilities, surface transportation is defined as primarily serving a commuting purpose and/or that connect two destination points. A facility may serve both a transportation purpose and a recreational purpose; a facility that connects people to recreational destinations may be considered to have a transportation purpose.

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

Multiuse Trails on Active Railroad Right-of-Way:

2. All multiuse trail projects that are located within right-of-way occupied by an active railroad must attach an agreement with the railroad that this right-of-way will be used for trail purposes.

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

[Upload Agreement PDF](#)

Check the box to indicate that the project is not in active railroad right-of-way.

Multiuse Trails and Bicycle Facilities projects only:

3. All applications must include a letter from the operator of the facility confirming that they will remove snow and ice for year-round bicycle and pedestrian use. The Minnesota Pollution Control Agency has a resource for best practices when using salt. Upload PDF of Agreement in Other Attachments.

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

Upload PDF of Agreement in Other Attachments.

Safe Routes to School projects only:

4. All projects must be located within a two-mile radius of the associated primary, middle, or high school site.

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

5. All schools benefitting from the SRTS program must conduct after-implementation surveys. These include the student travel tally form and the parent survey available on the National Center for SRTS website. The school(s) must submit the after-evaluation data to the National Center for SRTS within a year of the project completion date. Additional guidance regarding evaluation can be found at the MnDOT SRTS website.

Check the box to indicate that the applicant understands this requirement and will submit data to the National Center for SRTS within one year of project completion.

Requirements - Bicycle and Pedestrian Facilities Projects

Specific Roadway Elements

CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES

	Cost
Mobilization (approx. 5% of total cost)	\$87,000.00
Removals (approx. 5% of total cost)	\$72,000.00
Roadway (grading, borrow, etc.)	\$0.00
Roadway (aggregates and paving)	\$0.00
Subgrade Correction (muck)	\$0.00
Storm Sewer	\$153,000.00

Ponds	\$0.00
Concrete Items (curb & gutter, sidewalks, median barriers)	\$100,000.00
Traffic Control	\$87,000.00
Striping	\$0.00
Signing	\$0.00
Lighting	\$0.00
Turf - Erosion & Landscaping	\$80,000.00
Bridge	\$0.00
Retaining Walls	\$0.00
Noise Wall (not calculated in cost effectiveness measure)	\$0.00
Traffic Signals	\$520,000.00
Wetland Mitigation	\$0.00
Other Natural and Cultural Resource Protection	\$0.00
RR Crossing	\$0.00
Roadway Contingencies	\$492,730.00
Other Roadway Elements	\$0.00
Totals	\$1,591,730.00

Specific Bicycle and Pedestrian Elements

CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES	Cost
Path/Trail Construction	\$0.00
Sidewalk Construction	\$125,000.00
On-Street Bicycle Facility Construction	\$0.00
Right-of-Way	\$0.00
Pedestrian Curb Ramps (ADA)	\$315,000.00
Crossing Aids (e.g., Audible Pedestrian Signals, HAWK)	\$115,000.00
Pedestrian-scale Lighting	\$0.00
Streetscaping	\$80,000.00
Wayfinding	\$0.00
Bicycle and Pedestrian Contingencies	\$303,270.00
Other Bicycle and Pedestrian Elements	\$0.00
Totals	\$938,270.00

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

PROTECT Funds Eligibility

One of the new federal funding sources is Promoting Resilient Operations for Transformative, Efficient, and Cost-Saving Transportation (PROTECT). Please describe which specific elements of your project and associated costs out of the Total TAB-Eligible Costs are eligible to receive PROTECT funds. Examples of potential eligible items may include: storm sewer, ponding, erosion control/landscaping, retaining walls, new bridges over floodplains, and road realignments out of floodplains.

INFORMATION: [Promoting Resilient Operations for Transformative, Efficient, and Cost-Saving Transportation \(PROTECT\) Formula Program Implementation Guidance \(dot.gov\)](https://www.fhwa.dot.gov/transportation/protection/protect_formula_program_implementation_guidance.cfm).

Response:

Based on a planning level review of the proposed scope of work that's primarily focused on constructing pedestrian curb ramps and medians, county staff did not identify any project elements that were obviously eligible for the PROTECT Program.

Totals

Total Cost	\$2,530,000.00
Construction Cost Total	\$2,530,000.00
Transit Operating Cost Total	\$0.00

Measure A: Project Location Relative to Jobs and Post-Secondary Education

Existing Employment Within One-Half Mile:	5213
Existing Post-Secondary Enrollment Within One-Half Mile:	0
Upload Map	1701709314422_2024 RS Map 01 - CSAH 070 (Medicine Lake Rd) Pedestrian - Regional Economy.pdf

Please upload attachment in PDF form

Measure A: Population Summary

Existing Population Within One-Half Mile	16329
Upload Map	1701709434005_2024 RS Map 04 - CSAH 070 (Medicine Lake Rd) Pedestrian - Population Employment.pdf

Please upload attachment in PDF form

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:

1. What engagement methods and tools were used?
2. How did you engage specific communities and populations likely to be directly impacted by the project?
3. What techniques did you use to reach populations traditionally not involved in community engagement related to transportation projects?
4. How were the project's purpose and need identified?
5. How was the community engaged as the project was developed and designed?
6. How did you provide multiple opportunities for of Black, Indigenous, and People of Color populations, low-income populations, persons with disabilities, youth, older adults, and residents in affordable housing to engage at different points of project development?
7. How did engagement influence the project plans or recommendations? How did you share back findings with community and re-engage to assess responsiveness of these changes?
8. If applicable, how will NEPA or Title VI regulations will guide engagement activities?

Response:

Within ½ mile of the project corridor, 27 percent of residents are Black, Indigenous and People of Color (BIPOC). Meanwhile, 18 percent of the population within ½ mile of the project corridor are low-income, 12 percent of people live with disabilities, 24 percent are age 18 or younger and 17 percent are age 65 or older. The ½-mile boundary within the corridor includes 11 percent of people who speak a primary language other than English at home. These demographic profiles are based on the 2017 - 2021 5-Year ACS estimates.

Should this project be awarded, Hennepin County will create an engagement plan that appropriately involves residents, community organizations and members of underrepresented groups who rely upon this corridor as they go from home to work, school, grocery stores, health-care facilities and other destinations that are important facets of daily life. Hennepin County also will engage with city stakeholders and business owners along the corridor about the proposed safety improvements to ensure a more inclusive process. It is important to consider that some people within ½ mile of this corridor might work multiple jobs and or evening-hour jobs, and future engagement will consider ways to reach people who might not be able to make open houses during traditional after-work hours or other potentially restrictive engagement efforts.

Hennepin County is committed to safe mobility for all road users, and this project represents an opportunity to improve safety and accessibility for people who walk, bike, roll and use public transit along this corridor. Accessible pedestrian ramps in particular will allow people who use wheelchairs and other wheeled equipment to be mobile along the corridor with fewer obstacles. Pedestrian refuge islands will enhance safety for people crossing the street, and the design promotes a Safe System approach to help manage vehicle speeds throughout the corridor. Signal revisions and replacements also provide opportunities for improved safety and traffic management as well as implementation of accessible pedestrian signals (APS) for people with limited vision. More than two-dozen transit stops exist on or near this corridor, and this project would improve first and last mile connections, providing a direct benefit to those with limited mobility and promoting transit as a modal option.

Measure B: Disadvantaged Communities Benefits and Impacts

Describe the project's benefits to Black, Indigenous, and People of Color populations, low-income populations, children, people with disabilities, youth, and older adults. Benefits could relate to:

- ? pedestrian and bicycle safety improvements;
- ? public health benefits;
- ? direct access improvements for residents or improved access to destinations such as jobs, school, health care, or other;
- ? travel time improvements;
- ? gap closures;
- ? new transportation services or modal options;
- ? leveraging of other beneficial projects and investments;
- ? and/or community connection and cohesion improvements.

This is not an exhaustive list. A full response will support the benefits claimed, identify benefits specific to Disadvantaged communities residing or engaged in activities near the project area, identify benefits addressing a transportation issue affecting Disadvantaged communities 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.

- ? Decreased pedestrian access through sidewalk removal / narrowing, placement of barriers along the walking path, increase in auto-oriented curb cuts, etc.
- ? Increased speed and/or cut-through traffic.
- ? Removed or diminished safe bicycle access.
- ? Inclusion of some other barrier to access to jobs and other destinations.

Response:

The CSAH 70 (Medicine Lake Rd) Pedestrian Project will benefit BIPOC populations, low-income households, people with disabilities, children, youth and older adults. The project will be particularly beneficial for people with limited mobility by creating ADA compliant ramps that are free of obstructions or defects that previously existed and implementing crossing enhancements such as pedestrian medians where feasible.

Within ½ mile of the project corridor, 27% of residents are BIPOC. The percentage of people who are living in low-income conditions in the same area is 18 percent. This project will improve safety and accessibility for all people within this corridor, including those who live in zero-car or one-car households, and it will make it safer for them to walk, bike and roll to vital destinations such as transit stops (Route 705), schools, health-care facilities, stores and other community resources along the corridor. A map showing key community resources within 1/2 mile of the corridor is included in Attachment 05.

Children and the elderly will benefit from safety improvements such as ADA compliant ramps and medians to calm traffic as well as to provide refuge for people crossing the street. There are multiple schools within ½ mile of the corridor including Neill Elementary School, Sandburg Middle School and Robbinsdale Spanish Immersion Elementary School. The corridor also includes a Good Ambassador Society facility, which provides assisted-living services, rehabilitation services and other long-term care for seniors who will benefit from accessibility upgrades through the proposed project.

More than two-dozen transit stops exist within ½ mile of the project corridor. If funded, this project will improve safety and accessibility for people who rely on public transit to go to school, work, health-care clinics and a number of other destinations that are crucial to their daily lives.

Increased noise and impacts to the roadway and sidewalks 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. Access to adjacent buildings will be critical, and staff will seek out opportunities to ensure that nearby businesses and services are not negatively impacted during construction.

Measure C: Affordable Housing Access

Describe any affordable housing developments?existing, under construction, or planned?within 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 project?s benefits to current and future affordable housing residents within ½ mile of the project. Benefits must relate to affordable housing residents. Examples may include:

- ? specific direct access improvements for residents
- ? improved access to destinations such as jobs, school, health care or other;
- ? new transportation services or modal options;
- ? and/or community connection and cohesion improvements.

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.

Response:

Multiple affordable housing developments are located within ½ mile of the project area. As identified in the Met Council generated Socio-Economic Conditions map, 476 publicly subsidized rental housing units exist in census tracts within ½ mile of the project. Developments within the project area include the Dover Hill Apartments complex, the Elmbrooke & Golden Valley Townhomes complex and the Medley Park Townhouses complex. Attachment 06 provides a map and full detail summary of these locations, including unit sizes and affordability limits based on area median incomes.

Residents of the affordable housing will benefit from accessible sidewalk ramps and improved pedestrian crossings, which will provide better access to transit stops, stores, schools, workplaces and more along the corridor. More than two dozen transit stops exist within ½ mile of the corridor, and pedestrian safety improvements will address some of the existing challenges and obstacles that residents of affordable housing developments now face while trying to get to the bus stop or other facilities that often are an integral part of their daily life.

Existing conditions create barriers for seniors and those with disabilities who live in affordable housing developments along the project corridor. A lack of ADA compliant ramps can make it difficult for people to cross the street safely and access the next sidewalk segment. The absence of pedestrian medians encourages riskier driving behaviors and does not provide people crossing the street with a refuge halfway across the street that can improve their safety.

A more accessible pedestrian environment will promote greater use of public transit and will expand access to jobs, schools, stores, places of worship and other places along the corridor.

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

Measure D: BONUS POINTS

Project is located in an Area of Concentrated Poverty:

Project?s census tracts are above the regional average for population in poverty or population of color (Regional Environmental Justice Area): Yes

Project located in a census tract that is below the regional average for population in poverty or populations of color (Regional Environmental Justice Area):

Upload the ?Socio-Economic Conditions? map used for this measure.

