



Application

19838 - 2024 Roadway Modernization
20136 - 2024 Roadway Modernization
Regional Solicitation - Roadways Including Multimodal Elements

Status: Submitted
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Primary Contact

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Department:
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Address: 4141 Douglas Drive North

* Crystal City Minnesota State/Province 55422 Postal Code/Zip
Phone:* 763-531-1160 Phone Ext.
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What Grant Programs are you most interested in? Regional Solicitation - Roadways Including Multimodal Elements

Organization Information

Name: CRYSTAL, CITY OF
Jurisdictional Agency (if different):
Organization Type: City
Organization Website:
Address: 4141 DOUGLAS DR N

* CRYSTAL City Minnesota State/Province 55422 Postal Code/Zip
County: Hennepin
Phone:* 763-531-1110 Phone Ext.
Fax:
PeopleSoft Vendor Number 0000020937A2

Project Information

Project Name W. Broadway Avenue and Douglas Drive Roundabout Modernization Project
Primary County where the Project is Located Hennepin
Cities or Townships where the Project is Located: City of Crystal
Jurisdictional Agency (If Different than the Applicant): N/A

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

The City of Crystal is proposing geometric, safety, and operational improvements to the W. Broadway Avenue and Douglas Drive signalized intersection to address crash rates that are 1.6 times the statewide average for similar intersections. The project includes mobility and safety enhancements and modernizes the intersection. W. Broadway Avenue (CSAH 8) is a Minor Arterial north of the intersection, and a Major Collector south of the intersection. Douglas Drive (CSAH 102) is a Minor Arterial roadway. Existing roadway volumes are 11,236 ADT (2022) and forecasted roadway volumes (2040) are anticipated to reach 15,600 ADT. The project location is of critical importance, as the intersection serves as the southern gateway to the City's 220-acre Town Center area, home to over 500,000 square feet of commercial space, the City's destination Becker Park with inclusive playground, and within the 10-minute walkshed of the proposed Bass Lake Road station on the Blue Line Extension. The improved intersection will spur economic investment in the City and accommodate all modes of transportation.

This project will remove the existing traffic signal and reconstruct the intersection as a five-leg roundabout between W. Broadway Avenue, Douglas Drive, Hanson Court, and 53rd Avenue. The project includes reconstructed sidewalks and trails for pedestrian and bicycle users to improve multimodal connectivity. The roundabout will provide two stage crossings with pedestrian refuge islands and shift the intersection away from the Hanson Court Apartments. The five-leg roundabout will:

- Improve traffic operations to an acceptable Level of Service A
- Improve vehicular and pedestrian safety
- Provide full access at Hanson Court and 53rd Avenue while discouraging cut-through traffic in the Becker neighborhood
- Facilitate a planned Three Rivers north-south trail connection (CP Regional Trail) through the intersection
- Create an opportunity for an enhanced gateway and southern focal point for Crystal Town Center, contributing to redevelopment investments including affordable housing.

According to the City of Crystal Comprehensive Plan 2040, and Thrive MSP 2040 Forecasts, the City is anticipated to grow by 1,100 residents, 200 additional households, and employ 500 additional people between 2020 and 2040. The increased traffic volumes indicate that without improvements, intersection operations will continue to operate at Level of Service F (LOS F).

The project increases transportation options for residents of all ages and socioeconomic backgrounds while delivering multimodal options for those wishing to walk or bike to work or school with a fully connected sidewalk system.

(Limit 2,800 characters; approximately 400 words)

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

Reconstruct W. Broadway Avenue and Douglas Drive intersection with five-leg, single-lane roundabout complete with sidewalks and ADA compliant infrastructure that connects to a regional trail system

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

Project Length (Miles)

0.1

to the nearest one-tenth of a mile

Project Funding

Are you applying for competitive funds from another source(s) to implement this project? No

If yes, please identify the source(s)

Federal Amount \$3,638,632.00

Match Amount \$909,658.00

Minimum of 20% of project total

Project Total \$4,548,290.00

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 City of Crystal

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: 2026, 2027

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 Crystal

Functional Class of Road

Minor Arterial (Douglas Drive south of intersection and W. Broadway Avenue north of intersection), Major Collector (W. Broadway Avenue south of intersection)

Road System

CSAH

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

Road/Route No.

8

i.e., 53 for CSAH 53

Name of Road

W. Broadway Avenue, Douglas Drive N, Hanson Court, 53rd Avenue N

Example; 1st ST., MAIN AVE

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

From:

Road System

Road/Route No.

i.e., 53 for CSAH 53

Name of Road

Example; 1st ST., MAIN AVE

To:

Road System

DO NOT INCLUDE LEGAL DESCRIPTION

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)

OR:

At:

Road System

Int. between W. Broadway Avenue and Douglas Drive

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

Road/Route No.

8

i.e., 53 for CSAH 53

Name of Road

W. Broadway Avenue and Douglas Drive

Example; 1st ST., MAIN AVE

In the City/Cities of:

Crystal

(List all cities within project limits)

PROJECT LENGTH

Miles

0.1

(nearest 0.1 miles)

Primary Types of Work (check all the apply)

New Construction

Reconstruction	Yes
Resurfacing	
Bituminous Pavement	Yes
Concrete Pavement	Yes
Roundabout	Yes
New Bridge	
Bridge Replacement	
Bridge Rehab	
New Signal	
Signal Replacement/Revision	
Bike Trail	Yes
Other (do not include incidental items)	Roundabout construction, sidewalks and regional trail, grading, aggregate base, lighting, storm sewer, median, erosion control
BRIDGE/CULVERT PROJECTS (IF APPLICABLE)	
Old Bridge/Culvert No.:	N/A
New Bridge/Culvert No.:	N/A
Structure is Over/Under (Bridge or culvert name):	N/A
OTHER INFORMATION:	
Zip Code where Majority of Work is Being Performed	55429
<u>Approximate Begin Construction Date</u>	03/02/2028
<u>Approximate End Construction Date</u>	10/29/2029
Miles of Trail (nearest 0.1 miles)	0.2
Miles of Sidewalk (nearest 0.1 miles)	0.2
Miles of trail on the Regional Bicycle Transportation Network (nearest 0.1 miles):	0.2
Is this a new trail?	Yes

Requirements - All Projects

All Projects

1. The project must be consistent with the goals and policies in these adopted regional plans: Thrive MSP 2040 (2014), the 2040 Transportation Policy Plan (2018), the 2040 Regional Parks Policy Plan (2018), and the 2040 Water Resources Policy Plan (2015).

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

2. The project must be consistent with the 2040 Transportation Policy Plan. Reference the 2040 Transportation Plan goals, objectives, and strategies that relate to the project.

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

Goal B: Safety and Security - The regional transportation is safe and secure for all users (p. 2.5).

- Obj. A: reduce fatal and serious injury crashes and improve safety and security for all modes of passenger travel and freight transport (p. 2.5).

- Strat. B1: Regional transportation partners will incorporate safety and security considerations for all modes and users throughout the processes of planning, funding, construction, operation (p. 2.5).

- Strat. B6: Regional transportation partners will use best practices to provide and improve facilities for safe walking and bicycling, since pedestrians and bicyclists are the most vulnerable users of the transportation system (p. 2.8).

Goal C: A reliable, affordable, and efficient multimodal transportation system supports the prosperity of people and businesses by connecting them to destinations throughout the region and beyond (p. 2.10).

- Obj. E: Improve the availability of and quality of multimodal travel options for people of all ages and abilities to connect to jobs and other opportunities, particularly for historically under-represented populations (p. 2.10).

- Strat. C1: Regional transportation partners continue to work together to plan and implement transportation systems that are multimodal and provide connections between modes (p. 2.10).

- Strat. C7: Regional transportation partners will manage and optimize the performance of the Principal Arterial system as measured by person throughput.

Goal E: Healthy and Equitable Communities - The regional transportation system advances equity and contributes to communities' livability and sustainability while protecting the natural, cultural, and developed environments (p. 2.30).

- Obj. A: Reduce transportation-related air emissions.

- Obj. D: Provide a transportation system that promotes community cohesion and connectivity for people of all ages and abilities, particularly for historically under-represented populations.

- Strat. E3: Regional transportation partners will plan and implement a transportation system that considers the needs of all potential users, including children, senior citizens, and persons with disabilities, and that promotes active lifestyles and cohesive communities. A special emphasis should be placed on promoting the environmental and health benefits of alternatives to single-occupant vehicle travel (p. 2.31).

Limit 2,800 characters, approximately 400 words

3. The project or the transportation problem/need that the project addresses must be in a local planning or programming document. Reference the name of the appropriate comprehensive plan, regional/statewide plan, capital improvement program, corridor study document [studies on trunk highway must be approved by the Minnesota Department of Transportation and the Metropolitan Council], or other official plan or program of the applicant agency [includes Safe Routes to School Plans] that the project is included in and/or a transportation problem/need that the project addresses.

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

The project is located in the city's 220-acre Town Center mixed use development district and 10-minute walkshed for the proposed LRT station at Bass Lake Road. It is the policy of the city to encourage high density development in this area (p. 22-23 of the Comprehensive Plan). Roadway implementation item #1 on p. 39 of the Comprehensive Plan states that the city will continue to evaluate design, maintenance and operation of existing roadways, and this project emerged from that implementation item. The city would initiate a Comprehensive Plan amendment specifically citing this intersection project if funding is awarded.

- City of Crystal Comprehensive Plan - Pages 34-46

https://p1cdn4static.civiclive.com/UserFiles/Servers/Server_10879634/File/Resident/Community%20Development/2040%20Comp%20Plan/2040Comp.pdf

Limit 2,800 characters, approximately 400 words

4. The project must exclude costs for studies, preliminary engineering, design, or construction engineering. Right-of-way costs are only eligible as part of transit stations/stops, transit terminals, park-and-ride facilities, or pool-and-ride lots. Noise barriers, drainage projects, fences, landscaping, etc., are not eligible for funding as a standalone project, but can be included as part of the larger submitted project, which is otherwise eligible. Unique project costs are limited to those that are federally eligible.

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

5. Applicant is a public agency (e.g., county, city, tribal government, transit provider, etc.) or non-profit organization (TDM and Unique Projects applicants only). Applicants that are not State Aid cities or counties in the seven-county metro area with populations over 5,000 must contact the MnDOT Metro State Aid Office prior to submitting their application to determine if a public agency sponsor is required.

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

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

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

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

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

Date plan completed: 01/03/2020

Link to plan: https://p1cdn4static.civiclive.com/UserFiles/Servers/Server_10879634/File/Resident/Public%20Works/ADAPlan.pdf

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

Date self-evaluation completed:

Link to plan:

Upload plan or self-evaluation if there is no link

Upload as PDF

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

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

11. The owner/operator of the facility must operate and maintain the project year-round for the useful life of the improvement. This includes assurance of year-round use of bicycle, pedestrian, and transit facilities, per FHWA direction established 8/27/2008 and updated 4/15/2019. Unique projects are exempt from this qualifying requirement.

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

12. The project must represent a permanent improvement with independent utility. The term "independent utility" means the project provides benefits described in the application by itself and does not depend on any construction elements of the project being funded from other sources outside the regional solicitation, excluding the required non-federal match. Projects that include traffic management or transit operating funds as part of a construction project are exempt from this policy.

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

13. The project must not be a temporary construction project. A temporary construction project is defined as work that must be replaced within five years and is ineligible for funding. The project must also not be staged construction where the project will be replaced as part of future stages. Staged construction is eligible for funding as long as future stages build on, rather than replace, previous work.

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

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

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

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 are exclusively for bicycle or pedestrian traffic must apply under one of the Bicycle and Pedestrian Facilities application categories. Rail-only bridges are ineligible for funding.

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

Bridge Rehabilitation/Replacement projects only:

5. The length of the 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 new/expanded interchange or new interchange ramps must have approval by the Metropolitan Council/MnDOT Interchange Planning Review Committee prior to application submittal. Please contact 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)	\$213,000.00
Removals (approx. 5% of total cost)	\$237,600.00
Roadway (grading, borrow, etc.)	\$0.00
Roadway (aggregates and paving)	\$306,890.00
Subgrade Correction (muck)	\$142,500.00
Storm Sewer	\$434,000.00
Ponds	\$0.00
Concrete Items (curb & gutter, sidewalks, median barriers)	\$126,900.00
Traffic Control	\$64,000.00
Striping	\$2,500.00
Signing	\$22,500.00
Lighting	\$160,000.00
Turf - Erosion & Landscaping	\$131,000.00
Bridge	\$0.00
Retaining Walls	\$0.00
Noise Wall (not calculated in cost effectiveness measure)	\$0.00
Traffic Signals	\$0.00
Wetland Mitigation	\$0.00
Other Natural and Cultural Resource Protection	\$0.00

RR Crossing	\$0.00
Roadway Contingencies	\$1,588,000.00
Other Roadway Elements	\$821,000.00
Totals	\$4,249,890.00

Specific Bicycle and Pedestrian Elements

CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES	Cost
Path/Trail Construction	\$23,400.00
Sidewalk Construction	\$180,400.00
On-Street Bicycle Facility Construction	\$0.00
Right-of-Way	\$0.00
Pedestrian Curb Ramps (ADA)	\$94,600.00
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	\$298,400.00

Specific Transit and TDM Elements

CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES	Cost
Fixed Guideway Elements	\$0.00
Stations, Stops, and Terminals	\$0.00
Support Facilities	\$0.00
Transit Systems (e.g. communications, signals, controls, fare collection, etc.)	\$0.00
Vehicles	\$0.00
Contingencies	\$0.00
Right-of-Way	\$0.00
Other Transit and TDM Elements	\$0.00
Totals	\$0.00

Transit Operating Costs

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

PROTECT Funds Eligibility

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

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

Response:

W. Broadway Avenue and Douglas Drive Roundabout Modernization Project will incorporate elements that will increase the resiliency of local and regional transportation system networks within project area. The project provides transportation benefits by making the intersection more resilient to endure current and future severe weather events and natural disasters. The project will reduce long-term, life cycle infrastructure costs by preventing future damage, maintenance, and reconstruction. Project element improvements that are eligible to receive PROTECT funds include the following: Storm sewer systems will be designed to current standards to include high intensity rainfall events and installed to remove rainwater from surface transportation facilities; Riprap installation at storm sewer and culvert outlets for erosion protection; The number of drainage structures on the roadway surface will be increased to meet current standards; Native seed mixtures will be used following MnDOT standards. Weed control will be used during establishment. These are vegetation management practices in transportation rights-of-way to improve roadway safety, prevent invasive species, and provide wildfire and erosion control.

Totals

Total Cost	\$4,548,290.00
Construction Cost Total	\$4,548,290.00
Transit Operating Cost Total	\$0.00

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

Existing Employment within 1 Mile:	5251
Existing Manufacturing/Distribution-Related Employment within 1 Mile:	1160
Existing Post-Secondary Students within 1 Mile:	0
Upload Map	1702252510460_1_RegEconomy_Crystal.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: 0
(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	Douglas Drive and West Broadway Intersection
Current AADT Volume	11236
Existing Transit Routes on the Project	716

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

Upload Transit Connections Map 1702252566299_2_Transit_Crystal.pdf

Please upload attachment in PDF form

Response: Current Daily Person Throughput

Average Annual Daily Transit Ridership	0
Current Daily Person Throughput	14607.0

Measure B: 2040 Forecast ADT

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

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

OR

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

Forecast (2040) ADT volume

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 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:

According to the EPA's EJScreen Community Report within a ½-mile buffer around the project area there is a total population of 2,574. Thirty-two percent of the total population surrounding the project location are people of color. Nineteen percent of the total population is Black, followed by Hispanic (five percent), two or more races (five percent), and Asian (three percent). Of the total population, 11 percent are disabled, and twenty-four percent are below the poverty threshold. The project is in an area above the regional average for population in poverty or population of color.

The City solicited public input on this project using an online community survey. The survey was conducted between March 16th and April 5th, 2022, asking participants to provide feedback about the W. Broadway Avenue and Douglas Drive intersection improvement to replace the traffic signal with a roundabout.

The survey link was posted on the City of Crystal's social media, multiple times, and advertised on local community access television. In addition, CCX media also published an article about the survey, further broadening its reach to the local community, including the affordable housing residents, senior housing residents, and numerous schools and daycare centers serving youth in the nearby area. Finally, a direct mailing (postcard) with a QR code link to the online survey was sent to over 150 properties within 1,000 feet of the intersection. As shown on the Equity Populations and Destinations map, these mailings included the following underrepresented populations:

- Hanson Court Apartments (affordable housing)
- Near Food Shelf (serving low-income residents)
- Various Schools and Daycares (youth)

The survey generated 559 responses. Of those responses, the majority indicated that the intersection was difficult to navigate for pedestrians and that there is no place for bicyclists to safely travel through the intersection. Additionally, over a quarter of respondents reported being involved in, observing, or encountering a near miss at one of the intersections included in the project area.

The City will meet with residents from nearby housing developments to develop a deeper understanding of the current safety and navigation issues surrounding the intersection. This engagement will target BLOPC, disabled, and low-income individuals. The expected date of this meeting is fall 2024, after the new, affordable 5240 Apts is completed and fully occupied.

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

Measure B: Disadvantaged Communities Benefits and Impacts

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

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

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

Acknowledge and describe any negative project impacts to Black, Indigenous, and People of Color populations, low-income populations, children, people with disabilities, youth, and older adults. Describe measures to mitigate these impacts. Unidentified or unmitigated negative impacts may result in a reduction in points.

Below is a list of potential negative impacts. This is not an exhaustive list.

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

Response:

This project is designed to provide direct safety, public health, transportation, and access benefits to equity populations residing or engaged in activities near the project area. Both motorized and non-motorized travel time improvements through the intersection will be provided to low-income populations, persons with disabilities, youth, and older adults by replacing the signal with a five-leg roundabout. The project is in a Regional Environmental Justice Area (above the regional average concentration of race/poverty). Typically, populations with higher levels of poverty have limited access to a vehicle, so providing access to multimodal facilities such as bicycle, pedestrian, and transit facilities is of upmost importance.

The project provides the following benefits to disadvantaged populations:

1) The project provides safety benefits to equity populations utilizing bicycling, walking, and other non-motorized options. Residents of affordable housing are more likely to rely on transit, bicycling, and walking as their mode of transportation. Reconstructed sidewalks and new trails will improve pedestrian and bicycle safety. The project will improve crossing facilities by installing two stage crossings with a pedestrian refuge island on each of the five legs. Street lighting will also be installed, helping provide improved visibility for pedestrians and bicyclists.

2) The project will provide health benefits for residents of all ages and socioeconomic backgrounds by encouraging an active lifestyle. The project delivers safer multimodal options separated from vehicular traffic. Lighted sidewalks help illuminate the facility and allow for exercise and recreation activities during the early morning and evening periods. The project also includes accommodations for a future regional trail through the intersection that connects the City's destination Becker Park with the Crystal Community Center and aquatic facility.

