

Application

19838 - 2024 Roadway Modernization

20080 - Richfield West 76th Street Modernization

Regional Solicitation - Roadways Including Multimodal Elements

Status: Submitted

Submitted Date: 12/14/2023 3:05 PM

Primary Contact

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Pronouns First Name Middle Name Last Name

 Title:
 Transportation Engineer

 Department:
 Richfield Public Works

Email: mhardegger@richfieldmn.gov

Address: 1901 E 66th Street

* Richfield Minnesota 55423

City State/Province Postal Code/Zip

Phone:* 612-861-9792

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

Organization Information

Name: RICHFIELD, CITY OF

Jurisdictional Agency (if different):

Organization Type:

City

Organization Website:

Address: 6700 PORTLAND AVE S

* RICHFIELD Minnesota 55423

City State/Province Postal Code/Zip

County: Hennepin

Phone:* 612-861-9700

Fax:

Ext.

PeopleSoft Vendor Number 0000004028A1

Project Information

Project Name Richfield West 76th Street Modernization

Primary County where the Project is Located

Hennepin

Cities or Townships where the Project is Located:

Richfield, Edina

Jurisdictional Agency (If Different than the Applicant):

Brief Project Description (Include location, road name/functional class, W 76th St (MSAS 361/MSAS 136) from York Ave (CSAH 31) in Edina to Sheridan type of improvement, etc.)

W 76th St (MSAS 361/MSAS 136) from York Ave (CSAH 31) in Edina to Sheridan Ave in Richfield. Full reconstruction of A Minor Reliever including four to three lane conversion, overhead electric undergrounding, signal replacement at Upton Ave, sidewalk with boulevards, and pedestrian-scale lighting. New trail along W 76th St from York Ave to Xerxes Ave S and along Xerxes Ave S from W 76th St to W 75th St to create new connection to Nine Mile Creek Regional Trail.

(Limit 2,800 characters; approximately 400 words)

TRANSPORTATION IMPROVEMENT PROGRAM (TIP) DESCRIPTION - will be used in TIP MSAS 361 AND MSAS 136 (W 76TH ST), RICHFIELD AND EDINA, FROM if the project is selected for funding. See MnDOT's TIP description guidance.

YORK AVE TO SHERIDAN AVE, 0.4 MILES - RECONSTRUCT, SIGNAL,

0.4

UTILITIES, SIDEWALK, LIGHTS

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)

to the nearest one-tenth of a mile

Project Funding

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

project?

If yes, please identify the source(s)

 Federal Amount
 \$3,857,192.00

 Match Amount
 \$964,298.00

Minimum of 20% of project total

Project Total \$4,821,490.00

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

Match Percentage 20.0%

Minimum of 20%

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

Source of Match Funds Richfield Municipal State Aid Funds; Richfield Municipal General Obligation

Bonds; City of Edina funds

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: 2028, 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-Roadways

NOTE: If your project has already been assigned a State Aid Project # (SAP or SP), please Indicate SAP# here

SAP#:

County, City, or Lead Agency City of Richfield
Functional Class of Road A Minor Reliever

Road System MSAS

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

Road/Route No. 361

i.e., 53 for CSAH 53

Name of Road W 76th St

Example; 1st ST., MAIN AVE

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

From: CSAH Road System

Road/Route No. 31

i.e., 53 for CSAH 53

Name of Road York Ave

Example; 1st ST., MAIN AVE

Road System Local Street

Road System

DO NOT INCLUDE LEGAL DESCRIPTION

Road/Route No. i.e., 53 for CSAH 53

Name of Road Sheridan Ave

Example; 1st ST., MAIN AVE

In the City/Cities of: Richfield, Edina

(List all cities within project limits)

OR:

Road System

(TH, CSAH, MSAS, CO. RD., TWP. RD., City Street)

Road/Route No.

i.e., 53 for CSAH 53

Name of Road

Example; 1st ST., MAIN AVE

In the City/Cities of:

(List all cities within project limits)

PROJECT LENGTH

Miles 0.5

(nearest 0.1 miles)

Primary Types of Work (check all the apply)

New Construction

Reconstruction Yes Resurfacing Yes **Bituminous Pavement** Yes

Concrete Pavement

Roundabout

New Bridge

Bridge Replacement

Bridge Rehab **New Signal**

Signal Replacement/Revision Yes **Bike Trail** Yes

Other (do not include incidental items) CURB AND GUTTER, GRADE, SIGNING, SIDEWALK, UTILITY RELOCATION,

LIGHTS

BRIDGE/CULVERT PROJECTS (IF APPLICABLE)

Old Bridge/Culvert No.: New Bridge/Culvert No.: Structure is Over/Under (Bridge or culvert name): OTHER INFORMATION:

Zip Code where Majority of Work is Being Performed 55423 Approximate Begin Construction Date 04/01/2028 **Approximate End Construction Date** 12/31/2028 Miles of Trail (nearest 0.1 miles) 0.2 Miles of Sidewalk (nearest 0.1 miles) 0.7 Miles of trail on the Regional Bicycle Transportation Network (nearest 0.1 miles): 0 Is this a new trail? Yes

Requirements - 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: Goal A (p. 2.2)

> Objective A: Preserve and maintain the transportation system in a state of good repair (p. 2.2)

Objective B: Operate the transportation system to efficiently move people and freight (p. 2.2)

Strategy A1: Prioritize transportation investments on strategically preserving, maintaining, and operating the transportation system (p. 2.2)

Strategy A2: Incorporate improvements for safety, lower-cost congestion management and mitigation, transit, bicycle, and pedestrian facilities (p. 2.3)

Goal B (p. 2.5)

Objective A: Reduce fatal and serious injury crashes (p. 2.5)

Strategy B1. Incorporate safety and security considerations for all modes and users (p. 2.5)

Strategy B6. Use best practices to provide/improve facilities for safe walking and bicycling (p. 2.8)

Goal C (p. 2.10)

Objective A. Increase availability of multimodal travel options (p. 2.10)

Objective D. Increase the number and share of trips taken using transit, carpools, bicycling, and walking. (p. 2.10)

Objective E. Improve availability of multimodal travel options (p. 2.10)

Strategy C1. Implement transportation systems that are multimodal and provide connections between modes (p. 2.10)

Strategy C2. Provide a network of interconnected roadways, bicycle and pedestrian facilities using Complete Streets principles (p. 2.11)

Strategy C4. Promote multimodal travel and alternatives to single occupant vehicle travel (p. 2.14)

Strategy C9. Support investments in A-minor arterials (p. 2.17)

Goal D (p. 2.26)

Objective A. Improve multimodal access to regional job concentrations (p. 2.26)

Objective B. Invest in a multimodal transportation system (p. 2.26)

Strategy D3. Invest in regional transit and bicycle and pedestrian facilities (p. 2.27)

Goal E (p. 2.30)

Objective A. Reduce transportation-related air emissions. (p. 2.30)

Objective C. Increase the availability and attractiveness of transit, bicycling, and walking (p. 2.30)

Objective D. Provide a transportation system that promotes community cohesion and connectivity (p. 2.30)

Strategy E3. Implement a transportation system that considers the needs of all potential users (p. 2.31)

Strategy E5. Protect, enhance and mitigate impacts on the cultural and built environments (p. 2.33)

Strategy E6. Use a variety of communication methods and eliminate barriers to foster public engagement (p. 2.34)

Strategy E7. Avoid, minimize and mitigate disproportionately high and adverse

impacts of transportation projects to the region's historically underrepresented communities (p. 2.34)

Goal F (p. 2.35)

Objective C. Encourage local land use design that integrates highways, streets, transit, walking, and bicycling. (p. 2.35)

Strategy F6. Include bicycle and pedestrian elements in local comprehensive plans (p. 2.38)

Linit 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 2019 Comprehensive Plan 2040 (Transportation pg. 98) from this qualifying requirement because of their innovative nature.

> 2024 Capital Improvement Budget & 2025-2028 Capital Improvement Program (DRAFT, p. 6, 8, 43)

Linit 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.

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

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

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

Yes

7. The requested funding amount must be more than or equal to the minimum award and less than or equal to the maximum award. The cost of preparing a project for funding authorization can be substantial. For that reason, minimum federal amounts apply. Other federal funds may be combined with the requested funds for projects exceeding the maximum award, but the source(s) must be identified in the application. Funding amounts by application category are listed below in Table 1. For unique projects, the minimum award is \$500,000 and the maximum award is the total amount available each funding cycle (approximately $\$4,\bar{0}00,000$ for the 2024 funding cycle).

Strategic Capacity (Roadway Expansion): \$1,000,000 to \$10,000,000 Roadway Reconstruction/Modernization: \$1,000,000 to \$7,000,000

Traffic Management Technologies (Roadway System Management): \$500,000 to \$3,500,000

Spot Mobility and Safety: \$1,000,000 to \$3,500,000

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

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

8. The project must comply with the Americans with Disabilities Act (ADA).

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

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

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

Date plan completed: 02/25/2014

Link to plan:

https://www.richfieldmn.gov/departments/public works/transportation/bicycle p edestrian planning/ada.php

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

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.

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.

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

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

Yes

Roadways Including Multimodal Elements

1. All roadway projects must be identified as a principal arterial (non-freeway facilities only) or A-minor arterial as shown on the latest TAB approved roadway functional classification map. Bridge Rehabilitation/Replacement projects must be located on a minor collector and above functionally classified roadway in the urban areas or a major collector and above in the rural areas.

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

Yes

Roadway Strategic Capacity and Reconstruction/Modernization and Spot Mobility projects only:

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

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

Yes

Bridge Rehabilitation/Replacement and Strategic Capacity projects only:

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

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

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

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

Bridge Rehabilitation/Replacement projects only:

5. The length of the in-place structure is 20 feet or longer.

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

6. The bridge must have a Local Planning Index (LPI) of less than 60 OR a National Bridge Inventory (NBI) Rating of 3 or less for either Deck Geometry, Approach Roadway, or Waterway Adequacy as reported on the most recent Minnesota Structure Inventory Report.

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

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

7. All roadway projects that involve the construction of a newlexpanded interchange or new interchange ramps must have approval by the Metropolitan Council/MnDOT Interchange Planning Review Committee prior to application submittal. Please contact David Elvin at MnDOT (David.Elvin@state.mn.us or 651-234-7795) to determine whether your project needs to go through this process as described in Appendix F of the 2040 Transportation Policy Plan.

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

Requirements - Roadways Including Multimodal Elements

Specific Roadway Elements	
CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES	Cost
Mobilization (approx. 5% of total cost)	\$255,000.00
Removals (approx 5% of total cost)	\$420,000.00
Roadway (grading, borrow, etc.)	\$104,625.00
Roadway (aggregates and paving)	\$560,340.00
Subgrade Correction (muck)	\$0.00
Storm Sewer	\$585,616.00
Ponds	\$0.00
Concrete Items (curb & gutter, sidewalks, median barriers)	\$383,115.00
Traffic Control	\$50,000.00
Striping	\$45,062.00
Signing	\$18,025.00
Lighting	\$260,000.00
Turf - Erosion & Landscaping	\$101,389.00
Bridge	\$0.00
Retaining Walls	\$400,000.00
Noise Wall (not calculated in cost effectiveness measure)	\$0.00
Traffic Signals	\$400,000.00
Wetland Mitigation	\$0.00
Other Natural and Cultural Resource Protection	\$0.00
RR Crossing	\$0.00
Roadway Contingencies	\$438,318.00

 Other Roadway Elements
 \$800,000.00

 Totals
 \$4,821,490.00

Specific Pievels and Redestrian Flaments		
Specific Bicycle and Pedestrian Elements		
CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES		Cost
Path/Trail Construction		\$0.00
Sidewalk Construction		\$0.00
On-Street Bicycle Facility Construction		\$0.00
Right-of-Way		\$0.00
Pedestrian Curb Ramps (ADA)		\$0.00
Crossing Aids (e.g., Audible Pedestrian Signals, HAWK)		\$0.00
Pedestrian-scale Lighting		\$0.00
Streetscaping		\$0.00
Wayfinding		\$0.00
Bicycle and Pedestrian Contingencies		\$0.00
Other Bicycle and Pedestrian Elements		\$0.00
Totals		\$0.00
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 co	ollection, 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	<u> </u>	
Number of Platform hours	0	
Cost Per Platform hour (full loaded Cost)	\$0.00	
Subtotal	\$0.00	
	\$0.00	

PROTECT Funds Eligibility

One of the newfederal 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).

Response:

The proposed project will reconstruct and modernize an existing surface transportation facility, upgrading it to modern standards and improving stormwater management capabilities. Roadway, concrete items, storm sewer, retaining wall, and erosion and landscaping items are potentially eligible for PROTECT funds.

Totals

 Total Cost
 \$4,821,490.00

 Construction Cost Total
 \$4,821,490.00

 Transit Operating Cost Total
 \$0.00

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

Existing Employment within 1 Mile: 47227
Existing Manufacturing/Distribution-Related Employment within 1 Mile: 3089
Existing Post-Secondary Students within 1 Mile: 0

Upload Map 1701728192679_Regional Economy (2).pdf

Please upload attachment in PDF form

Measure C: Current Heavy Commercial Traffic

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

Along Tier 1:

Miles:

(to the nearest 0.1 miles)

Along Tier 2:

Miles: 0

(to the nearest 0.1 miles)

Along Tier 3:

Miles: 0

(to the nearest 0.1 miles)

The project provides a direct and immediate connection (i.e., intersects) with

either a Tier 1, Tier 2, or Tier 3 corridor:

None of the tiers: Yes

Measure A: Current Daily Person Throughput

Location W 76th St from Xerxes Ave S to Upton Ave S (2023)

0

Current AADT Volume 16673

Existing Transit Routes on the Project 537, 538, 540, 578

For New Roadways only, list transit routes that will likely be diverted to the new proposed roadway (if applicable).

Upload Transit Connections Map 1701728504095 Transit Connections (1),pdf

Please upload attachment in PDF form

Response: Current Daily Person Throughput

Average Annual Daily Transit Ridership (

Current Daily Person Throughput 21675.0

Measure B: 2040 Forecast ADT

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

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

OR

Identify the approved county or city travel demand model to

determine forecast (2040) ADT volume

Hennepin County Travel Demand Model (via I-494: Airport to Highway 169 project)

Forecast (2040) ADT volume 14600

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:

The neighborhood around 76th St in the project area is diverse, and the project is located within a Regional Environmental Justice Area. Within Richfield, thirty-five percent of residents in the project area identify as Black, Indigenous, or People of Color (five percent are Black and fourteen percent are Latino) and four percent of households have limited English proficiency. Nineteen percent of residents are within 185 percent of the Federal poverty line, nine percent of residents have a disability, and 10 percent of households don't have a vehicle. Eleven percent of residents are children under 18, and 11 percent are adults aged 65 and up.

The city uses public engagement to ensure all residents can participate in community planning activities. The Public Engagement Policy for Street Projects (2019) sets a framework for engaging with nearby residents and includes engagement activities at each step of the planning and construction process. The bulk of engagement for this and all projects occurs in the preliminary design phase during concept development, including resident and stakeholder engagement by the Transportation Commission and a series of in-person and/or virtual open houses. Ensuring participation from all residents, including the groups identified above, affordable housing residents, and other underrepresented communities, requires deliberate outreach. In Richfield, this includes Spanishlanguage interpreting and translation and promotion through trusted community partners.

This project was first identified in the 2013 CIP and budget. It was then retained in each subsequent annual CIP. The project was also included in the 2040 Comprehensive Plan in 2018. For the comprehensive plan, all residents were engaged through Spanish-language outreach, Transportation Commission hearings, and open houses. For the CIP development, each year during the budget preparation, every resident, tenant, and property owner is sent a postcard and other engagement materials informing them of the budget process. Each year, the CIP is discussed through Transportation Commission meetings and City Council public hearings.

In addition to official city engagement activities, residents have continuously communicated to the city that W 76th St needs to be reconstructed and made more comfortable for pedestrians and bicyclists. As this project goes into plan development, the public will be re-engaged following Richfield?s Public Engagement Plan to ensure that residents are able to have multiple opportunities to influence the final design of this facility to best suit the needs of the users.

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

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;
- 2 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:

Disadvantaged communities are primarily benefited by this project through improved safety and comfort for people using the corridor, especially those walking, biking, and rolling. Enhancing the corridor with boulevard space, wider sidewalks, a narrower street section, and simpler right of way will create a safer environment for all modes of transportation. Specifically, this will benefit the surrounding Richfield residents, 35 percent of whom are people of color and 19 percent of whom live at or below 185 percent of the federal poverty line. This project will also benefit students at Richfield Middle School, which teaches a student body of 74 percent students of color. Ten percent of those students regularly walk or bike to school.

The proposed enhancements will increase pedestrian safety by creating a buffer between the sidewalk and moving traffic. In some spots, the existing back-of-curb sidewalk is less than six inches above the road surface, blending the road and walking spaces. Other proposed elements include shorter crossing distances and undergrounding of overhead electric lines. The narrower travel lanes and road will increase safety by decreasing vehicle speeds. A new continuous left turn lane will keep turning drivers away from through traffic and further prevent "double jeopardy" hazards for crossing pedestrians. Narrowing the roadway from four to three lanes will reduce the number of lanes that must be crossed by pedestrians.

Improvements to accessibility for nonmotorized users are especially important on this corridor. Within walking distance is a vocational and life skills school for neurodivergent young adults (Minnesota Independence College and Community) as well as a school district building that hosts special education and pre-K programs. Existing non-compliant pedestrian ramps on this corridor would be replaced with accessible ramps. The signal system at Upton Avenue would be upgraded with accessible pedestrian signal equipment. The other pedestrian benefits previously mentioned will improve accessibility, usability, and comfort for the nine percent of nearby residents with disabilities. The new trail will also create a link between the Nine Mile Creek Regional trail and the Tier 1 RBTN alignment along York Ave.

The safer and more comfortable corridor will more easily connect the area's diverse population to nearby community resources and employment centers such as the Edina Urgent Care, the METRO Orange Line BRT, Best Buy Headquarters, the Southdale YMCA, Richfield Middle School, Adams Hill Park, and Donaldson Park.

One potential negative impact of the four to three lane conversion is that there may be smaller gaps in traffic for crossing pedestrians and drivers entering the roadway from a side street or driveway.

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:

In addition to the 678 publicly subsidized rental housing units in census tracts within a half mile, there are a variety of Naturally Occurring Affordable Housing (NOAH) developments near the 76th St project area. These are shown in the attached affordable housing map. Altogether, in the City of Richfield, there are 30 properties that are NOAH within a half mile of the project area with a total of 620 affordable units. There is also one proposed housing project within a half mile of the project totaling 70 affordable units. The 76th Street project corridor borders census tract 243 which has a median income below 80 percent AMI. Just outside of Richfield's borders and within a half mile of the project are Yorkdale Townhomes and South Haven in Edina. These buildings host an additional 90 units at or below 30 percent AMI and 100 units for seniors at or below 30 percent AMI respectively (Edina Comp Plan 2040 p. 4-9).

The project will address existing barriers to pedestrian use along the project corridor as described above by providing more comfortable sidewalks further away from vehicular traffic and safer crossings at select intersections, encouraging slower vehicle speeds, shortening pedestrian crossing distances, and increasing pedestrian visibility. Additionally, new ADA-compliant curb ramps will allow easier crossing for people with disabilities and elderly residents and visitors. Given the area's low vehicle ownership rate, these pedestrian access improvements will provide benefits to those who rely on walking to access public transportation, jobs, education and recreation. The new trail will also create a link between the Nine Mile Creek Regional trail along Xerxes Ave and W 75th St and the Tier 1 RBTN alignment along York Ave.

These improvements will improve access to numerous community resources, amenities, and job centers for affordable housing residents. North of 76th St, neighborhood amenities include Adams Hill Park, the Southdale YMCA, St. Richard's Catholic Church, and South Education Center, which contains pre-K, special education programs, and an alternative high school. South of 76th St, residents have access to Edina Urgent Care. East of Penn Ave is Richfield Middle School, Minnesota Independence College and Community (a vocational and life skills program for autistic and neurodiverse young adults), two churches, Best Buy headquarters, and the Knox Ave Orange Line BRT stop. Westward into Edina leads to the Centennial Lakes commercial area and park.

(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):

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.

1701729826106 Socio-Economic Conditions (4).pdf

Roadway Construction or Most Recent Reconstruction	Segment Length	Calculation	Calculation 2
1973	0.1	197.3	493.25
1985	0.1	198.5	496.25
1973	0.2	394.6	986.5
	0	790	1976

Total Project Length

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

0.4

1976

Average Construction Year

Weighted Year

Total Segment Length (Miles)

Total Segment Length

Measure B: Geometric, Structural, or Infrastructure Improvements

Improved roadway to better accommodate freight movements:

Response:

(Limit 700 characters; approximately 100 words)

Improved clear zones or sight lines:

Response:

(Limit 700 characters; approximately 100 words)

Improved roadway geometrics:

Response:

(Limit 700 characters; approximately 100 words)

Access management enhancements:

Response:

(Limit 700 characters; approximately 100 words)

Vertical/horizontal alignment improvements:

Response:

(Limit 700 characters; approximately 100 words) Improved stormwater mitigation:

Response:

(Limit 700 characters; approximately 100 words)

Signals/lighting upgrades:

Response:

Vρς

0.4

A new continuous left turn lane will allow for safer and more dependable turning movements for freight turning onto side streets or driveways. The turn lane reduces congestion as it allows through freight to safely bypass turning vehicles. These benefits are also realized for school buses at the nearby middle school, alternative high school, and vocational and life skills school. Public transit along 76th St will be able to more reliably move past turning vehicles.

Yes

The narrowed street section and lane widths will increase drivers? ability to see pedestrians and bicyclists and vice versa. The three-lane section and narrowed lanes will improve pedestrian and bicyclists' ability to see and avoid "double jeopardy" situations. Proposed undergrounding of overhead electric will remove 11 utility poles from the clear zone. The new boulevards will provide snow storage, keeping excess snow further away from drive lanes and sidewalks.