1701712278221_2024 RS Map 02 - CSAH 070 (Medicine Lake Rd) Pedestrian - Socio Economic.pdf

Measure A: Gaps, Barriers and Continuity/Connections

Response:

The CSAH 70 (Medicine Lake Rd) pedestrian project will overcome multiple pedestrian barriers, particularly for people who use wheelchairs and other wheeled equipment and who cannot easily access portions of the sidewalk along this corridor.

Safety improvements at CSAH 70 (Medicine Lake Rd) and Hillsboro Ave will allow people to access sidewalks using ADA-compliant ramps at all four corners of the intersection. Additional ADA-compliant ramps will be placed at the intersection of Medicine Lake Rd and Flag Ave (to the north) and Medley Cir (to the south). The same is true at CSAH 70 (Medicine Lake Rd) and Boone Ave, CSAH 70 (Medicine Lake Rd) and Zealand Ave, and CSAH 70 (Medicine Lake Rd) and Virginia Ave, which are located next to transit stops (Routes 705A and 755).

ADA-compliant ramps at all four corners of the intersection of CSAH 70 (Medicine Lake Rd) and CSAH 156 (Winnetka Ave) will allow people walking and rolling to access a transit stop and nearby stores without facing the same safety challenges that they do today. Additional ADA-compliant ramps at CSAH 70 (Medicine Lake Rd) and Nevada Ave, Sandburg Ln, Idaho Ave and Hampshire Ave also will allow people to access transit stops near each location without confronting the same barriers that exist today.

This corridor is home to more than 16,000 people who live within a half-mile of the proposed project area and more than 5,000 people who work within a half-mile of the proposed project area. These safety improvements will help the residents of all ages and abilities in this area to access schools (Robbinsdale Spanish Immersion Elementary School, Sandburg Middle School, and Neill Elementary School), businesses, stores, transit stops and more because of the installation of ADA-compliant ramps.

(Limit 2,800 characters; approximately 400 words)

Measure B: Deficiencies corrected or safety problems addressed

Response:

The CSAH 70 (Medicine Lake Rd) Pedestrian Project would update pedestrian ramps at approximately 25 locations along a busy corridor where people walk, bike, roll and use transit. The addition of ADA-compliant ramps would improve accessibility for everyone who walks, bikes or rolls along this corridor, and it would provide particular safety benefits to those who use wheelchairs or other wheeled equipment for mobility purposes.

This concept also includes a median along CSAH 70 (Medicine Lake Rd) just east of Decatur Ave. This promotes a Safe System approach to encourage slower speeds, and it provides vulnerable road users with a refuge to protect them as they cross CSAH 70 (Medicine Lake Rd). Similarly, the concept includes a median along CSAH 70 (Medicine Lake Rd) just east of Idaho Ave and another median farther east of Hampshire Ave that provides similar benefits. Medians at these locations will also be evaluated for additional enhancements such as Rectangular Rapid Flashing Beacons (RRFB).

Finally, every signalized intersection will include Accessible Pedestrian Signal (APS) upgrades. Of specific note, a signal replacement at Boone Ave will be included in this project, which will relocate signal poles that are currently within the sidewalk path. The new signal at Boone Ave will also include the latest traffic signal technologies as well as APS to benefit people walking and rolling.

People who live in the area and walk to nearby schools such as Neill Elementary School, Sandburg Middle School and Robbinsdale Spanish Immersion School currently face obstacles crossing the street at these locations because of the lack of ADA-compliant ramps and medians. These improvements will provide proactive safety benefits to community members as they walk to school, transit stops, nearby stores and other community resources.

Attachment 07 highlights crash data from 2013-2022. Over the course of ten years, there have been two pedestrian-related crashes and three bicycle-related crashes.

The following list identifies the key safety countermeasures that are anticipated with this project. The specific type and location of improvements will be determined as part of the project development process, based on data analysis, stakeholder input, and environmental review. Attachment 08 includes applicable pages from Minnesota's Pedestrian and Bicycle Safety Guidebook.

- Median and crossing islands: Anticipated reduction of up to 46%-56% pedestrian crashes

- Rectangular Rapid Flashing Beacons: Anticipated reduction of 47% in vehicle-pedestrian crashes

(Limit 2,800 characters; approximately 400 words)

Measure A: Multimodal Elements and Connections

Response:

The planning level concept developed for the CSAH 70 (Medicine Lake Rd) Pedestrian Project identifies the following locations as potentially feasible for the introduction of a raised median. This complete streets element will improve safety for people driving by doing a better job of channelizing traffic, preventing aggressive passing maneuvers that may occur on painted medians that exist today, and slowing high speeds that can increase the likelihood of severe and fatal crashes involving people walking. The medians also would provide additional safety for people crossing CSAH 70 (Medicine Lake Rd) by providing them with a refuge, whereas today there exists only a painted centerline.

- Near Decatur Ave
- Near Idaho Ave
- Near Hampshire Ave

More than twenty transit stops exist along this corridor (serving Routes 705A and 755), and this project concept would improve safety and accessibility as part of first and last mile connections on or near CSAH 70 (Medicine Lake Rd). By upgrading pedestrian ramps, this project creates safer crossings near CSAH 70 (Medicine Lake Rd) and Hillsboro Ave; Medley Cir; Ensign Ave; Decatur Ave; Boone Ave; Zealand Ave; Virginia Ave; CSAH 156 (Winnetka Ave); Rosalyn Ct; Nevada Ave; Idaho Ave; and Hampshire Ave. The addition of ADA-compliant ramps in these locations will improve safety for people who use wheelchairs for mobility, as well as parents or guardians pushing young children in strollers, and others who rely upon wheeled equipment and currently face obstacles as they try to cross from one side of the curb to another. Accessible Pedestrian Signals (APS) at signalized intersections will provide benefits for people with visual impairments traveling along the corridor.

The project is located within a Regional Bicycle Transportation Network Tier 2 Corridor. There are on-street bicycle facilities along CSAH 70 (Medicine Lake Rd) as well as along Boone Ave to the north and CSAH 156 (Winnetka Ave) to the south. In addition, there are several nearby off-street all ages and abilities bicycle facilities, including the Medicine Lake Regional Trail and the Luce Line Regional Trail as shown on Attachment 09 Multimodal Connections Map.

The accessibility improvements proposed as part of this project will also benefit students, staff, and parents traveling to and from schools along the corridor, including Robbinsdale Spanish Immersion Elementary School, Sandburg Middle School, and Neill Elementary School.

(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:

Hennepin County will work directly with residents, community organizations and members of underrepresented groups as it refines the project design. In coordination with a planned mill and overlay following this project, anticipated engagement methods include direct mailings, open houses, neighborhood group meetings, and contracting with community partners who already have trusted relationships in the community.

(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 project's 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

1701812731788_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

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)

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):	\$2,530,000.00
Enter Amount of the Noise Walls:	\$0.00
Total Project Cost subtract the amount of the noise walls:	\$2,530,000.00
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	76 KB
Attachment 01 - Project Narrative.pdf	Attachment 01 - Project Narrative	105 KB
Attachment 02 - Existing Condition Photos.pdf	Attachment 02 - Existing Condition Photos	654 KB
Attachment 03 - Project Location Map.pdf	Attachment 03 - Project Location Map	1.3 MB
Attachment 04 - Potential Concept.pdf	Attachment 04 - Potential Concept	3.5 MB
Attachment 05 - Disadvantaged Communities and Resources Map.pdf	Attachment 05 - Disadvantaged Communities and Resources Map	745 KB
Attachment 06 - Affordable Housing Access Map and Detail Summary.pdf	Attachment 06 - Affordable Housing Access Map and Detail Summary	761 KB
Attachment 07 - Crash Data Summary.pdf	Attachment 07 - Crash Data Summary	142 KB
Attachment 08 - Crash Reduction References.pdf	Attachment 08 - Crash Reduction References	546 KB
Attachment 09 - Multimodal Connections Map.pdf	Attachment 09 - Multimodal Connections Map	1.2 MB
Attachment 10 - City of Crystal Letter of Support.pdf	Attachment 10 - City of Crystal Letter of Support	390 KB
Attachment 11 - City of Golden Valley Letter of Support.pdf	Attachment 11 - City of Golden Valley Letter of Support	392 KB
Attachment 12 - City of New Hope Letter of Support.pdf	Attachment 12 - City of New Hope Letter of Support	285 KB

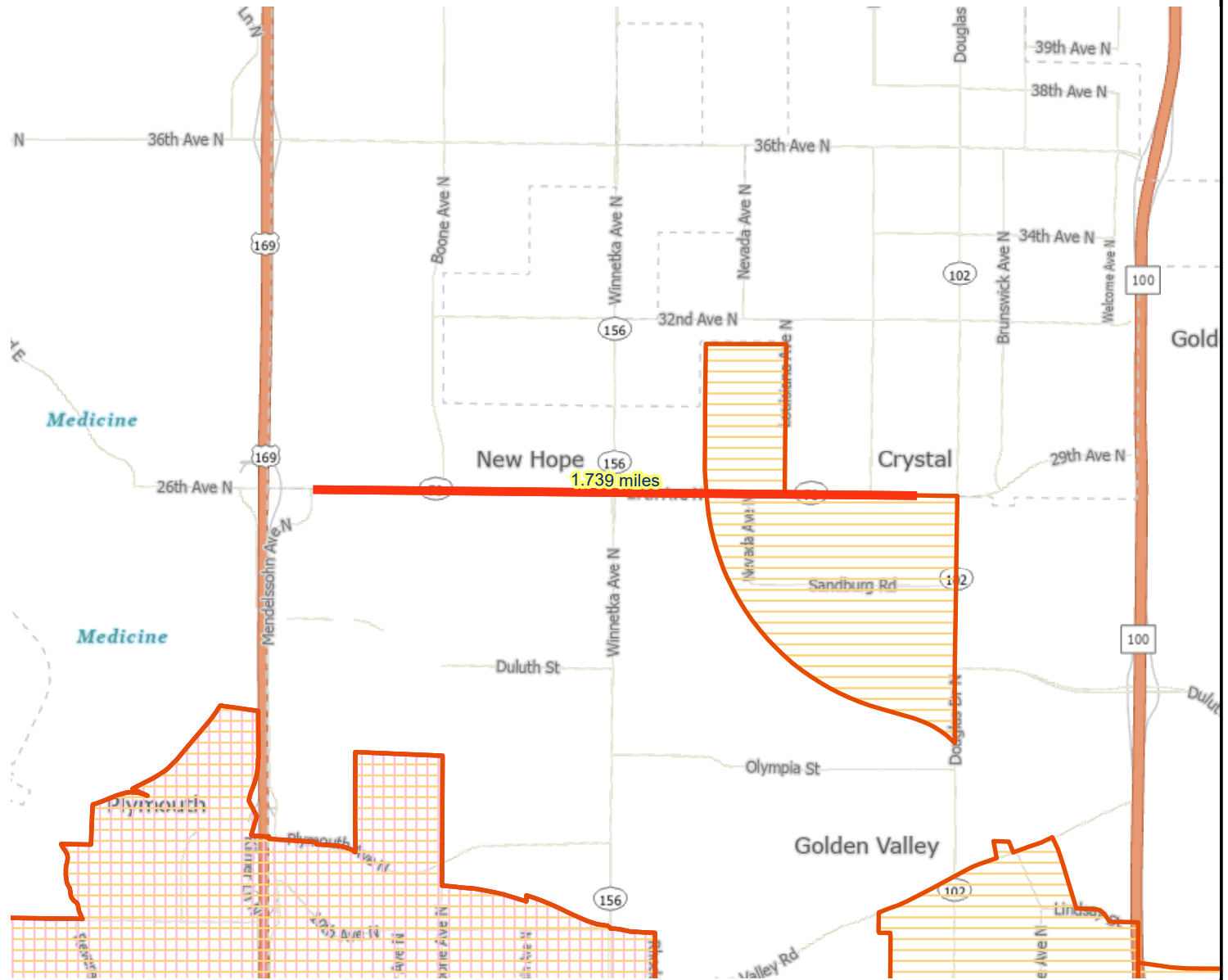
Regional Economy

Pedestrian Facilities Project: CSAH 70 (Medicine Lake Rd) Pedestrian Project | Map ID: 1699016349103

