



Building a Better World
for All of Us®

January 6, 2023

RE: City of Medicine Lake, MN
Project Updates
SEH No. MEDLK 170120 14.00

Chris Heim, Mayor
City of Medicine Lake
10609 S Shore Drive
Medicine Lake, MN 55441

Honorable Mayor Heim and City Council:

As we start the new year, I would like to provide you with an update on the various projects on which we are working on.

1. Street and Watermain CIP Project

- a. Bonding/Bidding Schedule
 - i. As you know, the legislature did not pass the bonding bill last year, so the project was halted, and the Council ended up rejecting all bids in August 2022.
 - ii. We are optimistic that the legislature will pass the bonding bill in 2023 with your project included, but the City essentially needs to submit a new application to the bonding committee. The new legislature has not yet set the deadlines for project submittals but generally those dates are early in the session. City Council should continue to discuss the project merits with their state and federal representatives to garnish support. The bonding bill is typically passed toward the end of the session, in May, with the funds becoming available July 1, 2023. If you recall, it is a 50/50 match on funding.
 - iii. Additional funds from Washington. Representative Dean Phillips has indicated there may be additional federal money/earmarks for projects. Applications of project interest are required by April. Again, until they go into session the exact details, process and schedule of the funding program are not known.
- b. Bid Schedule
 - i. Given the uncertainty in funding and timeline for having access to the funds, the City may want to use 2023 to secure all funds before advancing to bidding.
 - ii. It would be desirable to bid the project in the fall 2023 with a spring construction, 2024 in order to give the contractors maximum construction time which theoretically will result in more attractive bids.
 - iii. The economy is still a concern as prices in 2022 were higher than expected and the impact on 2023 prices is not known yet. As bids on other projects get opened, we can make a more accurate prediction. On the good news front, the supply chain issues that delayed completing projects in 2022 have seem to work themselves out.
- c. Design modifications – specifically adding a sidewalk or off-road trail.

Engineers | Architects | Planners | Scientists

Short Elliott Hendrickson Inc., 10400 Yellow Circle Drive, Suite 500, Minnetonka, MN 55343-9229

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Recently, there have been some inquiries from City representatives on the option of adding a sidewalk to the project. This can be challenging to do, both from an impact to private property such as driveways, landscaping, and stormwater/watershed issues and requirements and costs.

In summary, the following are some of the impacts of adding a 5-6-foot-wide concrete sidewalk approximately 6 feet off the end of pavement: or an off road 6-foot-wide bituminous trail (generally same impacts for either option):

- i. Watershed regulations require any increase in impervious to required treatment ponding for runoff. Based on the new impervious, it would require a pond of approximately 5-10,000 sq ft, 2 feet deep. Finding a location that works for this pond with the proper soils and ability to get the storm water from the road to it is a bid challenge from a design viewpoint. The cost of this pond, depending on final design details, could exceed \$200,000. It would require a completely new watershed review and permit as well.
- ii. Storm water management/design. Typically, sidewalks are installed behind curb with a boulevard in an urban setting such as Golden Valley streets. With no curb on the current road, it is considered a rural section. It is very difficult to control runoff on a rural section unless a series of ditches can be installed to take the water down the road to the low spots where it would empty into a pond. Adding such a ditch system was considered during design and deemed not feasible. If curbs were installed, underground storm pipes would need to be utilized (with catch basins) to control the runoff.
- iii. The current design does not increase the impervious and does not add any new storm water conveyance facilities to the project. Essentially the water will flow exactly as it does now once the project is completed.
- iv. Grades and how that impacts driveways. Several driveways have steeper grades, both up from the road and down from the road. Since it is required to maintain a relatively flat grade on the sidewalk both longitudinal and across the walks to be ADA compliant, the sidewalk would result in some severe "bumps" or grade change in several driveways.
- v. Impacts to other private features along the street such as landscaping, retaining walls, parking areas, etc. many of which are in the existing right-of-way and close to the road.
- vi. Additional costs for sidewalks are estimated at \$100,000 if we go with one side only. If sidewalks go on both sides, it would be doubled.
- vii. Additional costs to go with an urban section for adding curbs, storm pipes and catch basins would be approximately \$250,000-500,000 depending on the storm pipe design. The curb alone on both sides of the road is about \$120,000.