Yes

A narrowed street width will help decrease driving speeds on the corridor. Additionally, it will provide better driver visibility, especially from side streets or driveways. It also provides better visibility for drivers turning onto driveways and side streets with retaining walls and/or increased grades.

Yes

Proposed stormwater infrastructure replacement will provide better stormwater mitigation in a flood prone area of the city. Increased greenspace on the corridor will provide more permeable surfaces for stormwater infiltration. New boulevard trees will anchor boulevard soil and further absorb stormwater. A narrowed street section and using a turf buffer to the sidewalk will decrease the total impervious surface in the corridor, decreasing stormwater runoff volumes.

Yes

Installation of pedestrian-level lighting will provide a more comfortable and safe experience for people walking. Replacement of the traffic signal at Upton Ave (which is at the end of its usable life) will provide more reliable guidance to traffic. The existing signal intermittently changes to all-red flash due to faulty and old equipment.

Other Improvements

Yes

Response:

Proposed undergrounding of overhead utilities will provide a more comfortable experience for all road users, especially pedestrians and bicyclists. New boulevard space increases the city's ability to keep sidewalks clear of snow and other debris. Proposed pedestrian level lighting gives pedestrians and bicyclists increased feelings of security using the corridor at night. Boulevards will create additional space for waiting transit riders near transit stops in the project area.

(Limit 700 characters; approximately 100 words)

	Measure A: Co	ongestion Red	luction/Air Qua	lity						
(Total Peak Hour Delay Per Vehicle Without The Project (Seconds/Vehicle)	Total Peak Hour Delay Per Vehicle With The Project (Seconds/Vehicle)	Reduced by	the Project	Volume with the Project (Vehicles Per Hour):	Total Peak Hour Delay without the Project:	Total Peak Hour Delay by the Project:	Peak hour	explanation of methodology used to calculate railroad crossing delay, if applicable.	Synchro or HCM Reports
	2.0	2.0	0	1169	1169	2338.0	2338.0	0	NA	1701467148801_Synchro Report.pdf

2338

Vehicle Delay Reduced

Total Total Delay
Peak Peak Reduced
Hour Hour Total
Delay Delay
Reduced Reduced
2338.0 2338.0 0

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

Total (CO,	Total (CO,	Total (CO,
NOX, and	NOX, and	NOX, and
VOC) Peak	VOC) Peak	VOC) Peak
Hour	Hour	Hour
Emissions	Emissions	Emissions
without the	with the	Reduced by
Project	Project	the Project
(Kilograms):	(Kilograms):	(Kilograms):
1.8	1.8	0
2	2	0

Total

Total Emissions Reduced:

0

Upload Synchro Report

1701467323178_SynchroReport.pdf

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

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

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

Total Parallel Roadway

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

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

Cruise speed in miles per hour without the project:	0
Vehicle miles traveled without the project:	0
Total delay in hours without the project:	0
Total stops in vehicles per hour without the project:	0
Cruise speed in miles per hour with the project:	0
Vehicle miles traveled with the project:	0
Total delay in hours with the project:	0
Total stops in vehicles per hour with the project:	0
Fuel consumption in gallons (F1)	0
Fuel consumption in gallons (F2)	0
Fuel consumption in gallons (F3)	0
Total (CO, NOX, and VOC) Peak Hour Emissions Reduced by the Project (Kilograms):	0

EXPLANATION of methodology and assumptions used:(Limit 1,400 characters; approximately 200 words)

Measure A: Roadway Projects that do not Include Railroad Grade-Separation Elements

Crash Modification Factor Used:

CMF Name: Converting four-lane roadways to three-lane roadways with center turn lane (road diet) (CMF ID: 2841). This CMF has a value of 0.53, and a crash reduction of 47%. This CMF can be applied towards all crash types and severities, for all roadways in urban and suburban areas. Although there are proposed lighting improvements to this corridor, no CMF was applied because there have been no existing nighttime crashes reported within the unlit segment of the project limits.

(Limit 700 Characters; approximately 100 words)

Rationale for Crash Modification Selected:

This CMF was the most applicable for this roadway improvement, as it directly applies to reducing existing four-lane divided roadways into a three-lane roadway with a two-way left-turn lane. The one crash that occurred on the segment between Xerxes Avenue and Sheridan Avenue would not have occurred with this configuration, as it was related to a vehicle making a left-turn and another vehicle trying to pass the turning vehicle. The three other crashes occurred in the segment between York Avenue and Xerxes Avenue, with no applicable CMFs to attribute to a crash reduction based on the proposed layout.

(Limit 1400 Characters; approximately 200 words)

Project Benefit (\$) from B/C Ratio	\$650,523.00
Total Fatal (K) Crashes:	0
Total Serious Injury (A) Crashes:	0
Total Non-Motorized Fatal and Serious Injury Crashes:	0
Total Crashes:	1
Total Fatal (K) Crashes Reduced by Project:	0
Total Serious Injury (A) Crashes Reduced by Project:	0
Total Non-Motorized Fatal and Serious Injury Crashes Reduced by Project:	0
Total Crashes Reduced by Project:	0

Please upload attachment in PDF form

Roadway projects that include railroad grade-separation elements:					
Current AADT volume:	0				
Average daily trains:	0				
Crash Risk Exposure eliminated:	0				

Measure B: Pedestrian Safety

Determine if these measures do not apply to your project. Does the project match either of the following descriptions?

If either of the items are checked yes, then score for entire pedestrian safety measure is zero. Applicant does not need to respond to the sub-measures and can proceed to the next section

Project is primarily a freeway (or transitioning to a freeway) <u>and</u> does not provide safe and comfortable pedestrian facilities and crossings.

Existing location lacks any pedestrian facilities (e.g., sidewalks, marked crossings, wide shoulders in rural contexts) <u>and</u> project does not add pedestrian elements (e.g., reconstruction of a roadway without sidewalks, that doesn?t also add pedestrian crossings and sidewalk or sidepath on one or both sides).

SUB-MEASURE 1: Project-Based Pedestrian Safety Enhancements and Risk Elements

To receive maximum points in this category, pedestrian safety countermeasures selected for implementation in projects should be, to the greatest extent feasible, consistent with the countermeasure recommendations in the Regional Pedestrian Safety Action Plan and state and national best practices. Links to resources are provided on the Regional Solicitation Resources web page.

Please answer the following two questions with as much detail as possible based on the known attributes of the proposed design. If any aspect referenced in this section is not yet determined, describe the range of options being considered, to the greatest extent available. If there are project elements that may increase pedestrian risk, describe how these risks are being mitigated.

1. Describe how this project will address the safety needs of people crossing the street at signalized intersections, unsignalized intersections, midblock locations, and roundabouts

Treatments and countermeasures should be well-matched to the roadway?s context (e.g., appropriate for the speed, volume, crossing distance, and other location attributes). Refer to the Regional Solicitation Resources web page for guidance links.

Response:

According to FHWA, 4 to 3 lane roadway conversions (road diets) can provide a 19-47 percent reduction in total crashes. Specifically, road diets reduce rear-end and left-turn crashes by adding a dedicated left-turn lane, and they reduce right-angle crashes as motorists traveling on perpendicular side streets only need to cross three instead of four travel lanes.

A new continuous left turn lane, converted from existing drive lanes, will also remove the potential for "double jeopardy" situations for crossing pedestrians compared to the existing four-lane design. This dangerous situation occurs when a vehicle in the through lane closest to the curb stops for a crossing pedestrian, but the vehicle in the adjacent through lane does not. The four to three lane conversion will reduce the number of conflict points that exist for pedestrians crossing 76th St.

76th St will be narrowed from 45 feet to 37 feet, and the narrowed street section will decrease the crossing distance for pedestrians at signalized and unsignalized intersections. Narrower streets provide better visibility for pedestrians to see drivers when crossing the street and vice versa. Narrowed streets also result in traffic calming and lower but more consistent speeds.

New boulevards between the sidewalk and roadway will provide separation from vehicle traffic and refuge areas for pedestrians. More boulevard space will also increase the turning distance for drivers turning onto side streets, giving people crossing those streets more reaction time to see oncoming vehicles and giving turning drivers more reaction time to see people crossing.

All existing pedestrian ramps will be replaced with ADA-compliant ramps with truncated domes. The new ramps will help pedestrians transition from the sidewalk to the street level for a safer crossing experience at signalized and unsignalized intersections.

On the new traffic signal at Upton Ave, leading pedestrian intervals will give pedestrians a head start walking signal to let them cross further into the street prior to drivers attempting to turn left, providing better visibility for drivers to see people crossing. This proven safety countermeasure, which can reduce vehicle-pedestrian crashes by 13 percent at intersections, reduces conflicts between people walking and people driving, increases the likelihood of motorists yielding to pedestrians, and provides enhanced safety to those who need more time to cross, such as children, caregivers, and people with mobility impairments.

Finally, new pedestrian-scale lighting will make pedestrians more visible when trying to cross 76th St or side streets. Intersection lighting can reduce nighttime injury pedestrian crashes at intersections by up to 42 percent.

(Limit 2,800 characters; approximately 400 words)

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

Select one: No

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

Response:

(Limit 1,400 characters; approximately 200 words)

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

Select one: No

If yes,

? How many intersections will likely be affected?

Response:

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

Response:

(Limit 1,400 characters; approximately 200 words)

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

Response

(Limit 1,400 characters; approximately 200 words)

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

Response:

(Linit 1,400 characters; approximately 200 words)

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

Response:

76th St will be converted from four to three lanes in the project area. This kind of roadway reconfiguration results in slower but more consistent speeds through traffic calming. Some of the speed reduction will occur by removing the opportunity for drivers to pass slower vehicles in the left through lane. The road will also be narrowed from 45 feet to 37 feet wide, and a narrower street section with fewer through lanes will decrease driver speeds. Narrower streets provide better visibility for pedestrians to see drivers and vice versa when crossing the street.

New six-foot boulevards with trees on each side of the street will provide refuge areas for pedestrians, give the corridor the feel of a neighborhood street, and decrease driver speeds through visual narrowing. These boulevards will also further separate pedestrians from vehicular traffic by providing a tree-lined buffer. More boulevard space also provides more distance from right turning vehicles onto side streets, giving people crossing side streets more reaction time to see oncoming vehicles and giving turning drivers more reaction time to see people crossing.

A new continuous left turn lane on the corridor will alleviate peak hour congestion and make vehicle speeds more consistent. The decrease in congestion will provide faster and more efficient transit service on 76th St. The new continuous left turn lane on the corridor will also improve on-street bicyclists' ability to safely turn onto side streets from 76th St.

(Linit 2,800 characters; approximately 400 words)

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

Response:

76th St in this area has a posted speed limit of 30 mph, and the design speed of the proposed project is 30 mph. Observed 85th percentile operating speeds have been as high as 42 mph. With the proposed changes, driver speeds are expected to decrease compared to existing conditions.

(Limit 1,400 characters; approximately 200 words)

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

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

Existing road configuration is a One-way, 3+through lanes

or

Existing road configuration is a Two-way, 4+ through lanes

Yes

Existing road has a design speed, posted speed limit, or speed study/data showing 85th percentile travel speeds in excess of 30 MPH or more

Existing road has AADT of greater than 15,000 vehicles per day

Yes

List the AADT

16673

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

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

Existing road has transit running on or across it with 1+ transit stops in the project area (If flag-stop route with no fixed stops, then 1+ locations in the project area where roadside stops are allowed. Do not count portions of transit routes Yes with no stops, such as non-stop freeway sections of express or limited-stop routes.)

Existing road has high-frequency transit running on or across it and 1+ high-frequency stops in the project area (high-frequency defined as service at least every 15 minutes from 6am to 7pm weekdays and 9am to 6pm Saturdays.)

Existing road is within 500? of 1+ shopping, dining, or entertainment destinations (e.g., grocery store, restaurant)

If checked, please describe:

Metro Transit Route 537 runs along York Ave just west of the project location, connects to Southdale Center to the north, and moves over to France Ave to the south and connects to Normandale Community College and a commercial area at Old Shakopee Rd.

Route 538 runs along 76th St and stops in both directions on Washburn Ave, Upton Ave, and Sheridan Ave. This route also connects to Southdale Center to the north, moves to the east through the Best Buy headquarters, The METRO Orange Line, Southtown Center, and then east along 86th St to Mall of America.

Route 540 also runs along 76th St and stops in both directions on Washburn Ave, Upton Ave, and Sheridan Ave. This route connects riders to the Normandale Lake area, Edina, Best Buy headquarters, the METRO Orange Line, 77th St in Richfield, and the Mall of America.

Route 578 runs along York Ave north through Southdale Center, Fairview Southdale Hospital, and then runs on I-35W north to Minneapolis and stops at 46th St, Lake St, and several stops in downtown.

(Limit 1,400 characters; approximately 200 words)

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

If checked, please describe:

West of Xerxes Ave, there is a daycare center, dental clinic, medical offices, and a business center south of 76th St and the Yorkdale Townhomes complex (90 units of designated affordable housing operated by Common Bond Communities) is located north of 76th St. East of Sheridan Ave along 76th St is the Concierge Apartments complex, St. Richard's Catholic Church, and Blessed Trinity Catholic School.

Yes

(Limit 1,400 characters; approximately 200 words)

Measure A: Multimodal Elements and Existing Connections

Response:

The primary multimodal benefits of the project will result from the conversion of the corridor from a four to three lane design. The proposed project includes six-foot-wide sidewalks on both sides of 76th St separated from the road by a 6.5-foot boulevard. This will provide a comfortable area for pedestrians to walk, sufficient width for public works to plow snow in the winter, and better separates pedestrians from vehicular traffic compared to the existing conditions. Boulevard trees will provide shade to sidewalk users, make the corridor feel more like a neighborhood street, and decrease driver speeds via traffic calming.

All existing pedestrian ramps will be replaced with ADA-compliant ramps with truncated domes. The new ramps will help pedestrians transition from the sidewalk to street-level for a safer crossing experience at signalized and unsignalized intersections.

On the new traffic signal at Upton Ave, leading pedestrian intervals will give pedestrians a head start to let them cross further into the street prior to drivers attempting to turn left, providing better visibility to drivers to see people crossing. New pedestrian-level lighting will make pedestrians more visible when trying to cross 76th St or side streets. In 2019, Upton Ave between 67th St and 78th St was identified as a planned bicycle route. The intersection improvements made here will create a safer future bicycle crossing.

The narrower street design will decrease the crossing distance, making access to the Nine Mile Creek Regional Trail more comfortable for bicyclists crossing 76th St. Due to the location of this regional trail one block to the north of the project corridor, no bicycle facility is being proposed for most of 76th St. The new trail connection along W 76th from York Ave to Xerxes Ave and along Xerxes Ave from W 76th to W 75th St will create a link between the Nine Mile Creek Regional trail and the Tier 1 RBTN alignment along York Ave.

Metro Transit Routes 538 and 540 both run along 76th St for the length of the project, connecting riders to Southdale Center, the Normandale Lake area, Best Buy headquarters, METRO Orange Line, and Mall of America. New boulevards will allow space for small concrete transit platforms. New pedestrian-scale lighting will increase safety and visibility at night.

An improved 76th St corridor will provide easier pedestrian access to Route 4 buses on Penn Ave and Routes 537 and 578 on York Ave connecting to Normandale Community College, Fairview Southdale Hospital, and downtown Minneapolis. The project also better connects residents to the METRO Orange Line a half mile east and will provide easier access to the future Johnson/Lyndale BRT on Penn Ave & 76th St and the future north-south bikeway on Upton Ave.

(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.

Yes

25%

No outreach has led to the selection of this project.

0%

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

Response:

The city uses public engagement to ensure all residents can participate in community planning activities. The Public Engagement Policy for Street Project (2019) sets a framework for engaging with nearby residents and includes engagement activities at each step of the planning and construction process. The bulk of engagement for this and all projects will occur in the preliminary design phase during concept development, including resident and stakeholder engagement by the Transportation Commission and a series of four in-person and/or virtual open houses.

Outreach for this project occurred as part of the 2040 Comprehensive Plan outreach and the city's Capital Improvement Program (CIP) processes. For the comprehensive plan, residents were engaged through Spanish-language outreach, Transportation Commission public hearings and open houses.

For the CIP, each year during budget preparation, every resident, tenant, and property owner is sent a postcard and other engagement materials informing them of the budget and CIP. Each year, the CIP is discussed through Transportation Commission meetings and City Council public hearings. In addition to official city engagement, residents continuously communicate to city staff the need for W 76th St to be made more comfortable for pedestrians and bicyclists.

If this project is awarded funding, Richfield will begin its public engagement process to finalize details and ensure that the project continues to reflect community wishes. This will include a combination of in-person open houses and online survey techniques. All future outreach will be bilingual and promoted through a combination of digital marketing, direct mail, and word of mouth. More information about the city?s engagement process is included in the attached Public Engagement Policy.

(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.

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

Layout has not been started

Attach Layout

1701813022771 W 76th Street Exhibit 20231203.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

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

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.

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

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

Right-of-way, permanent or temporary easements, and/or MnDOT agreement/limited-use permit required - parcels not all identified

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

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

Measure A: Cost Effectiveness

Total Project Cost (entered in Project Cost Form): \$4,821,490.00

Enter Amount of the Noise Walls: \$0.00

Total Project Cost subtract the amount of the noise walls: \$4,821,490.00

Enter amount of any outside, competitive funding: \$0.00

Attach documentation of award:

Points Awarded in Previous Criteria

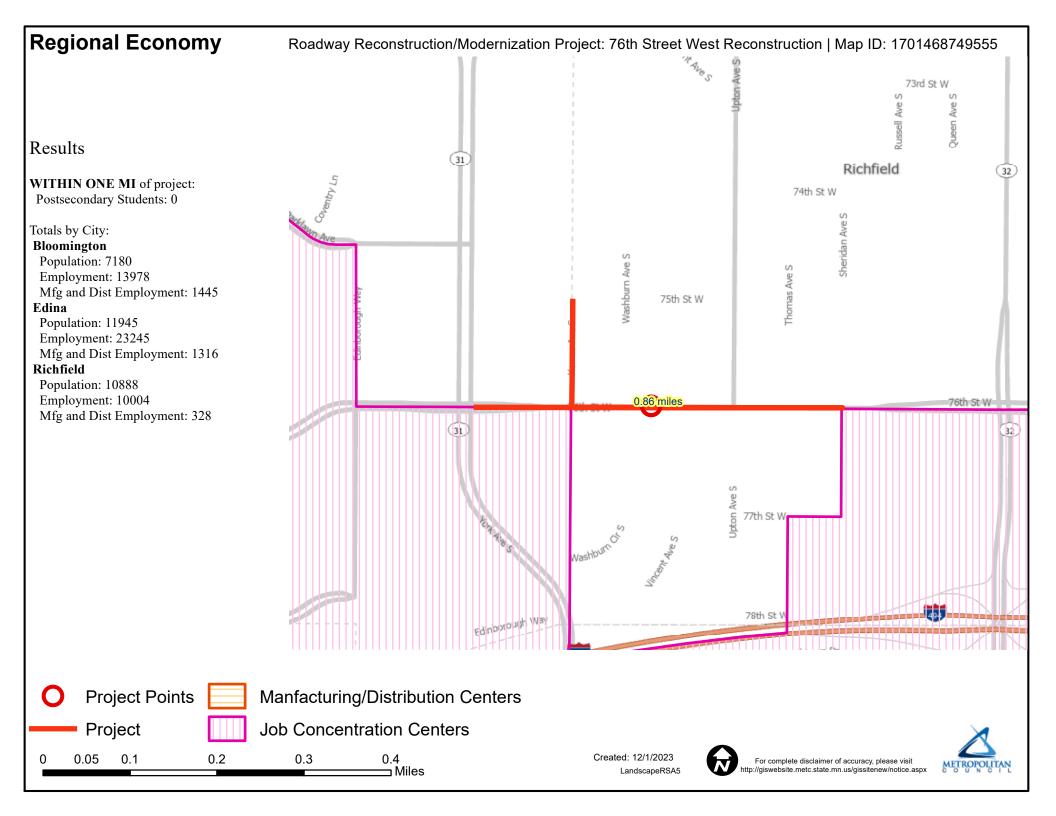
Cost Effectiveness \$0.00

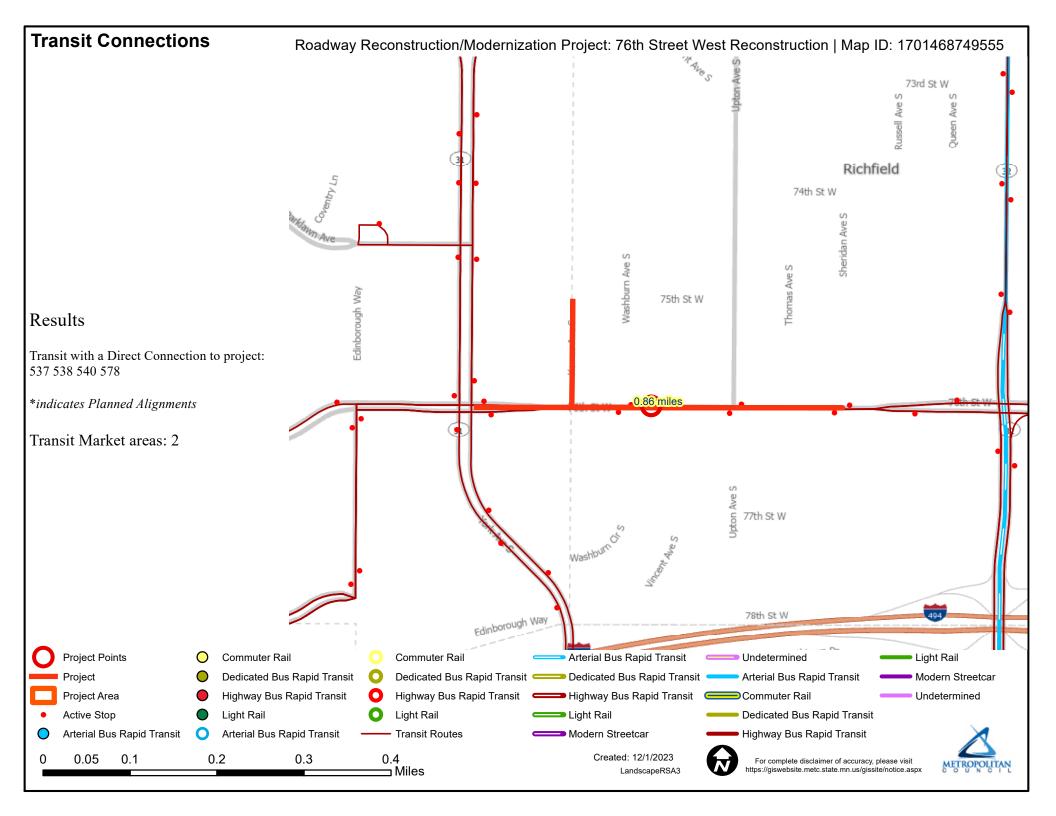
Other Attachments

Yes

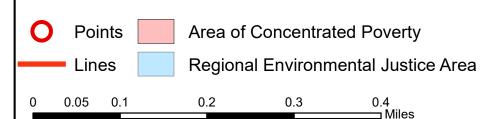
Yes

File Name	Description	File Size
2024 Snow and Ice Policy.pdf	Snow and Ice Policy	125 KB
76th_Modernization_One_Page_Summary.pdf	One Page Project Summary	313 KB
Edina City Code 24.IV - Snow Ice Policy.pdf	Edina Snow and Ice Policy	1.1 MB
Edina PW 76th LOS.pdf	Edina Public Works Letter of Support	110 KB
Edina Res. 2023-91 Supporting City of Richfield's Regional Solicitation Application.pdf	City of Edina Resolution of Support for 76th Street Modernization	131 KB
Resolution Richfield RS 76th St.pdf	City of Richfield W 76th St Resolution	653 KB
Richfield 76th Maintenance Letter of Support.pdf	W 76th St Public Works Letter of Support	119 KB
RPS_West 76th St.pdf	Richfield Public Schools letter of support	71 KB
StreetProjectsPEP.pdf	Public Engagement Policy	307 KB
W 76th Street Maps_Combined.pdf	Project Location Map, Layout, Affordable Housing Map	6.8 MB
W76thSt_Recon_Photos.pdf	Existing conditions photos	725 KB