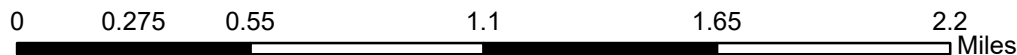
Results

Within HALF Mi of project:
Postsecondary Students: 0

Total Population: 16329
Total Employment: 5213
Mfg and Dist Employment: 2460



- Project
- Manufacturing/Distribution Centers
- Job Concentration Centers



Created: 11/3/2023
LandscapeRSA5



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

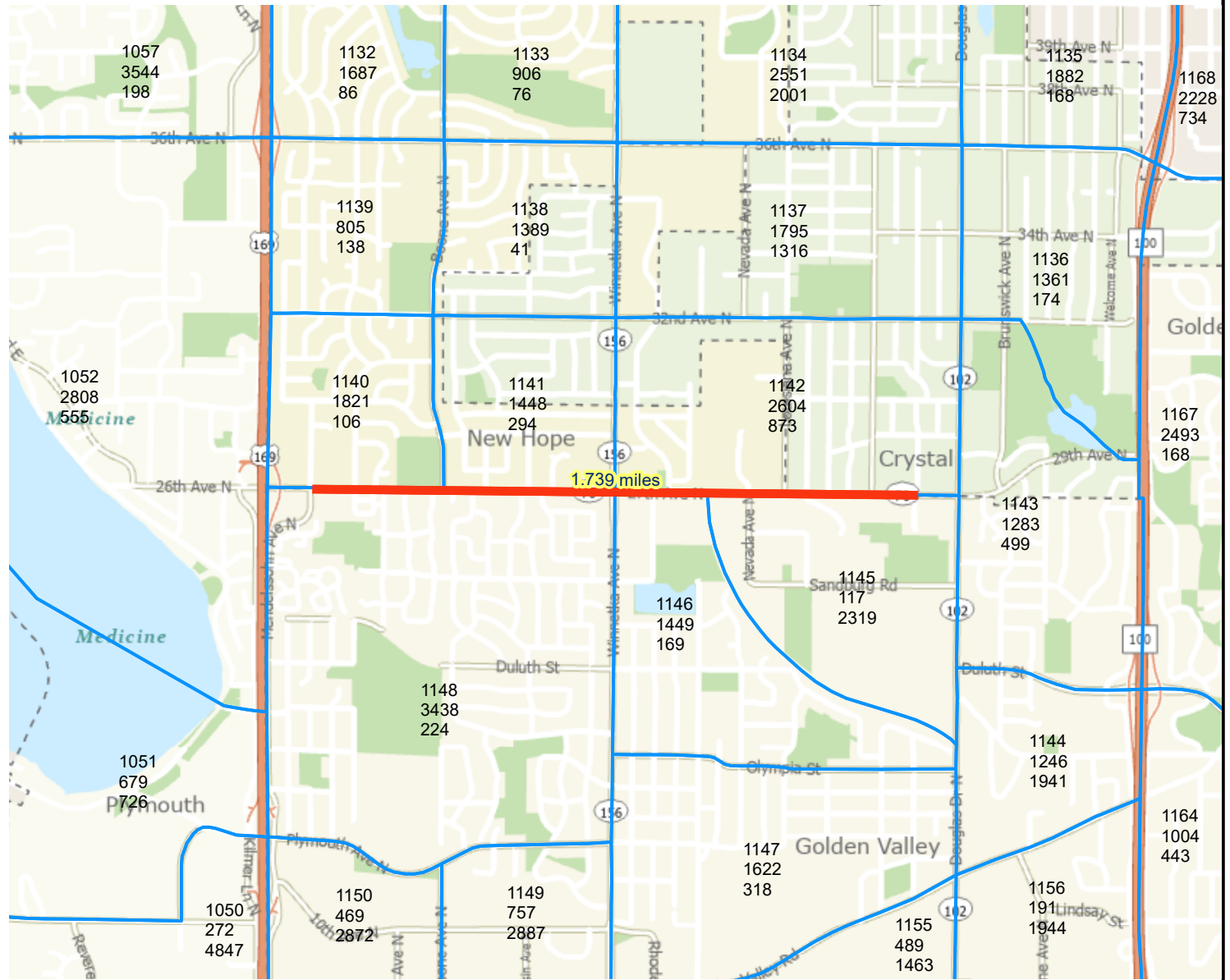


Population/Employment Summary

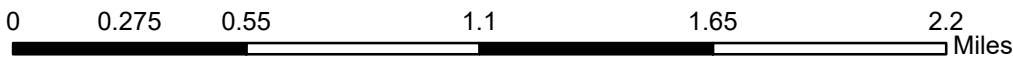
Pedestrian Facilities Project: CSAH 70 (Medicine Lake Rd) Pedestrian Project | Map ID: 1699016349103

Results

Within HALF Mile of project:
Total Population: 16329



-  Project Points
-  Project Area
-  Project
-  2016 TAZ



Created: 11/3/2023
LandscapeRSA4



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

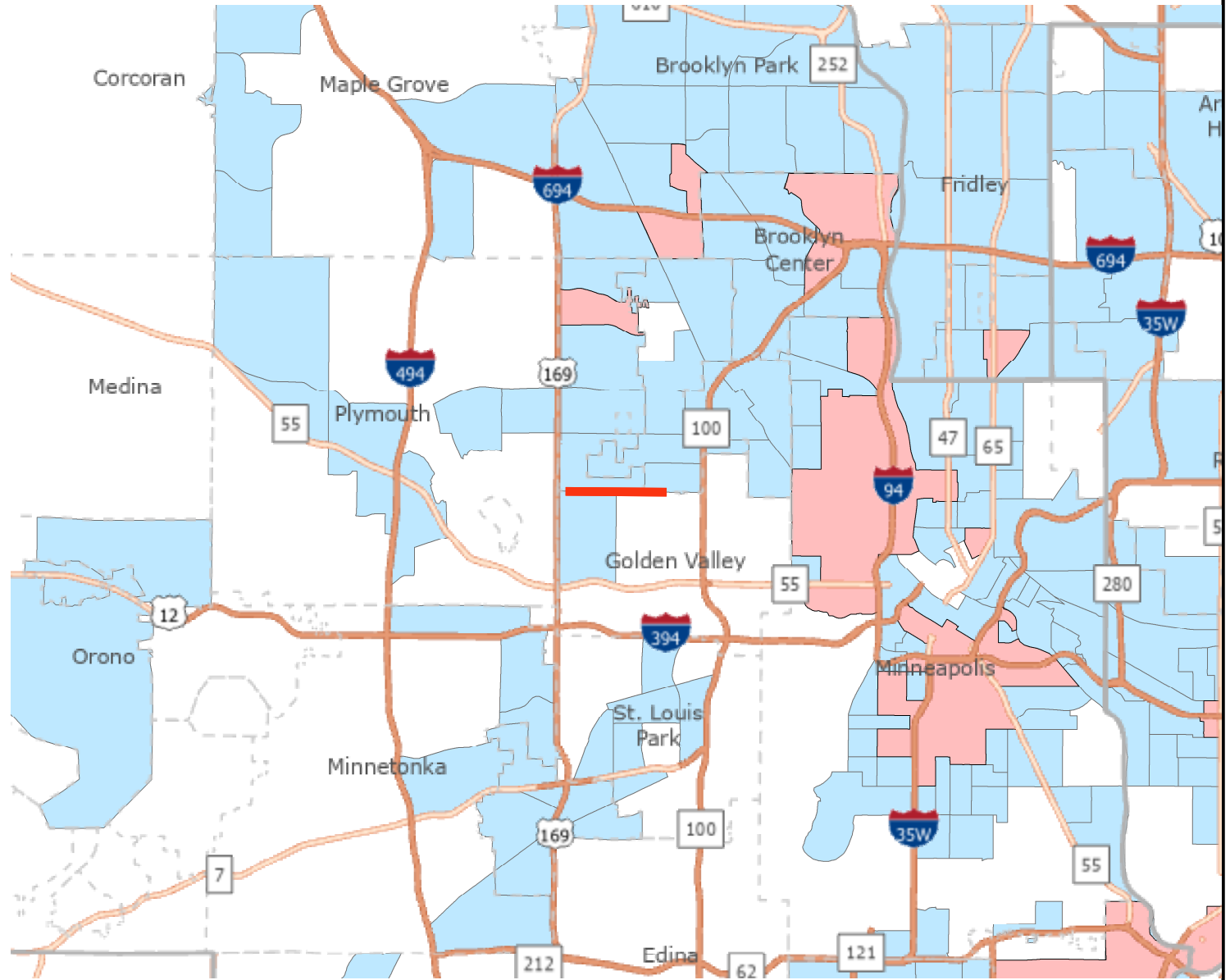


Socio-Economic Conditions

Results

Total of publicly subsidized rental housing units in census tracts within 1/2 mile: 476

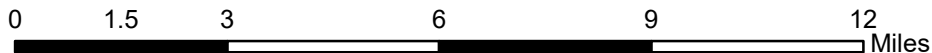
Project located in census tract(s) that are ABOVE the regional average for population in poverty or population of color.