As a reminder, attached are the current design features for pedestrian safety that are part of the project and include the following elements:

- i. 2.5-foot striped shoulders on each side. As a modification, we can shift the striping so that there is a 5-foot shoulder on one side only.
- ii. Bicycle stencils in the driving lanes with "Share the Road" signs.
- iii. Several Dynamic speed signs ("You are driving xxx") on the road.
- iv. More public education on the complete street theory that this road is not just for vehicles but walkers, runners, bicyclist, and other non-motorized methods.

The design was done in conjunction with a CIP committee providing SEH input into the final design. There was also an extensive public input campaign, including preparing individual

property owner packets that were handed out via door-to-door campaign by committee members. The safety elements of the project were included in these packets.

Because 2023 will in large part be focused on getting funding, if the City wanted to revisit some of the design features of the project specifically as it pertains to pedestrian safety, SEH can provide the Council, CIP Committee, and residents in general with specific design details or alternatives.

The pedestrian alternatives being discussed could consist of the following. More detailed design, showing impacts and costs, could be presented to the Council and/or CIP design review committee for consideration in 2023.

- i. Keeping the current design – narrower pedestrian areas along both sides of the road.
- ii. Moving towards a wider area on one side only to stay within the impervious.
- iii. Moving towards a wider area on both sides of the road, resulting in more impervious and generating a new watershed review.
- iv. Adding an off-road sidewalk or trail.

2. Lift Station Project

- a. The construction is completed and the new lift station operational, including the emergency generator.
- b. City of Plymouth staff are maintaining it.
- c. We are waiting for final close out documentation from the contractor, Minger Construction, to close this project out. Once they turn that in, they will get their final payment which is essentially the 5% retainage totaling \$28,244.
- d. The original contract with Minger Construction was \$547,500. There were 3 small change orders totaling \$17,392 resulting in the revised final contract for Minger Construction being \$564,892.
- e. Our SEH engineering fees are approximately \$9,000 under our contract budget of \$116,289.
- f. There is a punch list of items they may need to finish in the spring – sodding or seeding, any erosion, clean-up site, etc.
- g. We have provided you with construction photos for use in adding to your web site.

Please contact me if you have any questions. I will be in attendance at the January 9th City Council meeting to go over these items in more details.

Sincerely,

SHORT ELLIOTT HENDRICKSON INC.



Dave Hutton, PE
Sr. Project Manager
(Lic. (MN, ND, WI))

DEH
Enclosure

Medicine Lake Complete street - Peninsula Road

Proposed Design

The reconstruction of Peninsula Road provides an opportunity to implement complete streets design treatments along the street.

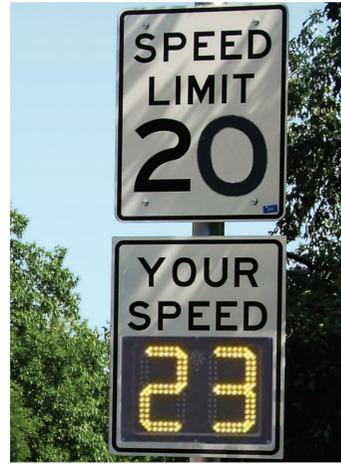
The City and SEH reviewed various design treatments to support mobility for all users, include people walking, rolling, biking and driving along Peninsula Road, while maintaining the existing 24-foot wide street width. The items listed to the right are currently proposed.

What is a Complete Street?

“Complete Streets are streets designed and operated to enable safe use and support mobility for all users.

Those include people of all ages and abilities, regardless of whether they are traveling as drivers, pedestrians, bicyclists, or public transportation riders.”

-US DOT



DYNAMIC SPEED FEEDBACK SIGNS

PURPOSE: The dynamic speed feedback sign provides immediate feedback to drivers as to whether they are going too fast along the street.