3) The roundabout will improve the geometrics, access, and operations of the five-leg intersection, while reducing queuing, and minimizing conflict points for those navigating the intersection. This provides improved access to destinations such as jobs, schools, daycares, social services, and community center, as shown in the Equity Populations and Destinations map.

As with any construction project, there will be construction activities that will directly impact the traveling public and nearby residents and businesses. However, these construction impacts will be temporary. Project construction will incorporate proper noise, storm water management, traffic management mitigation, and access management for motorists, bicyclists, and pedestrians as well as planned detour routes to consider the needs of property owners and stakeholders.

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:

As is shown on the Socio-Economic Conditions map, there are 194 publicly subsidized or naturally occurring affordable rental housing units in census tracts within ½ mile of the proposed project. Specifically, there are several affordable housing options in proximity of the project, including multiple apartment complexes and many other duplexes and multi-family homes.

As is shown on the Equity Populations and Destinations map, those options include:

- Kentucky Lane Apartments (50 units)
- Cavanagh Senior Apartments (130 units)
- Bass Lake Court Townhomes (34 units)
- Hanson Court Apartments (33 units)

Under construction, the 5240 Apartment complex is a 58-unit building with all units below 60 percent of the Area Median Income (AMI). This affordable complex will also incorporate 15 units that are below 30 percent AMI. Summer 2024 is the anticipated completion date.

This project improves the W. Broadway Avenue and Douglas Drive intersection, providing upgraded multimodal access and operations for all users through the intersection. The project is designed to provide direct safety and transportation benefits to residents of affordable housing by giving improved access to destinations both north, west, and south of the intersection. Activities in the area include shopping and employment at the Crystal Shopping Center; picking up children at one of the many childcare centers and in-home facilities, and schools; getting food at the Near Food Shelf; and going to the Crystal Community Center.

The project includes sidewalks and trail improvements for these residents of affordable housing that use bicycling and walking as their preferred mode of transportation for short trips to the grocery store, food bank, health services, or to take their children to school or daycare. Currently, navigating the intersection as a pedestrian or bicyclist is dangerous. Installation of the roundabout will not only improve vehicle circulation, but it will also facilitate safer and easier crossing for pedestrians and bicyclists. With improved access, benefits will include:

- Access to economic opportunities,
- Increased physical activity, and
- Decrease in the potential of pedestrian injuries and fatalities.

Finally, Transit Route 716 runs north/south through the intersection with four stops within the immediate project area. The improvements will allow transit users easier access to bus routes. Many low-income residents do not own a vehicle and rely on transit as a connection to jobs and schools.

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

Measure D: BONUS POINTS

Project is located in an Area of Concentrated Poverty:

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

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

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

1702309549778_3_SocioEconomic_Crystal.pdf

Measure A: Year of Roadway Construction

Year of Original Roadway Construction or Most Recent Reconstruction	Segment Length	Calculation 1	Calculation 2
1978	0.1	197.8	1978.0
	0	198	1978

Total Project Length

Total Project Length (as entered in "Project Information" form) 0.1

Average Construction Year

Weighted Year 1978

Total Segment Length (Miles)

Total Segment Length 0.1

Measure B: Geometric, Structural, or Infrastructure Improvements

Improved roadway to better accommodate freight movements:

Yes

Response:

The project provides improved roadway conditions to accommodate truck traffic between two Minor Arterial roadways, W. Broadway Avenue and Douglas Drive. Existing conditions require left-turning traffic to stop at the intersection, leading to increased delays, noise, and emissions. The intersection geometrics (skew) make turning movements for freight challenging. Roundabouts allow trucks to move more freely through the intersection.

CP Railroad has at-grade crossings at W. Broadway Avenue and Douglas Drive. Users experience delay due to the length and frequency of the trains. The roundabout will mitigate the impact of train delays by efficiently processing vehicles through the intersection.

(Limit 700 characters; approximately 100 words)

Improved clear zones or sight lines:

Yes

Response:

The existing intersection of W. Broadway Avenue and Douglas Drive is at a severe skew creating challenging sight lines for drivers turning from Douglas Drive. The installation of the roundabout will remove the skew and feed all four area roadways in the area into one intersection, improving overall sight lines and decision points. The car dealership which has existing encroachments on the south side of the intersection will also be acquired and overhead utilities along all roadways will be buried removing obstructions from the sight lines and the roadway clear zone.

(Limit 700 characters; approximately 100 words)

Improved roadway geometrics:

Yes

Response:

Geometrics will be greatly improved at each of the five roadways intersecting the roundabout with only right-turn movements. In addition, significant safety benefits for both motor vehicles and pedestrians will be realized. The skew between W. Broadway Avenue and Douglas Drive will be removed, improving the function of the intersection. 53rd Avenue and Hanson Court will also be connected into the roundabout, improving the area roadway layout by combining multiple intersections near one another into one intersection. Additional ADA compliant pedestrian facilities and crossings will be added, creating an improved and safer pedestrian network.

(Limit 700 characters; approximately 100 words)

Access management enhancements:

Yes

Response:

Access management will be enhanced with the roundabout improvement. Currently there are 10 driveways accessing roadways within the project area near the W. Broadway Avenue and Douglas Drive intersection. The proposed project will close and remove two access points (associated with 5273 W. Broadway), managing access within the immediate area of the intersection. The proposed roundabout connects four roadways (including 53rd Avenue and Hanson Court) with five legs into one intersection consolidating where vehicles access 53rd Avenue, Hanson Court, W. Broadway Avenue and Douglas Drive.

(Limit 700 characters; approximately 100 words)

Vertical/horizontal alignment improvements:

Yes

Response:

Horizontal alignments on W. Broadway Avenue and Douglas Drive will be realigned to allow for the roundabout to be constructed in a location where all four roads (five legs) can tie into it. This realignment will improve the function of the intersection and reduce confusion and conflict points for drivers and pedestrians. Additional horizontal and vertical alignment improvements will be made within the project area to provide adequate speed control for vehicles approaching and traversing the roundabout.

(Limit 700 characters; approximately 100 words)

Improved stormwater mitigation:

Yes

Response:

Stormwater management BMPs will be implemented into construction design to provide water quality treatment and reduce discharge of suspended solids and phosphorus loadings into downstream water bodies. The main downstream water body (Twin Lakes) has a nutrient Total Maximum Demand Load implementation plan to reduce impairments and is on the Minnesota Pollution control Agencies' impaired waters list. The acquisition of a used car sales lot is needed to obtain the right of way for the proposed project. Due to this acquisition, the net impervious area will be reduced as part of this project which results in less storm water runoff.

(Limit 700 characters; approximately 100 words)

Signals/lighting upgrades:

Yes

Response:

Lighting improvements will be made with the replacement of the existing signalized intersection with a five-leg roundabout. The roundabout will include the installation of enhanced lighting as compared to existing conditions to provide improved visibility for pedestrians and bicyclists. The use of lighting and illumination has been shown to increase the number of pedestrians who purposefully use the crosswalk and the number of cars who yield to pedestrians, ultimately leading to a safer crossing.

(Limit 700 characters; approximately 100 words)

Other Improvements

Yes

Response:

W. Broadway Avenue runs close to the Hanson Court Apartments (on the northeast corner of W. Broadway Avenue and Hanson Court intersection). The new alignment will shift W. Broadway Avenue to provide additional distance between the apartments and the roadway. The project will also be replacing the original water main and sanitary sewer infrastructure. Replaced utilities will provide safe and reliable water and sanitary sewer service to residents and businesses along the corridor for generations to come. Lastly, the existing pedestrian ramps do not meet current ADA standards and will be upgraded to meet standards.

(Limit 700 characters; approximately 100 words)

Measure A: Congestion Reduction/Air Quality

Total Peak Hour Delay Per Vehicle Without The Project (Seconds/Vehicle)	Total Peak Hour Delay Per Vehicle With The Project (Seconds/Vehicle)	Total Peak Hour Delay Per Vehicle Reduced by Project (Seconds/Vehicle)	Volume without the Project (Vehicles per hour)	Volume with the Project (Vehicles Per Hour):	Total Peak Hour Delay without the Project:	Total Peak Hour Delay by the Project:	Total Peak hour Delay Reduced by project	EXPLANATION of methodology used to calculate railroad crossing delay, if applicable.	Synchro or HCM Reports	
11.0	9.2	1.8	1398	1459	15378.0	13422.8	1955.2	N/A	1702394827663_5_TrafficOps_Crystal.pdf	
2.0	0	2.0	736	0	1472.0	0	1472.0	n/a	1702394853314_5_TrafficOps_Crystal.pdf	
0	0	0	814	0	0	0	0	n/a	1702394936627_5_TrafficOps_Crystal.pdf	
					13423					

Vehicle Delay Reduced

Total Peak Hour Delay Reduced	Total Peak Hour Delay Reduced	Delay Reduced Total
16850.0	13422.8	3427.2

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

Total (CO, NOX, and VOC) Peak Hour Emissions without the Project (Kilograms):	Total (CO, NOX, and VOC) Peak Hour Emissions with the Project (Kilograms):	Total (CO, NOX, and VOC) Peak Hour Emissions Reduced by the Project (Kilograms):
1.41	1.27	0.14
1	1	0

Total

Total Emissions Reduced:	0.14
Upload Synchro Report	1702253305776_5_TrafficOps_Crystal.pdf

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

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

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

Total Parallel Roadway

Emissions Reduced on Parallel Roadways	0
--	---

Upload Synchro Report

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

New Roadway Portion:

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

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

Cruise speed in miles per hour without the project:	0
Vehicle miles traveled without the project:	0
Total delay in hours without the project:	0
Total stops in vehicles per hour without the project:	0

Cruise speed in miles per hour with the project:	0
Vehicle miles traveled with the project:	0
Total delay in hours with the project:	0
Total stops in vehicles per hour with the project:	0
Fuel consumption in gallons (F1)	0
Fuel consumption in gallons (F2)	0
Fuel consumption in gallons (F3)	0
Total (CO, NOX, and VOC) Peak Hour Emissions Reduced by the Project (Kilograms):	0

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

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

Crash Modification Factor Used: Crash modification factors (CMFs) were selected from the FHWA's CMF Clearinghouse to estimate crash reduction related to the project. CMF 224 and 4259 - convert signalized intersection to modern roundabout were used.

(Limit 700 Characters; approximately 100 words)

Rationale for Crash Modification Selected: The study intersection(s) will be converted to a five-leg single-lane roundabout. CMF 4259 applies to fatal, serious, minor, or possible injury crashes, while CMF 224 applies to all crash severities. A crash reduction of 100 percent was used for angle and left-turn crashes. Based on engineering judgment these crashes are no longer able to occur for the roundabout configuration.

(Limit 1400 Characters; approximately 200 words)

Project Benefit (\$) from B/C Ratio	\$3,102,348.00
Total Fatal (K) Crashes:	0
Total Serious Injury (A) Crashes:	0
Total Non-Motorized Fatal and Serious Injury Crashes:	0
Total Crashes:	8
Total Fatal (K) Crashes Reduced by Project:	0
Total Serious Injury (A) Crashes Reduced by Project:	0
Total Non-Motorized Fatal and Serious Injury Crashes Reduced by Project:	0
Total Crashes Reduced by Project:	7
Worksheet Attachment	1702253421661_6_Safety_Crystal.pdf

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) and does not provide safe and comfortable pedestrian facilities and crossings. No

Existing location lacks any pedestrian facilities (e.g., sidewalks, marked crossings, wide shoulders in rural contexts) and project does not add pedestrian elements (e.g., reconstruction of a roadway without sidewalks, that doesn't also add pedestrian crossings and sidewalk or sidepath on one or both sides). No

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

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

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

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

Treatments and countermeasures should be well-matched to the 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:

The roundabout improvement addresses the safety needs of people crossing W. Broadway Avenue, Douglas Drive, Hanson Court and 53rd Avenue. The project will replace a signal with a roundabout that ties into the existing sidewalk approaching the intersection from multiple directions. The existing pedestrian facilities at the intersection are insufficient and require crossing five lanes of traffic to get across W. Broadway Avenue and four lanes of traffic to get across Douglas Drive. In addition, existing pedestrian ramps do not meet current ADA standards.

Existing conditions do not include a marked crosswalk across the south leg of Douglas Drive (right-turn lane onto W. Broadway Ave), requiring pedestrians walking southbound to cross nine lanes of traffic through a five-stage crossing to continue south. The project will include sidewalk and trails to create an environment where pedestrians can safely move through the roundabout intersections, using facilities that meet ADA standards. The layout includes two-stage crossings, with a pedestrian refuge island on each leg of the roundabout. Further, the installation of improved street lighting will enhance pedestrian visibility at night and all vehicle traffic will be slowed as it yields to enter the roundabout. Traffic movements will become more predictable for pedestrians allowing drivers to identify designed pedestrian crossing locations.

According to the PEDSAFE and FHWA Proven Safety Countermeasures resources, the installation of a roundabout will reduce speeds and improve safety at all intersections by eliminating angle collisions. The lower vehicular speeds and reduced conflict environment creates a more comfortable environment for walking and biking. The FHWA resource also indicates that replacing a traffic signal with a roundabout results in a 78 percent reduction in fatal and injury crashes. A reduction in injury type crashes provides a safer environment for all modes of transportation traveling through the newly constructed roundabout.

The project design includes other PEDSAFE countermeasures that have safety benefits for pedestrians and bicyclist navigating the roundabout:

- Using curb ramps with marked crosswalks improves orientation for visually impaired pedestrians and allows people using wheelchairs, strollers, or walkers to navigate the crossing.
- Providing crossing/pedestrian refuge islands are shown to reduce pedestrian crashes by 32 percent.
- Using lighting and illumination increases the number of pedestrians who purposefully use the crosswalk and cars who yield to pedestrians, ultimately leading to a safer crossing.
- Modifying the skewed intersection will provide shorter and safer crossings for all users and abilities.

(Limit 2,800 characters; approximately 400 words)

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

Select one:

Yes

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:

The W. Broadway Avenue and Douglas Drive signal is being removed, increasing the distance between signalized intersections. The measure being used to fill the gap for protected crossing opportunities for pedestrians is a newly constructed roundabout. The lower vehicular speeds and reduced conflict environment at the roundabout creates a more comfortable environment for pedestrians to cross. In addition, the project will include two-stage pedestrian crossings with refuge islands for each leg.

(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:

N/A

(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:

N/A

(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:

N/A

(Limit 1,400 characters; approximately 200 words)

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

Response:

The W. Broadway Avenue and Douglas Drive intersection will be converted from the existing signalized intersection to a five-leg roundabout. Relative to signalized intersections, roundabouts are known to reduce travel speeds as vehicles need to slow on approach to the intersection and yield to opposing traffic within the roundabout. The slight curve in the approaching roadways also helps motorists to begin slowing down before reaching the roundabout. In general, speeds in a roundabout are typically between 15 and 20 miles per hour.

The project is near schools, daycares, commercial areas, recreation facilities, and other pedestrian generators, so the roundabout is expected to be intentionally designed to reduce speeds entering and exiting the roundabout intersection.

(Limit 2,800 characters; approximately 400 words)

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

Response:

Both W. Douglas Drive and W. Broadway Avenue have posted speeds of 35 mph. After installation of the roundabout, speeds will be reduced to 20 mph within the roundabout.

(Limit 1,400 characters; approximately 200 words)

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

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

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

or

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

Yes

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

Yes

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

List the AADT

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

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

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

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) Yes

If checked, please describe:

Big Louies Bar and Grill and NEAR Food Shelf are located on W. Broadway Avenue, south of the project, and McDonalds is located on W. Broadway Avenue north of the project. Just outside of the 500-foot radius (a little over 1,000 feet to the north) is a Target, numerous restaurants, the Crystal Shopping Center, and Becker Park which is the location of the Crystal Farmers Market, an inclusive-playground, the City's summer festival, and other programmed events.

(Limit 1,400 characters; approximately 200 words)

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

Yes

If checked, please describe:

There is a large three structure multifamily affordable housing apartment located at the corner of W. Broadway Avenue and Hanson Court (Hanson Court Apartments). The 5240 Apts complex is currently under construction just east of the project intersection, providing 58 additional affordable housing units for low-income residents.

As noted previously, Becker Park is just over 1,000 feet to the north, in addition to the Crystal Farmers Market, an inclusive playground, the City's summer festival, and other programmed events. Additionally, Crystal Community Center, with baseball fields, an aquatic center, and skate park, is located on Douglas Drive, about 2,000 feet south of the project area.

(Limit 1,400 characters; approximately 200 words)

Measure A: Multimodal Elements and Existing Connections

Response:

The project includes bicycle and pedestrian elements that will improve the travel experience for all modes of transportation. Currently, the project intersection discourages non-vehicular travel, makes it challenging to access transit by walking or biking, and poses hardships for disabled individuals. The City of Crystal conducted a community survey, which revealed that the intersection has several safety issues for pedestrians and cyclists. To address these concerns, the project will replace the current traffic signal with a five-leg roundabout.

There are four Metro Transit bus stops in the project area. The northern end of the project is serviced by stops at the W. Broadway and Douglas Drive intersection. South of the project area, Douglas Drive and 53rd Avenue have two stops. Route 716 provides northbound and southbound service, connecting to Brooklyn Park, New Hope, and Robbinsdale. Hanson Court and 5240 residents who do not have access to a vehicle depend on these transit connections to access economic and educational opportunities. The project will reconstruct trails and sidewalks that directly connect to the four transit stops. Each leg of the roundabout will incorporate a two-stage pedestrian crossing with pedestrian refuge islands and high visibility crossings. These refuges will increase pedestrian visibility and reduce high vehicle speeds. Pedestrians will be able to focus on one direction of traffic at a time as they cross, making it a safer crossing. Furthermore, crosswalks will have high-visibility markings. This reinforces the presence of pedestrians and cyclists, ensuring that drivers are aware of their surroundings and can take necessary precautions.

The project's multimodal improvements will positively affect a RBTN Tier 2 corridor. It aims to upgrade the intersection to connect two bikeways, along with serving as a north-south connection for the Canadian Pacific Rail Regional Trail. The trail corridor spans 21 miles and crosses six communities, connecting pedestrians and bicyclists to local and regional parks and trails.

As per the ADA Transition Plan Map, the sidewalk infrastructure along the project corridor has horizontal discontinuities and cross slope alignment issues. Additionally, there are two obstructions on the northeast side of the corridor caused by current traffic pole configurations, which may pose difficulties for pedestrians to access and reach their destinations safely. The project is a priority for Hennepin County ADA Transition Plan and aims to address these issues. This will ensure safe crossings for pedestrians, bicyclists, and wheelchairs across W. Broadway Avenue and Douglas Drive.

(Limit 2,800 characters; approximately 400 words)

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. Yes

100%

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

50%

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

50%

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

25%

No outreach has led to the selection of this project.

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 solicited public input on this project using an online community survey. The survey was open between March 16th and April 5th, 2022, asking participants to provide feedback about the W. Broadway Avenue and Douglas Drive intersection improvement to replace the traffic signal with a roundabout.