— Lines

Regional Environmental Justice Area

Area of Concentrated Poverty



CSAH 70 (Medicine Lake Rd) Pedestrian Project

Attachment 04 | Potential Concept

HENNEPIN COUNTY
MINNESOTA



Figure 1

CSAH 70 (Medicine Lake Rd) Pedestrian Project

Attachment 04 | Potential Concept

HENNEPIN COUNTY
MINNESOTA

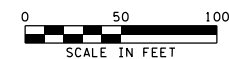







Figure 2

CSAH 70 (Medicine Lake Rd) Pedestrian Project

Attachment 04 | Potential Concept

HENNEPIN COUNTY
MINNESOTA

LEGEND

	RAISED MEDIANS & CURBS		PROPOSED TRAFFIC SIGNAL
	SIDEWALK FACILITY		EXISTING TRAFFIC SIGNAL
			METRO TRANSIT BUS STOP

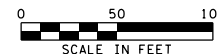


Figure 3

CSAH 70 (Medicine Lake Rd) Pedestrian Project

Attachment 04 | Potential Concept

HENNEPIN COUNTY
MINNESOTA

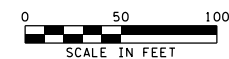


Figure 4

CSAH 70 (Medicine Lake Rd) Pedestrian Project

Attachment 04 | Potential Concept

HENNEPIN COUNTY
MINNESOTA

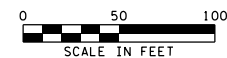
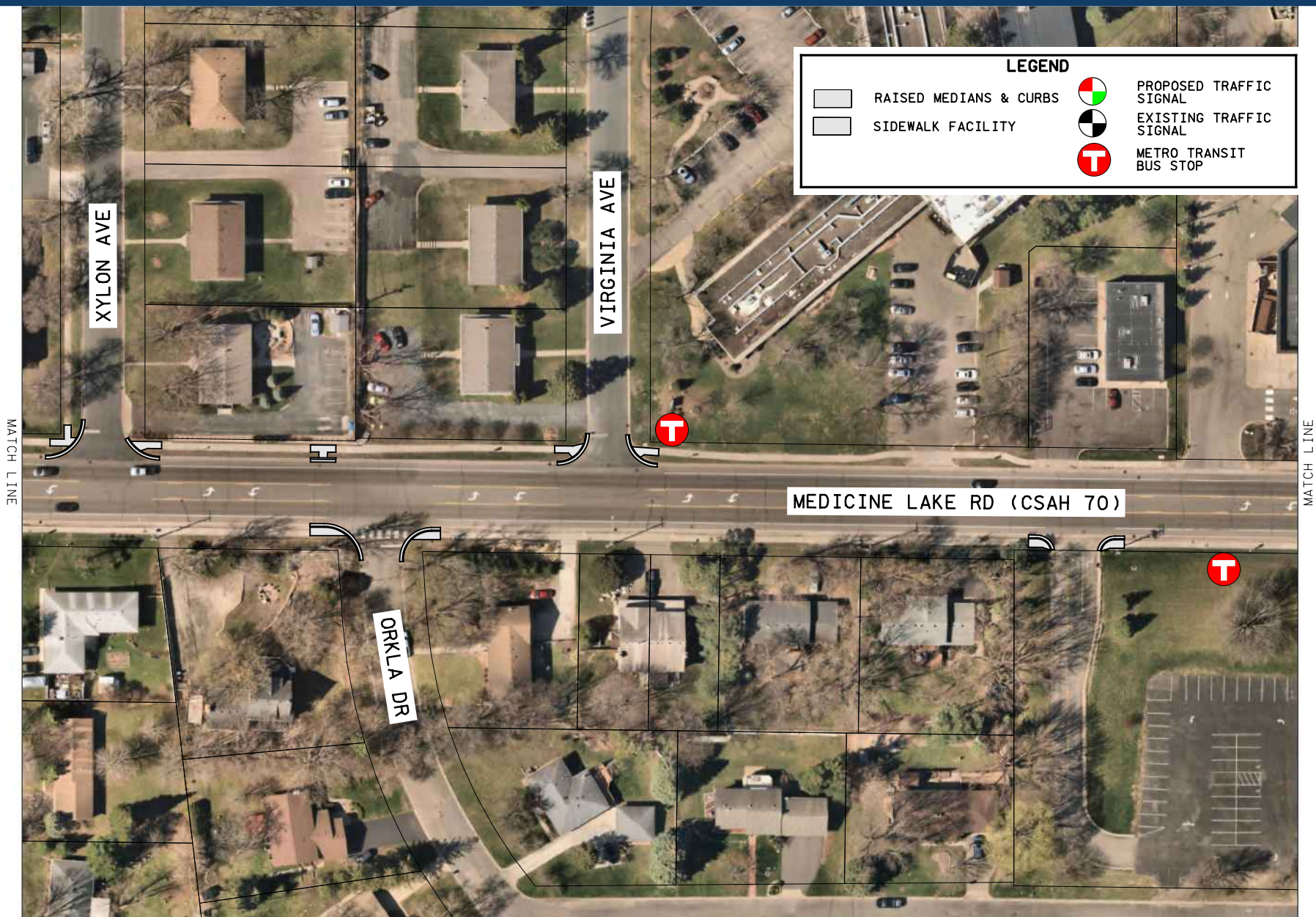


Figure 5

CSAH 70 (Medicine Lake Rd) Pedestrian Project

Attachment 04 | Potential Concept

HENNEPIN COUNTY
MINNESOTA

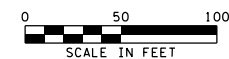
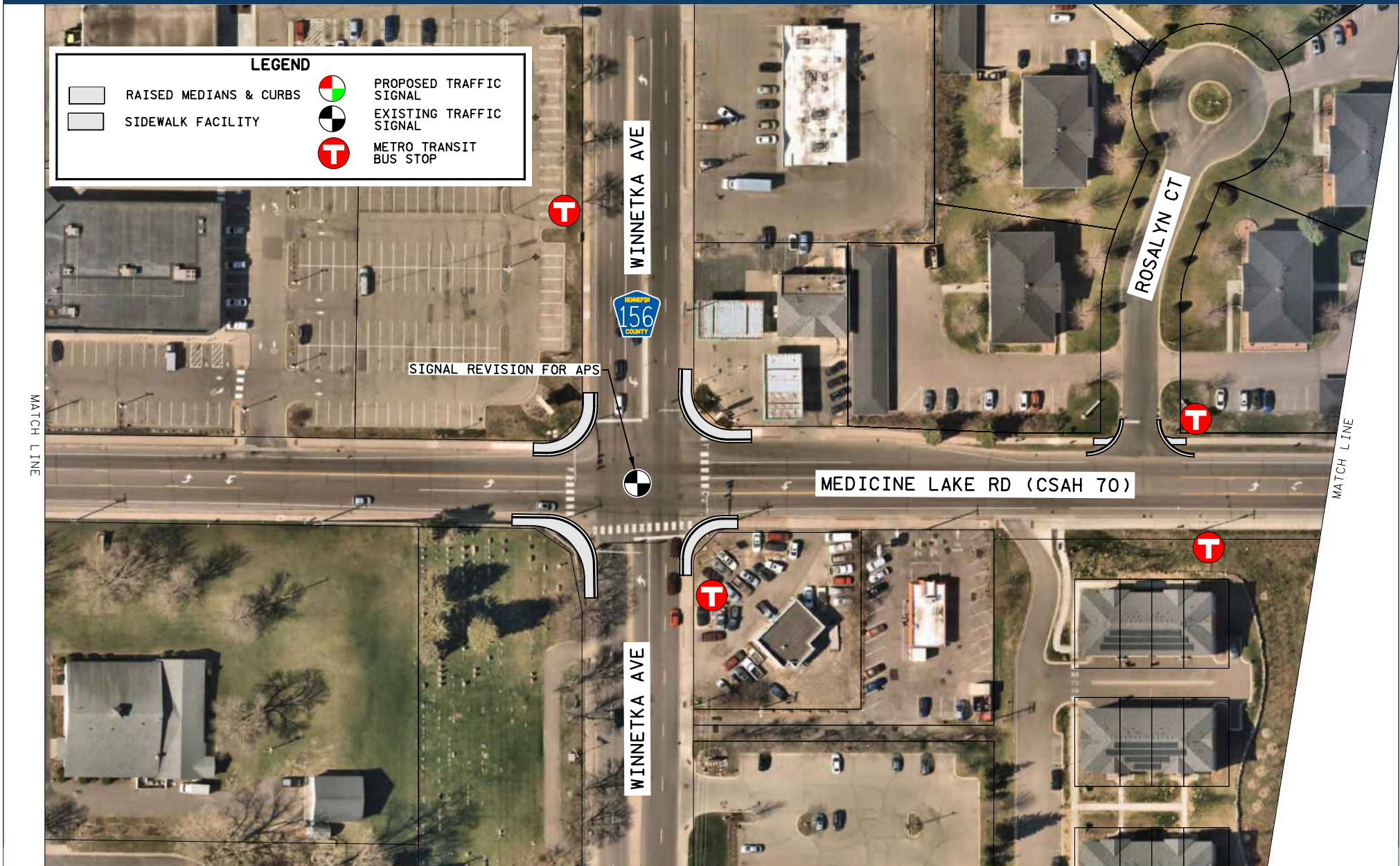


Figure 6

CSAH 70 (Medicine Lake Rd) Pedestrian Project

Attachment 04 | Potential Concept

HENNEPIN COUNTY
MINNESOTA

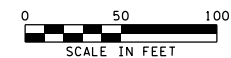


Figure 7

CSAH 70 (Medicine Lake Rd) Pedestrian Project

Attachment 04 | Potential Concept

HENNEPIN COUNTY
MINNESOTA

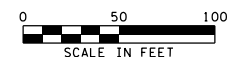
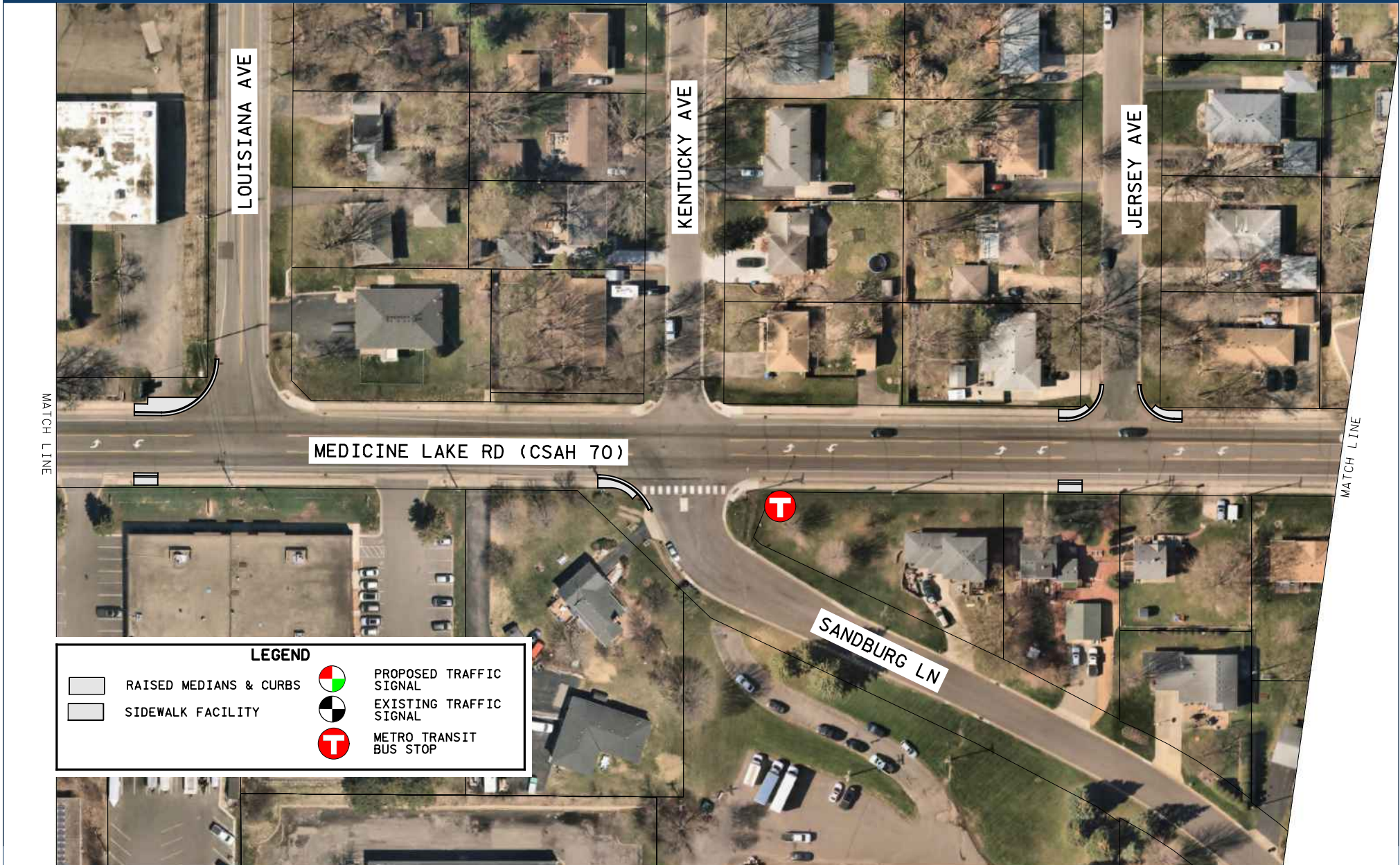