IMPLEMENTATION: Dynamic speed signs will be placed at three points along the street reconstruction in both directions near the entrance, the bend and the Jevne Road split to provide speed feedback.



BIKES MAY USE FULL LANE SIGNS

PURPOSE: The “BIKES MAY USE FULL LANE” street sign allows people biking to use the full lane while reminding motorists that people biking are to be expected along the street.

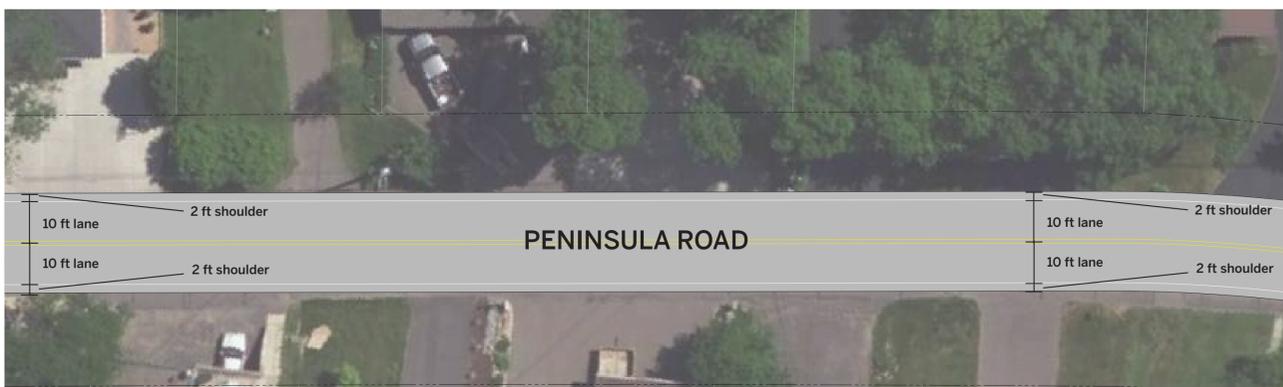
IMPLEMENTATION: This sign will be placed at the entry point of Peninsula Road and at various points along the street.



SHARED LANE MARKING

PURPOSE: Shared lane markings (“sharrows”) indicate to bicyclists and motorists where people biking should ride within a lane.

IMPLEMENTATION: Markings will be placed at various points along the street within the proposed 10-foot lanes.



EDGE LINE STRIPING

PURPOSE: Visually narrowing the roadway with white edge lines will slow motorists while allowing more space for people to walk along the street.

IMPLEMENTATION: The street will be striped with 10-foot motor vehicle lanes and 2-feet of shoulder on each side of the street.



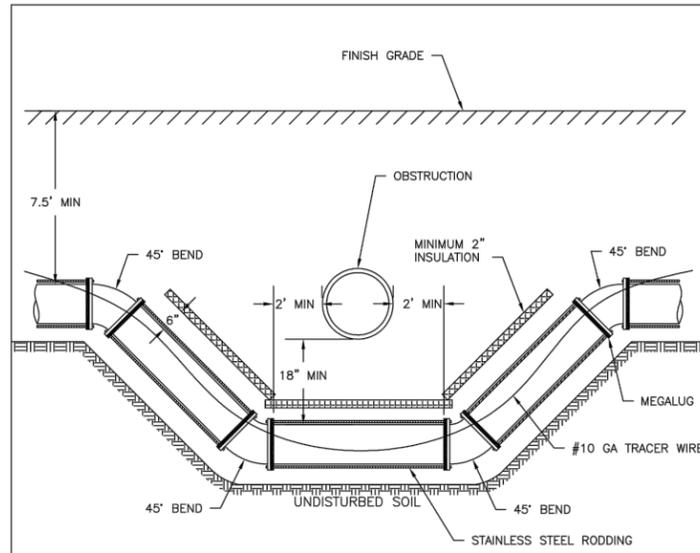
GATEWAY ENTRANCE/NECK DOWN

PURPOSE: Adding vertical elements and landscaping along the sides or middle of the street provides vertical friction, defines motorist space and slows motorist speeds.