Socio-Economic Conditions Roadway Reconstruction/Modernization Project: 76th Street West Reconstruction | Map ID: 1701468749555 Results Total of publicly subsidized rental (31) housing units in census Richfield (32) tracts within 1/2 mile: 678 74th St W Project located in census tract(s) that are ABOVE the regional average for population in poverty or population of color. 75th St W 76th St W (31) 77th St W





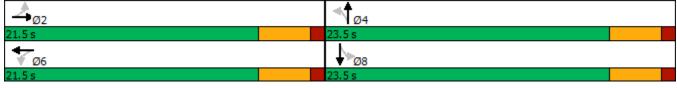


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Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Configurations		414		413-	4	4
Traffic Volume (vph)	1	208	5	335	0	0
Future Volume (vph)	1	208	5	335	0	0
Turn Type	Perm	NA	Perm	NA	NA	NA
Protected Phases		2		6	4	8
Permitted Phases	2		6			
Detector Phase	2	2	6	6	4	8
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	5.0
Minimum Split (s)	20.5	20.5	20.5	20.5	23.5	23.5
Total Split (s)	21.5	21.5	21.5	21.5	23.5	23.5
Total Split (%)	47.8%	47.8%	47.8%	47.8%	52.2%	52.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5	4.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	Min	Min	None	None
Act Effct Green (s)		29.5		29.5	5.6	5.6
Actuated g/C Ratio		0.93		0.93	0.18	0.18
v/c Ratio		0.07		0.12	0.01	0.01
Control Delay		1.1		1.1	0.0	0.0
Queue Delay		0.0		0.0	0.0	0.0
Total Delay		1.1		1.1	0.0	0.0
LOS		Α		Α	Α	Α
Approach Delay		1.1		1.1		
Approach LOS		Α		Α		
Intersection Summary						
Cycle Length: 45						
Actuated Cycle Length: 31.8						
Natural Cycle: 45						
Control Type: Actuated-Unco	oordinated	7				
Maximum v/c Ratio: 0.12						

Intersection Signal Delay: 1.1 Intersection Capacity Utilization 24.6% Intersection LOS: A ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 3: Upton Avenue & 76th Street



3: Upton Avenue & 76th Street

Direction	EB	WB	NB	SB	All	
Future Volume (vph)	209	343	8	6	566	
Control Delay / Veh (s/v)	1	1	0	0	1	
Queue Delay / Veh (s/v)	0	0	0	0	0	
Total Delay / Veh (s/v)	1	1	0	0	1	
Total Delay (hr)	0	0	0	0	0	
Stops / Veh	0.11	0.11	0.00	0.00	0.11	
Stops (#)	24	39	0	0	63	
Average Speed (mph)	29	29	30	30	29	
Total Travel Time (hr)	2	4	0	0	7	
Distance Traveled (mi)	72	124	2	1	199	
Fuel Consumed (gal)	3	5	0	0	9	
Fuel Economy (mpg)	22.9	23.0	NA	NA	23.0	
CO Emissions (kg)	0.22	0.38	0.00	0.00	0.61	
NOx Emissions (kg)	0.04	0.07	0.00	0.00	0.12	
VOC Emissions (kg)	0.05	0.09	0.00	0.00	0.14	
Unserved Vehicles (#)	0	0	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	0	0	

Network Totals

Number of Intersections	1
Control Delay / Veh (s/v)	1
Queue Delay / Veh (s/v)	0
Total Delay / Veh (s/v)	1
Total Delay (hr)	0
Stops / Veh	0.11
Stops (#)	63
Average Speed (mph)	29
Total Travel Time (hr)	7
Distance Traveled (mi)	199
Fuel Consumed (gal)	9
Fuel Economy (mpg)	23.0
CO Emissions (kg)	0.61
NOx Emissions (kg)	0.12
VOC Emissions (kg)	0.14
Unserved Vehicles (#)	0
Vehicles in dilemma zone (#)	0
Performance Index	0.3

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Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	
Lane Configurations		र्सी		414		4		4	
Traffic Volume (vph)	15	711	2	410	2	3	3	1	
Future Volume (vph)	15	711	2	410	2	3	3	1	
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA	
Protected Phases		2		6		4		8	
Permitted Phases	2		6		4		8		
Detector Phase	2	2	6	6	4	4	8	8	
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	20.5	20.5	20.5	20.5	23.5	23.5	23.5	23.5	
Total Split (s)	21.5	21.5	21.5	21.5	23.5	23.5	23.5	23.5	
Total Split (%)	47.8%	47.8%	47.8%	47.8%	52.2%	52.2%	52.2%	52.2%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0		0.0		0.0		0.0	
Total Lost Time (s)		4.5		4.5		4.5		4.5	
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	Min	Min	Min	Min	None	None	None	None	
Act Effct Green (s)		31.2		31.2		5.8		5.8	
Actuated g/C Ratio		0.92		0.92		0.17		0.17	
v/c Ratio		0.26		0.15		0.03		0.04	
Control Delay		1.5		1.2		11.6		10.6	
Queue Delay		0.0		0.0		0.0		0.0	
Total Delay		1.5		1.2		11.6		10.6	
LOS		Α		Α		В		В	
Approach Delay		1.5		1.2		11.6		10.6	
Approach LOS		Α		Α		В		В	
Intersection Summary									

Cycle Length: 45

Actuated Cycle Length: 33.8

Natural Cycle: 45

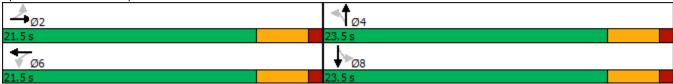
Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.26

Intersection Signal Delay: 1.5 Intersection Capacity Utilization 42.1% Intersection LOS: A ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 3: Upton Avenue & 76th Street



3: Upton Avenue & 76th Street

Direction	EB	WB	NB	SB	All	
Future Volume (vph)	727	422	9	11	1169	
Control Delay / Veh (s/v)	1	1	12	11	2	
Queue Delay / Veh (s/v)	0	0	0	0	0	
Total Delay / Veh (s/v)	1	1	12	11	2	
Total Delay (hr)	0	0	0	0	1	
Stops / Veh	0.13	0.12	1.11	0.91	0.14	
Stops (#)	96	51	10	10	167	
Average Speed (mph)	29	29	21	20	29	
Total Travel Time (hr)	9	5	0	0	14	
Distance Traveled (mi)	252	152	2	2	408	
Fuel Consumed (gal)	11	7	0	0	18	
Fuel Economy (mpg)	22.7	22.9	NA	NA	22.6	
CO Emissions (kg)	0.78	0.47	0.01	0.01	1.26	
NOx Emissions (kg)	0.15	0.09	0.00	0.00	0.25	
VOC Emissions (kg)	0.18	0.11	0.00	0.00	0.29	
Unserved Vehicles (#)	0	0	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	0	0	

Network Totals

Number of Intersections	1
Control Delay / Veh (s/v)	2
Queue Delay / Veh (s/v)	0
Total Delay / Veh (s/v)	2
Total Delay (hr)	1
Stops / Veh	0.14
Stops (#)	167
Average Speed (mph)	29
Total Travel Time (hr)	14
Distance Traveled (mi)	408
Fuel Consumed (gal)	18
Fuel Economy (mpg)	22.6
CO Emissions (kg)	1.26
NOx Emissions (kg)	0.25
VOC Emissions (kg)	0.29
Unserved Vehicles (#)	0
Vehicles in dilemma zone (#)	0
Performance Index	1.0

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Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Configurations	ሻ	f)	ሻ	ą.	4	4
Traffic Volume (vph)	1	208	5	335	0	0
Future Volume (vph)	1	208	5	335	0	0
Turn Type	Perm	NA	Perm	NA	NA	NA
Protected Phases		2		6	4	8
Permitted Phases	2		6			
Detector Phase	2	2	6	6	4	8
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	Min	Min	None	None
Act Effct Green (s)	28.3	28.3	28.3	28.3	5.7	5.7
Actuated g/C Ratio	0.93	0.93	0.93	0.93	0.19	0.19
v/c Ratio	0.00	0.13	0.00	0.21	0.01	0.01
Control Delay	2.0	1.2	1.4	1.4	0.0	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	2.0	1.2	1.4	1.4	0.0	0.0
LOS	Α	Α	Α	Α	Α	Α
Approach Delay		1.2		1.4		
Approach LOS		Α		Α		
Intersection Summary						
Cycle Length: 15						

Cycle Length: 45

Actuated Cycle Length: 30.3

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

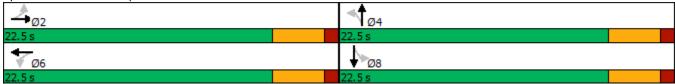
Maximum v/c Ratio: 0.21

Intersection Signal Delay: 1.3
Intersection Capacity Utilization 29.5%

Intersection LOS: A ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 3: Upton Avenue & 76th Street



3: Upton Avenue & 76th Street

Direction	EB	WB	NB	SB	All	
Future Volume (vph)	209	344	8	6	567	
Control Delay / Veh (s/v)	1	1	0	0	1	
Queue Delay / Veh (s/v)	0	0	0	0	0	
Total Delay / Veh (s/v)	1	1	0	0	1	
Total Delay (hr)	0	0	0	0	0	
Stops / Veh	0.12	0.13	0.00	0.00	0.12	
Stops (#)	26	44	0	0	70	
Average Speed (mph)	29	29	30	30	29	
Total Travel Time (hr)	2	4	0	0	7	
Distance Traveled (mi)	72	124	2	1	199	
Fuel Consumed (gal)	3	5	0	0	9	
Fuel Economy (mpg)	22.8	22.8	NA	NA	22.8	
CO Emissions (kg)	0.22	0.38	0.00	0.00	0.61	
NOx Emissions (kg)	0.04	0.07	0.00	0.00	0.12	
VOC Emissions (kg)	0.05	0.09	0.00	0.00	0.14	
Unserved Vehicles (#)	0	0	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	0	0	

Network Totals

Number of Intersections	1
Control Delay / Veh (s/v)	1
Queue Delay / Veh (s/v)	0
Total Delay / Veh (s/v)	1
Total Delay (hr)	0
Stops / Veh	0.12
Stops (#)	70
Average Speed (mph)	29
Total Travel Time (hr)	7
Distance Traveled (mi)	199
Fuel Consumed (gal)	9
Fuel Economy (mpg)	22.8
CO Emissions (kg)	0.61
NOx Emissions (kg)	0.12
VOC Emissions (kg)	0.14
Unserved Vehicles (#)	0
Vehicles in dilemma zone (#)	0
Performance Index	0.4

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Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	
Lane Configurations	7	ĵ»	7	f)		4		4	
Traffic Volume (vph)	15	711	2	410	2	3	3	1	
Future Volume (vph)	15	711	2	410	2	3	3	1	
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA	
Protected Phases		2		6		4		8	
Permitted Phases	2		6		4		8		
Detector Phase	2	2	6	6	4	4	8	8	
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	
Total Split (s)	37.5	37.5	37.5	37.5	22.5	22.5	22.5	22.5	
Total Split (%)	62.5%	62.5%	62.5%	62.5%	37.5%	37.5%	37.5%	37.5%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5	
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	Min	Min	Min	Min	None	None	None	None	
Act Effct Green (s)	37.2	37.2	37.2	37.2		6.2		6.2	
Actuated g/C Ratio	0.95	0.95	0.95	0.95		0.16		0.16	
v/c Ratio	0.02	0.44	0.00	0.26		0.04		0.04	
Control Delay	1.1	2.0	1.0	1.3		16.6		15.2	
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0	
Total Delay	1.1	2.0	1.0	1.3		16.6		15.2	
LOS	Α	Α	Α	Α		В		В	
Approach Delay		2.0		1.3		16.6		15.2	
Approach LOS		Α		Α		В		В	
1.1									

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 39.1

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.44 Intersection Signal Delay: 2.0 Intersection Capacity Utilization 49.1%

Intersection LOS: A ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 3: Upton Avenue & 76th Street



3: Upton Avenue & 76th Street

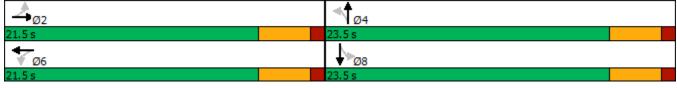
Direction	EB	WB	NB	SB	All	
Future Volume (vph)	727	422	9	11	1169	
Control Delay / Veh (s/v)	2	1	17	15	2	
Queue Delay / Veh (s/v)	0	0	0	0	0	
Total Delay / Veh (s/v)	2	1	17	15	2	
Total Delay (hr)	0	0	0	0	1	
Stops / Veh	0.13	0.09	1.00	0.82	0.13	
Stops (#)	91	40	9	9	149	
Average Speed (mph)	29	29	18	18	29	
Total Travel Time (hr)	9	5	0	0	14	
Distance Traveled (mi)	252	152	2	2	408	
Fuel Consumed (gal)	11	7	0	0	18	
Fuel Economy (mpg)	22.6	23.1	NA	NA	22.6	
CO Emissions (kg)	0.78	0.46	0.01	0.01	1.26	
NOx Emissions (kg)	0.15	0.09	0.00	0.00	0.25	
VOC Emissions (kg)	0.18	0.11	0.00	0.00	0.29	
Unserved Vehicles (#)	0	0	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	0	0	

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Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Configurations		414		413-	4	4
Traffic Volume (vph)	1	208	5	335	0	0
Future Volume (vph)	1	208	5	335	0	0
Turn Type	Perm	NA	Perm	NA	NA	NA
Protected Phases		2		6	4	8
Permitted Phases	2		6			
Detector Phase	2	2	6	6	4	8
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	5.0
Minimum Split (s)	20.5	20.5	20.5	20.5	23.5	23.5
Total Split (s)	21.5	21.5	21.5	21.5	23.5	23.5
Total Split (%)	47.8%	47.8%	47.8%	47.8%	52.2%	52.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5	4.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	Min	Min	None	None
Act Effct Green (s)		29.5		29.5	5.6	5.6
Actuated g/C Ratio		0.93		0.93	0.18	0.18
v/c Ratio		0.07		0.12	0.01	0.01
Control Delay		1.1		1.1	0.0	0.0
Queue Delay		0.0		0.0	0.0	0.0
Total Delay		1.1		1.1	0.0	0.0
LOS		Α		Α	Α	Α
Approach Delay		1.1		1.1		
Approach LOS		Α		Α		
Intersection Summary						
Cycle Length: 45						
Actuated Cycle Length: 31.8						
Natural Cycle: 45						
Control Type: Actuated-Unco	oordinated	7				
Maximum v/c Ratio: 0.12						

Intersection Signal Delay: 1.1 Intersection Capacity Utilization 24.6% Intersection LOS: A ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 3: Upton Avenue & 76th Street



3: Upton Avenue & 76th Street

Direction	EB	WB	NB	SB	All	
Future Volume (vph)	209	343	8	6	566	
Control Delay / Veh (s/v)	1	1	0	0	1	
Queue Delay / Veh (s/v)	0	0	0	0	0	
Total Delay / Veh (s/v)	1	1	0	0	1	
Total Delay (hr)	0	0	0	0	0	
Stops / Veh	0.11	0.11	0.00	0.00	0.11	
Stops (#)	24	39	0	0	63	
Average Speed (mph)	29	29	30	30	29	
Total Travel Time (hr)	2	4	0	0	7	
Distance Traveled (mi)	72	124	2	1	199	
Fuel Consumed (gal)	3	5	0	0	9	
Fuel Economy (mpg)	22.9	23.0	NA	NA	23.0	
CO Emissions (kg)	0.22	0.38	0.00	0.00	0.61	
NOx Emissions (kg)	0.04	0.07	0.00	0.00	0.12	
VOC Emissions (kg)	0.05	0.09	0.00	0.00	0.14	
Unserved Vehicles (#)	0	0	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	0	0	

Network Totals

Number of Intersections	1
Control Delay / Veh (s/v)	1
Queue Delay / Veh (s/v)	0
Total Delay / Veh (s/v)	1
Total Delay (hr)	0
Stops / Veh	0.11
Stops (#)	63
Average Speed (mph)	29
Total Travel Time (hr)	7
Distance Traveled (mi)	199
Fuel Consumed (gal)	9
Fuel Economy (mpg)	23.0
CO Emissions (kg)	0.61
NOx Emissions (kg)	0.12
VOC Emissions (kg)	0.14
Unserved Vehicles (#)	0
Vehicles in dilemma zone (#)	0
Performance Index	0.3

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Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	
Lane Configurations		सींके		€Î∌		4		4	
Traffic Volume (vph)	15	711	2	410	2	3	3	1	
Future Volume (vph)	15	711	2	410	2	3	3	1	
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA	
Protected Phases		2		6		4		8	
Permitted Phases	2		6		4		8		
Detector Phase	2	2	6	6	4	4	8	8	
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	20.5	20.5	20.5	20.5	23.5	23.5	23.5	23.5	
Total Split (s)	21.5	21.5	21.5	21.5	23.5	23.5	23.5	23.5	
Total Split (%)	47.8%	47.8%	47.8%	47.8%	52.2%	52.2%	52.2%	52.2%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0		0.0		0.0		0.0	
Total Lost Time (s)		4.5		4.5		4.5		4.5	
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	Min	Min	Min	Min	None	None	None	None	
Act Effct Green (s)		31.2		31.2		5.8		5.8	
Actuated g/C Ratio		0.92		0.92		0.17		0.17	
v/c Ratio		0.26		0.15		0.03		0.04	
Control Delay		1.5		1.2		11.6		10.6	
Queue Delay		0.0		0.0		0.0		0.0	
Total Delay		1.5		1.2		11.6		10.6	
LOS		Α		Α		В		В	
Approach Delay		1.5		1.2		11.6		10.6	
Approach LOS		Α		Α		В		В	
Intersection Summary									

Cycle Length: 45

Actuated Cycle Length: 33.8

Natural Cycle: 45

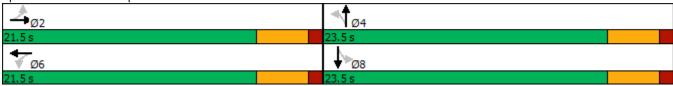
Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.26

Intersection Signal Delay: 1.5 Intersection Capacity Utilization 42.1% Intersection LOS: A ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 3: Upton Avenue & 76th Street



Direction	EB	WB	NB	SB	All	
Future Volume (vph)	727	422	9	11	1169	
Control Delay / Veh (s/v)	1	1	12	11	2	
Queue Delay / Veh (s/v)	0	0	0	0	0	
Total Delay / Veh (s/v)	1	1	12	11	2	
Total Delay (hr)	0	0	0	0	1	
Stops / Veh	0.13	0.12	1.11	0.91	0.14	
Stops (#)	96	51	10	10	167	
Average Speed (mph)	29	29	21	20	29	
Total Travel Time (hr)	9	5	0	0	14	
Distance Traveled (mi)	252	152	2	2	408	
Fuel Consumed (gal)	11	7	0	0	18	
Fuel Economy (mpg)	22.7	22.9	NA	NA	22.6	
CO Emissions (kg)	0.78	0.47	0.01	0.01	1.26	
NOx Emissions (kg)	0.15	0.09	0.00	0.00	0.25	
VOC Emissions (kg)	0.18	0.11	0.00	0.00	0.29	
Unserved Vehicles (#)	0	0	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	0	0	

Network Totals

Number of Intersections	1
Control Delay / Veh (s/v)	2
Queue Delay / Veh (s/v)	0
Total Delay / Veh (s/v)	2
Total Delay (hr)	1
Stops / Veh	0.14
Stops (#)	167
Average Speed (mph)	29
Total Travel Time (hr)	14
Distance Traveled (mi)	408
Fuel Consumed (gal)	18
Fuel Economy (mpg)	22.6
CO Emissions (kg)	1.26
NOx Emissions (kg)	0.25
VOC Emissions (kg)	0.29
Unserved Vehicles (#)	0
Vehicles in dilemma zone (#)	0
Performance Index	1.0