Figure 8

CSAH 70 (Medicine Lake Rd) Pedestrian Project

Attachment 04 | Potential Concept

HENNEPIN COUNTY
MINNESOTA



CSAH 70 (Medicine Lake Rd) Pedestrian Project

Attachment 04 | Potential Concept

HENNEPIN COUNTY
MINNESOTA

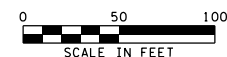
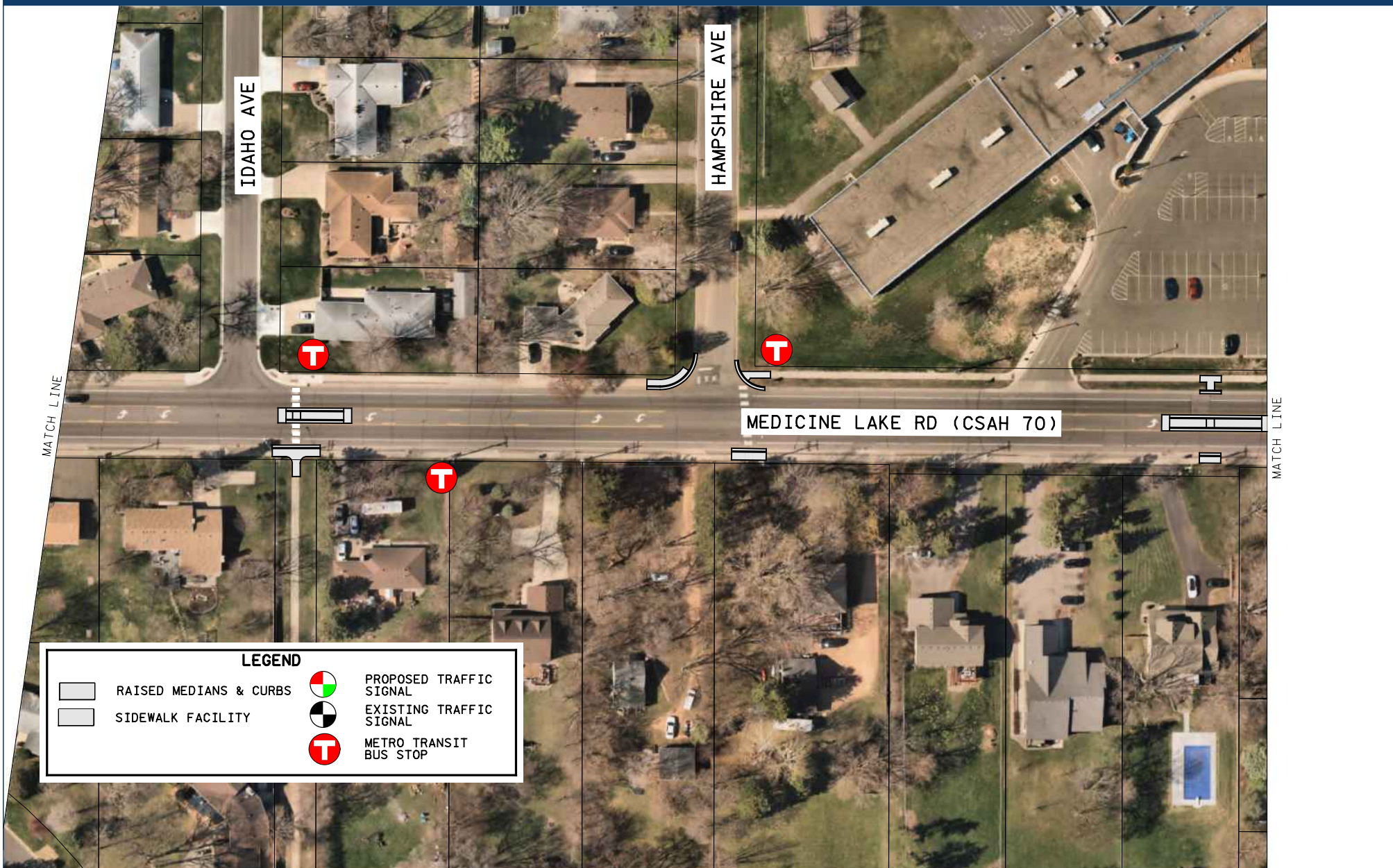


Figure 10

CSAH 70 (Medicine Lake Rd) Pedestrian Project

Attachment 04 | Potential Concept

HENNEPIN COUNTY
MINNESOTA



Figure 11

CSAH 70 (Medicine Lake Rd) Pedestrian Project

Attachment 00 | List of Attachments

1. Project Narrative
2. Existing Condition Photos
3. Project Location Map
4. Potential Concept
5. Disadvantaged Communities and Resources Map
6. Affordable Housing Access Map and Detail Summary
7. Crash Data Summary
8. Crash Reduction References
9. Multimodal Connection Map
10. City of Crystal Letter of Support
11. City of Golden Valley Letter of Support
12. City of New Hope Letter of Support

CSAH 70 (Medicine Lake Rd) Pedestrian Project

Attachment 01 | Project Narrative

Project Name

CSAH 070 (Medicine Lake Rd) Pedestrian Project

City(ies)

Crystal Golden Valley New Hope

Commissioner District(s)

1 2

Capital Project Number

Unfunded Candidate ID #2230504

Project Category

Multimodal Accessibility (Corridor)

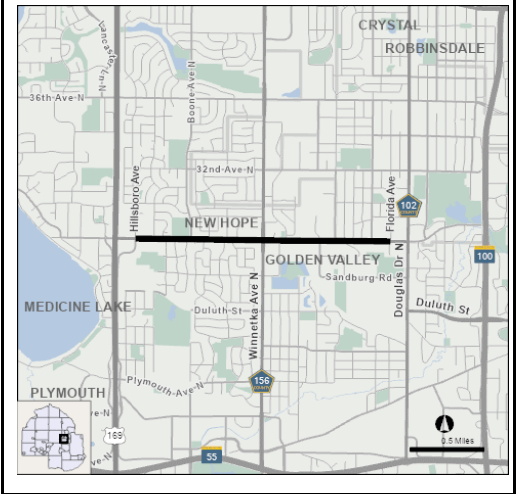
Scoping Manager

James Weatherly

Scoping Form Revision Dates

10/19/2023

Project Map



Project Summary

Pedestrian safety improvements along CSAH 70 (Medicine Lake Road) from Hillsboro Avenue to Florida Avenue (East Junction) in the Cities of Crystal, Golden Valley, and New Hope.

Roadway History

Medicine Lake Road (CSAH 70) is an east/west corridor that connects users to residential areas, commercial nodes, and a number of educational centers, including: Robbinsdale Spanish Immersion Elementary School, Sandburg Middle School, and Neill Elementary School. The existing sidewalk facilities along Medicine Lake Road (CSAH 70) do not promote a positive user experience for those walking and rolling along the corridor. Many existing pedestrian ramps do not meet current standards and lack truncated domes. Crossing distances are relatively long throughout the corridor, and minimal pedestrian crossing enhancements (such as medians, crossing beacons, and streetscaping) exist for providing traffic calming. Furthermore, existing traffic signal infrastructure obstructs access for those walking and rolling at a number intersections.

Project Description and Benefits

The project objectives include improving safety, comfort, and accessibility for people walking along and across Medicine Lake Road (CSAH 70) through the upgrading of pedestrian ramps, installation of Accessible Pedestrian Signals (APS), and implementation of proven traffic calming strategies (such as raised medians, streetscaping, and/or crossing beacons) to improve the crossing experience and manage vehicle speeds. In particular, pedestrian crossing improvements will be explored at schools within the project area to create safe, comfortable connections for students and faculty. In addition, the replacement of the existing traffic signal system at Boone Avenue is anticipated to promote ADA accessibility and address aging signal assets.

Project Risks & Uncertainties

Discussion needed with Cities of Crystal, Golden Valley, and New Hope related to potential access management impacts for the introduction of raised medians along the corridor.

Initial Project Timeline

Scoping:	Q2 2023 - Q4 2026
Design:	Q1 2027 - Q4 2028
R/W Acquisition:	Q1 2028 - Q4 2028
Bid Advertisement:	Q1 2029
Construction:	Q2 2029 - Q4 2029

Project Delivery Responsibilities

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

Project Budget -	Project Level
Construction:	\$ 1,690,000
Cost Estimate Year:	2023
Construction Year:	2023
Annual Inflation Rate:	2.0%
Inflated Construction:	\$ 1,690,000
Design Services:	\$ 340,000
R/W Acquisition:	\$ 300,000
Other (Utility Burial):	\$ -
Construction Services:	\$ 140,000
Contingency:	\$ 840,000
Total Project Budget:	\$ 3,310,000

Funding Notes

This project is eligible for federal funding through the Metropolitan Council's Regional Solicitation due to its connection to the county's ADA Transition Plan.

CSAH 70 (Medicine Lake Rd) Pedestrian Project

Attachment 02 | Existing Condition Photos



The corridor lacks consistent ADA compliant pedestrian ramps as shown in the example above and to the right at Medicine Lake Rd (CSAH 70) and Hampshire Ave.



Sidewalk along roadway contains cracks and requires repair for people walking and rolling.



Ramps along the roadway lack truncated domes and need to be updated to current ADA standards.

CSAH 70 (Medicine Lake Rd) Pedestrian Project

Attachment 02 | Existing Roadway Condition Photos



Pavement infrastructure is cracked and requires repairs. Upon completion of this project, Hennepin County plans to complete an overlay to provide a smooth surface for people driving and people biking.



The nearest crossing for the Neill Elementary School is Hampshire Ave N and Florida Ave N. This project will include additional crossing enhancements along the corridor as warranted.



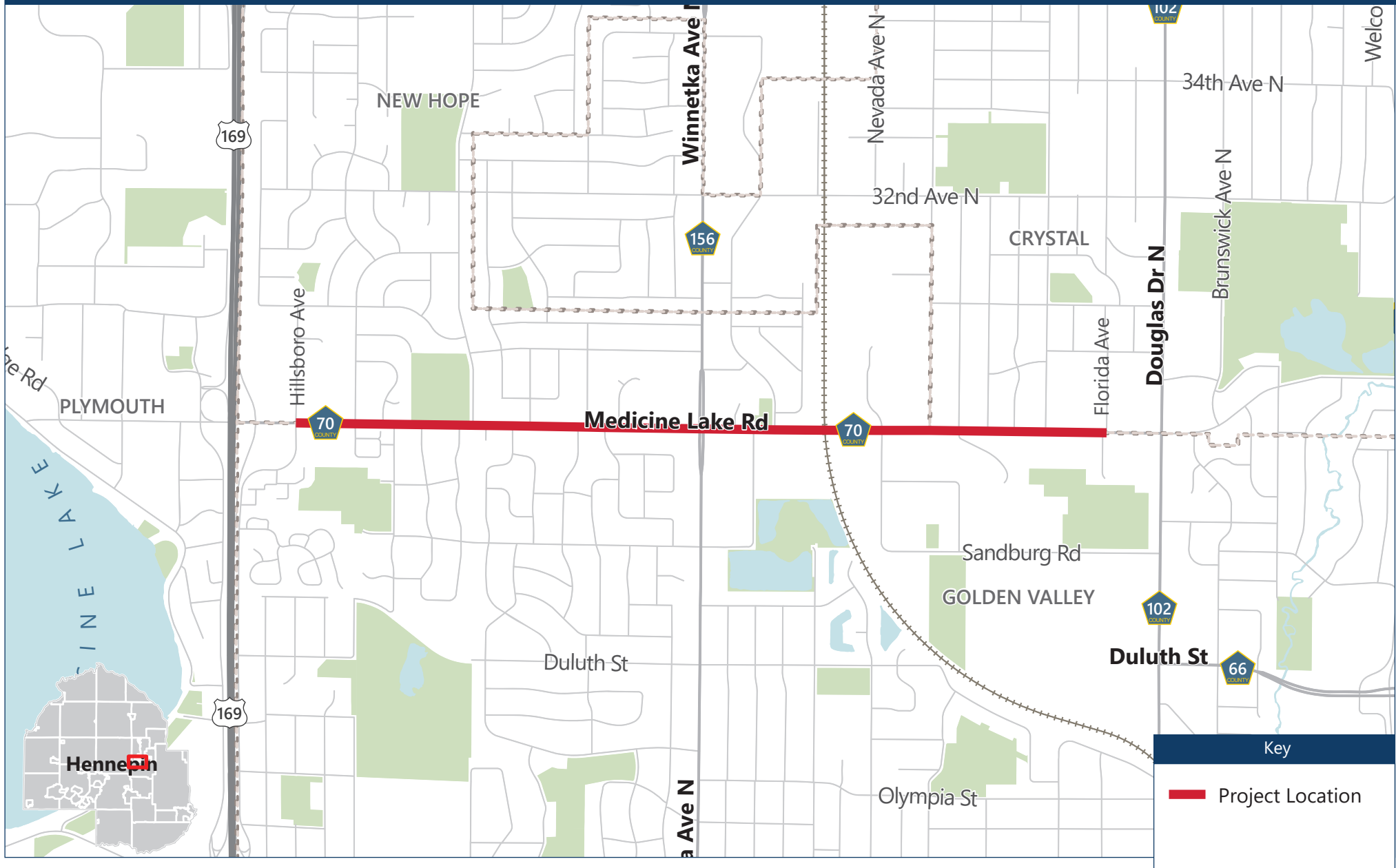
The intersection of Medicine Lake Rd (CSAH 70) and Hillsboro Ave pictured above.



This intersection lacks ADA compliant truncated domes and sufficient ramps for people to walk and roll.