IMPLEMENTATION: Landscaping treatments will be added at the entrance to Peninsula Road to better define the space and act as a gateway to the community.

Peninsula Road reconstruction is anticipated Spring 2022 through late Summer 2022. Construction will include upgraded storm water facilities, new water main (including fire hydrants), sanitary sewer lining, reconstruction of the City trail along South Shore Drive and will incorporate “complete streets” design elements without widening the 24-foot wide roadway.

Save: 1/19/2022 12:57 PM bhansen Plot: 1/20/2022 1:31 PM X:\KOMMEDLK1\60646\5-final-dsgn\51-drawings\10-Civil\cadd\wgshet\ME: 60646DT.dwg

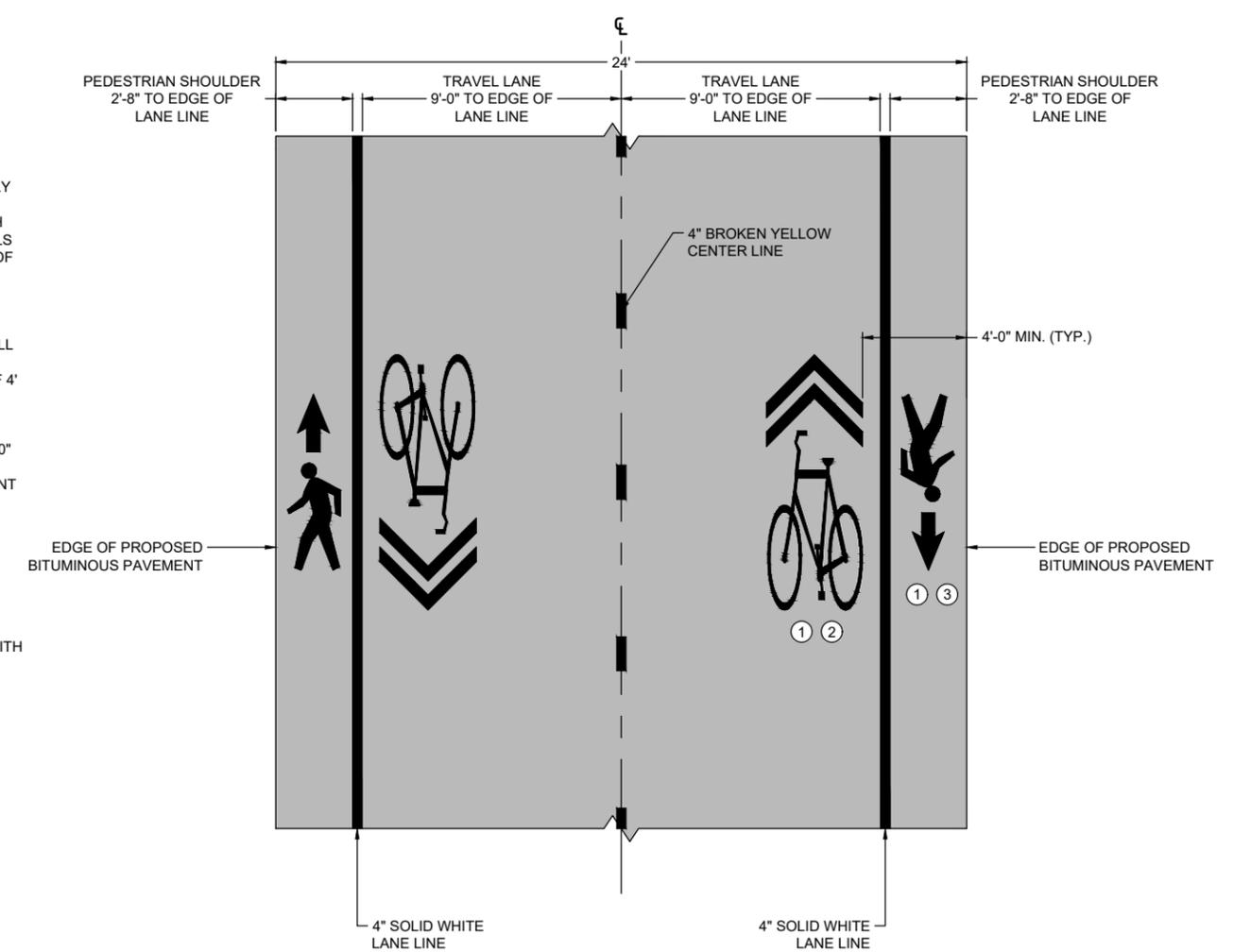


- NOTE:
1. SELECT GRANULAR REQUIRED FOR ALL BEDDING
 2. ALL VERTICAL BENDS SHALL BE TIED WITH SS RODDING. 2 RODS CONNECTING EACH JOINT 180° APART.
 3. TRACER WIRE TO BE RUN WITH OFFSET PVC PIPE. (IF EXISTING WM IS CIP OR DIP, PINCH EXPOSED COPPER TRACER WIRE BETWEEN DOUBLE NUT ON EXISTING SIDES)
 4. MEGALUGS MANUFACTURED BY EBAA IRON, SIGMA OR APPROVED EQUAL SHALL BE USED AT ALL MECHANICAL JOINTS
 5. ALL BOLTS, T-BOLTS, NUTS AND RODDING INSTALLED BELOW GRADE SHALL BE ASTM F593 TYPE 304 STAINLESS STEEL
 6. ADDITIONAL RODDING AND MEGALUGS MAY BE REQUIRED BY ENGINEER.

	STANDARD DETAILS	PUBLISHED
	VERTICAL OFFSET DETAIL	1-21