The survey link was posted on the City of Crystal's social media, multiple times, and advertised on local community access television. In addition, CCX media also published an article about the survey, further broadening its reach to the local community, including the affordable housing residents, senior housing residents, and numerous schools and daycare centers serving youth in the nearby area. Finally, a direct mailing (postcard) with a QR code link to the online survey was sent to over 150 properties within 1,000 feet of the intersection. As shown on the Equity Populations and Destinations map, these mailings included the following underrepresented populations:

- Hanson Court Apartments (affordable housing)
- Near Food Shelf (serving low-income residents)
- Various Schools and Daycares (youth)

In total, the survey generated 559 responses. Of those responses, the majority indicated that the intersection was difficult to navigate for pedestrians and that there is no place for bicyclists to safely travel through the intersection. Additionally, over a quarter of respondents reported being involved in, observing, or encountering a near miss at one of the intersections included in the project area.

Finally, the City will meet with local housing developments and residents to develop a deeper understanding of the current safety and navigation issues surrounding the intersection. This engagement will target BIOC, disabled, and low-income individuals. The expected date of this meeting is fall 2024, after the new, affordable 5240 Apts is completed and fully occupied.

(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. Yes

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.

50%

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

25%

Layout has not been started

0%

Attach Layout

1702254021018_8_ConceptLayout_Crystal.pdf

Please upload attachment in PDF form

Additional Attachments

Please upload attachment in PDF form

3. Review of Section 106 Historic Resources (15 Percent of Points)

No known historic properties eligible for or listed in the National Register of Historic Places are located in the project area, and project is not located on an identified historic bridge Yes

100%

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

100%

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

80%

Historic/archeological property impacted; determination of ?adverse effect? anticipated

40%

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

0%

Project is located on an identified historic bridge

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

Right-of-way, permanent or temporary easements, and MnDOT agreement/limited-use permit either not required or all have been acquired

100%

Right-of-way, permanent or temporary easements, and/or MnDOT agreement/limited-use permit required - plat, legal descriptions, or official map complete

50%

Right-of-way, permanent or temporary easements, and/or MnDOT agreement/limited-use permit required - parcels identified Yes

25%

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

0%

5. Railroad Involvement (15 Percent of Points)

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

100%

Signature Page

Please upload attachment in PDF form

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

50%

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

0%

Measure A: Cost Effectiveness

Total Project Cost (entered in Project Cost Form): \$4,548,290.00

Enter Amount of the Noise Walls: \$0.00

Total Project Cost subtract the amount of the noise walls: \$4,548,290.00

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

Attach documentation of award:

Points Awarded in Previous Criteria

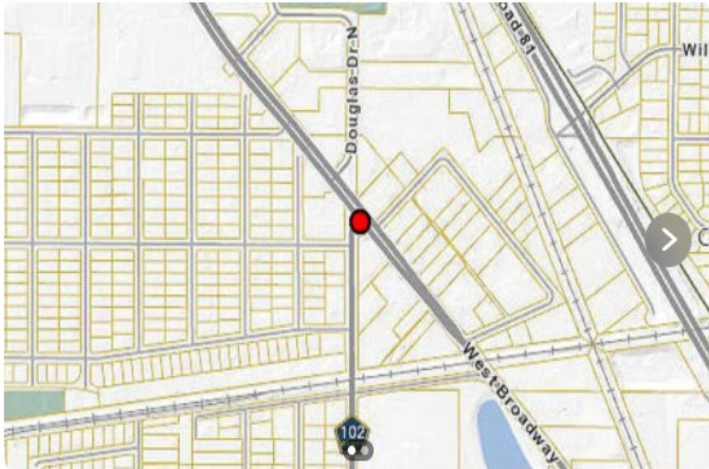
Cost Effectiveness \$0.00

Other Attachments



City of Crystal

Communications Coordinator Michael Peterson • 1 hr ago



WEST BROADWAY/DOUGLAS DR. INTERSECTION SURVEY. The city needs your help to plan the potential reconstruction of the West Broadway/Douglas Dr. intersection. Take the short, online survey at <https://www.surveymonkey.com/r/KFFPQFT>. The survey closes Tuesday, April 5.



City of Crystal Intersection Survey
surveymonkey.com



Posted to Subscribers of City of Crystal



Community Survey Advertising on Social Media
101 KB

Please participate in the city's short, online survey regarding the intersection at...

West Broadway/Douglas Dr.



<https://bit.ly/3KRTcij>

Survey closes on Tuesday, April 5.

File Name	Description	File Size
OtherAttach_CityRes_Crystal.pdf	City Resolution	322 KB
OtherAttach_Congestion_Crystal.pdf	Congestion Map	4.0 MB
OtherAttach_CountyRES_Crystal.pdf	County Letter of Support	123 KB
OtherAttach_Crystal Project Sheet_updated.pdf	Project Summary	272 KB
OtherAttach_RepLOS_Crystal.pdf	Rep. Ilhan Omar Letter of Support	181 KB
OtherAttach_TRPD_LOS_Crystal.pdf	TRPD Letter of Support	757 KB
Survey Results.pdf	Community Survey Results	166 KB

Regional Economy

Roadway Reconstruction/Modernization Project: W Broadway and Douglas Drive | Map ID: 1695846448124

Results

WITHIN ONE MI of project:
Postsecondary Students: 0

Totals by City:

Crystal

Population: 13585
Employment: 2999
Mfg and Dist Employment: 570

New Hope

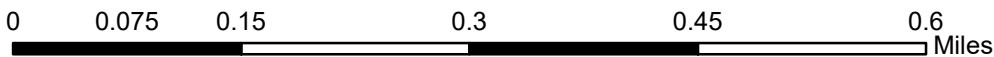
Population: 6483
Employment: 2236
Mfg and Dist Employment: 590

Robbinsdale

Population: 667
Employment: 16
Mfg and Dist Employment: 0



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



Created: 9/27/2023
LandscapeRSA5



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



Transit Connections

Roadway Reconstruction/Modernization Project: W Broadway and Douglas Drive | Map ID: 1695846448124

Results

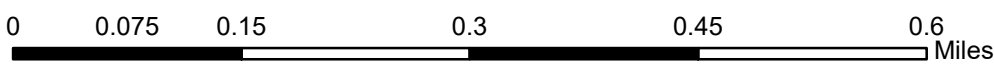
Transit with a Direct Connection to project:
716

**indicates Planned Alignments*

Transit Market areas: 3



- | | | | | | | | | | |
|--|----------------------------|--|-----------------------------|--|-----------------------------|--|-----------------------------|--|---------------------------|
| | Project Points | | Commuter Rail | | Arterial Bus Rapid Transit | | Undetermined | | Light Rail |
| | Project | | Dedicated Bus Rapid Transit | | Dedicated Bus Rapid Transit | | Arterial Bus Rapid Transit | | Modern Streetcar |
| | Project Area | | Highway Bus Rapid Transit | | Highway Bus Rapid Transit | | Commuter Rail | | Undetermined |
| | Active Stop | | Light Rail | | Light Rail | | Dedicated Bus Rapid Transit | | Highway Bus Rapid Transit |
| | Arterial Bus Rapid Transit | | Transit Routes | | Modern Streetcar | | Highway Bus Rapid Transit | | |



Created: 9/27/2023
LandscapeRSA3



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

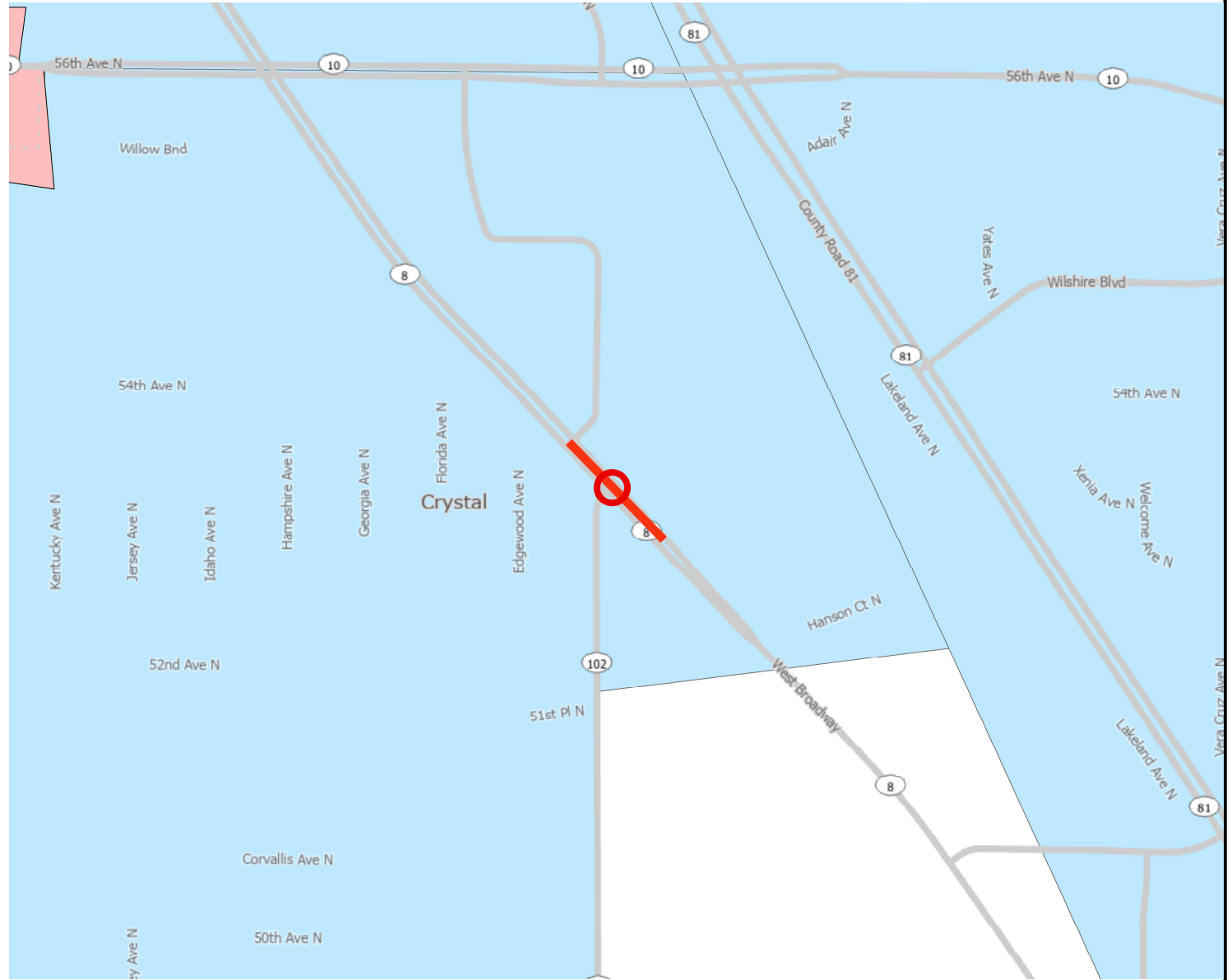






Socio-Economic Conditions

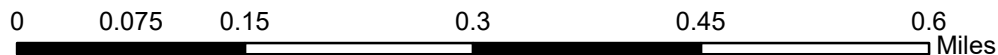
Results

Total of publicly subsidized rental housing units in census tracts within 1/2 mile: 194

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











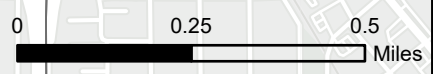
-  Points
-  Area of Concentrated Poverty
-  Lines
-  Regional Environmental Justice Area



Equity Populations and Destinations



-  Proposed Project
-  1/2 Mile Project Boundary
-  Census Tracts
-  Affordable Housing
-  Place of Worship
-  Medical / Social Services
-  Retail / Grocery
-  School / Daycare / Library





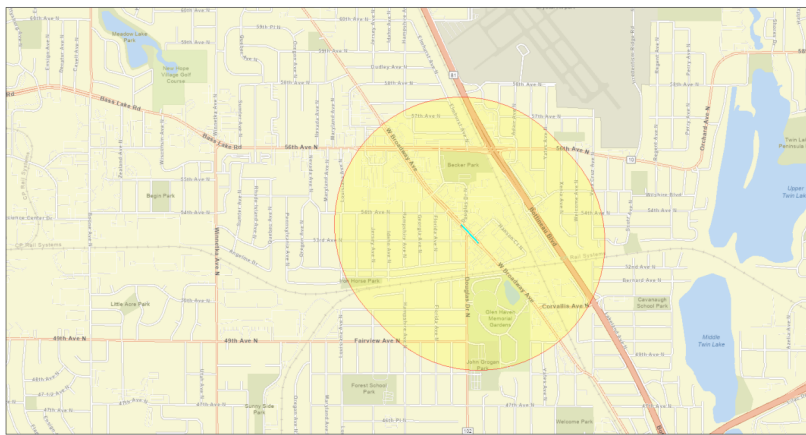
EJScreen Community Report

This report provides environmental and socioeconomic information for user-defined areas, and combines that data into environmental justice and supplemental indexes.

Crystal, MN

.5 miles Ring around the Corridor
 Population: 2,574
 Area in square miles: 0.89

A3 Landscape



October 9, 2023
 Project 1

Map Community Maps Contributors: Metropolitan Council, Watershed, Three Rivers Park District, EPA, HDR, Geacore, S&P, Design, GeoTechniques, Inc, UST, TRUCK, USGS, EPA, WPC, US Census Bureau, USDA

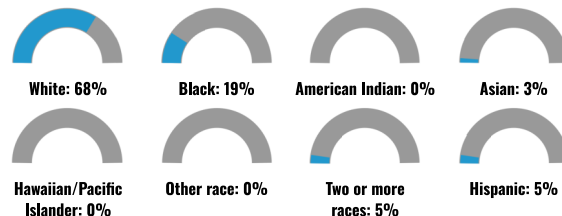
COMMUNITY INFORMATION



LANGUAGES SPOKEN AT HOME

LANGUAGE	PERCENT
English	87%
Spanish	6%
French, Haitian, or Cajun	1%
Other Asian and Pacific Island	1%
Other and Unspecified	4%
Total Non-English	13%

BREAKDOWN BY RACE



BREAKDOWN BY AGE



LIMITED ENGLISH SPEAKING BREAKDOWN



Notes: Numbers may not sum to totals due to rounding. Hispanic population can be of any race. Source: U.S. Census Bureau, American Community Survey (ACS) 2017-2021. Life expectancy data comes from the Centers for Disease Control.

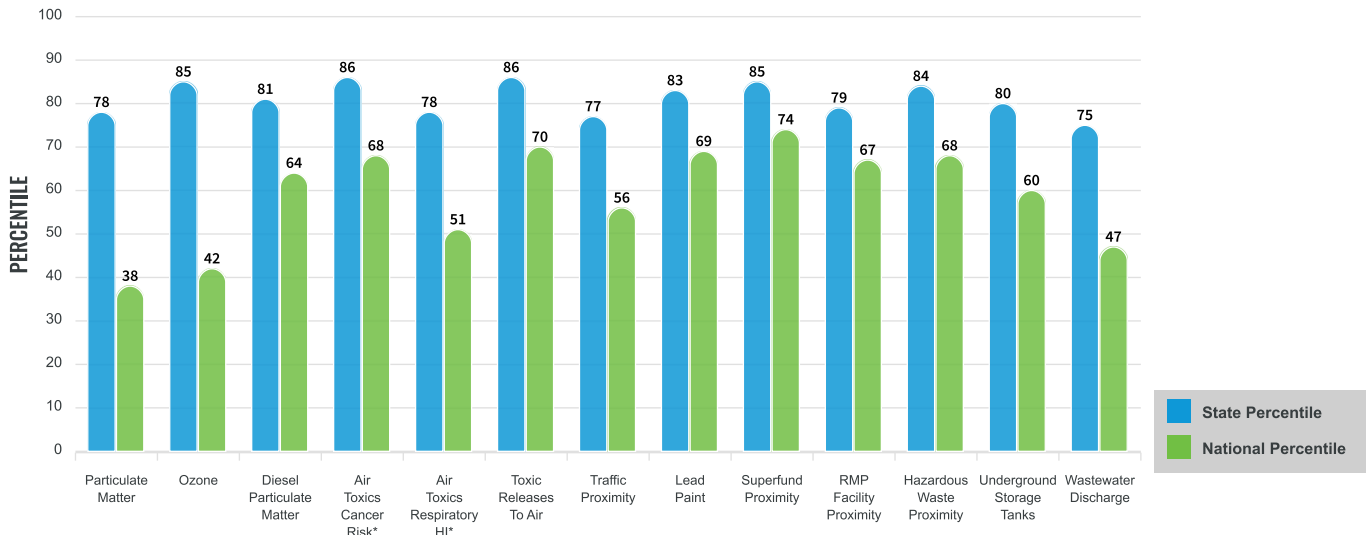
Environmental Justice & Supplemental Indexes

The environmental justice and supplemental indexes are a combination of environmental and socioeconomic information. There are thirteen EJ indexes and supplemental indexes in EJScreen reflecting the 13 environmental indicators. The indexes for a selected area are compared to those for all other locations in the state or nation. For more information and calculation details on the EJ and supplemental indexes, please visit the [EJScreen website](#).

EJ INDEXES

The EJ indexes help users screen for potential EJ concerns. To do this, the EJ index combines data on low income and people of color populations with a single environmental indicator.

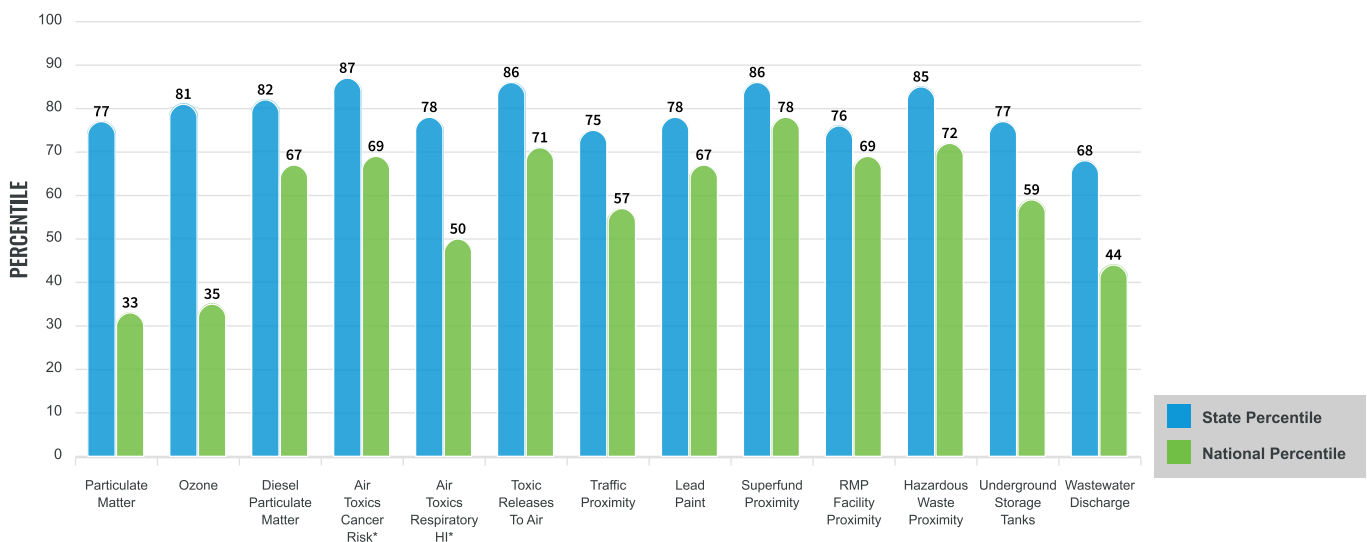
EJ INDEXES FOR THE SELECTED LOCATION



SUPPLEMENTAL INDEXES

The supplemental indexes offer a different perspective on community-level vulnerability. They combine data on percent low-income, percent linguistically isolated, percent less than high school education, percent unemployed, and low life expectancy with a single environmental indicator.