CSAH 70 (Medicine Lake Rd) Pedestrian Project

Attachment 03 | Project Location Map



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

Publication date: 8/28/2023

Data sources (if applicable):



CSAH 70 (Medicine Lake Rd) Pedestrian Project

Attachment 05 | Disadvantaged Communities and Resources Map



Key	
	Project Location
	0.5 Mile Project Buffer
	Schools & Childcare
	Community Resources
	Healthcare (Hospitals & Nursing Homes)
	Service Centers
	Libraries
	High CDC SVI (>0.75) Tracts (2020)

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

Publication date: 11/9/2023

Data sources (if applicable):



CSAH 70 (Medicine Lake Rd) Pedestrian Project

Attachment 06 | Affordable Housing Access Map and Detail Summary



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

Publication date: 11/6/2023

Data sources (if applicable):



CSAH 70 (Medicine Lake Rd) Pedestrian Project

Attachment 06 | Affordable Housing Access Map and Detail Summary

Property ID	Property Name	Total Units	Affordable Units	30% AMI	50% AMI	60% AMI	0 BR	1 BR	2 BR	3 BR	4 BR
9510	Medley Park	30	30	30	0	0	0	0	22	7	1
9563	Elmbrooke & Golden Valley Townhomes	54	54	0	54	0	0	0	36	18	0
14602	Dover Hill	234	234	0	234	0	0	170	48	16	0

CSAH 70 (Medicine Lake Rd) Pedestrian Project

Attachment 07 | Crash Data Summary

Table 01 | Pedestrian reported crashes

Year	Total	K	A	B	C	N
2013	0	0	0	0	0	0
2014	0	0	0	0	0	0
2015	0	0	0	0	0	0
2016	0	0	0	0	0	0
2017	0	0	0	0	0	0
2018	0	0	0	0	0	0
2019	0	0	0	0	1	0
2020	0	0	0	0	0	0
2021	0	0	0	1	0	0
2022	0	0	0	0	0	0
Ten Year Totals	0	0	0	1	1	0

Table 02 | Bicycle reported crashes

Year	Total	K	A	B	C	N
2013	0	0	0	0	1	0
2014	0	0	0	0	0	0
2015	0	0	0	0	0	0
2016	0	0	0	0	0	0
2017	0	0	0	1	0	0
2018	0	0	0	0	0	0
2019	0	0	0	0	0	0
2020	0	0	0	0	0	0
2021	0	0	0	0	1	0
2022	0	0	0	0	0	0
Ten Year Totals	0	0	0	1	2	0



CSAH 70 (Medicine Lake Rd) Pedestrian Project

Attachment 07 | Crash Data Summary

Crash Severity/Crash Year												
Crash Severity	Total	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
K - Fatal	0	0	0	0	0	0	0	0	0	0	0	0
A - Serious Injury	0	0	0	0	0	0	0	0	0	0	0	0
B - Minor Injury	1	0	0	0	0	1	0	0	0	0	0	0
C - Possible Injury	2	1	0	0	0	0	0	0	0	1	0	0
N - Prop Dmg Only	0	0	0	0	0	0	0	0	0	0	0	0
Total	3	1	0	0	0	1	0	0	0	1	0	0

Crash Severity/Number of Vehicles					
Crash Severity	Total	0	1	2	3+
K - Fatal	0	0	0	0	0
A - Serious Injury	0	0	0	0	0
B - Minor Injury	1	0	1	0	0
C - Possible Injury	2	0	2	0	0
N - Prop Dmg Only	0	0	0	0	0
Total	3	0	3	0	0

Relationship to Intersection Summary		Total	%
Not at Intersection/Interchange		0	0.0
Four-Way Intersection		1	33.3
T or Y Intersection		2	66.7
Five-Way Intersection or More		0	0.0
Roundabout		0	0.0
Intersection Related		0	0.0
Driveway Access Related		0	0.0
At School Crossing		0	0.0
Railway Grade Crossing		0	0.0
Shared Use Path or Trail		0	0.0
Interchange or Ramp		0	0.0
Crossover Related		0	0.0
Acceleration/Deceleration Lane		0	0.0
Other/Unknown		0	0.0
Total		3	100.0

Basic Type Summary		Total	%
Pedestrian		0	0.0
Bike		3	100.0
Single Vehicle Run Off Road		0	0.0
Single Vehicle Other		0	0.0
Sideswipe Same Direction		0	0.0
Sideswipe Opposing		0	0.0
Rear End		0	0.0
Head On		0	0.0
Left Turn		0	0.0
Angle		0	0.0
Other		0	0.0
Total		3	100.0

Weather 1 Summary		Total	%
Clear		1	33.3
Cloudy		2	66.7
Rain		0	0.0
Snow		0	0.0
Sleet, Hail (Freezing Rain/Drizzle)		0	0.0
Fog/Smog/Smoke		0	0.0
Blowing Sand/Soil/Dirt/Snow		0	0.0
Severe Crosswinds		0	0.0
Other/Unknown		0	0.0
Total		3	100.0

First Harmful Event Summary		Total	%
Pedestrian		0	0.0
Bicyclist		2	66.7
Motor Vehicle In Transport		1	33.3
Parked Motor Vehicle		0	0.0
Train		0	0.0
Deer/Animal		0	0.0
Other - Non Fixed Object		0	0.0
Collision Fixed Object		0	0.0
Non-Collision Harmful Events		0	0.0
Other/Unknown		0	0.0
Total		3	100.0

Light Condition Summary		Total	%
Daylight		3	100.0
Sunrise		0	0.0
Sunset		0	0.0
Dark (Str Lights On)		0	0.0
Dark (Str Lights Off)		0	0.0
Dark (No Str Lights)		0	0.0
Dark (Unknown Light)		0	0.0
Other/Unknown		0	0.0
Total		3	100.0



CSAH 70 (Medicine Lake Rd) Pedestrian Project

Attachment 07 | Crash Data Summary

Time of Day/Day of Week														Total	%
From To	00:00 01:59	02:00 03:59	04:00 05:59	06:00 07:59	08:00 09:59	10:00 11:59	12:00 13:59	14:00 15:59	16:00 17:59	18:00 19:59	20:00 21:59	22:00 23:59			
SUN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
MON	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
TUE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
WED	0	0	0	0	1	0	0	0	0	0	0	0	0	1	33.3
THU	0	0	0	0	0	0	0	0	1	0	0	0	0	1	33.3
FRI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
SAT	0	0	0	0	0	0	0	0	0	1	0	0	0	1	33.3
Total	0	0	0	0	1	0	0	0	1	1	0	0	0	3	100.0
%	0.0	0.0	0.0	0.0	33.3	0.0	0.0	0.0	33.3	33.3	0.0	0.0	0.0	100.0	100.0

Driver & Non-Motorist Age/Gender Summary						
Age	M	F	NR	No Value	Total	%
<14	0	1	0	0	1	16.7
14	0	0	0	0	0	0.0
15	0	0	0	0	0	0.0
16	0	0	0	0	0	0.0
17	0	0	0	0	0	0.0
18	0	0	0	0	0	0.0
19	0	0	0	0	0	0.0
20	0	1	0	0	1	16.7
21-24	1	0	0	0	1	16.7
25-29	0	0	0	0	0	0.0
30-34	0	0	0	0	0	0.0
35-39	0	0	0	0	0	0.0
40-44	1	0	0	0	1	16.7
45-49	0	0	0	0	0	0.0
50-54	1	0	0	0	1	16.7
55-59	1	0	0	0	1	16.7
60-64	0	0	0	0	0	0.0
65-69	0	0	0	0	0	0.0
70-74	0	0	0	0	0	0.0
75-79	0	0	0	0	0	0.0
80-84	0	0	0	0	0	0.0
85-89	0	0	0	0	0	0.0
90-94	0	0	0	0	0	0.0
95+	0	0	0	0	0	0.0
No Value	0	0	0	0	0	0.0
Total	4	2	0	0	6	100.0
%	66.7	33.3	0.0	0.0	100.0	100.0

Month Summary		Total	%
January		0	0.0
February		0	0.0
March		0	0.0
April		0	0.0
May		0	0.0
June		0	0.0
July		2	66.7
August		0	0.0
September		1	33.3
October		0	0.0
November		0	0.0
December		0	0.0
Total		3	100.0

Physical Condition Summary		Total	%
Apparently Normal (Including No Drugs/Alcohol)		5	83.3
Physical Disability (Short Term or Long Term)		0	0.0
Medical Issue (Ill, Sick or Fainted)		0	0.0
Emotional (Depression, Angry, Disturbed, etc.)		0	0.0
Asleep or Fatigued		0	0.0
Has Been Drinking Alcohol		0	0.0
Has Been Taking Illicit Drugs		0	0.0
Has Been Taking Medications		0	0.0
Other/Unknown		0	0.0
Not Applicable		1	16.7
Total		6	100.0

Selection Filter:

WORK AREA: County('659472') - FILTER: Year('2013','2014','2015','2016','2017','2018','2019','2020','2021','2022'), Basic Type('2') - SPATIAL FILTER APPLIED

Analyst:

Jason Pieper

Notes:

CSAH 70 (Medicine Lake Rd) Pedestrian Project From Hillsboro Ave to Florida Ave (E JCT) 2024 Regional Solicitation (crashes from 01/01/2013 to 12/31/2022)



CSAH 70 (Medicine Lake Rd) Pedestrian Project

Attachment 07 | Crash Data Summary

Crash Severity/Crash Year												
Crash Severity	Total	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
K - Fatal	0	0	0	0	0	0	0	0	0	0	0	0
A - Serious Injury	0	0	0	0	0	0	0	0	0	0	0	0
B - Minor Injury	1	0	0	0	0	0	0	0	0	1	0	0
C - Possible Injury	1	0	0	0	0	0	0	1	0	0	0	0
N - Prop Dmg Only	0	0	0	0	0	0	0	0	0	0	0	0
Total	2	0	0	0	0	0	0	1	0	1	0	0

Crash Severity/Number of Vehicles					
Crash Severity	Total	0	1	2	3+
K - Fatal	0	0	0	0	0
A - Serious Injury	0	0	0	0	0
B - Minor Injury	1	0	1	0	0
C - Possible Injury	1	0	1	0	0
N - Prop Dmg Only	0	0	0	0	0
Total	2	0	2	0	0

Relationship to Intersection Summary		Total	%
Not at Intersection/Interchange		1	50.0
Four-Way Intersection		0	0.0
T or Y Intersection		1	50.0
Five-Way Intersection or More		0	0.0
Roundabout		0	0.0
Intersection Related		0	0.0
Driveway Access Related		0	0.0
At School Crossing		0	0.0
Railway Grade Crossing		0	0.0
Shared Use Path or Trail		0	0.0
Interchange or Ramp		0	0.0
Crossover Related		0	0.0
Acceleration/Deceleration Lane		0	0.0
Other/Unknown		0	0.0
Total		2	100.0

Basic Type Summary		Total	%
Pedestrian		2	100.0
Bike		0	0.0
Single Vehicle Run Off Road		0	0.0
Single Vehicle Other		0	0.0
Sideswipe Same Direction		0	0.0
Sideswipe Opposing		0	0.0
Rear End		0	0.0
Head On		0	0.0
Left Turn		0	0.0
Angle		0	0.0
Other		0	0.0
Total		2	100.0

Weather 1 Summary		Total	%
Clear		1	50.0
Cloudy		1	50.0
Rain		0	0.0
Snow		0	0.0
Sleet, Hail (Freezing Rain/Drizzle)		0	0.0
Fog/Smog/Smoke		0	0.0
Blowing Sand/Soil/Dirt/Snow		0	0.0
Severe Crosswinds		0	0.0
Other/Unknown		0	0.0
Total		2	100.0

First Harmful Event Summary		Total	%
Pedestrian		2	100.0
Bicyclist		0	0.0
Motor Vehicle In Transport		0	0.0
Parked Motor Vehicle		0	0.0
Train		0	0.0
Deer/Animal		0	0.0
Other - Non Fixed Object		0	0.0
Collision Fixed Object		0	0.0
Non-Collision Harmful Events		0	0.0
Other/Unknown		0	0.0
Total		2	100.0

Light Condition Summary		Total	%
Daylight		2	100.0
Sunrise		0	0.0
Sunset		0	0.0
Dark (Str Lights On)		0	0.0
Dark (Str Lights Off)		0	0.0
Dark (No Str Lights)		0	0.0
Dark (Unknown Light)		0	0.0
Other/Unknown		0	0.0
Total		2	100.0