	CITY OF PLYMOUTH	CITY PL. NO.
		W-8
		REVISED 1-21

- KEYED NOTES:**
1. SYMBOLS SHALL BE SPACED APPROXIMATELY 350' APART PARALLEL WITH THE ROAD CENTERLINE. COORDINATE LOCATIONS WITH ENGINEER PRIOR TO INSTALLATION. SYMBOLS SHALL BE ORIENTED TO MATCH DIRECTION OF ADJACENT TRAFFIC LANE. AVOID PLACING SYMBOLS IN FRONT OF DRIVEWAYS WHEN POSSIBLE.
 2. SHARROW SIZE, SHAPE, AND LOCATION SHALL BE IN ACCORDANCE WITH THE MNMUTCD. EDGE OF SHARROW SHALL BE A MINIMUM OF 4' FROM EDGE OF PAVEMENT.
 3. PEDESTRIAN PATH SYMBOL SHALL BE A MINIMUM OF 1'-0" WIDE, AND MAXIMUM OF 2'-0" WIDE AND SHALL BE CENTERED IN THE PEDESTRIAN SHOULDER. ARROW SHALL POINT AGAINST FLOW OF TRAFFIC.

- NOTES:**
1. ALL PAVEMENT MARKINGS SHALL BE MULTI-COMPONENT PAINT IN ACCORDANCE WITH MNDOT SPECIFICATIONS SECTIONS 2582 AND 3590.
 2. PAVEMENT STRIPING SHALL BE OF COLOR SPECIFIED IN THE PLANS.
 3. ALL PAVEMENT SYMBOLS SHALL BE WHITE.



TYPICAL PAVEMENT MARKINGS AND SYMOBLS

SEH Project	160646	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
Drawn By	BKH	.			.		
Designed By	BKH	.			.		
Checked By	DH	.			.		

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

 DATE 1/19/2022

 BLAKE K HANSEN

 LICENSE NO. 58904

STREET AND UTILITY IMPROVEMENTS PROJECT
 MEDICINE LAKE, MINNESOTA

DETAILS
MEDICINE LAKE STREET AND UTILITY IMPROVEMENTS PROJECT