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Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Configurations	ሻ	f)	ሻ	ą.	4	4
Traffic Volume (vph)	1	208	5	335	0	0
Future Volume (vph)	1	208	5	335	0	0
Turn Type	Perm	NA	Perm	NA	NA	NA
Protected Phases		2		6	4	8
Permitted Phases	2		6			
Detector Phase	2	2	6	6	4	8
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	Min	Min	None	None
Act Effct Green (s)	28.3	28.3	28.3	28.3	5.7	5.7
Actuated g/C Ratio	0.93	0.93	0.93	0.93	0.19	0.19
v/c Ratio	0.00	0.13	0.00	0.21	0.01	0.01
Control Delay	2.0	1.2	1.4	1.4	0.0	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	2.0	1.2	1.4	1.4	0.0	0.0
LOS	Α	Α	Α	Α	Α	Α
Approach Delay		1.2		1.4		
Approach LOS		Α		Α		
Intersection Summary						
Cycle Length: 15						

Cycle Length: 45

Actuated Cycle Length: 30.3

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

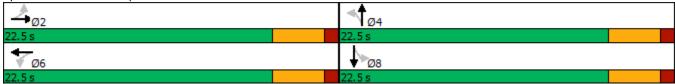
Maximum v/c Ratio: 0.21

Intersection Signal Delay: 1.3
Intersection Capacity Utilization 29.5%

Intersection LOS: A ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 3: Upton Avenue & 76th Street



Direction	EB	WB	NB	SB	All	
Future Volume (vph)	209	344	8	6	567	
Control Delay / Veh (s/v)	1	1	0	0	1	
Queue Delay / Veh (s/v)	0	0	0	0	0	
Total Delay / Veh (s/v)	1	1	0	0	1	
Total Delay (hr)	0	0	0	0	0	
Stops / Veh	0.12	0.13	0.00	0.00	0.12	
Stops (#)	26	44	0	0	70	
Average Speed (mph)	29	29	30	30	29	
Total Travel Time (hr)	2	4	0	0	7	
Distance Traveled (mi)	72	124	2	1	199	
Fuel Consumed (gal)	3	5	0	0	9	
Fuel Economy (mpg)	22.8	22.8	NA	NA	22.8	
CO Emissions (kg)	0.22	0.38	0.00	0.00	0.61	
NOx Emissions (kg)	0.04	0.07	0.00	0.00	0.12	
VOC Emissions (kg)	0.05	0.09	0.00	0.00	0.14	
Unserved Vehicles (#)	0	0	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	0	0	

Network Totals

Number of Intersections	1
Control Delay / Veh (s/v)	1
Queue Delay / Veh (s/v)	0
Total Delay / Veh (s/v)	1
Total Delay (hr)	0
Stops / Veh	0.12
Stops (#)	70
Average Speed (mph)	29
Total Travel Time (hr)	7
Distance Traveled (mi)	199
Fuel Consumed (gal)	9
Fuel Economy (mpg)	22.8
CO Emissions (kg)	0.61
NOx Emissions (kg)	0.12
VOC Emissions (kg)	0.14
Unserved Vehicles (#)	0
Vehicles in dilemma zone (#)	0
Performance Index	0.4

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Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	
Lane Configurations	7	ĵ»	7	f)		4		4	
Traffic Volume (vph)	15	711	2	410	2	3	3	1	
Future Volume (vph)	15	711	2	410	2	3	3	1	
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA	
Protected Phases		2		6		4		8	
Permitted Phases	2		6		4		8		
Detector Phase	2	2	6	6	4	4	8	8	
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	
Total Split (s)	37.5	37.5	37.5	37.5	22.5	22.5	22.5	22.5	
Total Split (%)	62.5%	62.5%	62.5%	62.5%	37.5%	37.5%	37.5%	37.5%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5	
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	Min	Min	Min	Min	None	None	None	None	
Act Effct Green (s)	37.2	37.2	37.2	37.2		6.2		6.2	
Actuated g/C Ratio	0.95	0.95	0.95	0.95		0.16		0.16	
v/c Ratio	0.02	0.44	0.00	0.26		0.04		0.04	
Control Delay	1.1	2.0	1.0	1.3		16.6		15.2	
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0	
Total Delay	1.1	2.0	1.0	1.3		16.6		15.2	
LOS	Α	Α	Α	Α		В		В	
Approach Delay		2.0		1.3		16.6		15.2	
Approach LOS		Α		Α		В		В	
1.1									

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 39.1

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.44 Intersection Signal Delay: 2.0 Intersection Capacity Utilization 49.1%

Intersection LOS: A ICU Level of Service A

Analysis Period (min) 15

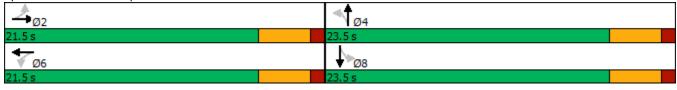
Splits and Phases: 3: Upton Avenue & 76th Street



Direction	EB	WB	NB	SB	All	
Future Volume (vph)	727	422	9	11	1169	
Control Delay / Veh (s/v)	2	1	17	15	2	
Queue Delay / Veh (s/v)	0	0	0	0	0	
Total Delay / Veh (s/v)	2	1	17	15	2	
Total Delay (hr)	0	0	0	0	1	
Stops / Veh	0.13	0.09	1.00	0.82	0.13	
Stops (#)	91	40	9	9	149	
Average Speed (mph)	29	29	18	18	29	
Total Travel Time (hr)	9	5	0	0	14	
Distance Traveled (mi)	252	152	2	2	408	
Fuel Consumed (gal)	11	7	0	0	18	
Fuel Economy (mpg)	22.6	23.1	NA	NA	22.6	
CO Emissions (kg)	0.78	0.46	0.01	0.01	1.26	
NOx Emissions (kg)	0.15	0.09	0.00	0.00	0.25	
VOC Emissions (kg)	0.18	0.11	0.00	0.00	0.29	
Unserved Vehicles (#)	0	0	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	0	0	

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Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Configurations		सीके		सी के	4	4
Traffic Volume (vph)	1	208	5	335	0	0
Future Volume (vph)	1	208	5	335	0	0
Turn Type	Perm	NA	Perm	NA	NA	NA
Protected Phases		2		6	4	8
Permitted Phases	2		6			
Detector Phase	2	2	6	6	4	8
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	5.0
Minimum Split (s)	20.5	20.5	20.5	20.5	23.5	23.5
Total Split (s)	21.5	21.5	21.5	21.5	23.5	23.5
Total Split (%)	47.8%	47.8%	47.8%	47.8%	52.2%	52.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	1.0	0.0	0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5	4.5
Lead/Lag		1.0		1.0	1.0	1.0
Lead-Lag Optimize?						
Recall Mode	Min	Min	Min	Min	None	None
Act Effct Green (s)	171111	29.5	441111	29.5	5.6	5.6
Actuated g/C Ratio		0.93		0.93	0.18	0.18
v/c Ratio		0.07		0.12	0.10	0.10
Control Delay		1.1		1.1	0.0	0.0
Queue Delay		0.0		0.0	0.0	0.0
Total Delay		1.1		1.1	0.0	0.0
LOS		Α		Α	0.0 A	Α
Approach Delay		1.1		1.1		
Approach LOS		Α		Α		
•						
Intersection Summary						
Cycle Length: 45						
Actuated Cycle Length: 31.8	3					
Natural Cycle: 45						
Control Type: Actuated-Unc	coordinated					
Maximum v/c Ratio: 0.12						
Intersection Signal Delay: 1.	.1			Ir	ntersectio	n LOS: A
Intersection Capacity Utiliza				10	CU Level	of Service
Analysis Period (min) 15						

Splits and Phases: 3: Upton Avenue & 76th Street



Direction	EB	WB	NB	SB	All	
Future Volume (vph)	209	343	8	6	566	
Control Delay / Veh (s/v)	1	1	0	0	1	
Queue Delay / Veh (s/v)	0	0	0	0	0	
Total Delay / Veh (s/v)	1	1	0	0	1	
Total Delay (hr)	0	0	0	0	0	
Stops / Veh	0.11	0.11	0.00	0.00	0.11	
Stops (#)	24	39	0	0	63	
Average Speed (mph)	29	29	30	30	29	
Total Travel Time (hr)	2	4	0	0	7	
Distance Traveled (mi)	72	124	2	1	199	
Fuel Consumed (gal)	3	5	0	0	9	
Fuel Economy (mpg)	22.9	23.0	NA	NA	23.0	
CO Emissions (kg)	0.22	0.38	0.00	0.00	0.61	
NOx Emissions (kg)	0.04	0.07	0.00	0.00	0.12	
VOC Emissions (kg)	0.05	0.09	0.00	0.00	0.14	
Unserved Vehicles (#)	0	0	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	0	0	

Network Totals

Number of Intersections	1
Control Delay / Veh (s/v)	1
Queue Delay / Veh (s/v)	0
Total Delay / Veh (s/v)	1
Total Delay (hr)	0
Stops / Veh	0.11
Stops (#)	63
Average Speed (mph)	29
Total Travel Time (hr)	7
Distance Traveled (mi)	199
Fuel Consumed (gal)	9
Fuel Economy (mpg)	23.0
CO Emissions (kg)	0.61
NOx Emissions (kg)	0.12
VOC Emissions (kg)	0.14
Unserved Vehicles (#)	0
Vehicles in dilemma zone (#)	0
Performance Index	0.3

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Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	
Lane Configurations		र्सी		414		4		4	
Traffic Volume (vph)	15	711	2	410	2	3	3	1	
Future Volume (vph)	15	711	2	410	2	3	3	1	
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA	
Protected Phases		2		6		4		8	
Permitted Phases	2		6		4		8		
Detector Phase	2	2	6	6	4	4	8	8	
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	20.5	20.5	20.5	20.5	23.5	23.5	23.5	23.5	
Total Split (s)	21.5	21.5	21.5	21.5	23.5	23.5	23.5	23.5	
Total Split (%)	47.8%	47.8%	47.8%	47.8%	52.2%	52.2%	52.2%	52.2%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0		0.0		0.0		0.0	
Total Lost Time (s)		4.5		4.5		4.5		4.5	
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	Min	Min	Min	Min	None	None	None	None	
Act Effct Green (s)		31.2		31.2		5.8		5.8	
Actuated g/C Ratio		0.92		0.92		0.17		0.17	
v/c Ratio		0.26		0.15		0.03		0.04	
Control Delay		1.5		1.2		11.6		10.6	
Queue Delay		0.0		0.0		0.0		0.0	
Total Delay		1.5		1.2		11.6		10.6	
LOS		Α		Α		В		В	
Approach Delay		1.5		1.2		11.6		10.6	
Approach LOS		Α		Α		В		В	
Intersection Summary									

Cycle Length: 45

Actuated Cycle Length: 33.8

Natural Cycle: 45

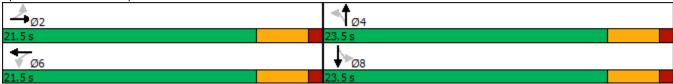
Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.26

Intersection Signal Delay: 1.5 Intersection Capacity Utilization 42.1% Intersection LOS: A ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 3: Upton Avenue & 76th Street



Direction	EB	WB	NB	SB	All	
Future Volume (vph)	727	422	9	11	1169	
Control Delay / Veh (s/v)	1	1	12	11	2	
Queue Delay / Veh (s/v)	0	0	0	0	0	
Total Delay / Veh (s/v)	1	1	12	11	2	
Total Delay (hr)	0	0	0	0	1	
Stops / Veh	0.13	0.12	1.11	0.91	0.14	
Stops (#)	96	51	10	10	167	
Average Speed (mph)	29	29	21	20	29	
Total Travel Time (hr)	9	5	0	0	14	
Distance Traveled (mi)	252	152	2	2	408	
Fuel Consumed (gal)	11	7	0	0	18	
Fuel Economy (mpg)	22.7	22.9	NA	NA	22.6	
CO Emissions (kg)	0.78	0.47	0.01	0.01	1.26	
NOx Emissions (kg)	0.15	0.09	0.00	0.00	0.25	
VOC Emissions (kg)	0.18	0.11	0.00	0.00	0.29	
Unserved Vehicles (#)	0	0	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	0	0	

Network Totals

Number of Intersections	1
Control Delay / Veh (s/v)	2
Queue Delay / Veh (s/v)	0
Total Delay / Veh (s/v)	2
Total Delay (hr)	1
Stops / Veh	0.14
Stops (#)	167
Average Speed (mph)	29
Total Travel Time (hr)	14
Distance Traveled (mi)	408
Fuel Consumed (gal)	18
Fuel Economy (mpg)	22.6
CO Emissions (kg)	1.26
NOx Emissions (kg)	0.25
VOC Emissions (kg)	0.29
Unserved Vehicles (#)	0
Vehicles in dilemma zone (#)	0
Performance Index	1.0

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Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Configurations	ሻ	f)	ሻ	ą.	4	4
Traffic Volume (vph)	1	208	5	335	0	0
Future Volume (vph)	1	208	5	335	0	0
Turn Type	Perm	NA	Perm	NA	NA	NA
Protected Phases		2		6	4	8
Permitted Phases	2		6			
Detector Phase	2	2	6	6	4	8
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	Min	Min	None	None
Act Effct Green (s)	28.3	28.3	28.3	28.3	5.7	5.7
Actuated g/C Ratio	0.93	0.93	0.93	0.93	0.19	0.19
v/c Ratio	0.00	0.13	0.00	0.21	0.01	0.01
Control Delay	2.0	1.2	1.4	1.4	0.0	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	2.0	1.2	1.4	1.4	0.0	0.0
LOS	Α	Α	Α	Α	Α	Α
Approach Delay		1.2		1.4		
Approach LOS		Α		Α		
Intersection Summary						
Cycle Length: 15						

Cycle Length: 45

Actuated Cycle Length: 30.3

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

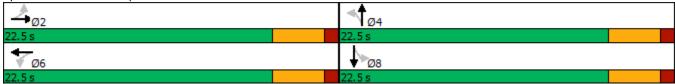
Maximum v/c Ratio: 0.21

Intersection Signal Delay: 1.3
Intersection Capacity Utilization 29.5%

Intersection LOS: A ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 3: Upton Avenue & 76th Street



Direction	EB	WB	NB	SB	All	
Future Volume (vph)	209	344	8	6	567	
Control Delay / Veh (s/v)	1	1	0	0	1	
Queue Delay / Veh (s/v)	0	0	0	0	0	
Total Delay / Veh (s/v)	1	1	0	0	1	
Total Delay (hr)	0	0	0	0	0	
Stops / Veh	0.12	0.13	0.00	0.00	0.12	
Stops (#)	26	44	0	0	70	
Average Speed (mph)	29	29	30	30	29	
Total Travel Time (hr)	2	4	0	0	7	
Distance Traveled (mi)	72	124	2	1	199	
Fuel Consumed (gal)	3	5	0	0	9	
Fuel Economy (mpg)	22.8	22.8	NA	NA	22.8	
CO Emissions (kg)	0.22	0.38	0.00	0.00	0.61	
NOx Emissions (kg)	0.04	0.07	0.00	0.00	0.12	
VOC Emissions (kg)	0.05	0.09	0.00	0.00	0.14	
Unserved Vehicles (#)	0	0	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	0	0	

Network Totals

Number of Intersections	1
Control Delay / Veh (s/v)	1
Queue Delay / Veh (s/v)	0
Total Delay / Veh (s/v)	1
Total Delay (hr)	0
Stops / Veh	0.12
Stops (#)	70
Average Speed (mph)	29
Total Travel Time (hr)	7
Distance Traveled (mi)	199
Fuel Consumed (gal)	9
Fuel Economy (mpg)	22.8
CO Emissions (kg)	0.61
NOx Emissions (kg)	0.12
VOC Emissions (kg)	0.14
Unserved Vehicles (#)	0
Vehicles in dilemma zone (#)	0
Performance Index	0.4

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Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	
Lane Configurations	7	ĵ»	7	f)		4		4	
Traffic Volume (vph)	15	711	2	410	2	3	3	1	
Future Volume (vph)	15	711	2	410	2	3	3	1	
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA	
Protected Phases		2		6		4		8	
Permitted Phases	2		6		4		8		
Detector Phase	2	2	6	6	4	4	8	8	
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	
Total Split (s)	37.5	37.5	37.5	37.5	22.5	22.5	22.5	22.5	
Total Split (%)	62.5%	62.5%	62.5%	62.5%	37.5%	37.5%	37.5%	37.5%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5	
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	Min	Min	Min	Min	None	None	None	None	
Act Effct Green (s)	37.2	37.2	37.2	37.2		6.2		6.2	
Actuated g/C Ratio	0.95	0.95	0.95	0.95		0.16		0.16	
v/c Ratio	0.02	0.44	0.00	0.26		0.04		0.04	
Control Delay	1.1	2.0	1.0	1.3		16.6		15.2	
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0	
Total Delay	1.1	2.0	1.0	1.3		16.6		15.2	
LOS	Α	Α	Α	Α		В		В	
Approach Delay		2.0		1.3		16.6		15.2	
Approach LOS		Α		Α		В		В	
1.1									

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 39.1

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.44 Intersection Signal Delay: 2.0 Intersection Capacity Utilization 49.1%

Intersection LOS: A ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 3: Upton Avenue & 76th Street



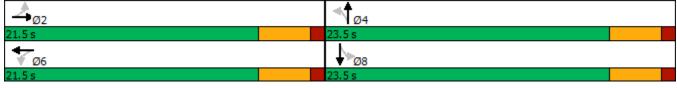
Direction	EB	WB	NB	SB	All	
Future Volume (vph)	727	422	9	11	1169	
Control Delay / Veh (s/v)	2	1	17	15	2	
Queue Delay / Veh (s/v)	0	0	0	0	0	
Total Delay / Veh (s/v)	2	1	17	15	2	
Total Delay (hr)	0	0	0	0	1	
Stops / Veh	0.13	0.09	1.00	0.82	0.13	
Stops (#)	91	40	9	9	149	
Average Speed (mph)	29	29	18	18	29	
Total Travel Time (hr)	9	5	0	0	14	
Distance Traveled (mi)	252	152	2	2	408	
Fuel Consumed (gal)	11	7	0	0	18	
Fuel Economy (mpg)	22.6	23.1	NA	NA	22.6	
CO Emissions (kg)	0.78	0.46	0.01	0.01	1.26	
NOx Emissions (kg)	0.15	0.09	0.00	0.00	0.25	
VOC Emissions (kg)	0.18	0.11	0.00	0.00	0.29	
Unserved Vehicles (#)	0	0	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	0	0	

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Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Configurations		414		413-	4	4
Traffic Volume (vph)	1	208	5	335	0	0
Future Volume (vph)	1	208	5	335	0	0
Turn Type	Perm	NA	Perm	NA	NA	NA
Protected Phases		2		6	4	8
Permitted Phases	2		6			
Detector Phase	2	2	6	6	4	8
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	5.0
Minimum Split (s)	20.5	20.5	20.5	20.5	23.5	23.5
Total Split (s)	21.5	21.5	21.5	21.5	23.5	23.5
Total Split (%)	47.8%	47.8%	47.8%	47.8%	52.2%	52.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5	4.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	Min	Min	None	None
Act Effct Green (s)		29.5		29.5	5.6	5.6
Actuated g/C Ratio		0.93		0.93	0.18	0.18
v/c Ratio		0.07		0.12	0.01	0.01
Control Delay		1.1		1.1	0.0	0.0
Queue Delay		0.0		0.0	0.0	0.0
Total Delay		1.1		1.1	0.0	0.0
LOS		Α		Α	Α	Α
Approach Delay		1.1		1.1		
Approach LOS		Α		Α		
Intersection Summary						
Cycle Length: 45						
Actuated Cycle Length: 31.8						
Natural Cycle: 45						
Control Type: Actuated-Unco	oordinated	7				
Maximum v/c Ratio: 0.12						

Intersection Signal Delay: 1.1 Intersection Capacity Utilization 24.6% Intersection LOS: A ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 3: Upton Avenue & 76th Street



Direction	EB	WB	NB	SB	All	
Future Volume (vph)	209	343	8	6	566	
Control Delay / Veh (s/v)	1	1	0	0	1	
Queue Delay / Veh (s/v)	0	0	0	0	0	
Total Delay / Veh (s/v)	1	1	0	0	1	
Total Delay (hr)	0	0	0	0	0	
Stops / Veh	0.11	0.11	0.00	0.00	0.11	
Stops (#)	24	39	0	0	63	
Average Speed (mph)	29	29	30	30	29	
Total Travel Time (hr)	2	4	0	0	7	
Distance Traveled (mi)	72	124	2	1	199	
Fuel Consumed (gal)	3	5	0	0	9	
Fuel Economy (mpg)	22.9	23.0	NA	NA	23.0	
CO Emissions (kg)	0.22	0.38	0.00	0.00	0.61	
NOx Emissions (kg)	0.04	0.07	0.00	0.00	0.12	
VOC Emissions (kg)	0.05	0.09	0.00	0.00	0.14	
Unserved Vehicles (#)	0	0	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	0	0	

Network Totals

Number of Intersections	1
Control Delay / Veh (s/v)	1
Queue Delay / Veh (s/v)	0
Total Delay / Veh (s/v)	1
Total Delay (hr)	0
Stops / Veh	0.11
Stops (#)	63
Average Speed (mph)	29
Total Travel Time (hr)	7
Distance Traveled (mi)	199
Fuel Consumed (gal)	9
Fuel Economy (mpg)	23.0
CO Emissions (kg)	0.61
NOx Emissions (kg)	0.12
VOC Emissions (kg)	0.14
Unserved Vehicles (#)	0
Vehicles in dilemma zone (#)	0
Performance Index	0.3