CSAH 70 (Medicine Lake Rd) Pedestrian Project

Attachment 07 | Crash Data Summary

Time of Day/Day of Week														Total	%
From To	00:00 01:59	02:00 03:59	04:00 05:59	06:00 07:59	08:00 09:59	10:00 11:59	12:00 13:59	14:00 15:59	16:00 17:59	18:00 19:59	20:00 21:59	22:00 23:59			
SUN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
MON	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
TUE	0	0	0	0	1	0	0	0	0	0	0	0	0	1	50.0
WED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
THU	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
FRI	0	0	0	0	0	0	0	1	0	0	0	0	0	1	50.0
SAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Total	0	0	0	0	1	0	0	1	0	0	0	0	0	2	100.0
%	0.0	0.0	0.0	0.0	50.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0

Driver & Non-Motorist Age/Gender Summary						
Age	M	F	NR	No Value	Total	%
<14	1	0	0	0	1	25.0
14	0	0	0	0	0	0.0
15	0	0	0	0	0	0.0
16	0	0	0	0	0	0.0
17	0	0	0	0	0	0.0
18	0	0	0	0	0	0.0
19	0	0	0	0	0	0.0
20	0	0	0	0	0	0.0
21-24	0	0	0	0	0	0.0
25-29	0	0	0	0	0	0.0
30-34	0	0	0	0	0	0.0
35-39	0	0	0	0	0	0.0
40-44	0	0	0	0	0	0.0
45-49	0	1	0	0	1	25.0
50-54	0	0	0	0	0	0.0
55-59	0	0	0	0	0	0.0
60-64	1	0	0	0	1	25.0
65-69	0	1	0	0	1	25.0
70-74	0	0	0	0	0	0.0
75-79	0	0	0	0	0	0.0
80-84	0	0	0	0	0	0.0
85-89	0	0	0	0	0	0.0
90-94	0	0	0	0	0	0.0
95+	0	0	0	0	0	0.0
No Value	0	0	0	0	0	0.0
Total	2	2	0	0	4	100.0
%	50.0	50.0	0.0	0.0	100.0	100.0

Month Summary		Total	%
January		0	0.0
February		0	0.0
March		0	0.0
April		1	50.0
May		1	50.0
June		0	0.0
July		0	0.0
August		0	0.0
September		0	0.0
October		0	0.0
November		0	0.0
December		0	0.0
Total		2	100.0

Physical Condition Summary		Total	%
Apparently Normal (Including No Drugs/Alcohol)		4	100.0
Physical Disability (Short Term or Long Term)		0	0.0
Medical Issue (Ill, Sick or Fainted)		0	0.0
Emotional (Depression, Angry, Disturbed, etc.)		0	0.0
Asleep or Fatigued		0	0.0
Has Been Drinking Alcohol		0	0.0
Has Been Taking Illicit Drugs		0	0.0
Has Been Taking Medications		0	0.0
Other/Unknown		0	0.0
Not Applicable		0	0.0
Total		4	100.0

Selection Filter:

WORK AREA: County('659472') - FILTER: Year('2013','2014','2015','2016','2017','2018','2019','2020','2021','2022'), Basic Type('1') - SPATIAL FILTER APPLIED

Analyst:

Jason Pieper

Notes:

CSAH 70 (Medicine Lake Rd) Pedestrian Project From Hillsboro Ave to Florida Ave (E JCT) 2024 Regional Solicitation (crashes from 01/01/2013 to 12/31/2022)

Medians and Crossing Islands

CSAH 70 (Medicine Lake Rd) Pedestrian Project

Attachment 08 | Crash Modification Factors

What is their purpose?

Medians and crossing islands (also known as refuge islands or center islands) are raised areas that are constructed in the center portion of a roadway, serving as a place of refuge for people who cross the road mid-block or at an intersection. They allow pedestrians and bicyclists to concentrate their attention on one direction of traffic at a time while crossing the roadway. After crossing to the center island, users wait for motorists to stop for an adequate gap in traffic before crossing the second half of the street. Refuge islands can drastically reduce pedestrian delay and vehicle conflicts by increasing the number of safe gaps that are available.



Median at Maryland Avenue and Greenbrier Street, Saint Paul, MN

Are they a proven strategy?

FHWA research shows that median and crossing islands are a **PROVEN** safety countermeasure.

Supporting Document: [FHWA Proven Countermeasures – Pedestrian Medians](#)

Where would we use them?

When installing a median or crossing island, an agency should develop a design that allows accessibility for all users and adheres to ADA crossing standards. 6' is the minimum median width where detectable warning surfaces are required. However, to allow storage space for a bicycle and to allow space for a level landing and truncated domes, a best practice is to construct crossing islands or medians of at least 8' in width. 10' or greater width is preferred, especially where bicycle traffic is expected. Crossing islands less than 6' are not considered pedestrian refuges since they cannot include detectable warning surfaces and may not safely serve as a refuge for all users.

Crossing islands are commonly installed at:

- Mid-block crossing locations or candidate locations
- High-priority pedestrian crossing locations such as transit stops, schools, and parks
- On roadways where marked crosswalks alone may not be sufficient, including roadways with speeds greater than 35 mph, and when annual average daily traffic (AADT) is greater than 9000. The raised medians must be accessible by all users, and should adhere to ADA crossing standards.

Medians and Crossing Islands

CSAH 70 (Medicine Lake Rd) Pedestrian Project

Attachment 08 | Crash Modification Factors

+ What are the advantages?

- Separates opposing vehicle travel lanes and allows pedestrians/bicyclists to cross the roadway in two stages rather than all at once.
- Reduces certain types of motor vehicle crashes, such as head-on crashes.
- Can help slow vehicle speeds by providing visual narrowing/traffic calming of the roadway.
- Can be implemented using low-cost, interim materials such as striping, flexible posts, and other bollards until a permanent improvement can be funded through a reconstruction project or other programming.
- Can provide area for landscaping and other visual enhancements as well as stormwater treatment.
- Studies show that a **raised median can reduce up to 46% of pedestrian crashes, and a pedestrian crossing island can reduce up to 56% of pedestrian crashes.**

What are the maintenance impacts?

Partner with maintenance team members during design development to discuss strategies and issues related to routine maintenance, especially during winter months, to keep the crossing island clear of snow and debris, along with the rest of the sidewalk network. Median crossings can pose an obstacle to snow plows, and to reduce plow strikes on median island curbs, designers should follow

! What are the challenges?

- Permanent medians can be costly and are recommended to be included in larger construction projects.
- May restrict driveway access and on-street parking.
- Can introduce more significant design features and construction costs if stormwater management is impacted and additional inlets are required at locations with curb extensions.
- Require additional winter maintenance considerations.

the pedestrian approach nose details in [MnDOT Standard Plan 5-297.250](#).

Supplemental treatments

Raised medians and crossing islands are often combined with the following treatments:

- High-visibility crosswalk markings
- Advanced warning signs
- Curb extensions
- Street lighting
- Advance stop bars
- RRFBs or PHBs



A median with a refuge island

Best practices

To accommodate all users, medians must be fully accessible by ramp or cut through, and should provide tactile cues for pedestrians with visual impairments to indicate the border between the pedestrian refuge area and the motorized vehicle roadway.

\$ How much do they cost?

The average cost for a raised island or crossing island is approximately \$10/sf, and the total cost can vary widely from approximately \$2,000 to \$45,000. Costs depend on the design, site conditions, and whether the median can be included as part of a larger construction project.

Medians and Crossing Islands

CSAH 70 (Medicine Lake Rd) Pedestrian Project

Attachment 08 | Crash Modification Factors

Design Features

Continuously raised medians may not be appropriate or physically possible at all locations. They may need to be weighed against other roadway features such as wider sidewalks, bicycle lanes, landscaping buffers, or on-street parking.

At both intersections and mid-block locations, short sections of median at high-priority crossings such as schools and parks provide benefit to pedestrians. Pedestrian islands may be appropriate at unsignalized and signalized crossing locations.

Raised medians must incorporate the following:

- Fully accessible ramps.
- Tactile cues for pedestrians with visual impairments, that meet ADA standards.
- Adequate visibility between pedestrian and approaching vehicles.
- The median crossing can be angled (rather than perpendicular) to allow pedestrians easier visibility of on-coming traffic.
- Crossing islands may also be staggered (also known as a Z-crossing), which is a treatment that forces pedestrians to turn in the median and face the direction of traffic. Staggered crossings may be difficult for pedestrians with vision impairments to navigate, so it's important to provide a detectable edge along the crossing.



Z-crossing treatment

Resources

- Proven countermeasure: https://safety.fhwa.dot.gov/provencountermeasures/ped_medians/
- http://pedbikesafe.org/PEDSAFE/countermeasures_detail.cfm?CM_NUM=6
- CRFs: <https://safety.fhwa.dot.gov/tools/crf/resources/fhwas08011/fhwas08011.pdf>
- <https://www.dot.state.mn.us/ada/pdf/5-297-250.pdf>



Pedestrian approach nose shown at a refuge island

Rectangular Rapid Flashing Beacons

CSAH 70 (Medicine Lake Rd) Pedestrian Project

Attachment 08 | Crash Modification Factors

What is their purpose?

A Rectangular Rapid Flashing Beacon (RRFB) is a crossing enhancement at uncontrolled intersections that can be activated manually by a pedestrian using a pushbutton or by a pedestrian detection system. The RRFB assembly typically includes one RRFB device on each end of a crosswalk. Each device includes two rapidly and alternatively flashing rectangular yellow indications attached to a pole supplementing the pedestrian warning sign (W11-2) or school crossing sign (S1-1) at a crosswalk. The irregular “wig-wag” flashing sequence is similar to emergency flashers on police vehicles (left light on, then right light on, etc.) with a pulsing light source.

MnDOT has received statewide Interim Approval from FHWA for the use of a pedestrian actuated RRFB (IA-21). Statewide Interim Approval allows any jurisdiction within Minnesota to use the device as long as the jurisdiction agrees to notify the MnDOT Traffic Standards Engineer of the location for each installation and agrees to the specific conditions outlined for [Statewide Interim Approvals](#).



RRFB at Johnson Street NE & 22nd Avenue NE, Minneapolis, MN

Are they a proven strategy?

FHWA has reviewed studies related to the effectiveness of the RRFB device and have confirmed its success at uncontrolled marked crosswalks. Therefore, based on the number of successful experiments, the RRFB is a **PROVEN** safety countermeasure strategy for marked crosswalks.

Supporting Research: [Evaluation of Pedestrian Hybrid Beacons and Rapid Flashing Beacons](#)

Where would we use them?

The purpose of the RRFB is to increase driver awareness of the presence of pedestrians at crosswalks that are not across approaches controlled by YIELD signs, STOP signs, or traffic control signals. RRFBs can be used on crosswalks across the approach to and/or egress from a roundabout. Research shows that an RRFB is most effective on roadways with volumes less than 12,000 vehicles per day and with speeds less than 40 mph.

Per the IA-21 the use of an RRFB shall:

- Only be installed to function as a pedestrian-actuated enhancement
- Only be used to supplement a post-mounted or overhead-mounted W11-2 (Pedestrian), S1-1 (School), or W11-15 (Trail) crossing warning sign. A diagonal downward arrow (W16-7P) plaque shall supplement the post-mounted signs.

The IA-21 also provides information regarding sign/beacon assembly locations, beacon dimensions and placement, beacon flashing requirements, beacon operations, and accessible pedestrian features. Reference the [Interim Approval-21](#) for more details regarding the federal guidance.

Rectangular Rapid Flashing Beacons

CSAH 70 (Medicine Lake Rd) Pedestrian Project

Attachment 08 | Crash Modification Factors

+ What are the advantages?

- RRFBs can utilize power from the existing grid network or by solar panels furnished on the devices.
- Increases driver awareness of the crosswalks and driver yielding compliance, especially at night. Compliance rates vary per site, and are generally highest on low-speed, single-lane facilities. Studies have found compliance rates from 17% to as high as 98%, which are comparable to a traffic signal or pedestrian hybrid beacon system.
- Can reduce the number of multiple-threat crashes, especially when used in combination with other strategies noted below.
- 47% reduction in vehicle-pedestrian crashes.