SUPPLEMENTAL INDEXES FOR THE SELECTED LOCATION



These percentiles provide perspective on how the selected block group or buffer area compares to the entire state or nation.

Report for .5 miles Ring around the Corridor

EJScreen Environmental and Socioeconomic Indicators Data

SELECTED VARIABLES	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA
POLLUTION AND SOURCES					
Particulate Matter ($\mu\text{g}/\text{m}^3$)	7.4	6.78	62	8.08	29
Ozone (ppb)	59.1	58.2	72	61.6	32
Diesel Particulate Matter ($\mu\text{g}/\text{m}^3$)	0.311	0.21	75	0.261	70
Air Toxics Cancer Risk* (lifetime risk per million)	30	22	69	25	52
Air Toxics Respiratory HI*	0.3	0.26	50	0.31	31
Toxic Releases to Air	2,700	1,500	89	4,600	77
Traffic Proximity (daily traffic count/distance to road)	110	140	69	210	58
Lead Paint (% Pre-1960 Housing)	0.63	0.33	82	0.3	82
Superfund Proximity (site count/km distance)	0.45	0.19	89	0.13	94
RMP Facility Proximity (facility count/km distance)	0.54	0.48	70	0.43	78
Hazardous Waste Proximity (facility count/km distance)	3.3	1.3	88	1.9	82
Underground Storage Tanks (count/km ²)	2.2	1.8	73	3.9	60
Wastewater Discharge (toxicity-weighted concentration/m distance)	0.00042	0.19	56	22	41
SOCIOECONOMIC INDICATORS					
Demographic Index	28%	22%	75	35%	47
Supplemental Demographic Index	12%	11%	67	14%	44
People of Color	32%	20%	79	39%	52
Low Income	24%	23%	59	31%	44
Unemployment Rate	6%	4%	76	6%	64
Limited English Speaking Households	2%	2%	77	5%	64
Less Than High School Education	7%	7%	67	12%	46
Under Age 5	6%	6%	63	6%	65
Over Age 64	12%	17%	34	17%	36
Low Life Expectancy	20%	17%	76	20%	51

*Diesel particulate matter, air toxics cancer risk, and air toxics respiratory hazard index are from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. Cancer risks and hazard indices from the Air Toxics Data Update are reported to one significant figure and any additional significant figures here are due to rounding. More information on the Air Toxics Data Update can be found at: <https://www.epa.gov/haps/air-toxics-data-update>.

Sites reporting to EPA within defined area:

Superfund	0
Hazardous Waste, Treatment, Storage, and Disposal Facilities	0
Water Dischargers	0
Air Pollution	6
Brownfields	1
Toxic Release Inventory	0

Other community features within defined area:

Schools	2
Hospitals	0
Places of Worship	0

Other environmental data:

Air Non-attainment	No
Impaired Waters	No

Selected location contains American Indian Reservation Lands*	No
Selected location contains a "Justice40 (CEJST)" disadvantaged community	No
Selected location contains an EPA IRA disadvantaged community	Yes

Report for .5 miles Ring around the Corridor

EJScreen Environmental and Socioeconomic Indicators Data

HEALTH INDICATORS

INDICATOR	HEALTH VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Low Life Expectancy	20%	17%	76	20%	51
Heart Disease	5.4	5.6	50	6.1	37
Asthma	9.4	9	75	10	36
Cancer	6	6.4	39	6.1	45
Persons with Disabilities	9.3%	11.4%	33	13.4%	27

CLIMATE INDICATORS

INDICATOR	HEALTH VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Flood Risk	7%	8%	47	12%	51
Wildfire Risk	0%	4%	0	14%	0

CRITICAL SERVICE GAPS

INDICATOR	HEALTH VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Broadband Internet	11%	11%	56	14%	51
Lack of Health Insurance	9%	5%	91	9%	65
Housing Burden	No	N/A	N/A	N/A	N/A
Transportation Access	No	N/A	N/A	N/A	N/A
Food Desert	Yes	N/A	N/A	N/A	N/A

Footnotes

Report for .5 miles Ring around the Corridor

Regional Solicitation - Crystal

1 Broadway Ave and Douglas Dr		
Existing Volume	1398	vehicles
Existing Delay	11	sec/veh
Existing Total Delay	15378	seconds
Future Volume	1459	vehicles
Future Delay	9.2	sec/veh
Future Total Delay	13422.8	seconds
Total Delay Reduction	1955.2	seconds

2 Broadway Ave and Hanson Ct		
Existing Volume	814	vehicles
Existing Delay	0	sec/veh
Existing Total Delay	0	seconds
Future Volume	0	vehicles
Future Delay	0	sec/veh
Future Total Delay	0	seconds
Total Delay Reduction	0	seconds

3 Douglas Dr and 53rd St		
Existing Volume	736	vehicles
Existing Delay	2	sec/veh
Existing Total Delay	1472	seconds
Future Volume	0	vehicles
Future Delay	0	sec/veh
Future Total Delay	0	seconds
Total Delay Reduction	1472	seconds

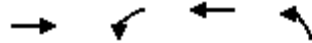
Total Network Delay Reduction	3427.2	seconds
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Emissions

Existing	1	2	3	Total
CO	0.69	0.12	0.18	0.99
NO	0.13	0.02	0.04	0.19
VOC	0.16	0.03	0.04	0.23
	Network Total			1.41

Build	1	Total	
CO	0.89	0.89	
NO	0.17	0.17	
VOC	0.21	0.21	
	Network Total		1.27

Reduction	0.14
------------------	-------------



Lane Group	EBT	WBL	WBT	NBL
Lane Configurations	↑↑	↑	↑↑	↑↑
Traffic Volume (vph)	340	34	373	313
Future Volume (vph)	340	34	373	313
Turn Type	NA	Prot	NA	Prot
Protected Phases	4	3	8	2
Permitted Phases				
Detector Phase	4	3	8	2
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5
Total Split (s)	24.5	22.5	47.0	23.0
Total Split (%)	35.0%	32.1%	67.1%	32.9%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	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	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	C-Max	None	C-Max	Max
Act Effct Green (s)	37.4	7.0	42.5	18.5
Actuated g/C Ratio	0.53	0.10	0.61	0.26
v/c Ratio	0.36	0.21	0.19	0.44
Control Delay	6.6	31.1	6.4	21.6
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	6.6	31.1	6.4	21.6
LOS	A	C	A	C
Approach Delay	6.6		8.5	21.6
Approach LOS	A		A	C

Intersection Summary

Cycle Length: 70
 Actuated Cycle Length: 70
 Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Green
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.44
 Intersection Signal Delay: 11.1
 Intersection Capacity Utilization 44.5%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 1: Douglas Drive N & W Broadway Ave



1: Douglas Drive N & W Broadway Ave

Direction	All
Future Volume (vph)	1398
Total Delay / Veh (s/v)	11
CO Emissions (kg)	0.69
NOx Emissions (kg)	0.13
VOC Emissions (kg)	0.16

3: W Broadway Ave & Hanson Ct N

Direction	All
Future Volume (vph)	814
Total Delay / Veh (s/v)	0
CO Emissions (kg)	0.12
NOx Emissions (kg)	0.02
VOC Emissions (kg)	0.03

7: Douglas Drive N & 53rd Street

Direction	All
Future Volume (vph)	736
Total Delay / Veh (s/v)	2
CO Emissions (kg)	0.18
NOx Emissions (kg)	0.04
VOC Emissions (kg)	0.04

Intersection				
Intersection Delay, s/veh	9.2			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	75	436	379	677
Demand Flow Rate, veh/h	76	445	387	691
Vehicles Circulating, veh/h	697	382	432	74
Vehicles Exiting, veh/h	68	437	341	757
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	6.6	9.8	9.5	8.9
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	76	445	387	691
Cap Entry Lane, veh/h	678	935	888	1280
Entry HV Adj Factor	0.986	0.980	0.980	0.980
Flow Entry, veh/h	75	436	379	677
Cap Entry, veh/h	668	916	870	1254
V/C Ratio	0.112	0.476	0.436	0.540
Control Delay, s/veh	6.6	9.8	9.5	8.9
LOS	A	A	A	A
95th %tile Queue, veh	0	3	2	3

Intersection	
Intersection Delay, s/veh	
Intersection LOS	
Approach	SW
Entry Lanes	1
Conflicting Circle Lanes	1
Adj Approach Flow, veh/h	18
Demand Flow Rate, veh/h	18
Vehicles Circulating, veh/h	813
Vehicles Exiting, veh/h	14
Ped Vol Crossing Leg, #/h	0
Ped Cap Adj	1.000
Approach Delay, s/veh	6.3
Approach LOS	A
Lane	Left
Designated Moves	LR
Assumed Moves	LR
RT Channelized	
Lane Util	1.000
Follow-Up Headway, s	2.609
Critical Headway, s	4.976
Entry Flow, veh/h	18
Cap Entry Lane, veh/h	602
Entry HV Adj Factor	1.000
Flow Entry, veh/h	18
Cap Entry, veh/h	602
V/C Ratio	0.030
Control Delay, s/veh	6.3
LOS	A
95th %tile Queue, veh	0

1: Douglas/Broadway

Direction	All
Future Volume (vph)	1459
Total Delay / Veh (s/v)	0
CO Emissions (kg)	0.89
NOx Emissions (kg)	0.17
VOC Emissions (kg)	0.21

Regional Solicitation - Crystal

1

Broadway Ave and Douglas Dr		
Existing Volume	1398	vehicles
Existing Delay	11	sec/veh
Existing Total Delay	15378	seconds
Future Volume	1459	vehicles
Future Delay	9.2	sec/veh
Future Total Delay	13422.8	seconds
Total Delay Reduction	1955.2	seconds

2

Broadway Ave and Hanson Ct		
Existing Volume	814	vehicles
Existing Delay	0	sec/veh
Existing Total Delay	0	seconds
Future Volume	0	vehicles
Future Delay	0	sec/veh
Future Total Delay	0	seconds
Total Delay Reduction	0	seconds

3

Douglas Dr and 53rd St		
Existing Volume	736	vehicles
Existing Delay	2	sec/veh
Existing Total Delay	1472	seconds
Future Volume	0	vehicles
Future Delay	0	sec/veh
Future Total Delay	0	seconds
Total Delay Reduction	1472	seconds

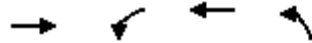
Total Network Delay Reduction	3427.2	seconds
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Emissions

Existing	1	2	3	Total
CO	0.69	0.12	0.18	0.99
NO	0.13	0.02	0.04	0.19
VOC	0.16	0.03	0.04	0.23
	Network Total			1.41

Build	1	Total	
CO	0.89	0.89	
NO	0.17	0.17	
VOC	0.21	0.21	
	Network Total		1.27

Reduction	0.14
------------------	-------------



Lane Group	EBT	WBL	WBT	NBL
Lane Configurations	↑↑	↑	↑↑	↑↑
Traffic Volume (vph)	340	34	373	313
Future Volume (vph)	340	34	373	313
Turn Type	NA	Prot	NA	Prot
Protected Phases	4	3	8	2
Permitted Phases				
Detector Phase	4	3	8	2
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5
Total Split (s)	24.5	22.5	47.0	23.0
Total Split (%)	35.0%	32.1%	67.1%	32.9%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	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	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	C-Max	None	C-Max	Max
Act Effct Green (s)	37.4	7.0	42.5	18.5
Actuated g/C Ratio	0.53	0.10	0.61	0.26
v/c Ratio	0.36	0.21	0.19	0.44
Control Delay	6.6	31.1	6.4	21.6
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	6.6	31.1	6.4	21.6
LOS	A	C	A	C
Approach Delay	6.6		8.5	21.6
Approach LOS	A		A	C

Intersection Summary

Cycle Length: 70
 Actuated Cycle Length: 70
 Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Green
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.44
 Intersection Signal Delay: 11.1
 Intersection Capacity Utilization 44.5%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 1: Douglas Drive N & W Broadway Ave



1: Douglas Drive N & W Broadway Ave

Direction	All
Future Volume (vph)	1398
Total Delay / Veh (s/v)	11
CO Emissions (kg)	0.69
NOx Emissions (kg)	0.13
VOC Emissions (kg)	0.16

3: W Broadway Ave & Hanson Ct N

Direction	All
Future Volume (vph)	814
Total Delay / Veh (s/v)	0
CO Emissions (kg)	0.12
NOx Emissions (kg)	0.02
VOC Emissions (kg)	0.03

7: Douglas Drive N & 53rd Street

Direction	All
Future Volume (vph)	736
Total Delay / Veh (s/v)	2
CO Emissions (kg)	0.18
NOx Emissions (kg)	0.04
VOC Emissions (kg)	0.04

Intersection				
Intersection Delay, s/veh	9.2			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	75	436	379	677
Demand Flow Rate, veh/h	76	445	387	691
Vehicles Circulating, veh/h	697	382	432	74
Vehicles Exiting, veh/h	68	437	341	757
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	6.6	9.8	9.5	8.9
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	76	445	387	691
Cap Entry Lane, veh/h	678	935	888	1280
Entry HV Adj Factor	0.986	0.980	0.980	0.980
Flow Entry, veh/h	75	436	379	677
Cap Entry, veh/h	668	916	870	1254
V/C Ratio	0.112	0.476	0.436	0.540
Control Delay, s/veh	6.6	9.8	9.5	8.9
LOS	A	A	A	A
95th %tile Queue, veh	0	3	2	3

Intersection	
Intersection Delay, s/veh	
Intersection LOS	
Approach	SW
Entry Lanes	1
Conflicting Circle Lanes	1
Adj Approach Flow, veh/h	18
Demand Flow Rate, veh/h	18
Vehicles Circulating, veh/h	813
Vehicles Exiting, veh/h	14
Ped Vol Crossing Leg, #/h	0
Ped Cap Adj	1.000
Approach Delay, s/veh	6.3
Approach LOS	A
Lane	Left
Designated Moves	LR
Assumed Moves	LR
RT Channelized	
Lane Util	1.000
Follow-Up Headway, s	2.609
Critical Headway, s	4.976
Entry Flow, veh/h	18
Cap Entry Lane, veh/h	602
Entry HV Adj Factor	1.000
Flow Entry, veh/h	18
Cap Entry, veh/h	602
V/C Ratio	0.030
Control Delay, s/veh	6.3
LOS	A
95th %tile Queue, veh	0

1: Douglas/Broadway

Direction	All
Future Volume (vph)	1459
Total Delay / Veh (s/v)	0
CO Emissions (kg)	0.89
NOx Emissions (kg)	0.17
VOC Emissions (kg)	0.21

Regional Solicitation - Crystal

1

Broadway Ave and Douglas Dr		
Existing Volume	1398	vehicles
Existing Delay	11	sec/veh
Existing Total Delay	15378	seconds
Future Volume	1459	vehicles
Future Delay	9.2	sec/veh
Future Total Delay	13422.8	seconds
Total Delay Reduction	1955.2	seconds

2

Broadway Ave and Hanson Ct		
Existing Volume	814	vehicles
Existing Delay	0	sec/veh
Existing Total Delay	0	seconds
Future Volume	0	vehicles
Future Delay	0	sec/veh
Future Total Delay	0	seconds
Total Delay Reduction	0	seconds

3

Douglas Dr and 53rd St		
Existing Volume	736	vehicles
Existing Delay	2	sec/veh
Existing Total Delay	1472	seconds
Future Volume	0	vehicles
Future Delay	0	sec/veh
Future Total Delay	0	seconds
Total Delay Reduction	1472	seconds

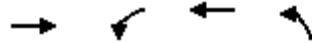
Total Network Delay Reduction	3427.2	seconds
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Emissions

Existing	1	2	3	Total
CO	0.69	0.12	0.18	0.99
NO	0.13	0.02	0.04	0.19
VOC	0.16	0.03	0.04	0.23
	Network Total			1.41

Build	1	Total	
CO	0.89	0.89	
NO	0.17	0.17	
VOC	0.21	0.21	
	Network Total		1.27

Reduction	0.14
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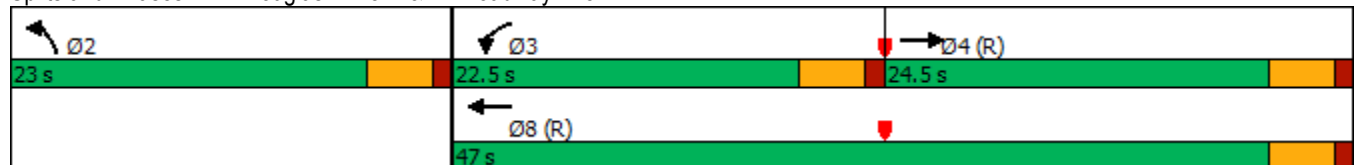


Lane Group	EBT	WBL	WBT	NBL
Lane Configurations	↑↑	↑	↑↑	↑↑
Traffic Volume (vph)	340	34	373	313
Future Volume (vph)	340	34	373	313
Turn Type	NA	Prot	NA	Prot
Protected Phases	4	3	8	2
Permitted Phases				
Detector Phase	4	3	8	2
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5
Total Split (s)	24.5	22.5	47.0	23.0
Total Split (%)	35.0%	32.1%	67.1%	32.9%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	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	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	C-Max	None	C-Max	Max
Act Effct Green (s)	37.4	7.0	42.5	18.5
Actuated g/C Ratio	0.53	0.10	0.61	0.26
v/c Ratio	0.36	0.21	0.19	0.44
Control Delay	6.6	31.1	6.4	21.6
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	6.6	31.1	6.4	21.6
LOS	A	C	A	C
Approach Delay	6.6		8.5	21.6
Approach LOS	A		A	C

Intersection Summary

Cycle Length: 70
 Actuated Cycle Length: 70
 Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Green
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.44
 Intersection Signal Delay: 11.1
 Intersection Capacity Utilization 44.5%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 1: Douglas Drive N & W Broadway Ave



1: Douglas Drive N & W Broadway Ave

Direction	All
Future Volume (vph)	1398
Total Delay / Veh (s/v)	11
CO Emissions (kg)	0.69
NOx Emissions (kg)	0.13
VOC Emissions (kg)	0.16