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Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	
Lane Configurations		र्सी		414		4		4	
Traffic Volume (vph)	15	711	2	410	2	3	3	1	
Future Volume (vph)	15	711	2	410	2	3	3	1	
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA	
Protected Phases		2		6		4		8	
Permitted Phases	2		6		4		8		
Detector Phase	2	2	6	6	4	4	8	8	
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	20.5	20.5	20.5	20.5	23.5	23.5	23.5	23.5	
Total Split (s)	21.5	21.5	21.5	21.5	23.5	23.5	23.5	23.5	
Total Split (%)	47.8%	47.8%	47.8%	47.8%	52.2%	52.2%	52.2%	52.2%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0		0.0		0.0		0.0	
Total Lost Time (s)		4.5		4.5		4.5		4.5	
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	Min	Min	Min	Min	None	None	None	None	
Act Effct Green (s)		31.2		31.2		5.8		5.8	
Actuated g/C Ratio		0.92		0.92		0.17		0.17	
v/c Ratio		0.26		0.15		0.03		0.04	
Control Delay		1.5		1.2		11.6		10.6	
Queue Delay		0.0		0.0		0.0		0.0	
Total Delay		1.5		1.2		11.6		10.6	
LOS		Α		Α		В		В	
Approach Delay		1.5		1.2		11.6		10.6	
Approach LOS		Α		Α		В		В	
Intersection Summary									

Cycle Length: 45

Actuated Cycle Length: 33.8

Natural Cycle: 45

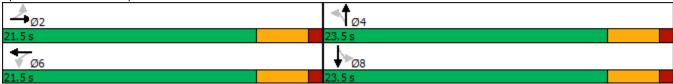
Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.26

Intersection Signal Delay: 1.5 Intersection Capacity Utilization 42.1% Intersection LOS: A ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 3: Upton Avenue & 76th Street



Direction	EB	WB	NB	SB	All	
Future Volume (vph)	727	422	9	11	1169	
Control Delay / Veh (s/v)	1	1	12	11	2	
Queue Delay / Veh (s/v)	0	0	0	0	0	
Total Delay / Veh (s/v)	1	1	12	11	2	
Total Delay (hr)	0	0	0	0	1	
Stops / Veh	0.13	0.12	1.11	0.91	0.14	
Stops (#)	96	51	10	10	167	
Average Speed (mph)	29	29	21	20	29	
Total Travel Time (hr)	9	5	0	0	14	
Distance Traveled (mi)	252	152	2	2	408	
Fuel Consumed (gal)	11	7	0	0	18	
Fuel Economy (mpg)	22.7	22.9	NA	NA	22.6	
CO Emissions (kg)	0.78	0.47	0.01	0.01	1.26	
NOx Emissions (kg)	0.15	0.09	0.00	0.00	0.25	
VOC Emissions (kg)	0.18	0.11	0.00	0.00	0.29	
Unserved Vehicles (#)	0	0	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	0	0	

Network Totals

Number of Intersections	1
Control Delay / Veh (s/v)	2
Queue Delay / Veh (s/v)	0
Total Delay / Veh (s/v)	2
Total Delay (hr)	1
Stops / Veh	0.14
Stops (#)	167
Average Speed (mph)	29
Total Travel Time (hr)	14
Distance Traveled (mi)	408
Fuel Consumed (gal)	18
Fuel Economy (mpg)	22.6
CO Emissions (kg)	1.26
NOx Emissions (kg)	0.25
VOC Emissions (kg)	0.29
Unserved Vehicles (#)	0
Vehicles in dilemma zone (#)	0
Performance Index	1.0

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Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Configurations	ሻ	f)	ሻ	ą.	4	4
Traffic Volume (vph)	1	208	5	335	0	0
Future Volume (vph)	1	208	5	335	0	0
Turn Type	Perm	NA	Perm	NA	NA	NA
Protected Phases		2		6	4	8
Permitted Phases	2		6			
Detector Phase	2	2	6	6	4	8
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	Min	Min	None	None
Act Effct Green (s)	28.3	28.3	28.3	28.3	5.7	5.7
Actuated g/C Ratio	0.93	0.93	0.93	0.93	0.19	0.19
v/c Ratio	0.00	0.13	0.00	0.21	0.01	0.01
Control Delay	2.0	1.2	1.4	1.4	0.0	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	2.0	1.2	1.4	1.4	0.0	0.0
LOS	Α	Α	Α	Α	Α	Α
Approach Delay		1.2		1.4		
Approach LOS		Α		Α		
Intersection Summary						
Cycle Length: 15						

Cycle Length: 45

Actuated Cycle Length: 30.3

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

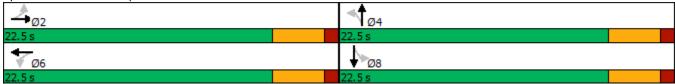
Maximum v/c Ratio: 0.21

Intersection Signal Delay: 1.3
Intersection Capacity Utilization 29.5%

Intersection LOS: A ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 3: Upton Avenue & 76th Street



Direction	EB	WB	NB	SB	All	
Future Volume (vph)	209	344	8	6	567	
Control Delay / Veh (s/v)	1	1	0	0	1	
Queue Delay / Veh (s/v)	0	0	0	0	0	
Total Delay / Veh (s/v)	1	1	0	0	1	
Total Delay (hr)	0	0	0	0	0	
Stops / Veh	0.12	0.13	0.00	0.00	0.12	
Stops (#)	26	44	0	0	70	
Average Speed (mph)	29	29	30	30	29	
Total Travel Time (hr)	2	4	0	0	7	
Distance Traveled (mi)	72	124	2	1	199	
Fuel Consumed (gal)	3	5	0	0	9	
Fuel Economy (mpg)	22.8	22.8	NA	NA	22.8	
CO Emissions (kg)	0.22	0.38	0.00	0.00	0.61	
NOx Emissions (kg)	0.04	0.07	0.00	0.00	0.12	
VOC Emissions (kg)	0.05	0.09	0.00	0.00	0.14	
Unserved Vehicles (#)	0	0	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	0	0	

Network Totals

Number of Intersections	1
Control Delay / Veh (s/v)	1
Queue Delay / Veh (s/v)	0
Total Delay / Veh (s/v)	1
Total Delay (hr)	0
Stops / Veh	0.12
Stops (#)	70
Average Speed (mph)	29
Total Travel Time (hr)	7
Distance Traveled (mi)	199
Fuel Consumed (gal)	9
Fuel Economy (mpg)	22.8
CO Emissions (kg)	0.61
NOx Emissions (kg)	0.12
VOC Emissions (kg)	0.14
Unserved Vehicles (#)	0
Vehicles in dilemma zone (#)	0
Performance Index	0.4

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Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	
Lane Configurations	7	ĵ»	7	f)		4		4	
Traffic Volume (vph)	15	711	2	410	2	3	3	1	
Future Volume (vph)	15	711	2	410	2	3	3	1	
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA	
Protected Phases		2		6		4		8	
Permitted Phases	2		6		4		8		
Detector Phase	2	2	6	6	4	4	8	8	
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	
Total Split (s)	37.5	37.5	37.5	37.5	22.5	22.5	22.5	22.5	
Total Split (%)	62.5%	62.5%	62.5%	62.5%	37.5%	37.5%	37.5%	37.5%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5	
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	Min	Min	Min	Min	None	None	None	None	
Act Effct Green (s)	37.2	37.2	37.2	37.2		6.2		6.2	
Actuated g/C Ratio	0.95	0.95	0.95	0.95		0.16		0.16	
v/c Ratio	0.02	0.44	0.00	0.26		0.04		0.04	
Control Delay	1.1	2.0	1.0	1.3		16.6		15.2	
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0	
Total Delay	1.1	2.0	1.0	1.3		16.6		15.2	
LOS	Α	Α	Α	Α		В		В	
Approach Delay		2.0		1.3		16.6		15.2	
Approach LOS		Α		Α		В		В	
1.1									

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 39.1

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.44 Intersection Signal Delay: 2.0 Intersection Capacity Utilization 49.1%

Intersection LOS: A ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 3: Upton Avenue & 76th Street



Direction	EB	WB	NB	SB	All	
Future Volume (vph)	727	422	9	11	1169	
Control Delay / Veh (s/v)	2	1	17	15	2	
Queue Delay / Veh (s/v)	0	0	0	0	0	
Total Delay / Veh (s/v)	2	1	17	15	2	
Total Delay (hr)	0	0	0	0	1	
Stops / Veh	0.13	0.09	1.00	0.82	0.13	
Stops (#)	91	40	9	9	149	
Average Speed (mph)	29	29	18	18	29	
Total Travel Time (hr)	9	5	0	0	14	
Distance Traveled (mi)	252	152	2	2	408	
Fuel Consumed (gal)	11	7	0	0	18	
Fuel Economy (mpg)	22.6	23.1	NA	NA	22.6	
CO Emissions (kg)	0.78	0.46	0.01	0.01	1.26	
NOx Emissions (kg)	0.15	0.09	0.00	0.00	0.25	
VOC Emissions (kg)	0.18	0.11	0.00	0.00	0.29	
Unserved Vehicles (#)	0	0	0	0	0	
Vehicles in dilemma zone (#)	0	0	0	0	0	

Traffic Safety Benefit-Cost Calculation





Highway S	afety Impr	ovement Pro	ogram (H	SIP) Reactive	Project		THAINST GI	
A. Roadwa	ay Descrip	tion						
Route	76th St		District	Metro		County	Hennepin	
Begin RP			End RP			Miles	0.300	
Location	City of Rich	ifield, 76th St	reet from	York Avenue	to Sheridan	Avenue		
B. Project	Description	on						
Proposed '	•		4-3 lane c	onversion, sig	nal replacer	ment, light	ing and pedestrian imp	rovements
Project Co		\$5,790,000			Installation		2025	
Project Se		40 years			Traffic Gro	wth Factor	1.0%	
· ·		from Project C	ost					
		, ,						
C. Crash N								
0.53	Fatal (K) Cra			Reference	•	_	roadways to three-land	
0.53	•	ry (A) Crashe				i center tui	rn lane (road diet) (ID: 2	2841)
0.53		njury (B) Crasl		Crash Type	All			
0.53		ury (C) Crashe					CME	al .
0.53	Property Da	amage Only Cı	ashes				www.CMFclearir	nghouse.org
D. Crash M	Modificatio	on Factor (o	ptional s	econd CMF)				
	Fatal (K) Cra	ashes		Reference				
	Serious Inju	ıry (A) Crashe	5	_				
	Moderate Injury (B) Crashes			Crash Type				
	Possible Injury (C) Crashes							
Property Damage Only Crashes						www.CMFclearin	nghouse.org	
E. Crash D	ata							
Begin Date		1/1/2020		End Date		12/31/202	2	3 years
Data Sour		MnCMAT2		_	-		<u>-</u>	<i>y</i> ,
	Crash Se	•		All		< 0	ptional 2nd CMF >	
	K crashe	-		0			•	
	A crashe	25		0				
	B crashe	25		0				
	C crashe	25		1				
	PDO cra	shes		0				
	L							_
E Dama G	Coat Colo	.lation						
F. Benefit-			Ponofit (==	ocent value				
	\$650,523 \$5,790,000		senent (pr Cost	esent value)		B/C	Ratio = 0.12	
	,,,,90,000	,	COSC					

Proposed project expected to reduce 1 crashes annually, o of which involving fatality or serious injury.

F. Analysis Assumptions

Crash Severity	Crash Cost
K crashes	\$1,600,000
A crashes	\$800,000
B crashes	\$250,000
C crashes	\$130,000
PDO crashes	\$15,000

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

Real Discount Rate:0.8%DefaultTraffic Growth Rate:1.0%RevisedProject Service Life:40 yearsRevised

G. Annual Benefit

Crash Severity	Crash Reduction	Annual Reduction	Annual Benefit
K crashes	0.00	0.00	\$O
A crashes	0.00	0.00	\$O
B crashes	0.00	0.00	\$O
C crashes	0.47	0.16	\$20,367
PDO crashes	0.00	0.00	\$O

\$20,367

_			
H. Amortize	ed Benefit		
<u>Year</u>	Crash Benefits	Present Value	
2025	\$20,367	\$20,367	Total = \$650,523
2026	\$20,570	\$20,407	
2027	\$20,776	\$20,448	
2028	\$20,984	\$20,488	
2029	\$21,194	\$20,529	
2030	\$21,406	\$20,570	
2031	\$21,620	\$20,610	
2032	\$21,836	\$20,651	
2033	\$22,054	\$20,692	
2034	\$22,275	\$20,733	
2035	\$22,497	\$20,774	
2036	\$22,722	\$20,816	
2037	\$22,950	\$20,857	
2038	\$23,179	\$20,898	
2039	\$23,411	\$20,940	
2040	\$23,645	\$20,981	
2041	\$23,882	\$21,023	
2042	\$24,120	\$21,065	
2043	\$24,362	\$21,106	
2044	\$24,605	\$21,148	
2045	\$24,851	\$21,190	
2046	\$25,100	\$21,232	
2047	\$25,351	\$21,274	
2048	\$25,604	\$21,317	
2049	\$25,860	\$21,359	
2050	\$26,119	\$21,401	
2051	\$26,380	\$21,444	
2052	\$26,644	\$21,486	NOTE:
2053	\$26,910	\$21,529	This calculation relies on the real discount rate, which accounts
2054	\$27,179	\$21,572	for inflation. No further discounting is necessary.
2055	\$27,451	\$21,615	



CMF / CRF Details

CMF ID: 2841

CMF Name: Converting four-lane roadways to three-lane roadways with center

Description: Conversion of road segments from a four-lane to a three-lane cros

Prior Condition: Four-lane undivided roadway

Category: Roadway

Study ID: <u>Comparison of empirical Bayes and full Bayes approaches for before-after road safety evaluations</u>, <u>Persaud et. al 2010</u>

Star Quality Rating

5 Stars **Star Quality Rating:**

Crash Modification Factor (CMF)

Value: 0.53

Adjusted Standard Error:

Unadjusted Standard Error: 0.02

Crash Reduction Factor

Value: 47

Adjusted Standard Error:

Unadjusted Standard Error: 2

	Applicability
Crash Type:	All
Crash Severity:	All
Roadway Types:	Not Specified
Minimum Number of Lanes:	4
Maximum Number of Lanes:	4
Number of Lanes Direction:	
Number of Lanes Comment:	
Road Division Type:	Undivided
Minimum Speed Limit:	
Maximum Speed Limit:	
Speed Unit:	
Speed Limit Comment:	
Area Type:	Urban and suburban
Traffic Volume:	
Average Traffic Volume:	
Time of Day:	All
	If countermeasure is intersection-based.
Intersection Type:	
Intersection Geometry:	
Traffic Control:	
Major Road Traffic Volume:	
Minor Road Traffic Volume:	

Average Major Road Volume:	
Average Minor Road Volume:	

Development Details							
Date Range of Data Used:	1982 to 2004						
Municipality:							
State:							
Country:							
Type of Methodology Used:	Before/after using empirical Bayes or full Bayes						

	Other Details
Included in HSM:	No
Date Added to Clearinghouse:	Mar 21, 2011
Comments:	When this CMF was initially entered in the Clearinghouse, it was incorrectly entered as a CMF of 0.47. In March 2015, this was corrected to be 0.53, as presented in the original paper. In February 2021, the area type for this CMF
	was changed from suburban to urban/suburban to account for the fact that the treatment sites were largely located in small urban areas.

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

The information contained in the Crash Modification Factors (CMF) Clearinghouse is disseminated under the sponsorship of the U.S. Department of Transportation in the interest of information exchange. The U.S. Government assumes no liability for the use of the information contained in the CMF Clearinghouse. The information contained in the CMF Clearinghouse does not constitute a standard, specification, or regulation, nor is it a substitute for sound engineering judgment.



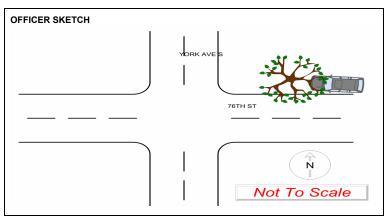
Crash Detail Report - Short Form 76th- York to Xerxes

[1			1	
INCIDENT ID R	ROUTE SYS	ROUTE NUM	MEAS	SURE	ROUTE NA	AME		ROUTE ID	1	COUNTY	CIT	Υ
00842289 0	5-MSAS	0136	2.249	9	W 76TH 9	ST		0500023946	210136-I	27-Hennepin	Edi	ina
INTERSECT WITH			# VEH	# KILL	DATE	TIME	DAY	LAT	LONG	UTM X	UTM Y	WORK ZONE TYPE
			1	0	09/23/20	02:05	Wed	44.865514	-93.32080	7 474657.0	4968060.0	NOT APPLICABLE
BASIC TYPE		CRASH S	EVERITY	,	FIRST	HARMFU	JL			LIGHT CONDI	TION	WEATHER PRIMARY
Single Vehicle Ru	un Off Road	B - Minor	Iniurv		Stand	lina Tree	/Shrub	berv		Dark (Str Lic	ıhts On)	Clear

Unit Type
Vehicle Type
Direction of Travel
Maneuver
Age/Sex
Physical Cond
Contributing Factor 1

Unit 1 Unit 2 Unit 3 Unit 4

Motor Vehicle in Transport
Sport Utility Vehicle
Westbound
Moving Forward



NARRATIVE

REPORT OF A SINGLE VEHICLE CRASH INTO A TREE. VEHICLE LEFT ROADWAY AS IT WAS WESTBOUND ON 76TH ST APPROACHING YORK AVE AND STRUCK A TREE. UPON OFFICER ARRIVAL, VEHICLE UNOCCUPIED. PARTY LOCATED IN THE AREA WHO ADMITTED TO BEING IN THE VEHICLE BUT DENIED DRIVING. FACIAL INJURIES. TRANSPORTED TO THE HOSPITAL.

Unit 3

INCIDENT ID	ROUTE SYS	ROUTE NUM	MEAS	SURE	ROUTE NA	AME		ROUTE ID		COUNTY		CITY	•
01036206	05-MSAS	0136	2.25	3	W 76TH	ST		0500023946	210136-I	27-Hennepi	1	Edir	na
INTERSECT WIT	Ĥ		# VEH	# KILL	DATE	TIME	DAY	LAT	LONG	UTM X	UTM Y		WORK ZONE TYPE
W 76TH ST			2	0	07/26/22	17:12	Tue	44.865514	-93.32065	6 474668.	9 49680	60.0	NOT APPLICABLE
BASIC TYPE		CRASH S	SH SEVERITY FIRST HARMFUL					-	-	LIGHT CO	NDITION		WEATHER PRIMARY
Rear End		C - Poss	ible Inju	ry	Motor	· Vehicle	In Tra	nsport		Daylight			Cloudy

Unit Type
Vehicle Type
Direction of Travel
Maneuver
Age/Sex
Physical Cond
Contributing Factor 1

Unit 1
Motor Vehicle in Transport
Medium / Heavy Trucks (More
Eastbound
Moving Forward
42 M

Apparently Normal

Driver Distracted

Unit 2
Motor Vehicle in Transport
Passenger Van (Seats Installe
Eastbound
Turning Right
44 F
Asleep or Fatigued
No Clear Contributing Action

NAPPATIVE

OFFICER SKETCH

W 76th St

3209 W 76th St

3209 W 76th St



UNIT 1 AND UNIT 2 WERE EASTBOUND ON 76TH ST. VEHICLE 2 WAS MAKING RIGHT TURN INTO 3209 W 76TH ST. ACCORDING TO DRIVER OF UNIT 1 HE WAS LOOKING AHEAD DOWN THE ROAD WHERE A VEHICLE CUT OFF ANOTHER VEHICLE ANTICIPATING TRAFFIC SLOWING. DRIVER OF UNIT 1 DID NOT SEE UNIT 2 DUE TO DISTRACTION OF THE OTHER VEHICLES AND UNIT 1 STRUCK THE REAR OF UNIT 2, CAUSING UNIT 2 TO GO OFF ROADWAY ONTO GRASS AREA. UNIT 2 WAS ABLE TO BE DRIVEN OFF THE GRASS AND PARKED WHILE DRIVER OF UNIT 2 CONTACTED A TOW. DUE TO UNIT 1 BEING A SEMI I (OFFICER THOMAS OLSON) CONTACTED MINNESOTA STATE PATROL (MSP) AND SPOKE WITH A COMMERCIAL VEHICLE INSPECTOR (CVI), BADGE 583. AFTER REVIEWING THIS ACCIDENT WITH CVI 583 HE ADVISED THAT HE WOULD WAIVE ANY INSPECTIONS. DRIVER OF UNIT 2 COMPLAINED OF SOME STIFFNESS BUT REFUSED AN AMBULANCE AND STATED SHE MAY GET CHECKED LATER.

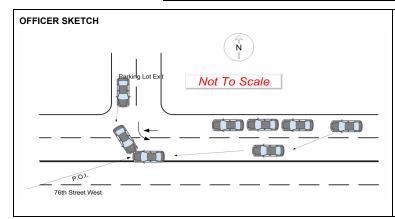
Unit 4



Crash Detail Report - Short Form 76th- York to Xerxes

INCIDENT ID	ROUTE SYS	ROUTE NUM	MEAS	SURE	ROUTE N	AME		ROUTE ID		COUNTY	C	CITY
01002583	05-MSAS	0136	2.292	2	W 76TH	ST		0500023946	210136-I	27-Hennepin	E	Edina
INTERSECT WIT	Ή		# VEH	# KILL	DATE	TIME	DAY	LAT	LONG	UTM X	UTM Y	WORK ZONE TYPE
			2	0	01/17/22	15:39	Mon	44.865512	-93.31993	7 474725.8	4968059	0.6 NOT APPLICABLE
BASIC TYPE		CRASH S	EVERITY		FIRST	HARMFU	JL.			LIGHT COND	ITION	WEATHER PRIMARY
Sideswipe Opr	osina	N - Prop	Damag	e Onlv	Moto	r Vehicle	In Trai	nsport		Davlight		Clear

	Unit 1	Unit 2	Unit 3	Unit 4
Unit Type	Motor Vehicle in Transport	Motor Vehicle in Transport		
Vehicle Type	Passenger Car	Passenger Car		
Direction of Travel	Southbound	Westbound		
Maneuver	Turning Left	Moving Forward		
Age/Sex	17 F	49 F		
Physical Cond	Apparently Normal	Apparently Normal		
Contributing Factor 1	Failure to Yield Right-of-Way	No Clear Contributing Action		



NARRATIVE

UNIT 1 PULLING OUT OF PARKING LOT TO GO EAST. UNIT 2 WAS BEHIND LINE OF CARS STOPPED FOR TRAFFIC. UNIT 2 MOVED FROM RIGHT LANE TO LEFT LANE TO GO AROUND CARS. UNIT 1 WENT INTO LANES OF TRAFFIC. UNIT 2 WAS IN LANES OF TRAFFIC. UNIT 1 STRUCK UNIT 2.