What are the maintenance impacts?

Maintenance for the RRFB is dependent on the power supply type. If solar power is used, the primary concern is removing nearby foliage and the amount of sun exposure throughout the day. Solar powered RRFBs typically function for several years without maintenance issues.

Solar powered RRFB systems do not require underground conduit, and would only require a push button to activate the system. The largest solar panel (55 watt) can accommodate around 1,000 activations per day. These solar panels typically can last up to 10 years or longer depending on usage. The batteries require replacement approximately every 5 years.

! What are the challenges?

- RRFB effectiveness varies depending on the type of roadway, traffic volumes, and speeds. On higher-speed (40 mph or higher), multilane, or high-volume (over 12,000 vehicles per day), RRFB's are less effective, and other strategies (or a combination of strategies) should be considered.
- Additional maintenance and operating costs, depending on power source

RRFB systems that are hardwired are powered from a nearby electrical source by running wire underground. Hard wired systems are typically recommended at crossing locations that experience very high pedestrian activity. A hardwired system can ensure consistent operation, especially during the fall and winter months when the sun is low in the sky and reducing the ability to charge the batteries as frequently.

Supplemental treatments

Rectangular Rapid Flashing Beacons are often combined with the following treatments:

- Marked crosswalk (required) and Advance STOP markings and signs (recommended if multi-lane)
- Warning signs (required)
- Parking restrictions (required)
- Curb extensions and ADA curb ramps
- Pedestrian refuge island
- Speed bumps

Best practices

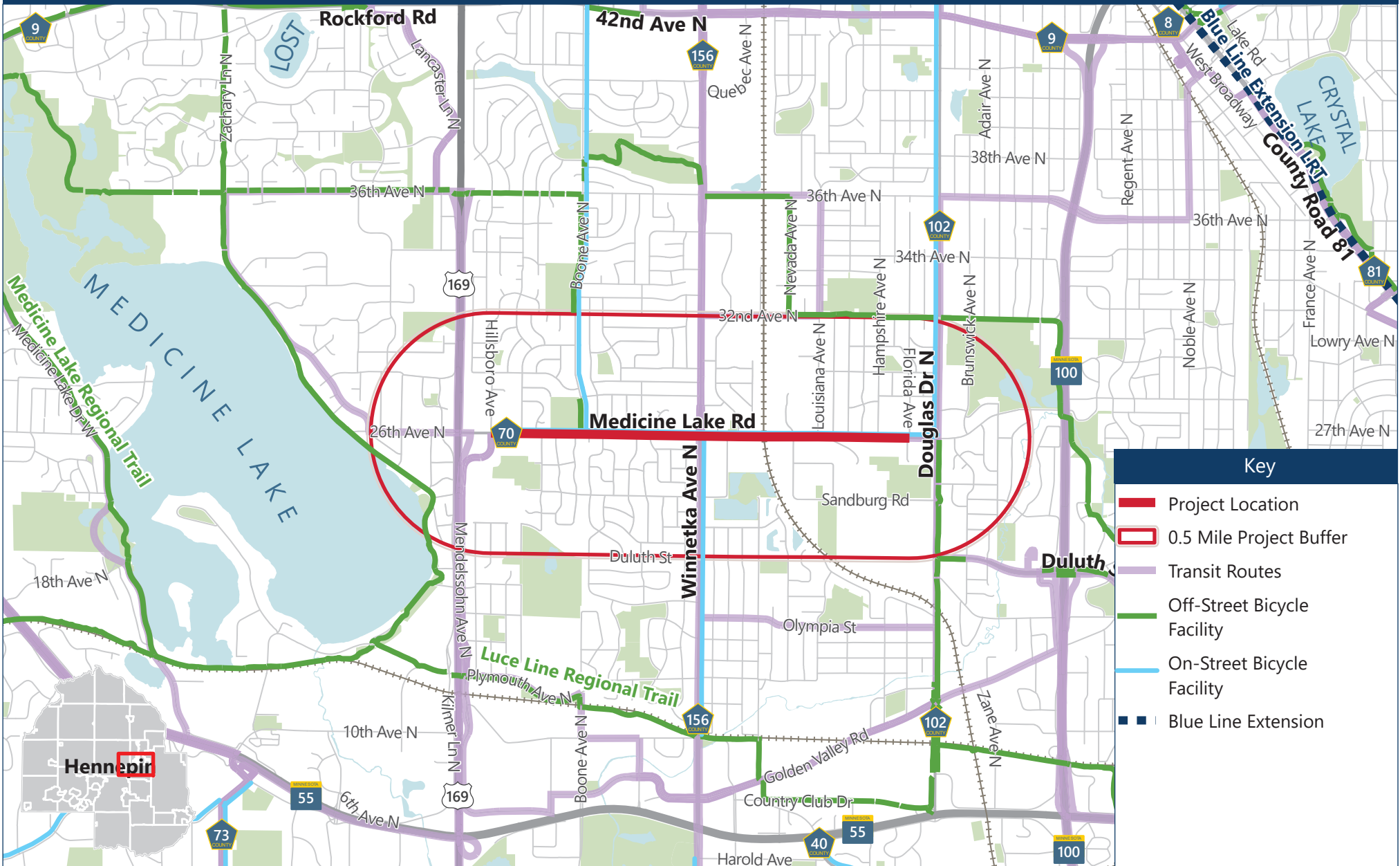
The RRFB offers significant safety benefits, achieving high rates of compliance for a relatively low cost. The RRFB increases yield rates at uncontrolled crosswalks, and studies show they are most effective on roadways with volumes less than 12,000 vehicles per day and with speeds less than 40 mph. Reference the [Interim Approval-21](#) for more details regarding the federal guidance.

\$ How much do they cost?

Costs can vary widely for the installation of two RRFB units (one on either side of the street). For an RRFB system using a solar-powered system, the cost is approximately \$15,000 for materials and installation. For an RRFB system that is hardwired, the costs range between \$30,000 and \$50,000 depending on the proximity of a power source. RRFB systems that include overhead flashers cost between \$80,000 to \$100,000, which includes a mast arm and pole for each direction of traffic and hardwired power.

CSAH 70 (Medicine Lake Rd) Pedestrian Project

Attachment 09 | Multimodal Connections Map

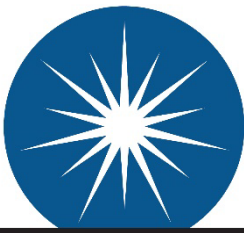


Disclaimer: This map (i) is furnished "AS IS" with no representation as to completeness or accuracy; (ii) is furnished with no warranty of any kind; and (iii) is not suitable for legal, engineering or surveying purposes. Hennepin County shall not be liable for any damage, injury or loss resulting from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

Publication date: 10/24/2023

Data sources (if applicable):





4141 Douglas Drive North • Crystal, Minnesota 55422-1696

Tel: (763) 531-1000 • www.crystalmn.gov

CITY of CRYSTAL

CSAH 70 (Medicine Lake Rd) Pedestrian Project

Attachment 10 | City of Crystal Letter of Support

October 16, 2023

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 Crystal hereby expresses its support for Hennepin County's Regional Solicitation federal funding application for the proposed pedestrian project along CSAH 70 (Medicine Lake Rd) from Hillsboro Ave to Florida Ave (east junction) in the cities of Crystal, Golden Valley, and New Hope. As you may be aware, vehicle speed along this corridor is a consistent concern and speed is a significant factor in the severity of crashes involving pedestrians.

The project for this funding application is anticipated to involve ADA upgrades along the corridor, pedestrian crossing improvements (where feasible), and traffic signal upgrades. It is anticipated that the proposed project will precede an overlay along the corridor to promote complete and green streets opportunities. The proposed project will complement key first and last-mile connections to nearby schools, businesses, and residences; as well as improve accessibility, safety, and mobility improvements for people walking, rolling, and biking; thereby enhancing the livability and quality of life for Crystal, Golden Valley, New Hope, and Hennepin County residents.

Over the years the City of Crystal has spent city resources on improving pedestrian accessibility, safety, and mobility along the corridor's sidewalks. Examples of the city's sidewalk efforts include removing trip edges; replacing square metal castings with round castings so there are no sharp edges; regular snow removal in the winter, and reconstructing pedestrian ramps to be ADA-compliant. The proposed project, with the grant funding support, will continue to build on the important work that has already been completed along the corridor.

At this time, it appears that Hennepin does not estimate Crystal having any cost share and the City of Crystal is unable to commit to cost participation for this project. As previously noted, over the years the city has invested thousands of dollars to improve accessibility, safety, and mobility for people using the sidewalks along the corridor. It is anticipated that specific details regarding cost participation and maintenance responsibilities will be determined during the design process as project development is advanced.

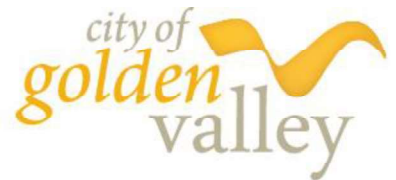
Thank you for making us aware of this application and project, and the opportunity to provide support. The city looks forward to working with you on this project. Please contact me at adam.bell@crystalmn.gov or 763.531.1140 if you need anything further.

Sincerely,

Adam R. Bell
City Manager

CSAH 70 (Medicine Lake Rd) Pedestrian Project

Attachment 11 | City of Golden Valley Letter of Support



7800 Golden Valley Road
Golden Valley, MN 55427

November 20, 2023

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

Re: Support for 2024 Regional Solicitation Application
CSAH 70 (Medicine Lake Rd) Pedestrian Project

Dear Ms. Stueve:

The City of Golden Valley hereby expresses its support for Hennepin County's application for federal funding under the Regional Solicitation Application for the proposed pedestrian project along CSAH 70 (Medicine Lake Rd) from Hillsboro Ave to Florida Ave (east junction) in the cities of Crystal, Golden Valley, and New Hope.

The project for this funding application is anticipated to involve ADA upgrades along the corridor, pedestrian crossing improvements (where feasible), and traffic signal upgrades. It is anticipated that the proposed project will precede an overlay of the corridor to promote complete and green streets opportunities. The proposed project will complement key first- and last-mile connections to nearby schools, businesses, and residences. It will aim, without any harm to our city residents, to improve accessibility, safety and mobility for people walking, rolling, and biking. We understand that this project will enhance the livability and quality of life with robust community engagement and consensus building for the residents of Crystal, Golden Valley, New Hope, and Hennepin County residents.

If the City of Golden Valley is asked to contribute any funds to the project, it will need to seek a resolution of our city council prior to any design of the project in order for that to occur.

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,


Timothy Cruikshank (Nov 20, 2023 16:49 CST)

Tim Cruikshank
City Manager
tcruikshank@goldenvalleymn.gov

CSAH 70 (Medicine Lake Rd) Pedestrian Project

Attachment 12 | City of New Hope Letter of Support



November 21, 2023

Ms. 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 New Hope hereby expresses its support for Hennepin County's Regional Solicitation federal funding application for the proposed pedestrian project along CSAH 70 (Medicine Lake Rd) from Hillsboro Ave to Florida Ave (east junction) in the cities of Crystal, Golden Valley, and New Hope.

The project for this funding application is anticipated to involve ADA upgrades along the corridor, pedestrian crossing improvements (where feasible), and traffic signal upgrades. It is anticipated that the proposed project will precede an overlay of the corridor to promote complete and green streets opportunities. The proposed project will complement key first and last mile connections to nearby schools, businesses, and residences; as well improve accessibility, safety and mobility improvements for people walking, rolling, and biking; thereby enhancing the livability and quality of life for Crystal, Golden Valley, New Hope, and Hennepin County residents.

The City of New Hope acknowledges that the city will likely 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,

Kathi Hemken
Mayor of New Hope

CITY OF NEW HOPE

4401 Xylon Avenue North • New Hope, Minnesota 55428-4898 • www.newhopemn.gov
City Hall: 763-531-5100 • Police (non-emergency): 763-531-5170 • Public Works: 763-592-6777
City Hall Fax: 763-531-5136 • Police Fax: 763-531-5174 • Public Works Fax: 763-592-6776