3: W Broadway Ave & Hanson Ct N

Direction	All
Future Volume (vph)	814
Total Delay / Veh (s/v)	0
CO Emissions (kg)	0.12
NOx Emissions (kg)	0.02
VOC Emissions (kg)	0.03

7: Douglas Drive N & 53rd Street

Direction	All
Future Volume (vph)	736
Total Delay / Veh (s/v)	2
CO Emissions (kg)	0.18
NOx Emissions (kg)	0.04
VOC Emissions (kg)	0.04

Intersection				
Intersection Delay, s/veh	9.2			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	75	436	379	677
Demand Flow Rate, veh/h	76	445	387	691
Vehicles Circulating, veh/h	697	382	432	74
Vehicles Exiting, veh/h	68	437	341	757
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	6.6	9.8	9.5	8.9
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	76	445	387	691
Cap Entry Lane, veh/h	678	935	888	1280
Entry HV Adj Factor	0.986	0.980	0.980	0.980
Flow Entry, veh/h	75	436	379	677
Cap Entry, veh/h	668	916	870	1254
V/C Ratio	0.112	0.476	0.436	0.540
Control Delay, s/veh	6.6	9.8	9.5	8.9
LOS	A	A	A	A
95th %tile Queue, veh	0	3	2	3

Intersection	
Intersection Delay, s/veh	
Intersection LOS	
Approach	SW
Entry Lanes	1
Conflicting Circle Lanes	1
Adj Approach Flow, veh/h	18
Demand Flow Rate, veh/h	18
Vehicles Circulating, veh/h	813
Vehicles Exiting, veh/h	14
Ped Vol Crossing Leg, #/h	0
Ped Cap Adj	1.000
Approach Delay, s/veh	6.3
Approach LOS	A
Lane	Left
Designated Moves	LR
Assumed Moves	LR
RT Channelized	
Lane Util	1.000
Follow-Up Headway, s	2.609
Critical Headway, s	4.976
Entry Flow, veh/h	18
Cap Entry Lane, veh/h	602
Entry HV Adj Factor	1.000
Flow Entry, veh/h	18
Cap Entry, veh/h	602
V/C Ratio	0.030
Control Delay, s/veh	6.3
LOS	A
95th %tile Queue, veh	0

1: Douglas/Broadway

Direction	All
Future Volume (vph)	1459
Total Delay / Veh (s/v)	0
CO Emissions (kg)	0.89
NOx Emissions (kg)	0.17
VOC Emissions (kg)	0.21

Regional Solicitation - Crystal

1

Broadway Ave and Douglas Dr		
Existing Volume	1398	vehicles
Existing Delay	11	sec/veh
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Future Delay	9.2	sec/veh
Future Total Delay	13422.8	seconds
Total Delay Reduction	1955.2	seconds

2

Broadway Ave and Hanson Ct		
Existing Volume	814	vehicles
Existing Delay	0	sec/veh
Existing Total Delay	0	seconds
Future Volume	0	vehicles
Future Delay	0	sec/veh
Future Total Delay	0	seconds
Total Delay Reduction	0	seconds

3

Douglas Dr and 53rd St		
Existing Volume	736	vehicles
Existing Delay	2	sec/veh
Existing Total Delay	1472	seconds
Future Volume	0	vehicles
Future Delay	0	sec/veh
Future Total Delay	0	seconds
Total Delay Reduction	1472	seconds

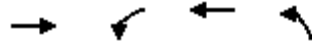
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Emissions

Existing	1	2	3	Total
CO	0.69	0.12	0.18	0.99
NO	0.13	0.02	0.04	0.19
VOC	0.16	0.03	0.04	0.23
	Network Total			1.41

Build	1	Total	
CO	0.89	0.89	
NO	0.17	0.17	
VOC	0.21	0.21	
	Network Total		1.27

Reduction	0.14
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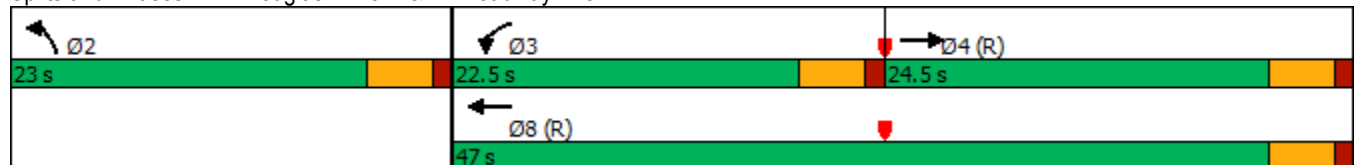
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Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
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Queue Delay	0.0	0.0	0.0	0.0
Total Delay	6.6	31.1	6.4	21.6
LOS	A	C	A	C
Approach Delay	6.6		8.5	21.6
Approach LOS	A		A	C

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Cycle Length: 70
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 Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Green
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.44
 Intersection Signal Delay: 11.1
 Intersection Capacity Utilization 44.5%
 Analysis Period (min) 15

Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 1: Douglas Drive N & W Broadway Ave



1: Douglas Drive N & W Broadway Ave

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VOC Emissions (kg)	0.16

3: W Broadway Ave & Hanson Ct N

Direction	All
Future Volume (vph)	814
Total Delay / Veh (s/v)	0
CO Emissions (kg)	0.12
NOx Emissions (kg)	0.02
VOC Emissions (kg)	0.03

7: Douglas Drive N & 53rd Street

Direction	All
Future Volume (vph)	736
Total Delay / Veh (s/v)	2
CO Emissions (kg)	0.18
NOx Emissions (kg)	0.04
VOC Emissions (kg)	0.04

Intersection				
Intersection Delay, s/veh	9.2			
Intersection LOS	A			
Approach	EB	WB	NB	SB
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Conflicting Circle Lanes	1	1	1	1
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Demand Flow Rate, veh/h	76	445	387	691
Vehicles Circulating, veh/h	697	382	432	74
Vehicles Exiting, veh/h	68	437	341	757
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	6.6	9.8	9.5	8.9
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	76	445	387	691
Cap Entry Lane, veh/h	678	935	888	1280
Entry HV Adj Factor	0.986	0.980	0.980	0.980
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V/C Ratio	0.112	0.476	0.436	0.540
Control Delay, s/veh	6.6	9.8	9.5	8.9
LOS	A	A	A	A
95th %tile Queue, veh	0	3	2	3

Intersection	
Intersection Delay, s/veh	
Intersection LOS	
Approach	SW
Entry Lanes	1
Conflicting Circle Lanes	1
Adj Approach Flow, veh/h	18
Demand Flow Rate, veh/h	18
Vehicles Circulating, veh/h	813
Vehicles Exiting, veh/h	14
Ped Vol Crossing Leg, #/h	0
Ped Cap Adj	1.000
Approach Delay, s/veh	6.3
Approach LOS	A
Lane	Left
Designated Moves	LR
Assumed Moves	LR
RT Channelized	
Lane Util	1.000
Follow-Up Headway, s	2.609
Critical Headway, s	4.976
Entry Flow, veh/h	18
Cap Entry Lane, veh/h	602
Entry HV Adj Factor	1.000
Flow Entry, veh/h	18
Cap Entry, veh/h	602
V/C Ratio	0.030
Control Delay, s/veh	6.3
LOS	A
95th %tile Queue, veh	0

1: Douglas/Broadway

Direction	All
Future Volume (vph)	1459
Total Delay / Veh (s/v)	0
CO Emissions (kg)	0.89
NOx Emissions (kg)	0.17
VOC Emissions (kg)	0.21

Traffic Safety Benefit-Cost Calculation

Highway Safety Improvement Program (HSIP) Reactive Project



A. Roadway Description					
Route	W Broadway Avenue	District		County	Hennepin
Begin RP		End RP		Miles	
Location	W Broadway Avenue and Douglas Drive				

B. Project Description			
Proposed Work	Convert to 5-leg Roundabout		
Project Cost*	\$4,548,290	Installation Year	2026
Project Service Life	20 years	Traffic Growth Factor	2.0%

* exclude Right of Way from Project Cost

C. Crash Modification Factor			
0.00	Fatal (K) Crashes	Reference	Engineering Judgement
0.00	Serious Injury (A) Crashes		
0.00	Moderate Injury (B) Crashes	Crash Type	Angle Crashes
0.00	Possible Injury (C) Crashes		
0.00	Property Damage Only Crashes		www.CMFClearinghouse.org

D. Crash Modification Factor (optional second CMF)			
0.33	Fatal (K) Crashes	Reference	Crash Clearinghouse
0.33	Serious Injury (A) Crashes		
0.33	Moderate Injury (B) Crashes	Crash Type	All
0.33	Possible Injury (C) Crashes		
0.33	Property Damage Only Crashes		www.CMFClearinghouse.org

E. Crash Data				
Begin Date	1/1/2020	End Date	12/31/2022	3 years
Data Source	MnDOT			
	Crash Severity	Angle Crashes	All	
	K crashes			
	A crashes			
	B crashes	1		
	C crashes	1		
	PDO crashes	2	4	

F. Benefit-Cost Calculation		
\$3,399,564	Benefit (present value)	B/C Ratio = 0.75
\$4,548,290	Cost	
Proposed project expected to reduce 3 crashes annually, 0 of which involving fatality or serious injury.		

F. Analysis Assumptions

Crash Severity	Crash Cost
K crashes	\$1,600,000
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 0.7%
 Traffic Growth Rate 2.0%
 Project Service Life 20 years

G. Annual Benefit

Crash Severity	Crash Reduction	Annual Reduction	Annual Benefit
K crashes	0.00	0.00	\$0
A crashes	0.00	0.00	\$0
B crashes	1.00	0.33	\$83,333
C crashes	1.00	0.33	\$43,333
PDO crashes	4.68	1.56	\$23,400

\$150,067

H. Amortized Benefit

Year	Crash Benefits	Present Value
2026	\$150,067	\$150,067
2027	\$153,068	\$152,004
2028	\$156,129	\$153,966
2029	\$159,252	\$155,954
2030	\$162,437	\$157,967
2031	\$165,686	\$160,007
2032	\$168,999	\$162,072
2033	\$172,379	\$164,164
2034	\$175,827	\$166,284
2035	\$179,344	\$168,430
2036	\$182,930	\$170,605
2037	\$186,589	\$172,807
2038	\$190,321	\$175,038
2039	\$194,127	\$177,298
2040	\$198,010	\$179,587
2041	\$201,970	\$181,905
2042	\$206,009	\$184,253
2043	\$210,130	\$186,632
2044	\$214,332	\$189,041
2045	\$218,619	\$191,482
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0
0	\$0	\$0

Total = \$3,399,564

▼ Countermeasure: Convert signalized intersection to modern roundabout

Compare	CMF	CRF(%)	Quality	Crash Type	Crash Severity	Area Type	Reference	Comments
<input type="checkbox"/>	0.58	42		All	All	Suburban	GROSS ET AL., 2012	Countermeasure name changed fr...[READ MORE]
<input type="checkbox"/>	0.576	42.4		All	All	Suburban	SRINIVASAN, ET AL., 2011	Countermeasure name changed fr...[READ MORE]
<input checked="" type="checkbox"/>	0.259	74.1		All	K (fatal),A (serious injury),B (minor injury),C (possible injury)	Suburban	SRINIVASAN, ET AL., 2011	Countermeasure name changed fr...[READ MORE]
<input checked="" type="checkbox"/>	0.33	67		All	All	Suburban	RODEGERDTS ET AL., 2007	Countermeasure name changed fr...[READ MORE]
<input type="checkbox"/>	0.26	74		All	A (serious injury),B (minor injury),C (possible injury)	Suburban	GROSS ET AL., 2012	Countermeasure name changed fr...[READ MORE]

INCIDENTID	RTESYS	COIRTE	NUMBE	MEASURE	COUNTY_S	CITY_NAME	TOWNSHIP	MNDOT_DI	STATE_PAT	TRIBAL_GO	LOCALID	ACCIDENT_CRASH_MC
1040242	04-CSAH		8	1.634	Hennepin	Crystal		D-METRO	Golden Valley		22003415	2.22E+08 8-Aug
895873	04-CSAH		8	1.635	Hennepin	Crystal		D-METRO	Golden Valley		21000944	2.11E+08 3-Mar
1023572	04-CSAH		8	1.643	Hennepin	Crystal		D-METRO	Golden Valley		22001732	2.21E+08 5-May
1039217	04-CSAH		102	4.497	Hennepin	Crystal		D-METRO	Golden Valley		22003303	2.22E+08 8-Aug
819613	04-CSAH		102	4.506	Hennepin	Crystal		D-METRO	Golden Valley		20004047	2.02E+08 7-Jul
817055	04-CSAH		102	4.519	Hennepin	Crystal		D-METRO	Golden Valley		20003700	2.02E+08 6-Jun
1046464	04-CSAH		102	4.522	Hennepin	Crystal		D-METRO	Golden Valley		CY2200394	2.23E+08 9-Sep
938027	10-MUN		87	0.61	Hennepin	Crystal		D-METRO	Golden Valley		21003083	2.12E+08 9-Sep

CRASH_ID	CRASH_YEAR	CRASH_DATE	CRASH_HOURS	DIVIDEDRD	CRASHSEV	NUMBERKII	NUMBEROI	MANNEROI	FIRSTHARM	RELATIVE_I	RELATIONT	LIGHTCONI
17	2022	04-Wed	16		Property Dæ	0	2	Angle	Motor Vehic	On Roadwa	T Intersecti	Daylight
15	2021	02-Mon	10	North	Property Dæ	0	2	Angle	Motor Vehic	On Roadwa	T Intersecti	Daylight
16	2022	02-Mon	13		Property Dæ	0	2	Sideswipe -	Motor Vehic	On Roadwa	Four-Way Ir	Daylight
11	2022	05-Thu	11		Property Dæ	0	2	Sideswipe -	Motor Vehic	On Roadwa	T Intersecti	Daylight
14	2020	03-Tues	16	Not Applicæ	Property Dæ	0	2	Sideswipe -	Motor Vehic	On Roadwa	T Intersecti	Daylight
29	2020	02-Mon	12		Property Dæ	0	2	Sideswipe -	Motor Vehic	On Roadwa	T Intersecti	Daylight
18	2022	01-Sun	17	Not Applicæ	Minor Injury	0	2	Angle	Motor Vehic	On Roadwa	T Intersecti	Daylight
02	2021	05-Thu	09	Not Applicæ	Possible Inj	0	2	Angle	Motor Vehic	On Roadwa	T Intersecti	Daylight

WEATHERP	WEATHERS	RDWYSURF	WORKZON	ROADWAY_INTERSECT	ROUTE_ID	BASIC_TYP	UNITTYPE	VEHICLETY	DIRECTION	PRECRASH	AGEU1
Clear	Dry	NOT APPLIC	W BROADW	DOUGLAS I	040000659	Angle	Motor Vehic	Passenger	Southbound	Moving For	42
Cloudy	Dry	NOT APPLIC	W BROADWAY AVE		040000659	Angle	Motor Vehic	Passenger	Northbound	Slowing	40
Clear	Dry	NOT APPLIC	W BROADWAY AVE		040000659	Sideswipe	Motor Vehic	Passenger	Northbound	Moving For	18
Clear	Dry	NOT APPLIC	DOUGLAS DR		040000659	Sideswipe	Hit-And-Run Vehicle		Northbound	Unknown	
Cloudy	Dry	NOT APPLIC	DOUGLAS DR		040000659	Sideswipe	Motor Vehic	Passenger	Northbound	Moving For	35
Clear	Dry	NOT APPLIC	DOUGLAS DR		040000659	Sideswipe	Motor Vehic	Passenger	Northbound	Moving For	82
Clear	Dry	NOT APPLIC	DOUGLAS I WEST BRO/		040000659	Angle	Motor Vehic	Passenger	Northbound	Moving For	19
Clear	Dry	NOT APPLIC	53RD AVE	53 AV & DO	100002393	Angle	Motor Vehic	Passenger	Eastbound	Moving For	80

SEXU1	PHYSICALC	CONTRIBF/	CONTRIBF/	NONMOTO	NONMOTO	RDWYDESI	TRAFFICCC	SPEEDLIMI'	ALIGNMEN'	GRADEU1	UNITYTYPEU	VEHICLETY
Male	Apparently	No Clear	Contributing	Action		Two-Way, C	Traffic Cont	35	Straight	Level	Motor Vehic	Sport Utility
Female	Apparently	Other	Contributing	Action		Two-Way, C	Traffic Cont	35	Curve Left	Level	Motor Vehic	Passenger C
Male	Apparently	No Clear	Contributing	Action		Two-Way, N	Traffic Cont	30	Straight	Level	Motor Vehic	Passenger C
						Two-Way, N	No Control:	35	Straight	Level	Motor Vehic	Sport Utility
Male	Apparently	Unknown				Two-Way, N	Traffic Cont	35	Curve Right	Level	Motor Vehic	Sport Utility
Female	Apparently	Improper	Turn/Merge			Two-Way, N	Traffic Cont	35	Straight	Level	Motor Vehic	Passenger C
Male	Apparently	Unknown				Two-Way, N	Traffic Cont	35	Straight	Level	Motor Vehic	Passenger C
Female	Apparently	Failure to	Yield Right-of-Way			Two-Way, N	Stop Sign	35	Straight	Level	Motor Vehic	Passenger C

DIRECTION	PRECRASH	AGEU2	SEXU2	PHYSICALC	CONTRIBF/	CONTRIBF/	NONMOTO	NONMOTO	RDWYDES/	TRAFFICCC	SPEEDLIMI'	ALIGNMEN'
Eastbound	Moving	Fon	25	Female	Apparently	Disregard	C	Failure to Yield	Right-of-Way	Two-Way, E	Traffic Cont	35 Straight
Northbound	Slowing		63	Female	Apparently	No Clear	Contributing	Action		Two-Way, E	Traffic Cont	35 Straight
Northbound	Moving	Fon	77	Female	Apparently	No Clear	Contributing	Action		Two-Way, N	Traffic Cont	30 Straight
Northbound	Moving	Fon	44	Female	Apparently	No Clear	Contributing	Action		Two-Way, N	No Control:	35 Straight
Northbound	Moving	Fon	54	Male	Apparently	Unknown				Two-Way, N	Traffic Cont	35 Curve Right
Northbound	Moving	Fon	22	Female	Apparently	No Clear	Contributing	Action		Two-Way, N	Traffic Cont	35 Straight
Southbound	Moving	Fon	40	Male	Apparently	No Clear	Contributing	Action		Two-Way, N	Traffic Cont	35 Straight
Northbound	Moving	Fon	39	Female	Apparently	No Clear	Contributing	Action		Two-Way, N	No Control:	30 Straight

GRADEU2 UNITYTYPEU VEHICLE TY DIRECTION PRECRASH AGEU3 SEXU3 PHYSICALC CONTRIBF/ CONTRIBF/ NONMOTO NONMOTO RDWYDESI

Level

Level

Level

Level

Level

Level

Level

Level

TRAFFICCC SPEEDLIMI' ALIGNMEN' GRADEU3 UNITTYPEU VEHICLETY DIRECTION PRECRASH AGEU4 SEXU4 PHYSICALC CONTRIBF/ CONTRIBF/

NONMOTO	NONMOTO	RDWYDES	TRAFFIC	CC	SPEEDLIM	ALIGNMEN	GRADE	UTM X	UTM Y	LATITUDE	LONGITUDE	CRASH_DATE	STATUS
								471645.23	4988538.3	45.04974	-93.3601	#####	Accepted
								471644.25	4988539.4	45.04975	-93.3601	#####	Accepted
								471647.71	4988559.6	45.04993	-93.3601	#####	Accepted
								471629.37	4988493.5	45.04934	-93.3603	#####	Accepted
								471630.88	4988507.6	45.04947	-93.3603	#####	Accepted
								471638.37	4988527.5	45.04964	-93.3602	#####	Accepted
								471640.62	4988531.0	45.04968	-93.3601	#####	Accepted
								471619.39	4988500.6	45.0494	-93.3604	#####	Accepted

STATUS_NC AGENCY_O AGENCY_O

Reportable Crystal Poli Police

Reportable Crystal Poli Police

Reportable Crystal Poli Police

Reportable Crystal Poli Police

Reportable Crystal Poli Police

Reportable Crystal Poli Police

Reportable Crystal Poli Police

Reportable Crystal Poli Police

NARRATIVE

The driver of unit one stated that he was going south on Douglas Dr N. He stated that he had the green light and was almost through the intersection when unit Crystal Officers were in pursuit of Unit# 1 going Northbound on Douglas Dr./ West Broadway Ave N. Unit# 1 struck Unit# 2 on the driver side.