Selection Filter:

WORK AREA: County('659472') - FILTER: Year('2020','2021','2022') - SPATIAL FILTER APPLIED

Analyst: Notes:

Mallori Fitzpatrick 2020-2022

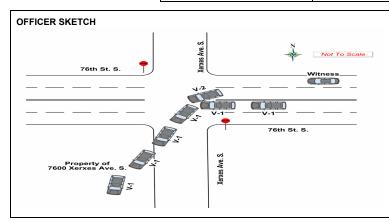


Crash Detail Report - Short Form

76th St- Xerxes to Sheridan

INCIDENT ID	ROUTE SYS	ROUTE NUM	MEAS	SURE	ROUTE NA	ME		ROUTE ID		COUNTY	CI	ITY
00931808	05-MSAS	0136	2.34	3	W 76TH 9	ST		0500023946	210136-I	27-Hennepin	E	dina
INTERSECT WITH			# VEH	# KILL	DATE	TIME	DAY	LAT	LONG	UTM X	UTM Y	WORK ZONE TYPE
XERXES AVE			2	0	08/02/21	15:35	Mon	44.865510	-93.31890	2 474807.6	4968059.	.0 NOT APPLICABLE
BASIC TYPE		CRASH SE	VERITY	,	FIRST	HARMFU	JL.			LIGHT CONDI	TION	WEATHER PRIMARY
Sideswipe Same	Direction	C - Possi	hle Iniu	rv	Motor	Vehicle	In Trai	nsport		Daylight		Clear

	Unit 1	Unit 2	Unit 3	Unit 4
Unit Type	Motor Vehicle in Transport	Motor Vehicle in Transport		
Vehicle Type	Sport Utility Vehicle	Sport Utility Vehicle		
Direction of Travel	Westbound	Westbound		
Maneuver	Overtaking/Passing	Turning Left		
Age/Sex	16 M	59 M		
Physical Cond	Apparently Normal	Apparently Normal		
Contributing Factor 1	Operated Vehicle: Reckless/#	No Clear Contributing Action		



NARRATIVE

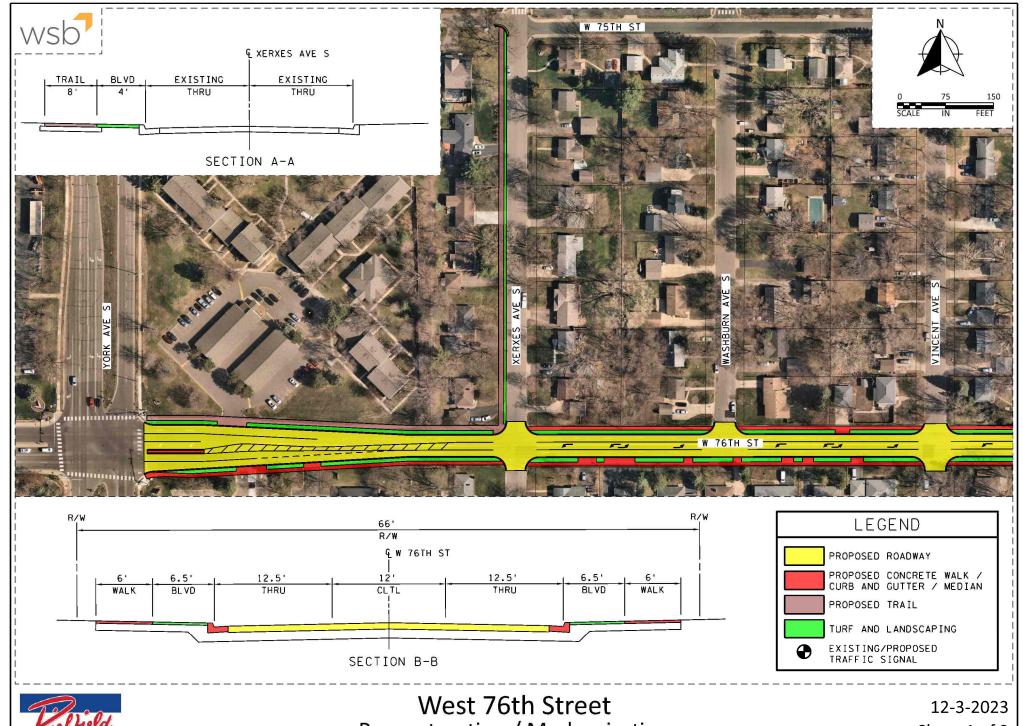
V-2 WAS WESTBOUND ON 76TH ST. S. IN THE LEFT LANE. V-1 WAS WESTBOUND IN THE EASTBOUND LANE (ONCOMING LANE) PASSING BOTH LANES OF WESTBOUND TRAFFIC IN A MARKED NO PASSING ZONE. V-2 MADE A LEFT TURN JUST AS V-1 WAS ABOUT TO ILLEGALLY PASS IT. BOTH VEHICLES COLLIDED AND V-1 VEERED TO THE SOUTH AND INTO THE YARD OF 7600 XERXES AVE. S. DRIVER OF V-1 WAS CITED FOR RECKLESS DRIVING.

Selection Filter:

WORK AREA: County('659472') - FILTER: Year('2020','2021','2022') - SPATIAL FILTER APPLIED

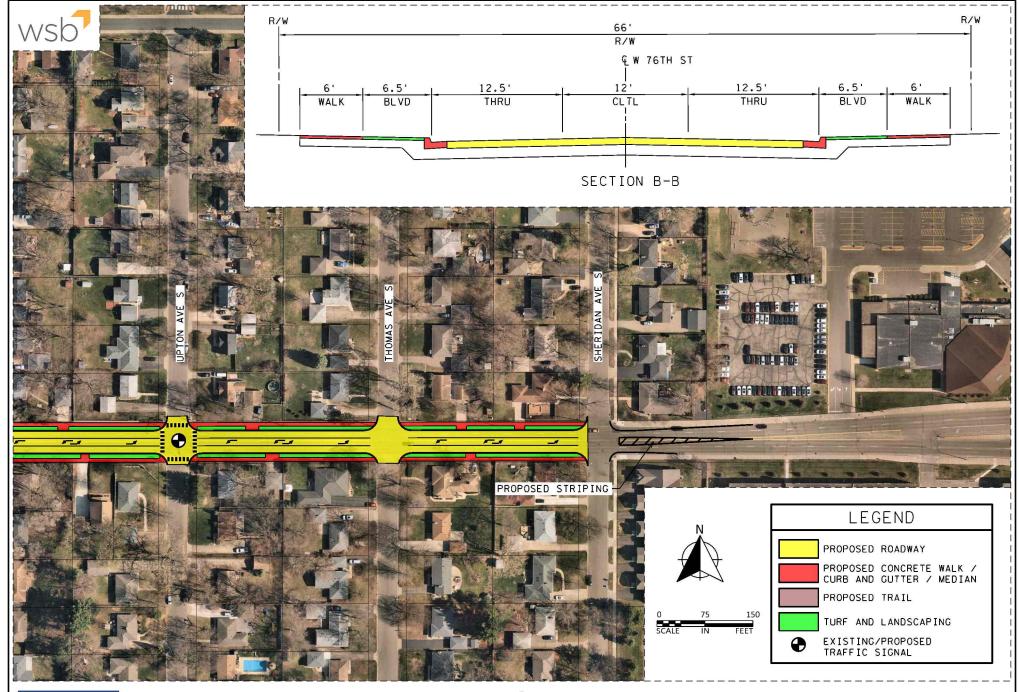
Analyst: Notes:

Mallori Fitzpatrick 2020-2022



Reconstruction / Modernization Richfield, MN

Sheet 1 of 2





West 76th Street
Reconstruction / Modernization
Richfield, MN

12-3-2023 Sheet 2 of 2

PUBLIC WORKS DEPARTMENT CITY OF RICHFIELD

DATE: 11/29/2023

SUBJECT: Snow Removal and Ice Control Policy

<u>Purpose</u>

The purpose of this Snow Removal and Ice Control Policy ("Policy") is to define and outline snow removal and ice control objectives and procedures as established by the City of Richfield ("City") and the Public Works Department ("Department").

Introduction

The City assumes basic responsibility for snow removal on City streets, City sidewalks/trails/cycle tracks, and City-owned public parking lots. The City assumes basic responsibility for ice control and mitigation on City streets and City-owned public parking lots, but does not salt or sand City sidewalks/trails/cycle tracks. Reasonable snow removal and ice control is necessary for routine travel and emergency services. The City strives to provide this service in a timely, safe, and cost-effective manner while keeping in mind safety, budget, personnel, equipment, and environmental concerns. The City will primarily use its own personnel and equipment to provide this service, but may also use private contractors when necessary.

This Policy supersedes written or unwritten policies of the City and Department regarding snow removal and ice control. This Policy does not relieve the operators of private vehicles, pedestrians, property owners, residents, and all others that may be using public streets, sidewalks, and trails or that may otherwise be affected by snow/ice removal operations, of their responsibility to act in a reasonable, prudent, and cautious manner given the prevailing weather and street conditions.

Policy

The Deputy Public Works Director, under the direction of the Public Works Director, will make decisions as to time, method, and materials used on snow removal and ice control operations. The Deputy Public Works Director is responsible for coordinating equipment and personnel, and assigning work based on the need for snow removal and ice control within the City. The Deputy Public Works Director maintains the authority to delegate any of the responsibilities laid out in this policy to appropriate Department staff.

The Department will only conduct snow and ice control operations when weather conditions do not endanger the safety of employees or equipment and operations are effective. Factors that may delay snow and ice control operations include:

- Severe cold
- Significant winds
- Limited visibility
- Rapid accumulation of snow and/or ice
- Traffic conditions (e.g., rush hour)

The Department continuously monitors forecasts and weather conditions to aid in mobilization decisions. The Department will use multiple sources for storm warning preparedness, including, but not limited to the following:

- National Weather Service (<u>www.weather.gov</u>)
- Hennepin County Emergency Management
- Local News Weather Reports
- Various weather-related web sites

Planning and Scheduling

Snow removal and ice control operations may occur during assigned work shifts or, in some situations, on a call back of workers. When conditions allow, work schedules will be arranged to keep overtime at a minimum, with overtime scheduling being approved by the Deputy Public Works Director. The Deputy Public Works Director will notify the Public Works Director of any unusual amount of overtime to be performed and the reasons for the overtime.

The Deputy Public Works Director retains the authority to alter assignments based on weather conditions, equipment and personnel availability, and other conditions related to snow removal and ice control.

Mobilization

Mobilization of employees is the responsibility of the Deputy Public Works Director. The Deputy Public Works Director will determine the dispatching of equipment for City streets, City sidewalks/trails, and City-owned public parking lots.

The Deputy Public Works Director will keep the Public Works Director informed of the start, progress, and completion of full-scale snow removal and ice control operations.

Initiating Operations

The start of snow removal and ice control operations depends upon current and anticipated conditions. The Deputy Public Works Director will decide when to initiate snow removal and ice control operations. Snow removal and ice control operations may be initiated any time they are deemed to be beneficial to the City. Some criteria for the decision are:

- Appreciable snow accumulation on roads and sidewalks
- Drifting of snow that causes travel problems
- Icy conditions which seriously impact travel
- Timing of snowfall in relation to heavy use of streets (e.g., rush hour)
- Forecasted and anticipated changes in weather conditions

Snow Route Assignment and Planning

Each year, the Department prepares a map of the street system, sidewalk/trail system, and public properties serviced by the City. These maps identify route areas that identify personnel, equipment, and, if necessary, the private contractors used to provide the

services. Annually, the Department revises route areas to correspond with budget, equipment, personnel, and other resources available to the City.

The Department identifies priority routes and hazards within each route area. These route areas are generally assigned to individuals and are used for planning and executing routine snow removal and ice control operations.

Street Snow Removal Routes

The Department has classified City streets based on the street function, traffic volume, and importance to the welfare of the community. The priority of snow removal routes are as follows:

- 1. Minor arterial roads: high-volume routes that connect the urban service area to cities inside and outside of the region
- 2. Collector streets: streets providing access between neighborhoods, minor business concentrations, and schools
- 3. Low-volume local streets
- 4. City parking lots, alleys, sidewalks, and trails

Emergency services officers may contact the Department to dispatch workers and equipment to provide services for emergency vehicles (i.e. police, fire, ambulance, equipment needed for electrical outages, gas leaks, etc.) responding to emergencies within the City. The Department will dispatch necessary workers and equipment as soon as possible.

Sidewalk/Trail/Cycle Tracks Snow Removal Routes

Priorities for snow removal on sidewalks are set to accommodate the needs of the mass transit public. During any given snow event, seven (7) pieces of equipment are dispatched to clear sidewalks, trails, and cycle tracks. In the event of a major snow event (six (6) inches or more) one side of each arterial street will be plowed, until all arterial roads are cleared. General priority for clearing sidewalks, trails, and cycle tracks is as follows:

- 1. Arterial roads
- 2. Collector streets
- 3. Residential neighborhoods

Sidewalk/Trail/Cycle Tracks Ice Policy

In effort to best utilize the City's finite resources and prioritize snow and ice removal in high-impact areas as outlined throughout this Policy, the Department will not apply salt, sand, or other de-icing chemicals to sidewalks/trails/cycle tracks. Due to the everchanging nature of the Minnesota climate, the physical and financial cost of keeping all sidewalks/trails/cycle tracks free of ice at all times would substantially outweigh the benefit to the community. In addition, salt, sand, and other de-icing agents have adverse effects on the local environment. Application of these substances is imprecise and may result in negative effects to adjacent green space and/or infiltration into ground water. Residents and business owners are encouraged to make sure sidewalks adjacent to their properties are ice free or otherwise safe for passage.

Transit Accommodations

In addition to plowing sidewalks in the most heavily used areas first, the Department employs a Sentencing to Service crew through Hennepin County four days per week, whose primary task in the winter months is to clear bus stops of snow and ice for mass transit users. The Sentencing to Service crew works a defined schedule so it can take up to three days before some transit stops are cleared, depending on the timing of snowfall in relation to the schedule.

Equipment Inspection

The Department mechanics conduct a thorough inspection of all snow and ice related vehicles and equipment prior to the start of the snow season. In addition, all trucks are annually certified through the Minnesota State Patrol Mandatory Inspection Program.

The Department also conducts daily inspections of snow and ice related vehicles and equipment during the snow season. Operators of the vehicles and equipment record their daily inspections and the status of the vehicle.

Equipment Calibration

The Department calibrates all salting vehicles prior to the start of the snow season to ensure efficient and effective application. Calibration will also occur if there is a major hydraulic repair or service needed on the vehicle.

Other Responsible Entities

Other governmental entities maintain certain streets within the City, which includes snow and ice removal. The Minnesota Department of Transportation (MnDOT) and the Hennepin County Highway Department maintain separate maintenance policies for streets they maintain within the City. From time to time, entities may contract with each other to perform snow removal services. The ultimate responsibility for snow removal services rests with the controlling entity.

Hennepin County maintains streets on Penn Ave, Nicollet Ave, and Portland Ave from Trunk Highway 62 to Interstate 494 in Richfield, as well as the entirety of 66th Street in Richfield and into Edina.

MnDOT is responsible for all freeway on/off ramps on Trunk Highways 62 and 77 and Interstates 35W and 494 in Richfield.

Responsibility varies between **Richfield**, **Hennepin County**, and **Bloomington** for sidewalks along interstate/trunk highway overpasses and underpasses.

The table below summarizes the entity responsible for clearing sidewalks.

Sidewalks on overpasses	Entity
494/Penn	Hennepin County
494/Portland	Hennepin County
494/Nicollet	Hennepin County
62/Penn	Hennepin County
62/Portland	Hennepin County
77/66 th Street	Hennepin County

494/Lyndale	Bloomington
494/12 th Ave	Bloomington
76 th Street/35W	Richfield
Sidewalks on underpasses	Entity
62/Lyndale	Richfield
62/Nicollet	Richfield
66th Street/35W	Richfield

Private Contractors Providing Snow Removal Services

Richfield City Code, Subsection 930.17, limits the operation of vehicles for snow plowing on private property in residential districts and within fifty (50) feet of such districts to the period between 6:00AM and 10:00PM any day of the week.

Post-Snowfall Events

Operators conduct follow-up plowing as needed. Generally, further clearing takes place where cars were parked, at intersections, etc. Additional salting of intersections may occur at this time as well.

Snow and Ice Control Materials

The City <u>does not</u> have a "bare pavement" policy. The Department will wait for snowfall to cease or accumulate sufficiently before initiating snow removal. General snowpack will remain on City streets and sidewalks in many cases.

The Department will use snow and ice control materials when there are hazardous ice or slippery conditions on streets. The Department may use other minerals, chemicals, and mixtures to assist in ice control provided they have an equivalent or lesser effect on the environment than salting and are economically feasible. The Department is concerned with the effect of chemicals on the environment; therefore, it will limit its use of such chemicals.

The Department initiates salting operations to melt ice on City streets. The Department will apply snow and ice control materials at times and rates that maximize effectiveness and generally limit application to:

- Intersections
- Hazardous areas
- Isolated, slippery areas

The Department may order use of additional salt if pavement, air temperatures, or precipitation type warrant. The Department has adopted salt application best practices as stated in the Minnesota Snow and Ice Control Handbook.

The City does not employ salt or other ice control measures on sidewalks/trails/cycle tracks in the City.

Refreeze Conditions

It is not possible or practical for snow and ice to be completely removed from all sidewalks or prevent melting snow or ice from refreezing on sidewalks. Users of sidewalk and trail facilities are expected at all times to be mindful of current conditions and avoid hazards to remain safe.

Material Handling and Storage

Salt stockpiles are stored on-site (approximately 300 tons) in an enclosed structure at the Public Works maintenance facility. These stockpiles are routinely replenished to meet the needs of the winter season with the goal of having minimal salt in the bins by the end of the season. During the off-season, salt at the Public Works maintenance facility is tarped and stored inside a covered structure. No other materials or supplies are stored in the structure containing the salt.

Spreading and Plowing Procedures

The Department will plow snow in a manner that minimizes traffic obstructions. The center of the roadway will be plowed first, and then the snow will be plowed from left to right so the snow discharges onto the boulevard. When plowing on bridges, operators will adjust their speed to reduce or eliminate a snow wake from going over the side of the bridge. Snow on dead-end streets will generally be plowed to the end of the roadway and snow on cul-de-sacs will be plowed to the middle of the cul-de-sac.

As necessitated by available resources, snow is plowed to the edge of the street without regard for sidewalks, driveways, and other structures located in the right-of-way. Sidewalks will be cleared after roadways are cleared. The City recognizes the inconvenience that comes from snow piling up on driveways due to plowing activities, but the City is not responsible for removing this accumulated snow.

Snowplow operators are exempt from traffic regulations set forth in Minnesota Statutes, Chapter 169 while actually engaged in work on streets, except for regulations related to driving while impaired and the safety of school children. Pursuant to this authority, snowplow operators have discretion to disregard standard traffic laws, when, in their judgement, it is safe to disregard such laws.

Hauling of Snow and Snow Storage

From time to time, the Department will remove snow where space does not allow for snow to be pushed or piled outside the driving lanes by hauling to another location. The Deputy Public Works Director will determine when snow will be removed by truck from the boulevard area. Snow hauling operations will not commence until other snow/ice removal operations have been completed. Snow hauling operations may also be delayed depending on weather conditions, personnel, and budget availability. The snow will be removed and hauled to a snow storage area. The snow storage zone will be located in an area that minimizes environmental impact.

Snow Emergencies

Snow Emergency Procedures

Concurrent with the above policy, the following are additional City practices employed during a declared snow emergency (see City Code, Subsection 1305.13).

Snow Emergency Notifications

A snow emergency is declared by the City Manager, or designee. Declaration of a snow emergency can be found at the following:

- a. Contact the Snow Emergency Line at 612-861-9178
- b. Visit the City Website at www.richfieldmn.gov
- c. Sign up for e-update on the City website at www.richfieldmn.gov/residents/e-notification
- d. Local news channels
 - i. WCCO
 - ii. KMSP
 - iii. KSTP
 - iv. KARE 11
- e. Social Media (Facebook, "X" or Twitter)

Parking Limitations

Vehicles parked on the roadway during a snow or ice event may impair the effectiveness of snow and ice control and removal. Richfield City Code, Subsection 1305.13, prohibits on-street parking during a snow emergency. A snow emergency is in effect after a snowfall of four (4) or more inches and/or upon the declaration of a snow emergency by the City Manager, or designee, and continues until the street has been plowed curb-to-curb.

Richfield City Code, Section 1315, permits certain vehicles to park in the front yard areas of residential districts of the City during a snow emergency, subject to the following conditions:

- a. The vehicle must be parked as close as possible to the established driveway area serving the property on which, or in front of which, it is parked;
- b. Permission of the property owner must be obtained;
- c. The vehicle must be parked at least eight (8) feet back from the curbline, and five (5) feet back from any public sidewalk;
- d. The vehicle may not be parked off of an established driveway within the area bounded by the street curblines abutting said corner lot and a line connecting points on the abutting curblines of fifty (50) feet from the point of intersection of the extensions of the curblines; and
- e. Movement to and from the parking area must be over the established driveway rather than over the curb.

The owner of the property shall repair any damage to the adjacent boulevard area caused by parking in the front yard areas of residential districts.

Snow Emergency Parking Areas

Snow emergency parking areas will be available for a total of 24 hours after a snow emergency is declared. Snow emergency parking area signs will mark those areas where parking is allowed. The City of Richfield's website will indicate the specific time at which a snow emergency was declared, or residents can call the Richfield Snow Information Hotline at 612-861-9178. After the 24 hour snow emergency parking area period has expired, the city will begin clearing snow in these areas and any cars that remain are subject to a ticket and tow, per normal procedure. For these parking areas to

work correctly, it is important that residents promptly retrieve their vehicles after their street or parking lot has been cleared.