Unit 1 and Unit 2 both traveling northbound on Douglas Drive N turning northbound on West Broadway. Unit 2 merged into Unit 1 causing damage to the driver side

The driver of unit two stated that she was in the left lane and going north on Douglas Dr. The driver stated that possibly a garbage truck side swiped the rear passenger

VEH 1 DRVR STATEMENT: VEH 1 WAS NB DOUGLAS IN THE RIGHT LANE AND CHANGED LANES JUST AFTER THE RR TRACKS. APPROX 1 BLOCK LATER, WHEN

When I arrived on scene, both vehicles were parked north bound on West Broadway.

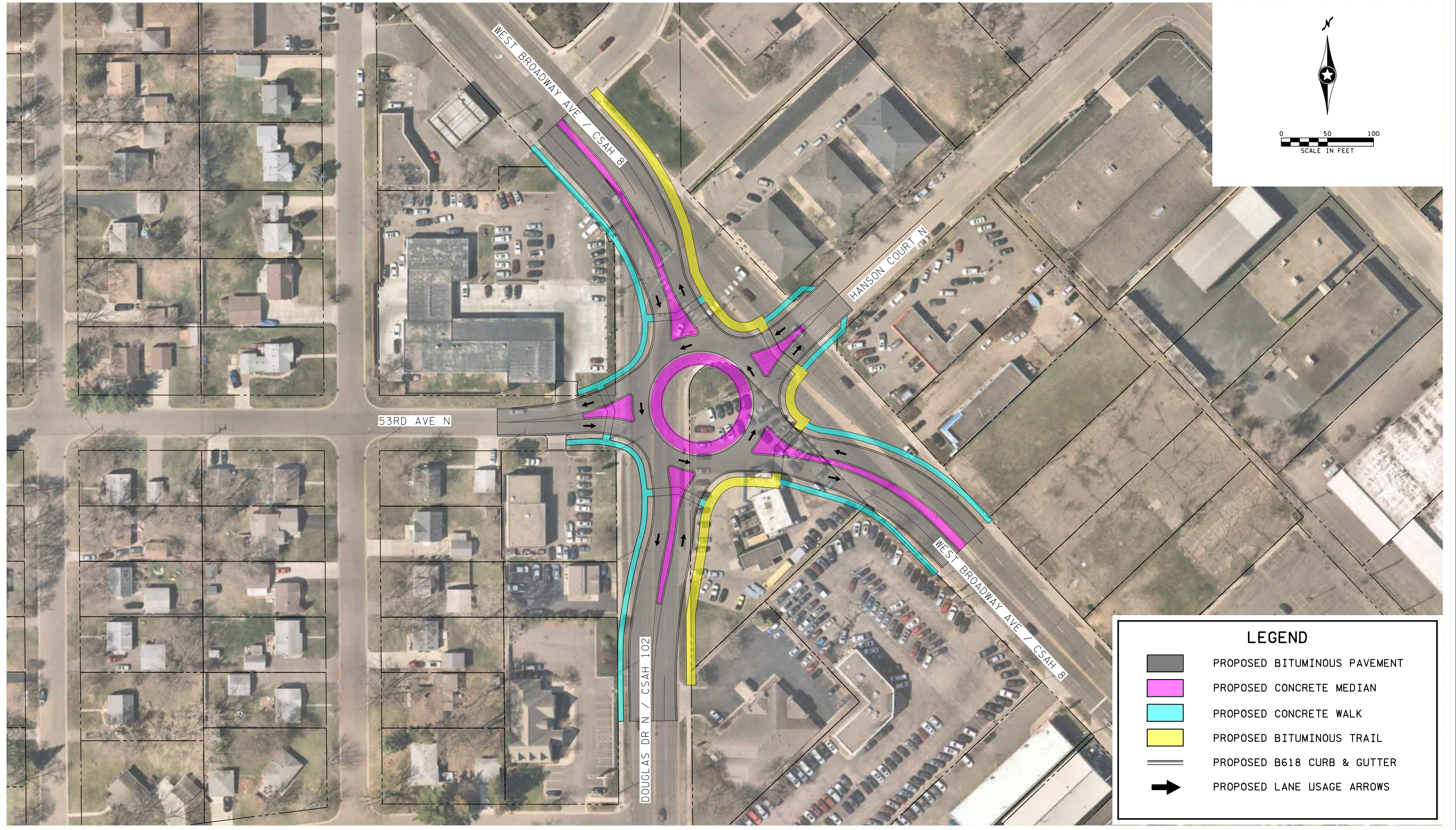
UNIT 2 WAS TRAVELING SOUTHBOUND ON WEST BROADWAY.

Unit #2 was traveling NB on Douglas Dr in the inside lane of travel. Unit #1 was traveling EB on 53rd Av approaching Douglas Dr. Unit #1 intended to make a left

of Unit 1. Unit 2 also has damage on the passenger side of their vehicle. No injuries happened during the accident.
quarter panel. She stated that she did not see exactly how it happened and didn't know how the vehicle came into her lane. She stated that she did not get a plate

or see the driver and pulled over. She stated that she thought the other vehicle would pull over too, but didn't

H:\Projects\16000\16643\TechData\CADD\Design\Working\15521\15521_gr0.dgn



5-LEG ROUNDABOUT CONCEPT
 DOUGLAS DR / WEST BROADWAY AVE
 CRYSTAL, MN

Job 15521
11/21/2023

Figure 1

RESOLUTION NO. 2023-95

**APPROVING THE 2024 FEDERAL REGIONAL SOLICITATION PROGRAM
GRANT APPLICATION**

WHEREAS, the Crystal City Council is committed to providing and maintaining quality infrastructure that is essential for everyday residential, commercial, industrial, and recreational activities in the City; and

WHEREAS, the City of Crystal supports the application made to the Metropolitan Council for a 2024 Federal Regional Solicitation Grant Program; and

WHEREAS, the application is to obtain funding for constructing a 5-Leg Roundabout at the Douglas Drive (CSAH 102)/W. Broadway Avenue (CSAH 8) intersection to provide for mobility, safety, and access improvements; and

WHEREAS, the project supports several transportation policies that are consistent with the 2040 Comprehensive Plan; and

WHEREAS, the City of Crystal recognizes a 20 percent local match is required.

NOW, THEREFORE, BE IT RESOLVED that the Crystal City Council hereby approves the 2024 Federal Regional Solicitation Program Grant Application.

BE IT FURTHER RESOLVED that the City Manager is authorized to sign all application-related documents.

Adopted by the Crystal City Council this 7th day of November, 2023.



Jim Adams, Mayor

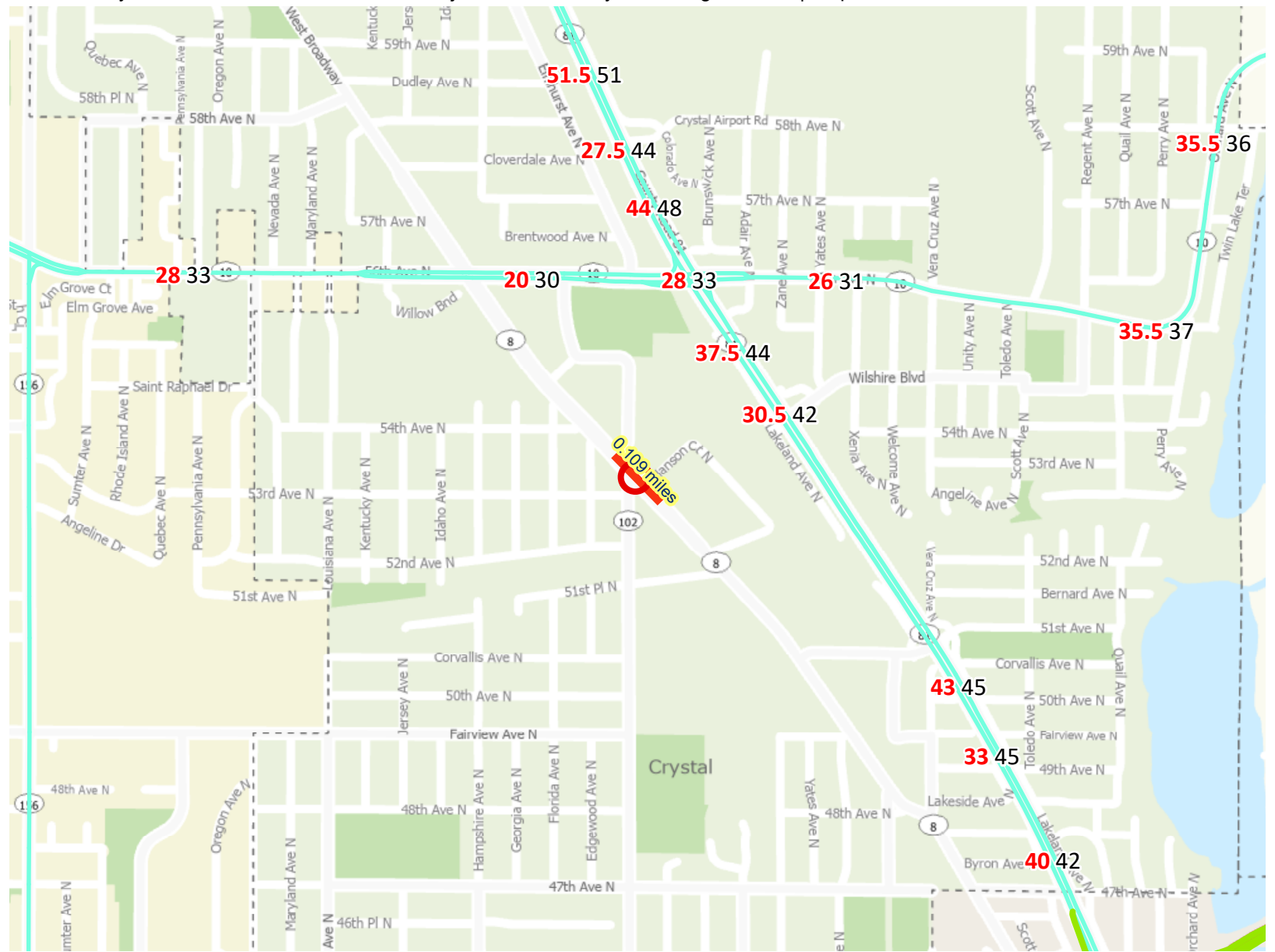
ATTEST:



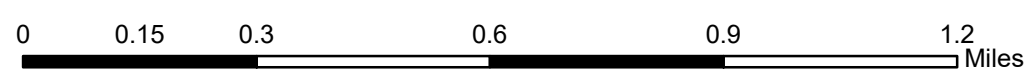
Christina Serres, City Clerk

Level of Congestion

Roadway Reconstruction/Modernization Project: W Broadway and Douglas Drive | Map ID: 1695846448124



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



Created: 9/27/2023
LandscapeRSA1



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



HENNEPIN COUNTY

MINNESOTA

December 1, 2023

Elaine Koutsoukos - TAB Coordinator
Metropolitan Council
390 North Robert Street
St. Paul, MN 55101

Re: Support for 2024 Regional Solicitation Application
CSAH 8 (W Broadway Ave) at CSAH 102 (Douglas Dr) Intersection Modernization Project

Dear Ms. Koutsoukos,

Hennepin County has been notified that the City of Crystal is submitting a funding application as part of the 2024 Regional Solicitation through the Metropolitan Council. The proposed project: CSAH 8 (W Broadway Ave) and CSAH 102 (Douglas Dr) Intersection Modernization Project, is anticipated to include the following:

- Improved safety and traffic operations for people walking, biking, and driving
- Improved access management
- Facilitation of a planned Three Rivers north-south trail connection (CP Regional Trail)
- Opportunity for an enhanced Crystal Town Center gateway and future redevelopment

As proposed, the project is anticipated to impact CSAH 8 (W Broadway Ave) and CSAH 102 (Douglas Dr) that are currently under Hennepin County jurisdiction. At this time of application submittal, county staff would like to notify the city of the following planned improvements in the vicinity of the proposed project, understanding that these improvements, and others not yet programmed, are subject to change.

- Multimodal safety improvements along CSAH 102 (Douglas Dr) from CSAH 70 (Medicine Lake Rd) to 51st Pl, tentatively scheduled for 2026 (SP 027-702-023)
- Pavement preservation between CSAH 70 (Medicine Lake Rd) and 51st Pl, tentatively scheduled for 2027 (CP 2220900)

Hennepin County supports this funding application and agrees to operate and maintain the impacted county roadway facilities for the useful life of improvements. At this time, Hennepin County has no funding programmed for this project in its 2023-2027 Transportation Capital Improvement Program (CIP). Therefore, county staff is currently unable to commit county cost participation in this project. Additionally, in recognition of the proposed intersection control device changes, we kindly request that the city includes county staff in the project development process to discuss potential intersection modification strategies. We look forward to working together to improve the accessibility, safety, and mobility for people walking, using transit, biking, and driving through the CSAH 8 (W Broadway Ave) and CSAH 102 (Douglas Dr) intersection.

Sincerely,



Carla Stueve, P.E.
Transportation Project Delivery Director and County Engineer

cc: Jason Pieper, P.E. – Capital Program Manager

Hennepin County Public Works
1600 Prairie Drive | Medina, MN
612-596-0356 | hennepin.us



Project Summary

Project Name: W. Broadway Avenue and Douglas Drive Roundabout Modernization Project

Applicant: City of Crystal

Total Project Cost: \$4,063,170

Requested Federal Dollars: \$3,250,536

Project Location: W. Broadway Ave (CSAH 8) and Douglas Dr (CSAH 102) intersection

Project Description:

This project is located at the convergence of four roads, W. Broadway Avenue, Douglas Drive, Hanson Court N, and 53rd Avenue N. Both W. Broadway Avenue and Douglas Drive serve as minor arterials through the City of Crystal. The existing intersection between W. Broadway Avenue and Douglas Drive is signalized with a severe skew and has a crash rate that is 1.6 times the statewide average for similar roadways. Existing traffic volumes are 11,236 ADT (2016) and forecasted to reach 15,600 ADT by 2040. The location of the project is of critical



Existing intersection layout. Source: Google Earth

importance to the City of Crystal as the intersection serves as the southern gateway to the city's Town Center, which is home to over 500,000 square feet of commercial space.

Current crossing facilities restrict mobility and require multistage crossings, including five stages across nine lanes of traffic for southbound pedestrians on the west side of W Broadway Avenue (see photo). The proposed project will replace the existing intersection with a five-leg roundabout that eliminates the skew and feeds all four roadways. The roundabout provides two stage crossings, with a pedestrian refuge island for each leg.

Project Benefits: The W. Broadway Avenue and Douglas Drive Roundabout Project will provide the following benefits:

- Improve traffic operations from level of service F (LOS F) to (LOS A)
- Improve vehicular and pedestrian safety through lighting, geometric, and ADA upgrades
- Provide full access at Hanson Court and 53rd Avenue while discouraging cut-through traffic in the Becker neighborhood
- Facilitate a planned Three Rivers north-south trail connection (CP Regional Trail) through the intersection
- Create an opportunity for an enhanced gateway and southern focal point for Crystal Town Center contributing to community image and redevelopment
- Spur economic investment in the city and accommodate all modes of transportation.

ILHAN OMAR
MEMBER OF CONGRESS
5TH DISTRICT, MINNESOTA

1730 LONGWORTH HOUSE OFFICE BUILDING
WASHINGTON, DC 20515
(202) 225-4755

310 E 38TH ST. – SUITE 222
MINNEAPOLIS, MN 55409
(612) 333-1272

WWW.OMAR.HOUSE.GOV



Congress of the United States
House of Representatives
Washington, DC 20515–2305

COMMITTEE ON
EDUCATION AND WORKFORCE
SUBCOMMITTEES ON
HEALTH, EMPLOYMENT, LABOR & PENSIONS
WORKFORCE PROTECTIONS

HOUSE BUDGET COMMITTEE
VICE RANKING MEMBER

December 8, 2023

Elaine Koutsoukos - TAB Coordinator
Metropolitan Council
390 North Robert Street
St. Paul, MN 55101

Re: Support for 2024 Regional Solicitation Application CSAH 8 (W Broadway Avenue) at CSAH 102 (Douglas Drive) Roadway Reconstruction

Dear Ms. Koutsoukos,

I am writing in support of the City of Crystal's application for funding through 2024 Metropolitan Council's Regional Solicitation grant program—a program that allocates federal funds to meet local and regional transportation needs. The proposed City of Crystal projects, CSAH 8 (W Broadway Avenue) and CSAH 102 (Douglas Drive) Roundabout Modernization project would bring significant improvements, which will include the following benefits:

- Improve traffic operations at the intersection from level of service F (LOS F) to (LOS A)
- Improve vehicular and pedestrian safety through lighting, geometric changes, and ADA upgrades
- Provide full access at Hanson Court and 53rd Avenue while discouraging cut-through traffic in the Becker neighborhood
- Facilitate a planned Three Rivers north-south trail connection (CP Regional Trail) through the intersection
- Create an opportunity for an enhanced gateway and southern focal point for Crystal Town Center contributing to community image and redevelopment
- Spur economic investment in the city and accommodate all modes of transportation.

The proposed project will improve accessibility, safety, and mobility for people walking, using transit, biking, and driving through the existing CSAH 8 (W Broadway Avenue) and CSAH 102 (Douglas Drive) intersection. This intersection currently operates under signalized traffic control. The Douglas Drive and West Broadway project will replace the existing intersection with a five-leg roundabout that eliminates the skew and feeds all four roadways. This will help eliminate hazardous right angle and left turn crash types, better traffic operations, improve connections to transit, and provide access to current

and future affordable housing and open spaces. I request that you give this grant application your full and fair consideration.

Sincerely,

A handwritten signature in black ink, appearing to read 'I. Omar', with a stylized flourish at the end.

Ilhan Omar
Member of Congress



Three Rivers
Park District
Board of
Commissioners

October 26, 2023

Marge Beard
District 1

Elaine Koutsoukos - TAB Coordinator
Metropolitan Council
390 North Robert Street
St. Paul, MN 55101

RE: Three Rivers Park District's 2024 Regional Solicitation Letter of Support for
CSAH 8 (W Broadway Avenue) at CSAH 102 (Douglas Drive) Roadway Reconstruction

Jennifer DeJournett
Vice Chair
District 2

Dear Ms. Koutsoukos,

Erin Kolb
District 3

I am writing to express Three Rivers Park District's support of the City of Crystal's application for funding through the 2024 Metropolitan Council's Regional Solicitation grant program for the proposed CSAH 8 (W Broadway Avenue) and CSAH 102 (Douglas Drive) Roundabout Modernization project, which will include the following benefits:

Louise M. Segreto
District 4

- Improve traffic operations at the intersection from level of service F (LOS F) to (LOS A)
- Improve vehicular and pedestrian safety through lighting, geometric changes, and ADA upgrades
- Provide full access at Hanson Court and 53rd Avenue while discouraging cut-through traffic in the Becker neighborhood
- Facilitate a planned Three Rivers north-south multi-use regional trail connection (CP Regional Trail) through the intersection
- Create an opportunity for an enhanced gateway and southern focal point for Crystal Town Center contributing to community image and redevelopment
- Spur economic investment in the City and accommodate all modes of transportation.

John Gibbs
Chair
District 5

The proposed project will improve accessibility, safety, and mobility at the existing CSAH 8 (W Broadway Avenue) and CSAH 102 (Douglas Drive) intersection which currently operates under signalized traffic control. The Douglas Drive and West Broadway project will replace the existing intersection with a five-leg roundabout that eliminates the skew and feeds all four roadways. This will help eliminate hazardous right angle and left turn crash types, better traffic operations, improve connections to transit, and provide access to current and future affordable housing and open spaces.

Jan Guenther
Appointed
At Large

Three Rivers Park District looks forward to working with the City of Crystal to improve accessibility, safety, and mobility for people walking, using transit, biking, and driving through the CSAH 8 (W Broadway Avenue) and CSAH 102 (Douglas Drive) intersection.

Jesse Winkler
Appointed
At Large

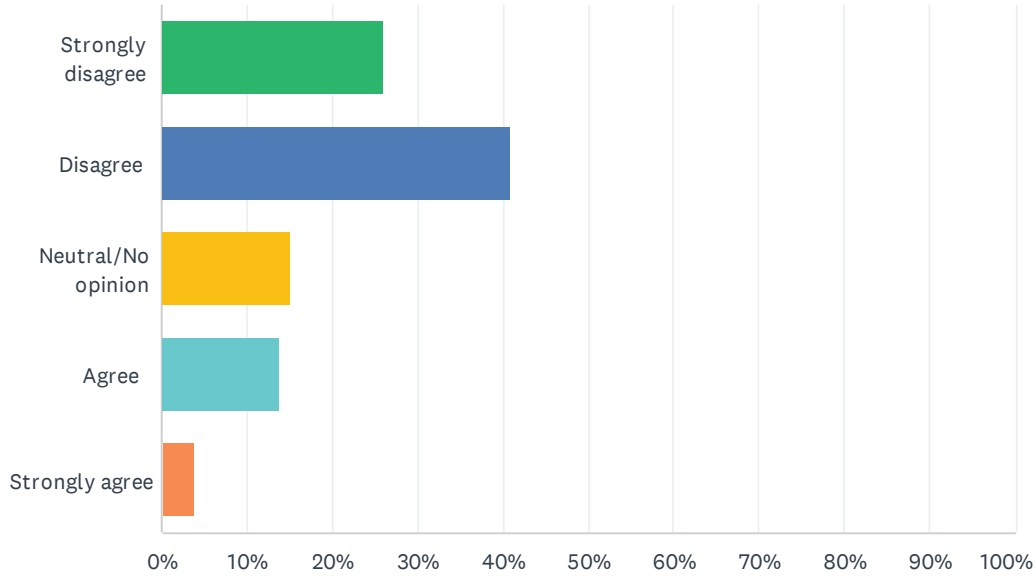
Sincerely,

Kelly Grissman
Director of Planning

Boe Carlson
Superintendent

Q1 The layout and condition of the intersection causes me to seek alternate routes.

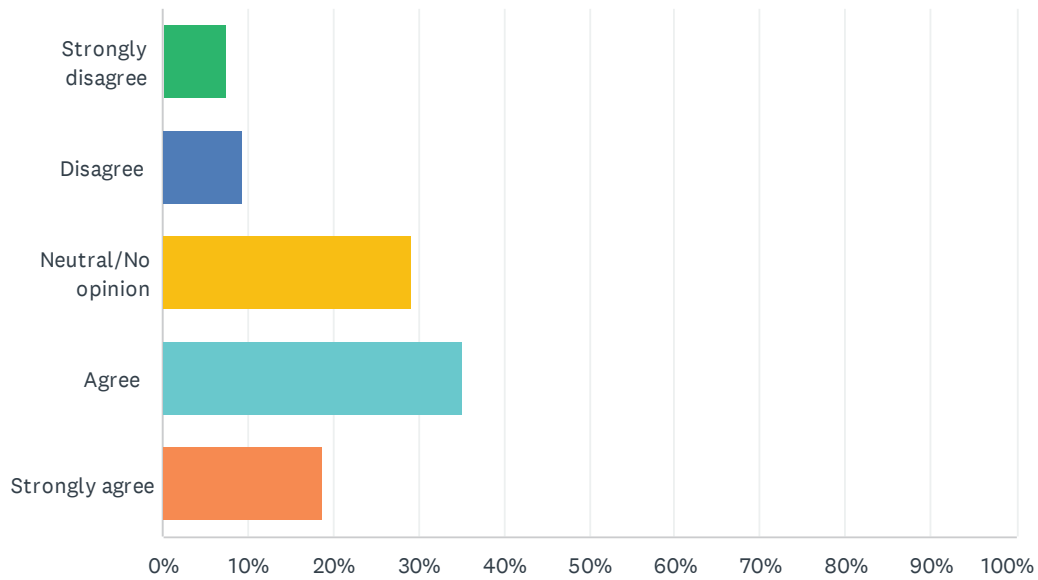
Answered: 559 Skipped: 0



ANSWER CHOICES	RESPONSES
Strongly disagree	26.12% 146
Disagree	40.97% 229
Neutral/No opinion	15.21% 85
Agree	13.95% 78
Strongly agree	3.76% 21
TOTAL	559

Q2 The intersection is difficult for pedestrians to navigate.

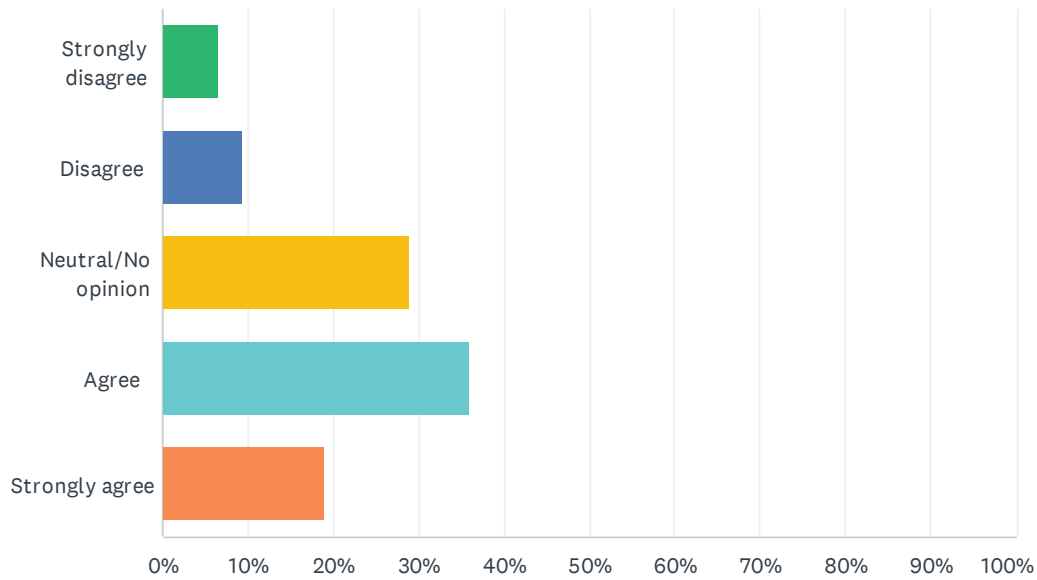
Answered: 558 Skipped: 1



ANSWER CHOICES	RESPONSES	
Strongly disagree	7.53%	42
Disagree	9.32%	52
Neutral/No opinion	29.21%	163
Agree	35.13%	196
Strongly agree	18.82%	105
TOTAL		558

Q3 There is no place for bicycles to safely travel through the intersection.

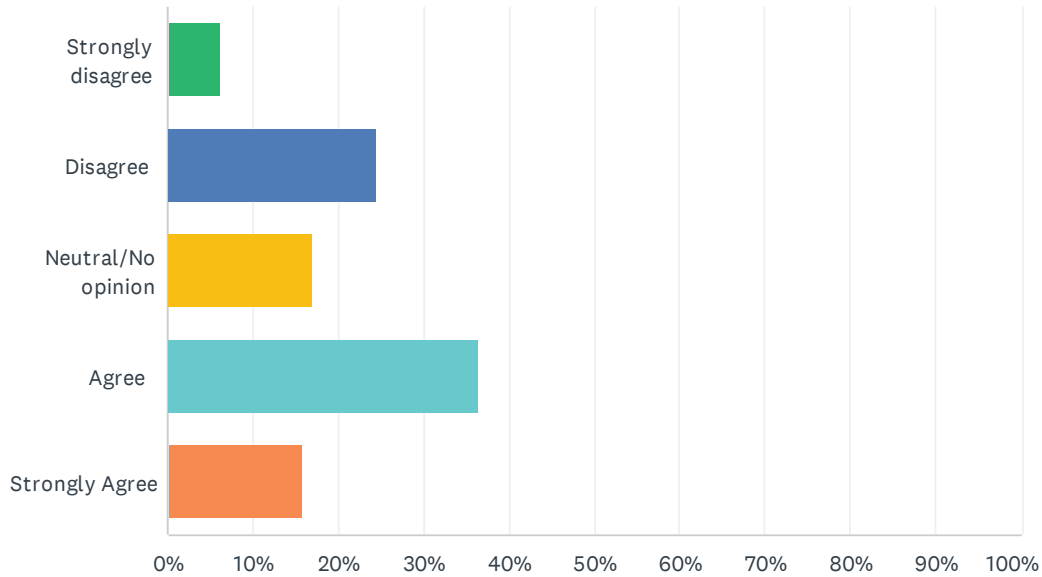
Answered: 559 Skipped: 0



ANSWER CHOICES	RESPONSES	
Strongly disagree	6.62%	37
Disagree	9.30%	52
Neutral/No opinion	28.98%	162
Agree	36.14%	202
Strongly agree	18.96%	106
TOTAL		559

Q4 At the intersection, sometimes it seems like I'm sitting at the red light for no reason (no traffic on the cross street).

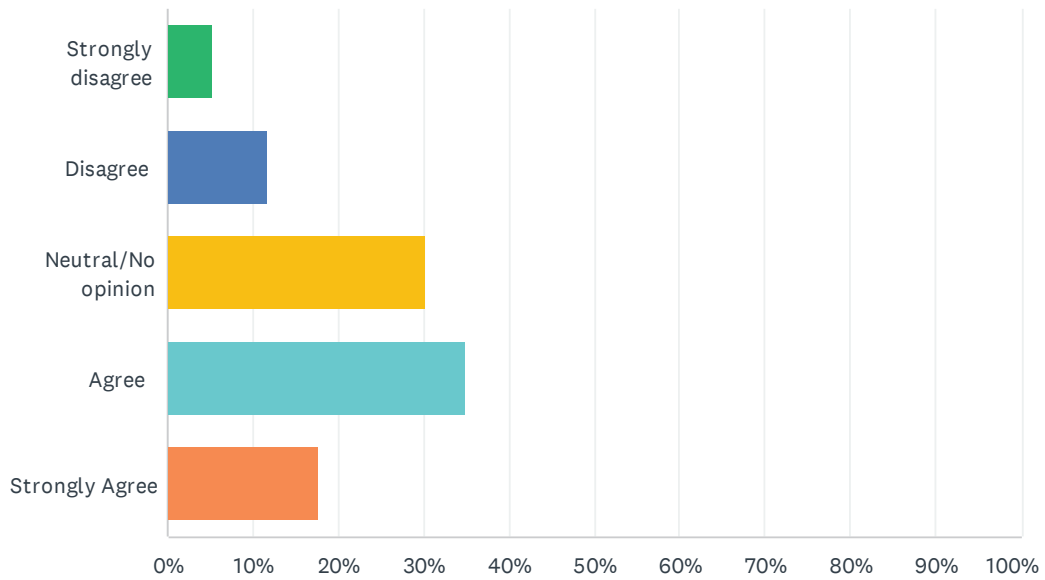
Answered: 558 Skipped: 1



ANSWER CHOICES	RESPONSES
Strongly disagree	6.09% 34
Disagree	24.55% 137
Neutral/No opinion	17.03% 95
Agree	36.56% 204
Strongly Agree	15.77% 88
TOTAL	558

Q5 The intersection is located too close to Hanson Court Apartments.

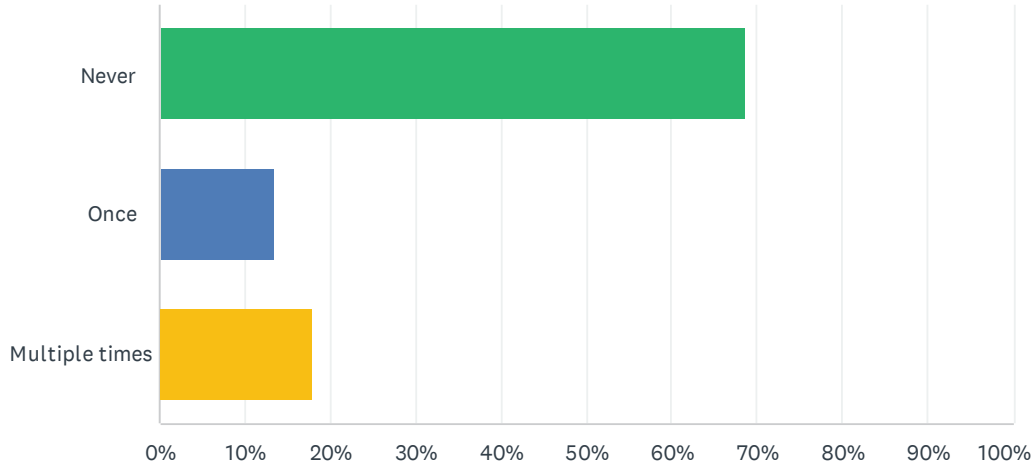
Answered: 559 Skipped: 0



ANSWER CHOICES	RESPONSES	
Strongly disagree	5.37%	30
Disagree	11.63%	65
Neutral/No opinion	30.23%	169
Agree	35.06%	196
Strongly Agree	17.71%	99
TOTAL		559

Q6 Have you been involved in, observed, or encountered a near-miss at the intersection of 53rd Avenue and Douglas Drive?

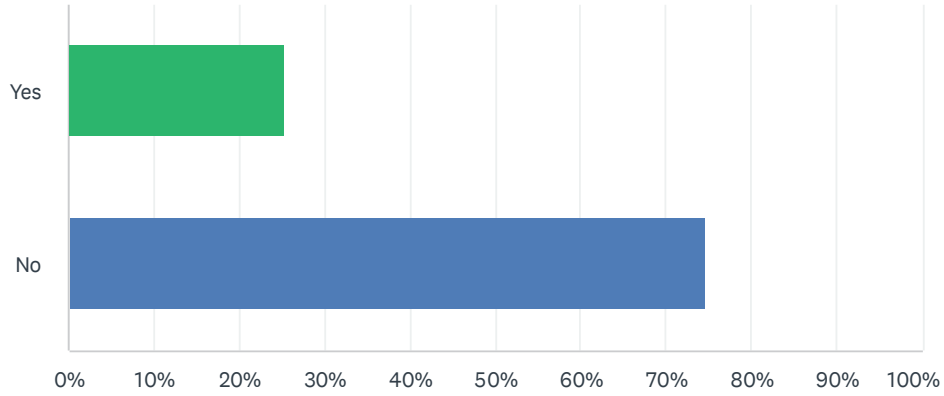
Answered: 557 Skipped: 2



ANSWER CHOICES	RESPONSES	
Never	68.58%	382
Once	13.46%	75
Multiple times	17.95%	100
TOTAL		557

Q7 Have you been involved in, observed, or encountered a near-miss at the intersection of West Broadway and Douglas Dr.?

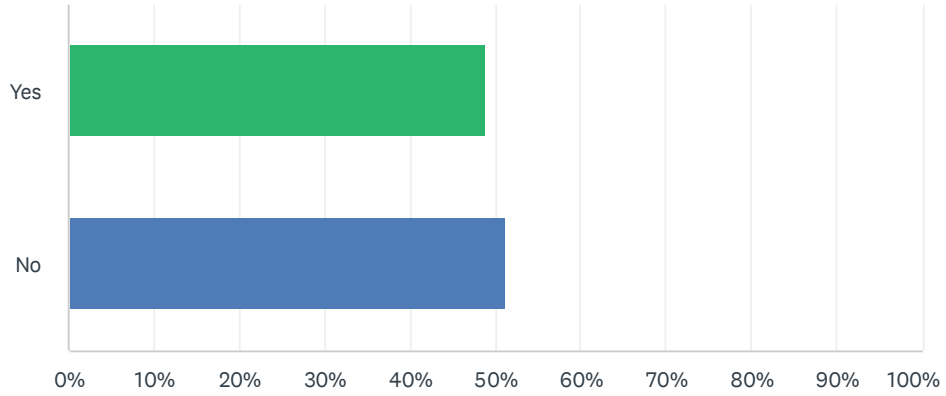
Answered: 558 Skipped: 1



ANSWER CHOICES	RESPONSES	
Yes	25.45%	142
No	74.55%	416
TOTAL		558

Q8 Do you think traffic travels westbound on 53rd to avoid going north on West Broadway and west on Bass Lake Rd.?