The City Manager has designated the following stretches of roadway as snow emergency parking areas:

- Cedar Avenue—East side, from 66th Street to Diagonal Boulevard
- Cedar Avenue—Both sides, from 67th Street to 75th Street

These snow emergency parking areas are clearly marked with a snow emergency parking area sign.

Private Property

Snow Removal on Private Properties

It is a public nuisance and violation of City Code, Subsection 830.41, to shovel, plow, or cast snow or ice from private property onto a public street, alley, sidewalk, boulevard, or public parking lot. It is allowable to remove snow or ice from a private driveway or walkway and deposit the snow or ice on the portion of the boulevard immediately adjacent to the private property. Pushing, piling, or storing snow in or across the street is prohibited.

Service to Private Property

City personnel and any personnel contracted by the City do not provide snow removal and ice control services to private properties. Services may, however, be provided with the permission of the property owners in situations where City operations directly benefit from operations on private property. Snow removal operations may be conducted on any private property when emergency vehicles responding to a call for service require access to private property. Any operations on or services provided to private property are authorized by the Department or are provided at the request of any emergency services officer responding to a call.

Snow Operation Damages

Snow removal and ice control operations can cause damage to property, even under the best circumstances and care by vehicle and equipment operators. Most often, damage occurs to property improvements in the City right-of-way, which generally extends eight (8) to twelve (12) feet beyond the edge of street pavement.

The City is not responsible for damage to vegetation caused by plowing or the application of sand and salt mixtures. However, the City will make its best effort to repair damaged grass along curb lines and sidewalk edges using black dirt and seeding.

Personal property in the City's right-of-way damaged by snow being deposited from an accumulation on the blade of a snowplow will not be considered for compensation. Any property damage claims allegedly resulting from City snow plowing activities must be filed with the City's insurance through the Human Resources Department

When disagreement about the responsibility for the damage occurs, the Department will investigate and decide responsibility.

Equipment operators and contractors are directed to immediately contact their supervisor and the supervisor will contact the Department and Police Department whenever an incident involves damage to vehicles, significant structures, or involves any injury to a person.

Equipment operators and contractors also report existing damage they observe to avoid any potential future claim the damage was caused by snow removal or ice control operations.

Service Requests and Complaints

The Department will take service requests and complaints regarding snow removal and ice control operations during normal working hours. The Department will prioritize service requests and provide resolution at their discretion, in keeping with available personnel, equipment, and materials. The Deputy Public Works Director will receive and respond to service requests or complaints that the administrative staff is unable to answer.

Policy Review

The Department will review this policy annually. The Department will keep on file written comments and complaints received regarding this policy. Any review will consider comments or complaints received since the last review. The review will also consider input from City employees and contractors, members of the public, and other affected parties.



Project Name: Richfield West 76th Street Modernization

Applicant: City of Richfield

Project Location: W 76th St (MSAS 361/MSAS 136) from York Ave (CSAH 31) in Edina to Sheridan Ave in Richfield

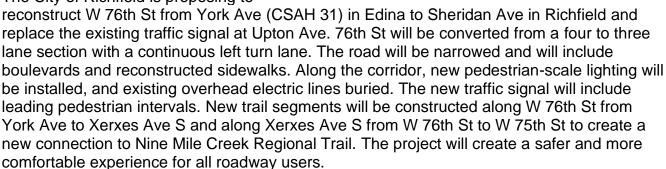
Total Project Cost: \$4,821,490

Requested Federal Amount: \$3,857,192

Local Match: \$964,298 (20%)

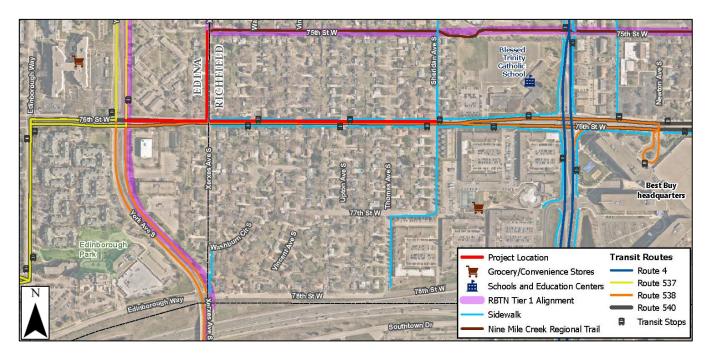


The City of Richfield is proposing to



Project Benefits:

- Continuous left turn lane for safer turning movements
- Narrower road for traffic calming and shorter crossing distances
- New boulevards for trees, snow storage, and transit platforms
- New traffic signal with pedestrian improvements
- New trail connection to Nine Mile Creek Regional Trail





Sec. 24-91. - Snow and ice removal.

All snow and ice shall be removed from a sidewalk by the owner of the property adjoining the sidewalk within 48 hours of the cessation of the precipitation.

(Code 1970; Code 1992, § 1200.03(1); Ord. No. 1201; Ord. No. 1201-A, 12-6-1973; Ord. No. 1993-5, 4-28-1993; Ord. No. 1994-6, 12-27-1994; Ord. No. 1995-6, 8-17-1995; Ord. No. 2003-12, 12-16-2003)

Sec. 24-92. - Maintenance of sidewalks.

No owner of any property adjoining a sidewalk shall permit any plank, brick, stone or segment of the sidewalk to be raised above the established level of the sidewalk by more than one-half-inch or permit any holes or depressions to occur in which a pedestrian may trip.

(Code 1970; Code 1992, § 1200.03(2); Ord. No. 1201; Ord. No. 1201-A, 12-6-1973; Ord. No. 1993-5, 4-28-1993; Ord. No. 1994-6, 12-27-1994; Ord. No. 1995-6, 8-17-1995; Ord. No. 2003-12, 12-16-2003)

Sec. 24-93. - Maintenance of boulevards.

Every owner of property adjoining any public street or alley shall cause the grass or weeds to be cut or mowed from the lot line adjoining such street or alley to the center of such street or alley. The standards contained in article III of chapter 30 shall apply to grass and weeds located on the boulevard.

(Code 1970; Code 1992, § 1200.03(3); Ord. No. 1201; Ord. No. 1201-A, 12-6-1973; Ord. No. 1993-5, 4-28-1993; Ord. No. 1994-6, 12-27-1994; Ord. No. 1995-6, 8-17-1995; Ord. No. 2003-12, 12-16-2003)

Sec. 24-94. - Exemption.

Sections <u>24-91</u> and <u>24-92</u> shall not apply to owners of property adjoining sidewalks that were constructed, in whole or in part, with municipal state aid funds or sidewalks located upon rights-of-way controlled by the county or state.

(Code 1970; Code 1992, § 1200.03(4); Ord. No. 1201; Ord. No. 1201-A, 12-6-1973; Ord. No. 1993-5, 4-28-1993; Ord. No. 1994-6, 12-27-1994; Ord. No. 1995-6, 8-17-1995; Ord. No. 2003-12, 12-16-2003)

Sec. 24-95. - Removal of barricades.

No person shall remove, run over, relocate or interfere with any barricade placed by the city, county, state or any private utility company.

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(Code 1970; Code 1992, § 1200.04(1); Ord. No. 1201; Ord. No. 1201-A, 12-6-1973; Ord. No. 1993-5, 4-28-1993; Ord. No. 1994-6, 12-27-1994; Ord. No. 1995-6, 8-17-1995; Ord. No. 2003-12, 12-16-2003)

Sec. 24-96. - Uncompleted construction.

No person shall walk upon or drive a motorized or nonmotorized vehicle across any street, alley or sidewalk which has not been opened for travel by the public.

(Code 1970; Code 1992, § 1200.04(2); Ord. No. 1201; Ord. No. 1201-A, 12-6-1973; Ord. No. 1993-5, 4-28-1993; Ord. No. 1994-6, 12-27-1994; Ord. No. 1995-6, 8-17-1995; Ord. No. 2003-12, 12-16-2003)

Sec. 24-97. - Abatement of nuisance.

Any obstruction or encumbrance as described in section 24-21, or any snow or ice not removed from a sidewalk as provided in section 24-91, or any defect in a sidewalk as described in section 24-92, or grass or weeds not cut as provided in section 24-93, is hereby declared a nuisance. After at least seven days' written notice to the person responsible for the nuisance, the city may cause said nuisance to be removed or abated and the cost of removal or abatement may be charged and assessed against the property owned by the person responsible for the nuisance. Such charge and assessment shall be done pursuant to section 24-98(d). When so assessed, the cost shall be certified to the county auditor for collection as other taxes are collected. The name and address of the person responsible for such nuisance shall be obtained from records maintained by the assessor.

(Code 1970; Code 1992, § 1200.05; Ord. No. 1201; Ord. No. 1201-A, 12-6-1973; Ord. No. 1993-5, 4-28-1993; Ord. No. 1994-6, 12-27-1994; Ord. No. 1995-6, 8-17-1995; Ord. No. 2003-12, 12-16-2003)

Sec. 24-98. - Work undertaken by the city.

- (a) *Items of work.* Pursuant to Laws of Minnesota 1983, chapter 59, the city may undertake the following items of work:
 - (1) Removal of snow, ice and rubbish, including litter, from sidewalks, streets and alleys and public parking facilities.
 - (2) Elimination of weeds, including aquatic weeds, from sidewalks, streets, alleys, waterbodies and other public or private property.
 - (3) Sweeping, oiling, sprinkling or other dust treatment of public streets or alleys, including incidental maintenance work.
 - (4) Trimming and care of trees and the removal of unsound or diseased trees on streets or alleys.
 - (5) Repair of sidewalks and alleys.
 - (6) Operation, including maintenance and repair, of lighting systems for streets, sidewalks and parking facilities.

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- (7) Operation, including maintenance and repair, of public parking facilities, parks and related facilities.
- (b) *Record of cost.* The engineer shall keep records of and report to the clerk the actual cost of such work, or in the case of costs to be charged before the incurrence pursuant to subsection (c) of this section, the estimated cost of such work. Such records and reports shall include the cost of all the work done or to be done on any streets situated beyond the city boundaries pursuant to a cooperative or joint powers agreement with a neighboring municipality.
- (c) Collection before levy as a special assessment. All costs incurred or to be incurred for such work shall be charged with such frequency as the council, by resolution, shall determine, to each owner of each separate lot or parcel of land benefitted by such work, in proportion to the benefits conferred upon the lot or parcel. If any charge is made for a cost to be incurred and, based upon subsequent actual costs, is found to be excessive, subsequent charges shall be reduced by such excess, and if deficient, subsequent charges shall be increased by such deficiency. Any charge not paid in full by September 10 of each year shall be levied as a special assessment against the lot or parcel of land benefitted. Such charges shall not be made or levied against detached, single-family housing for the operation, maintenance or repair of public parks and related facilities.
- (d) Levy of assessment. On or before September 15 of each year, the clerk shall prepare an assessment roll assessing all costs of such work reported to the clerk against each separate lot or parcel of land benefitted by the work, in proportion to the benefits conferred upon such lot or parcel, subject to the provision in subsection (c) of this section. Where such work is done pursuant to a cooperative or joint powers agreement between the city and a neighboring city, the cost of the work done by the city shall be spread against all lots or parcels of land abutting on the city side of the streets covered by the cooperative agreement. The council shall examine such assessment roll submitted by the clerk, and, if satisfactory, shall call a public hearing and levy special assessments for the work in accordance with Minn. Stats. § 429.061. All such special assessments shall be payable in a single installment or additional annual installments not to exceed the maximum number allowed by law with interest thereon as may be fixed by the resolution approving the special assessments, but not to exceed the highest rate allowed by law.

(Code 1970; Code 1992, § 1200.06; Ord. No. 1201; Ord. No. 1201-A, 12-6-1973; Ord. No. 1993-5, 4-28-1993; Ord. No. 1994-6, 12-27-1994; Ord. No. 1995-6, 8-17-1995; Ord. No. 2003-12, 12-16-2003)

Sec. 24-99. - Methods and remedies.

The methods and remedies authorized by this chapter are in addition to any other methods or remedies available to the city by state law or other provisions of this Code.

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(Code 1970; Code 1992, § 1200.07; Ord. No. 1201; Ord. No. 1201-A, 12-6-1973; Ord. No. 1993-5, 4-28-1993; Ord. No. 1994-6, 12-27-1994; Ord. No. 1995-6, 8-17-1995; Ord. No. 2003-12, 12-16-2003)

Sec. 24-100. - Petty misdemeanor.

Any violation of section 24-22(3) shall be a petty misdemeanor punishable as provided in section 1-18. (Code 1970; Code 1992, § 1200.08; Ord. No. 1201; Ord. No. 1201-A, 12-6-1973; Ord. No. 1993-5, 4-28-1993; Ord. No. 1994-6, 12-27-1994; Ord. No. 1995-6, 8-17-1995; Ord. No. 2003-12, 12-16-2003)

Secs. 24-101—24-128. - Reserved.

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November 29, 2023

Metropolitan Council Regional Solicitation Scoring Committee

To whom this may concern,

The City of Edina Public Works Department acknowledges the City of Richfield is applying for a Metropolitan Council regional solicitation grant to fund reconstruction of 76th St between York Ave and Sheridan Ave under the "Roadway Modernization" category. This project includes a reconstructed road, traffic signal, ADA ramps, and pedestrian and cyclist infrastructure.

Public Works supports this application as it provides a safer corridor and more comfortable pedestrian and bicyclist experience. The City also supports this application as seen through the attached City Council resolution of support.

Public Works commits to operate and maintain the facilities within Edina's corporate limits such that they are usable for all transportation modes in all seasons for its full design life. This is consistent with Chapter 24 Article IV of Edina City Code (also attached to the application).

We hope that this application is awarded for tentative construction in 2027. Improving this corridor will support the goals of our Comprehensive Plan, Living Streets Plan, Pedestrian and Bicycle Master Plan, and Climate Action Plan.

Respectfully,

Brian E. Olson, P.E.

Public Works Director, City of Edina

BOlson@EdinaMN.gov

952-826-0311



RESOLUTION NO. 2023-91 SUPPORTING THE CITY OF RICHFIELD'S METRPOLITAN COUNCIL REGIONAL SOLICITATION APPLICATION FOR THE RECONSTRUCTION OF WEST 76TH STREET FROM YORK AVENUE TO SHERIDAN AVENUE

WHEREAS, W 76th Street is owned and operated by the City of Richfield between Sheridan Avenue and Xerxes Avenue and by the City of Edina between Xerxes Avenue and York Avenue; and

WHEREAS, W 76th Street is a reliever route for I-494 that carries high traffic volumes across the southern parts of Richfield and Edina; and

WHEREAS, the corridor provides limited pedestrian, bicycle and transit infrastructure; and

WHEREAS, the Metropolitan Council's biennial Regional Solicitation program allocates federal funds to regional or local transportation projects, focusing on outcomes like moving people more effectively, managing congestion and improving air quality; and

WHEREAS, the City of Richfield is submitting a Regional Solicitation application to obtain funding to reconstruction W 76th Street between York Avenue and Sheridan Avenue in 2028/29; and

WHEREAS, improving accessibility and removing barriers on W 76th Street will increase safety and improve the experience of students traveling to and from schools and community members accessing jobs, goods, and services; and

WHEREAS, the Cities of Richfield and Edina will provide the required 20% local match, if awarded;

NOW, THEREFORE, BE IT RESOLVED, the City of Edina supports the City of Richfield's Metropolitan Council Regional Solicitation application for the reconstruction of W 76th Street from York Avenue to Sheridan Avenue.

Adopted this 5th Day of December, 2023. Sharon Allison (Dec 6, 2023 13:34 CST)	ALL
Sharon Allison, City Clerk	James B. Hovland, Mayor
STATE OF MINNESOTA)	
COUNTY OF HENNEPIN) SS CITY OF EDINA)	

CERTIFICATE OF CITY CLERK

I, the undersigned duly appointed and acting City Clerk for the City of Edina do hereby certify that the attached and foregoing Resolution was duly adopted by the Edina City Council at its Regular Meeting of December 5, 2023 and as recorded in the Minutes of said Regular Meeting.

WITNESS my hand and seal of said City this

City Clerk

RESOLUTION NO. 12141

RESOLUTION OF SUPPORT FOR W 76TH ST MODERNIZATION REGIONAL SOLICITATION APPLICATION

WHEREAS, the Metropolitan Council's regional solicitation is a competitive federal funding allocation process available to local governments in the Twin Cities region; and

WHEREAS, the regional solicitation's Roadway Reconstruction/Modernization category's purpose is to fund roadway preservation projects that improve infrastructure condition, reduce crashes, and enhance multimodal travel options; and

WHEREAS, W 76th St from Xerxes Ave to Sheridan Ave is a four lane undivided road; and

WHEREAS, converting four lane undivided roads to three lanes reduces rear-end, right angle, and head-on crashes; and

WHEREAS, W 76th St connects low, medium, and high density housing with the Centennial Lakes commercial area, Best Buy headquarters, and public transit; and

WHEREAS, a 20% local government match funding is required if the project is selected; and

WHEREAS, if the above project is selected, construction is tentatively scheduled for 2028; and

WHEREAS, the City of Richfield supports the inclusion of W 76th St between York Ave and Xerxes Ave within the City of Edina in the application, contingent on approval by the City of Edina; and

WHEREAS, the City of Richfield invests in infrastructure to best serve today's and tomorrow's residents, businesses, and visitors; and

WHEREAS, the City of Richfield ensures that City services are accessible to people of all races, ethnicities, incomes, and abilities.

NOW, THEREFORE, BE IT RESOLVED, that the City Council of the City of Richfield supports Public Works' 2023 regional solicitation application for the W 76th St modernization project.

Adopted by the City Council of the City of Richfield, Minnesota this 14th day of November, 2023.

Mary B. Supple

Mary B. Supple, Mayor

ATTEST:

Dustin Leslie, City Clerk



Public Works Department

December 6, 2023

MAYOR

MARY SUPPLE

Metropolitan Council
Regional Solicitation Scoring Committee

To whom it may concern,

CITY COUNCIL

SHARON CHRISTENSEN
SEAN HAYFORD OLEARY
SIMON TRAUTMANN
BEN WHALEN

CITY MANAGER

KATIE RODRIGUEZ

The City of Richfield Public Works department acknowledges the Engineering division is applying for a Metropolitan Council regional solicitation grant to fund reconstruction of 76th St between York Ave and Sheridan Ave under the "Roadway Reconstruction/Modernization" category. This project includes a reconstructed road, traffic signal, ADA ramps, and pedestrian infrastructure.

Public Works supports this application as it provides a safer corridor and more comfortable pedestrian and bicyclist experience. The City of Richfield, City of Edina, and Richfield school board also support this application as seen through the attached City Council and School Board resolutions of support.

Public Works commits to operate and maintain these facilities such that they are usable for all transportation modes in all seasons for its full design life. This is consistent with the city's Snow Removal and Ice Control Policy dated 11/29/23 and attached to the application.

We hope that this application is awarded for tentative construction in 2028/2029. Improving this corridor will fulfill years of planning through the Safe Routes to School Comprehensive Plan (2009), Bike Master Plan (2012), Pedestrian Master Plan (2018), and Active Transportation Plan (draft, to be approved in 2024).

Respectfully,

Kristin Asher

Public Works Director



Enriqueciendo y acelerando el aprendizaje

Steven Unowsky, Superintendent

December 4, 2023

Matt Hardegger, PE **Transportation Engineer** City of Richfield

RE:

Richfield West 76th Street Modernization 2024 Metropolitan Council Regional Solicitation Application

Dear Mr. Hardegger,

Richfield Public Schools supports the City of Richfield's application for Regional Solicitation funds for the West 76th Street Modernization project. This project will fully reconstruct a portion of W 76th St and implement a four to three lane conversion, replace an existing traffic signal, reconstruct sidewalks and boulevards, and provide pedestrian scale lighting.

Richfield Middle School, located one block northeast of the project area, enrolls 74 percent students of color. Sixty-eight percent of students qualify for free or reduced-price lunch, and ten percent of students regularly walk or bike to school. The South Education Center, located just one block north of the project area, provides a wide range of services for students of all ages, including special education and an alternative high school. W 76th St as it exists today can be a major barrier for students walking and biking to school because of the speed of traffic and the number of lanes that must be crossed.

As part of the proposed project, 76th St will be narrowed to decrease the crossing distance for pedestrians at signalized and unsignalized intersections. Narrower streets provide better visibility for pedestrians to see drivers when crossing the street and vice versa. Narrowed streets will also result in traffic calming and lower but more consistent speeds. A new continuous left turn lane, converted from existing drive lanes, will also remove the potential for "double jeopardy" situations for crossing pedestrians compared to the existing four-lane design. This dangerous situation occurs when a vehicle in the through lane closest to the curb stops for a crossing pedestrian, but the vehicle in the adjacent through lane does not.

This project represents a major opportunity to provide safer transportation for our students, encourage more students to walk or bike, and improve a major corridor in the City of Richfield. Richfield Public Schools respectfully requests your consideration of the Richfield West 76th Street Modernization project for Regional Solicitation funds.

Sincerely,



Public Works Department City of Richfield

RICHFIELD PUBLIC WORKS

SWEETS

STREETS

better roads, better Richfield

RICHFIELDSWEETSTREETS.ORG

Date: April 3, 2019

Subject: Public Engagement Policy for Street Projects

Policy Purpose & Overview

This policy is intended to formalize the public engagement process the City of Richfield utilizes to gather feedback and identify concerns held by stakeholders in the development and design of street construction projects. The bulk of public engagement occurs in the preliminary design phase during a project's "concept development." In the final design and construction phase of a project, public engagement is tailored to the adjacent property owners to review specific details related to their property. Throughout the preliminary and final design process and through project construction, staff maintains an informal openness to all project stakeholders and will correspond with and meet residents in person to discuss and talk through any concerns or questions arising from a project. All large-scale transportation projects in Richfield follow this general linear process (attachment #1).

The Big Picture: Richfield's Guiding Documents

The City of Richfield relies on a set of guiding documents (<u>attachment #2</u>) to help shape the design of street reconstruction projects. The City of Richfield's <u>Complete Streets Policy</u> states in part:

"Early and frequent public engagement/involvement will be important to the success of this Policy. Those planning and designing street projects must give due consideration to the community values, from the very start of planning and design work. This will apply to all roadway projects, including those involving new construction, reconstruction, or changes in the allocation of pavement space on an existing roadway (such as the reduction in the number of travel lanes or removal of on-street parking)."

In addition to the Complete Streets Policy, staff utilizes <u>Guiding Principles</u>, the <u>Bicycle Master Plan</u>, the <u>Pedestrian Master Plan</u>, and the <u>Parks Master Plan</u> to guide the design process from start to finish.

Project Evolution & Public Engagement

- 1. Capital Improvement Plan Project Identification
- 2. Public Notification & Project Promotion
- 3. Phase 1: Preliminary Design (Concept Development)
 - a. Transportation Commission
 - b. Open House #1
 - ✓ Virtual Open House
 - √ Transportation Commission
 - c. Open House #2
 - √ Virtual Open House
 - √ Transportation Commission
 - √ City Council Work Session if Needed

- d. Open House #3
 - √ Virtual Open House
 - √ Transportation Commission
 - ✓ City Council Work Session if Needed
- e. Meetings with Adjacent Property Owners with Physical Property Impacts
- f. Open House #4
 - ✓ Virtual Open House
 - ✓ City Council Work Session to Review Preferred Alternative Design
 - ✓ Transportation Commission
 - **Recommendation to Council**
- g. City Council Consideration of Preliminary Design Approval
- 4. Phase 2: Final Design Process
 - a. Meetings with Adjacent Property Owners
 - b. Final Design Approval
 - c. Advertisement for Bid
 - d. Award of Contract
- 5. Phase 3: Construction
 - a. Project Construction Kick-Off Meeting
 - b. Neighborhood Block Meetings
 - c. Weekly Project Updates
 - d. Individual Meetings
 - e. Construction and Project Wrap Up

Capital Improvement Plan – Project Identification

Future projects are identified in the City's Capital Improvement Budget and Capital Improvement Plan (CIB/CIP) which is a comprehensive list of major improvements necessary to meet the needs of the community over a five-year period and beyond. The CIB/CIP sets forth the proposed scheduling and details of the specific project by year, estimated cost, sources of funding and a justification or description for each improvement. The CIB/CIP is updated and approved on an annual basis. Street projects generally find their way into the CIB/CIP due to degrading street and infrastructure quality, critical utility replacement needs, and the ability of the City to complete a project in conjunction with county, state, and private reconstruction initiatives.

Public Notification & Project Promotion

For many projects, the public notification and engagement process will begin as far out as two years before any ground is broken, depending on the size and scope of the project. City staff work diligently to make sure the public is aware of upcoming projects, public engagement opportunities and public meetings related to the development of these projects. Residents and business owners are notified of upcoming projects and the opportunities to participate in their design through a variety of means, including but not limited to postcard mailers, flyers, newspaper advertisements, social media postings, website updates, emails and boulevard signage near the project sites.

Phase I: Preliminary Design (Concept Development)

Transportation Commission

The City Council, in recognition of the importance that transportation planning has on the overall development of the City of Richfield, created a Transportation Commission in April 2005 to advise the Council on a variety of transportation issues and to encourage citizen involvement in the City's decision-making process on transportation. The Council has tasked the commission with reviewing proposed improvements to street infrastructure, engaging the project stakeholders and ultimately providing recommendations for Council consideration. At its core, the Commission serves as the conduit for community and business perspectives to supplement the technical and regulatory characteristics and needs of a project. The Commission itself is made up of Richfield residents, business owners, youth appointees and liaisons from City Council and other City commissions. The public at-large also has an opportunity at Transportation Commission meetings to participate, provide feedback and ask questions regarding proposed project designs.

The Commission is a unique and powerful body in the City of Richfield, and no transportation project plans or designs will receive a recommendation for approval by City Council without thorough vetting and endorsement by the community-focused Commission. Throughout the preliminary design process, the Transportation Commission plays a critical role in the development of a project from the initial technical analysis to their recommendation to council. Following each open house (detailed below), the Commission considers the input received and directs staff and refines the evolving design.

Open Houses

City and project staff utilize a series of "open houses" to infuse community input into the comprehensive problem statement, engage the public, and shape the preliminary design of a project, which will ultimately be presented to the City Council for approval at the end of the public engagement process. Generally speaking, there are three to four open houses in the preliminary design process. These open houses consist of both the formal hosted event and a "virtual open house" following each event (detailed later). The same general process is adhered to when preparing for and promoting each open house (attachment #3).

<u>Open House #1.</u> At the initial open house no future design is presented, instead, residents and business owners are invited to learn about the purpose and scope of a project and provide input on existing issues to be addressed during the design process. Through comment cards and discussions with residents, staff identifies the problems and concerns residents have with the existing conditions (vehicle speeds are too high, pedestrians feel unsafe, etc.).

Open House #2. At the second open house, the dominant themes that were identified in the feedback received from the initial open house will be presented to those in attendance as a "comprehensive problem statement." At this open house, the public is asked to confirm what project staff believe has been expressed through the initial open house. Staff will detail a variety of design "tools" that can be incorporated into the project to attempt to remedy the identified problems. Through the use of display boards and other visual aids, staff will detail the pros and cons of the various tools that are being considered to address the problem, and attendees will have the opportunity to provide their opinions and comments. No proposed layout or design is presented as this is still a discovery open house and input is being sought by staff regarding what works and what doesn't work with the existing conditions.

<u>Open House #3.</u> At the third open house, staff will use the feedback received in the first two open houses to propose to stakeholders a variety of layout concepts along different segments of the project that incorporate the favored design tools identified at open house #2 by residents through the participant feedback forms. Residents are asked through a detailed survey of their opinions about the

design options being offered, if the community problem statement is accurate, and if the concerns raised in previous open houses have been captured. The purpose of this open house is to review what has been done to date to respond to community feedback, present supporting technical analysis and provide input on potential design concepts for the corridor and for key intersections. This process will continue until a balanced design is developed that is acceptable to the public, meets the project goals identified in the comprehensive problem statement, and satisfies regulatory requirements (ADA, etc.) is developed.

<u>Open House #4.</u> At the final open house staff will present the proposed final layout and solicit feedback from stakeholders and the community. The purpose of this open house is to provide the public an opportunity to review and comment on the preferred alternative for the corridor, prior to final review and recommendation from the Transportation Commission to the City Council for formal approval. Prior to the preliminary design appearing before the Council for approval, a special work session is often held where the City Council will learn about the "preferred alternative design" that the public engagement process has achieved.

<u>Virtual Open Houses.</u> For those that are unable to attend an open house, staff will create a "virtual" open house on the City's website for the full week following each open house (<u>attachment #4</u>). The same materials and information displays are presented electronically for the public to view, and an electronic version of the comment card/survey is available for individuals to fill out. Community members are also given contact information to personally reach out to staff to discuss elements of the project. Many stakeholders choose to view the open house materials and then reach out directly to staff via phone or email to make their voices heard as well.

<u>Comment Cards, Participant Feedback & Open House Summaries</u>. Comment cards/surveys are made available to residents at all open houses that contain specific questions related to the project design allowing residents to share their thoughts regarding the question or topic at hand. Following the conclusion of each open house, staff will summarize the findings and results from resident surveys and present them to the Transportation Commission for comment, discussion, and direction at the next regular meeting (<u>attachment #5</u>). A corresponding City Council memo is prepared and distributed to council members and an open house summary is posted to the <u>project website</u> following the conclusion of each open house for residents and interested parties to review.

Adjacent Property Owners with Physical Property Impacts

Property owners along a project route that would see physical property impacts meet one-on-one with project staff in the preliminary design process to discuss the various design scenarios and concepts and the possible implications for their property. This collaboration results in design concepts that satisfy the project needs and the individual property owner. Property owners directly impacted by a project are consulted with in this preliminary design phase because their buy-in is needed and can directly affect what layout is ultimately presented to Council. Property owners that have impacts limited to the right-of-way along their property boundaries are contacted during the final design process. If there are substantial impacts to private property in the right-of-way (e.g., a fence or retaining wall), project staff will notify the property owner in the preliminary design process to discuss the impacts.

Transportation Commission Preliminary Design Recommendation to Council

In concluding the preliminary design and general public engagement process, the Transportation Commission will formally make a recommendation to City Council for the approval of the preliminary design layout for a project. Adoption of the preliminary design occurs at a regularly scheduled City Council meeting and the public has an opportunity to voice objections or support for a project's design

following a brief presentation by project staff to the body. If the preliminary design is approved by City Council, staff and the engineering firm leading the project will move right into the final design process.

Phase II: Final Design

The final design process commences immediately following preliminary design approval by City Council. While much of this phase is highly technical engineering work, design team staff continues to meet with residents and stakeholders along the project corridor that will see impacts in the City right-of-way along their property lines.

Meetings with Individual Property Owners

Staff will meet one-on-one with adjacent property owners that will have impacts to the City right-of-way that adjoins their private property. These discussions generally focus on impacts related to driveway aprons, grading, sidewalks, paths, plants, hedges, trees, fencing, berms, and retaining walls abutting the private property. Project staff work diligently to ensure a solution for each property owner is reached that best serves the project design and the property owner's wishes.

<u>Private Property in the Right-of-Way.</u> Individuals with personal property in the City right-of-way are governed by <u>Richfield Municipal Code Section 811.07</u>, which states in part that property owners must have a permit for private property in the City right-of-way, that the City reserves the right to revoke any permit at any time and for any reason. If the permit is revoked, the property owner has 60 days to remove the private encroachment at their own expense. Despite the plain language of the Ordinance, project staff almost always are able to resolve problems with private encroachments at minimal or no cost to the property owner or the project itself.

To reiterate, during the preliminary design the City focuses efforts on public outreach and making contact with those that will have direct property impacts or major impacts to private property located in the right-of-way as part of the design being proposed. It is in the final design process that project staff touches base with all adjacent property owners regarding what to expect along the boulevard and any private encroachments that will need to be moved, modified, or removed entirely.

Final Design Approval, Advertisement for Bid, and Award of Contract

Following conclusion of the final design process and approval of the project's final design by City Council, project staff will advertise for sealed bids in compliance with Minnesota's Uniform Municipal Contracting Law (Minnesota Statutes, §471.345). In the bid solicitation process there is no public engagement, but the formal bid opening is a public meeting and the City Council is tasked with awarding the bid to the winning contractor at a regular City Council meeting.

Phase III: Construction

Kick-Off to Construction Open House

All City residents, and especially those along the project corridor, are invited to a construction kick-off meeting where they will meet the contractor and project staff. Project overviews are provided as well as information of what residents can expect with the upcoming construction. Layouts, project plans, and construction timelines are available for residents to view at this meeting and staff is on hand to speak with residents and answer any questions or concerns that residents might have.

Neighborhood Block Meetings

During construction, block meetings are held on-site to keep residents informed of project progress and provide project updates and what residents can expect in front of their home in the upcoming weeks. These meetings provide residents a safe way to talk with the contractor during construction and opportunity to ask project staff or the contractor questions about the project and specific impacts adjacent to their property.

Weekly Project Updates

Throughout the construction season, project staff will send weekly updates and construction recaps to individuals that have subscribed to our mailing lists. City staff produces a weekly video update that is also shared via email and through the City of Richfield and Richfield Sweet Streets Facebook pages. Construction recaps, updates and alerts are posted often to the <u>Richfield Sweet Streets website</u> and to both the Richfield Sweet Streets Facebook page and the City of Richfield's Facebook page.

Individual Meetings

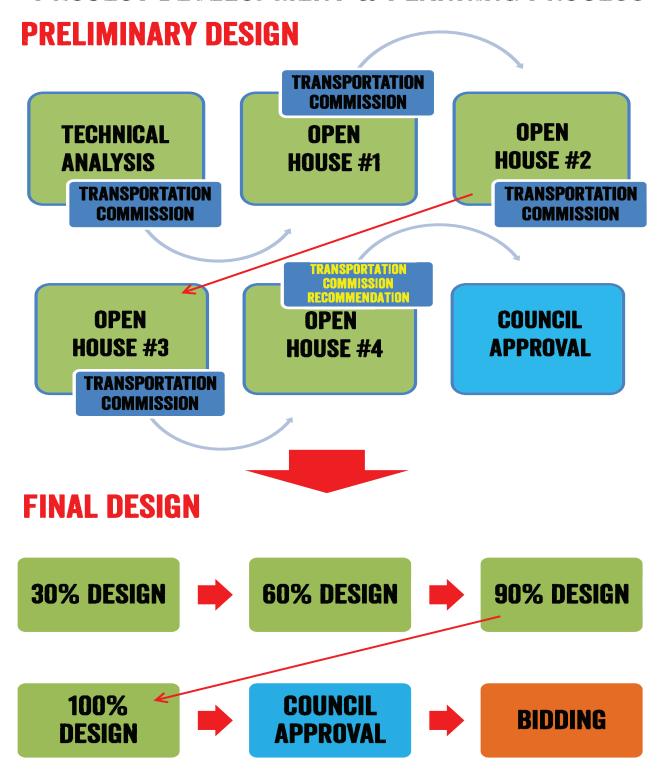
Throughout the construction phase of a project individual residents or businesses will occasionally raise concerns related to project progress or what they're seeing outside their property or business. Project staff will meet with these residents on-site or wherever is most appropriate to address concerns and do all they can to make the construction process go as smooth as possible.

Construction Wrap-Up

The amount of time it takes to carry a project from ground-breaking to 100% completion is highly variable. Staff does their best to forecast to residents when to expect major activity in their neighborhood.

If you have any questions or comments about the City's public engagement process, please contact City of Richfield Transportation Engineer Jack Broz at (612) 861-9792.

PROJECT DEVELOPMENT & PLANNING PROCESS



COMPREHENSIVE PLAN







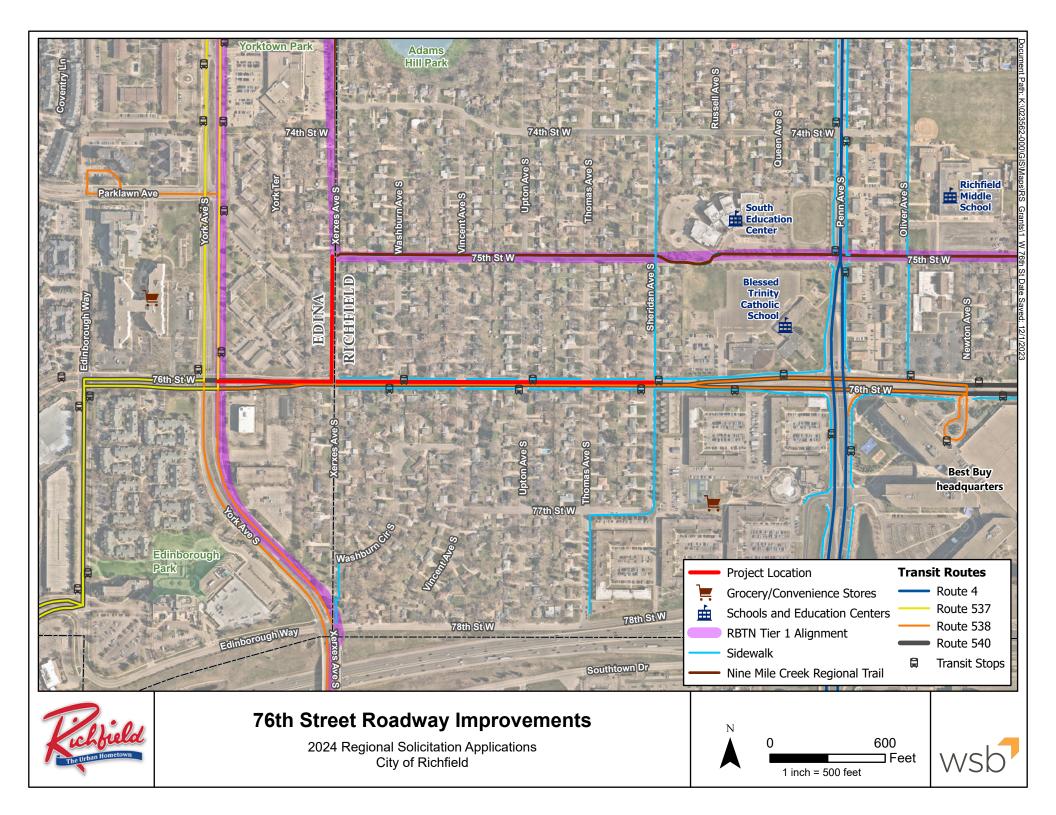
CAPITAL IMPROVEMENT PLAN/BUDGET

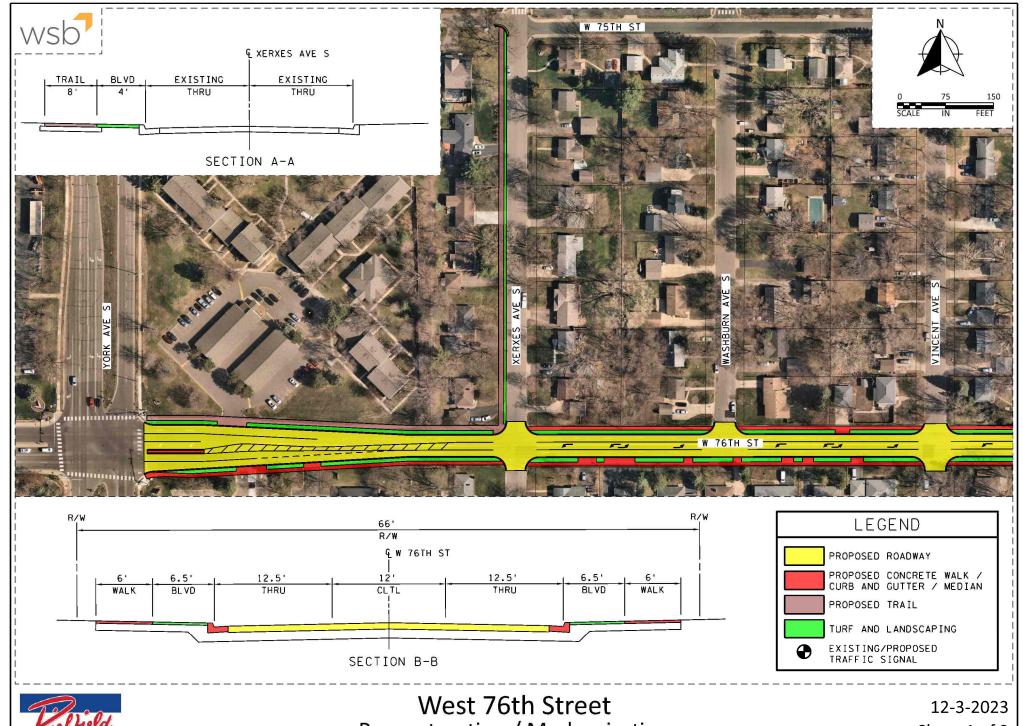


COMPLETE STREETS
GUIDING PRINCIPLES
BICYCLE MASTER PLAN
PARKS MASTER PLAN



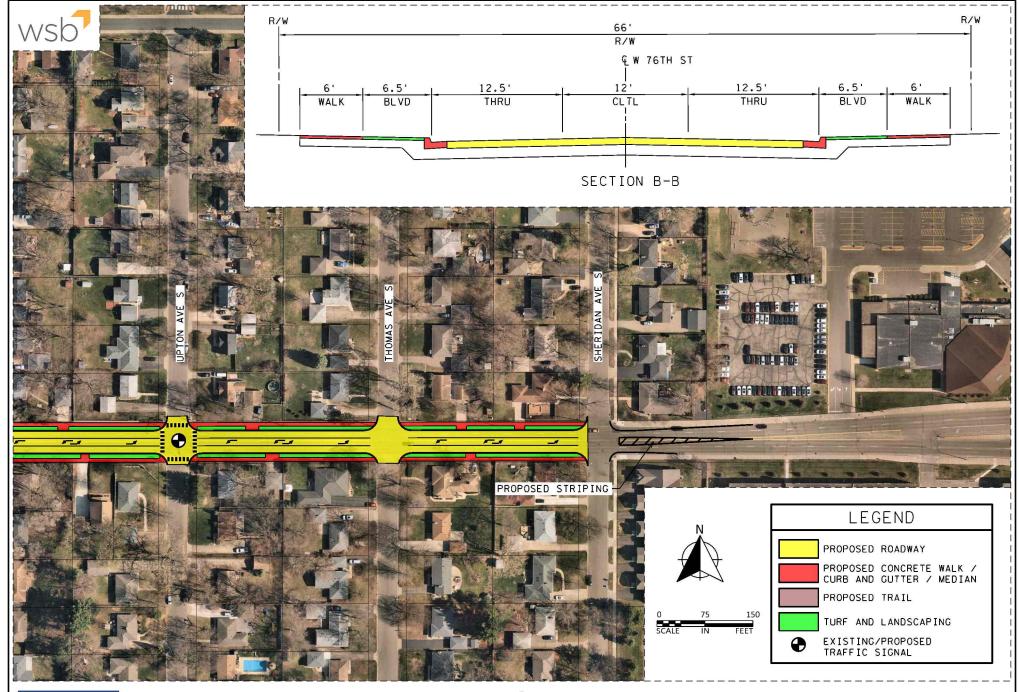
CONSTRUCTION





Reconstruction / Modernization Richfield, MN

Sheet 1 of 2





West 76th Street
Reconstruction / Modernization
Richfield, MN

12-3-2023 Sheet 2 of 2

Socio-Economic Conditions: Affordable Housing Access



Richfield West 76th Street Modernization



Photo 1: W 76th St between Xerxes Ave S and Vincent Ave S, facing east (Nov 2023).

Photo Credit: City of Richfield



Photo 2: W 76th St between Xerxes Ave S and Vincent Ave S, facing west (Nov 2023).

Photo Credit: City of Richfield



Photo 3: Existing signals at W 76th St and Upton Ave S intersection to be replaced (Nov 2023).

Photo Credit: City of Richfield



Photo 4: W 75th St & Xerxes Ave S intersection, location of proposed new connection to Nine Mile Creek Regional Trail (Nov 2023).

Photo Credit: City of Richfield