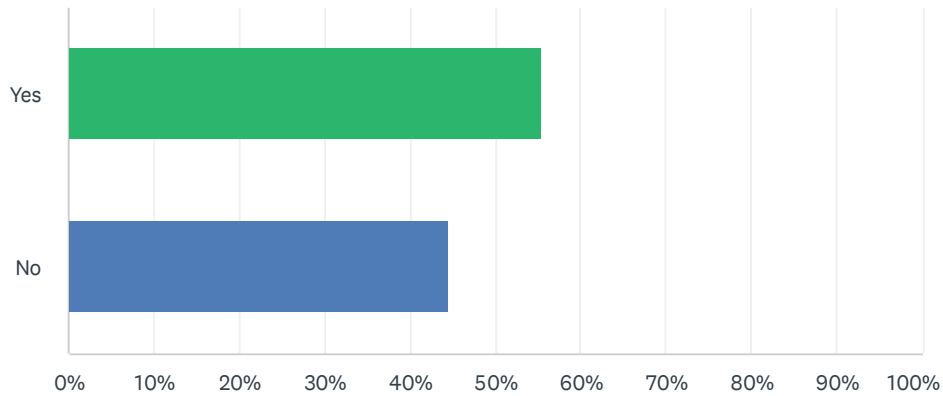
Answered: 554 Skipped: 5



ANSWER CHOICES	RESPONSES	
Yes	48.92%	271
No	51.08%	283
TOTAL		554

Q9 Do you think that the limited access (right in/right out) intersection of Hanson Ct. and West Broadway (just south of Douglas Dr.) negatively impacts access to the apartments and businesses on Hanson Ct.?

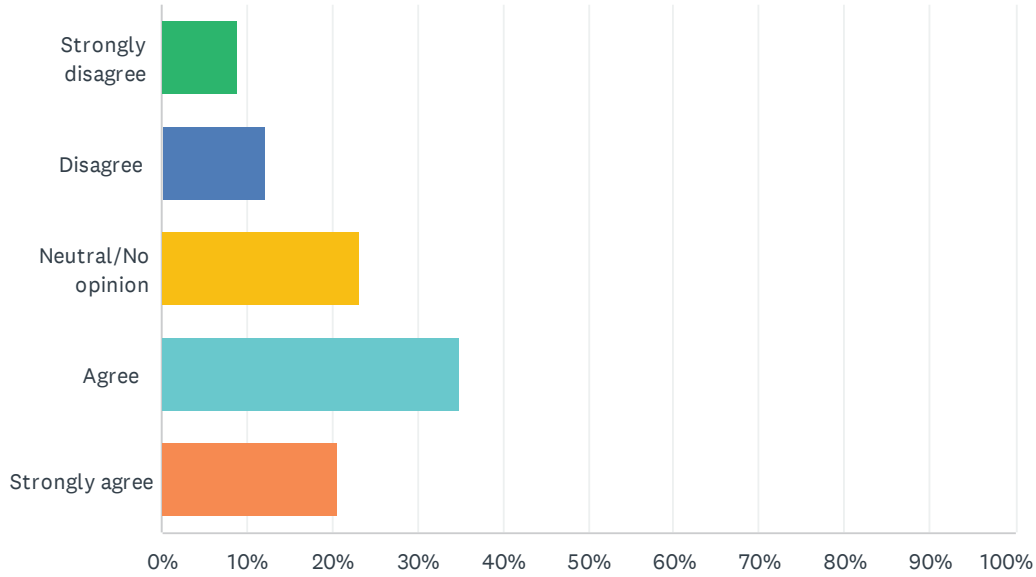
Answered: 553 Skipped: 6



ANSWER CHOICES	RESPONSES	
Yes	55.52%	307
No	44.48%	246
TOTAL		553

Q10 Something should be done here to create an attractive southern gateway to the city’s main commercial and redevelopment area (Crystal Town Center).

Answered: 559 Skipped: 0



ANSWER CHOICES	RESPONSES	
Strongly disagree	8.94%	50
Disagree	12.16%	68
Neutral/No opinion	23.26%	130
Agree	34.88%	195
Strongly agree	20.75%	116
TOTAL		559

Q11 Do you have any other comments to share about this intersection? Please enter them in the box below (max. 1,000 characters):

Answered: 222 Skipped: 337

#	RESPONSES	DATE
1	No	4/4/2022 8:45 PM
2	I live south off of Douglas around 36th Ave, so I only use this intersection to get to/from the area around Target and it works for me. I never have to wait very long for a green arrow and I love having two left turn lanes there. I also like having the yield option and a dedicated lane when turning right from Broadway back onto southbound Douglas. Honestly, it's one of the few intersections I use regularly that I don't have a gripe about. That being said, I can appreciate the difficulties of the people on Hanson Court and support improvements for them if it won't seriously impact the rest of the traffic around there. They don't have an easy way to make a left off either entrance to Hanson Ct (no left arrow or light). I've never been a pedestrian around there, so I can't speak to that, although I do see people jaywalking on B-way and I imagine it feels safer to just cross B-way and hang out in the median for all to see than using the crosswalks to cross Douglas and B-way at the intersection. (I got hit once in Uptown Mpls while in a crosswalk and with the walk sign.) Also, #8 should have an "I don't know" option because I have no way of knowing if people actually do that. (I come up Winnetka if I want to go to something west of Target because I'm so close to 36th.) As for #10, I wish Crystal had a cute, walkable downtown like Robbinsdale, but that's not happening without some serious redevelopment. If you can make the intersection more attractive, go for it, but not if it means making it less convenient.	4/4/2022 6:59 PM
3	Remove used car dealerships & overpasses over railroad tracks.	4/4/2022 5:40 PM
4	Haven't encounter safety issues, but area definitely feels old and sprucing up would help the vibe of the area. Have more of an issue with the train causing traffic backups.	4/4/2022 10:07 AM
5	Thank you for surveying for the purposes of 1) building up the city community of Crystal, Minnesota and for 2) greatly improving walking and/or commuting through the city to businesses, residences and service providers - while doing so in a cost-effective manner.	4/4/2022 9:00 AM
6	I love the City of Crystal and I care about the safety of all, so whatever it's takes to be safe am in and support.	4/3/2022 11:14 PM
7	Have red lights controlled more by traffic than timed. Red light on Douglas to West Broadway is long especially during the day when traffic is light. Spending money to get more businesses in rather than on the streets. With fire department already there is would be hard to rearrange the streets.	4/3/2022 10:11 PM
8	Access to West Metro Fire station is an important consideration too. Firefighters need to be able to get in and out of the station safely and quickly	4/3/2022 4:16 PM
9	N/A	4/3/2022 10:27 AM
10	The intersection is a unique situation but it appears to meet the needs of current traffic levels.	4/3/2022 9:17 AM
11	No	4/3/2022 8:26 AM
12	I think Crystal as a whole needs to do more to make the cityscape attractive. We have blighted and aging areas that should be remodeled at the very least.	4/3/2022 7:48 AM
13	No	4/3/2022 6:29 AM
14	I goes by this intersection only a half dozen time's a month, but seems to be no different than any other stop light. around	4/2/2022 11:57 PM
15	x	4/2/2022 5:44 PM
16	I hope you just don't spend lots of money to change things. I am sure it's already in the works,	4/2/2022 5:22 PM

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but not necessary to spend lots!! We really need to be more concerned about the future and debt. Thanks

17	It's not that bad. What is bad are the parking lots and exit/enters for places like Target. Target has a pothole your car could fall into and wreck your suspension at the entrance by the back of the building (where you can enter from W Broadway.	4/2/2022 4:45 PM
18	Don't waste money on this kind of project right now. Fix potholes and do regular road maintenance	4/2/2022 4:24 PM
19	Not worth the money to make a "gateway". That whole strip of roadway in both directions is a blight anyway and you won't fix it with one intersection. It would take millions of dollars and tearing down a lot of buildings to make it look even remotely presentable. Fix the bumpy railroad tracks that almost tear the wheels off the car each time you go over them in either direction. Many people slow down before crossing them. I slow down and have almost gotten re-ended several times by others in too big a hurry.	4/2/2022 12:43 AM
20	Don't bring in more low income housing. Tired of fighting for my neighborhood and city.	3/31/2022 4:21 PM
21	The immediate access to 53rd off Douglas, between car wash and auto business is often blocked by cars parked on 53rd by the auto business. How is it legal for that business to put their overflow parking in the street.	3/31/2022 12:09 PM
22	No	3/31/2022 10:03 AM
23	Which was first. Broadway or Hanson courts? A round about could show safety and nice upgrade to the neighborhood. Slows heavy foot drivers down.	3/31/2022 9:59 AM
24	N/A	3/31/2022 4:19 AM
25	Thanks	3/30/2022 10:41 PM
26	Live on 36th/Douglas We find it hard to get in/out. Nobody has tried to make it more accessible for us. Just keep adding more signs. How about the speed/almost laughable how nothing is being done with that. 1Apt vs single family homes. Perhaps think of all busy roads. Lived same location 65 years.	3/30/2022 10:26 PM
27	My travel is mostly W Broadway, to Douglas. I have an easier time traveling south than north because of the stoplight. Lanes are confusing - retail traffic is unpredictable in this area as well. This causes accidents	3/30/2022 8:45 PM
28	Could use a face lift.	3/30/2022 8:23 PM
29	If you do make changes make sure you add greenery. Roundabout?	3/30/2022 7:28 PM
30	maybe a roundabout by hanson ct (douglas going south, broadway going east and west, connect to becker park going north)?	3/30/2022 4:44 PM
31	Interesting survey doesn't mention train tracks.	3/30/2022 4:21 PM
32	Consider a roundabout. It's an awkward intersection.	3/30/2022 4:12 PM
33	No roundabouts	3/30/2022 3:04 PM
34	when turning left onto Douglas Drive, then I have to immed turn right on to 53rd - real hazard as people coming off Broadway onto Douglas Drive are in same lane I need to get to in a very short time. This is a BIG problem. If you could look into making this easier/ better. That's where I'm seeing some near misses.	3/30/2022 2:11 PM
35	Roundabouts suck and people don't know how to use them. We should not be adding more to our city.	3/30/2022 2:01 PM
36	An update to this intersection should include improved bike/pedestrian facilities	3/30/2022 11:46 AM
37	Turn it into a roundabout. It doesnt need to be an over engineered. Take notes from european designs	3/30/2022 11:17 AM
38	None	3/30/2022 11:17 AM
39	I see many people zip onto a side road to avoid this intersection but have never done it myself because I don't believe in short-cutting through people neighborhoods. But if I were on a bike or walking, I'd sure try that instead. Main intersection is impossible for pedestrians.	3/30/2022 11:14 AM

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40	Please prioritize designs that emphasize pedestrian access and traffic calming devices.	3/30/2022 11:01 AM
41	Roundabout maybe	3/30/2022 10:49 AM
42	No	3/30/2022 10:24 AM
43	This intersection and surrounding area is disgusting and always full of litter. As someone who lives in the nearby neighborhood, I find myself taking alternate routes when I'm walking to local businesses. The intersection is also really confusing for pedestrians, so people are constantly running across Broadway.	3/30/2022 10:20 AM
44	Either Douglas or Broadway needs to have a road bridge that goes over the railroad tracks - similar to 81.	3/30/2022 9:40 AM
45	No	3/30/2022 9:39 AM
46	Please do something as soon as possible. This intersection is so dangerous. Waiting several years to fix is not an option.	3/30/2022 9:39 AM
47	Happy to see what you come up with! We use the intersection multiple times a week and I always feel bad for the apt traffic there	3/30/2022 9:38 AM
48	This is just a guide to waste money	3/30/2022 9:36 AM
49	Is there room to square the intersection up with Hanson CT? It's kinda dumb they didn't do that when they built Hansen Ct in the first place. As for a commercial gateway, maybe it should be farther south if you insist on it, since the commercial area starts well south of the intersection on both streets.	3/29/2022 10:37 AM
50	No.	3/27/2022 8:07 PM
51	There is no Pedestrians walking around there ?? from where ? Same for Bicycles... who in MN uses a Bicycle for 5 Month a Year to begin with ? I have not seen a single Bicycle in Years on that Intersection.... where are those mystically going to come from ? To clean up the curbs, paving.. maybe better lighting on that Intersection.. sure.. that can always and should always be part of a good City Maintenance...	3/27/2022 11:36 AM
52	I feel that there should be a no parking zone on 53rd Avenue from Douglas to Edgewood. The auto shop on Douglas and 53rd has limited space in their lot and frequently has cars parked on both sides of the street on 53rd making it very difficult for cars making a turn onto 53rd as well as to exit from 53rd. 53rd is not wide enough for cars to pass east and west with cars parked on both sides of the street .	3/26/2022 10:06 PM
53	No strong opinion	3/26/2022 1:57 PM
54	It's very ugly and seems like a great spot for a nice roundabout with a water feature or greenery in the middle.	3/26/2022 1:01 AM
55	As a recent Minnesota transplant I find the turn from traveling easy on Broadway to South on Douglas to be confusing. I stop when the light is red before turning and people behind me honk at me as if I want supposed to stop.	3/25/2022 10:25 PM
56	NO ROUNDABOUTS !!!!!!!!!!!!!!!!!!!!!!!	3/25/2022 6:08 PM
57	After doing a google street walk through on 53rd, there are only 3 stop signs on that road which makes it very easy to avoid all the stoplights in the business district along Broadway and Bass Lake. If speeding/pass through traffic is an issue on 53rd, adding more stop signs for east/west traffic would make it a less desirable option.	3/25/2022 10:03 AM
58	I have had no problems with this intersection and use frequently in my 14 years living in Crystal. I don't see the need to spend tax dollars on an project such as this. I would rather see funds put to use in creating more parks or into schools. Our district is one of worst in state and that is unacceptable or attractive to potential citizens. I have to put my child in private school in order for him to have a decent education and thrive in society. Please stop unnecessary traffic projects and use funds that will really help.	3/24/2022 10:55 PM
59	An old intersection that needs to be updated. East bound traffic off Douglas has a curve to the stop which could be eliminated. I would hate to have to live in those apartments.	3/24/2022 8:00 PM
60	Turning left onto Douglas and then trying to turn right onto 53rd is incredibly dangerous. There	3/24/2022 7:44 PM

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isn't enough space/time to get over to right lane when traffic is turning right on Douglas from w
broadway.

61	I think the traffic lights help by avoiding accidents I think they don't need to be remove	3/24/2022 6:18 PM
62	Spend all the money!	3/24/2022 3:48 PM
63	i've never been particularly bothered by this intersection but I don't drive through it often. My husband drove through it for years on his way to work and never voiced any concerns. I've only had to walk through the intersection once though and I was concerned that people were not paying attention to me. If I had to guess how often I drive through this intersection, it'd be once a month. Perhaps others who interact with it more frequently would have stronger opinions.	3/24/2022 2:50 PM
64	I have lived in Crystal for over 20 yrs and lived near Crystal my entire life. I rarely shop in Crystal anymore due to the limited shopping locations. I rarely stop at the Crystal Target anymore due to being approached in the parking lot by panhandlers, the crumbling roadway on West Broadway and general lacking sense of safety. I do not feel that the intersection is a huge concern, it's likely more poor driving skills by drivers in that area these days.	3/24/2022 2:07 PM
65	That whole area of West Broadway needs to be made more inviting, clean and fresh, while being a safe place to be.	3/24/2022 1:13 PM
66	To help alleviate issue of right in / right out access to apartments at the intersection, the City could develop a road on the fire station property to allow traffic into the apartments via Douglas Dr. N (the part of Douglas Dr. just north of W. Broadway). I'm imagining a road in-between the fire station and Minnesota Grinding, Inc. You could then access the apartments going eastbound on W. Broadway before hitting the traffic light. A left turn lane is already established to allow this traffic to go towards fire station. -3001 Utah Ave N	3/24/2022 11:25 AM
67	I have used this intersection multiple times a day for over 35 years. It is not a problem. Bikes are not a problem. DO NOT add a bike lane. They piss off drivers and make roads worse. I RARELY see bikes on that road, and when I do, they are not following the laws of the road. They think they are pedestrians, and don't follow laws. The biggest problem is the pedestrian traffic from Hanson Court that keeps running across West Broadway to go to Speedway. The best thing you could do for that intersection is totally tear down Hanson Court, and NOT REBUILD apartments or a business at that location. You have already approved an apartment building further down West Broadway that will only bring more pedestrians running across the road, our crime will increase with low income, overcrowded apartments, and non-productive welfare residents. I don't see how you can house that many people/units and still have room for off street parking! Don't wreck the city further. Don't evict the current businesses. They are not the problem. The problem is Hanson Court. Get rid of that, and the jaywalkers that are not ticketed for doing it, and most of what you think is a problem will go away. New Stop lights with shorter wait time, and curb replacements would be nice. Tear down Hanson Court!	3/24/2022 9:26 AM
68	I use the intersection at W Broadway and Douglas about once a week, typically coming north from 42nd and Douglas. I've frequently pondered the great inconvenience of oncoming vehicle lights and traffic noise to the residents of the apartments, which seem far too close to a road, let alone an intersection. I do not tend to mind waiting a bit longer at a light, especially for safety sake (ex. pedestrian crossings). This area of Crystal could do with a bit of updating - repairs, banners on light poles, or something.	3/24/2022 9:11 AM
69	Between the intersection and the train tracks (sometimes waiting more than 15 minutes for the train to pass), I often seek alternative routes which is frustrating.	3/24/2022 9:02 AM
70	I live off of 53rd and Oregon in New Hope and drive through this intersection daily. It is definitely confusing, especially when I first moved here in the fall. I have a hard time when I am going north on Broadway to turn left on Douglas and then turn right on 53rd. Often people who are going south on Broadway to turn right on Douglas do not yield or look for cars turning onto the Douglas from the opposite direction. Also, cars can get backed up going north on Douglas to turn left on Broadway which causes waits for me to turn left onto Douglas from 53rd. Nervous about construction here since it's such an important intersection for my commute but I recognize that it will be worth it as it's not functioning as is.	3/24/2022 8:46 AM
71	The train tracks .. seems like I'm always waiting for trains...plus their whistles are annoying	3/24/2022 8:34 AM
72	Replace the intersection with a round-a-bout/traffic circle. A round-a-bout will solve the problem. Plus, with the potential for less time idling there will be less pollution and drivers will	3/24/2022 8:32 AM

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	burn less gas thus saving money.	
73	Roundabout???	3/24/2022 6:40 AM
74	I live on Edgewood Ave n and the biggest problem is the west to east yield turn lane. It is to close to the entrance of the residential street.	3/24/2022 5:26 AM
75	round-a-bout, crosswalk signals	3/24/2022 1:29 AM
76	Always it's taking to long to get off of the gas station parking because of traffic coming Boths way	3/24/2022 12:23 AM
77	There are too many driveways in that area. Apts, gas station, car wash, dentist office, optical shop, residential street/ 52nd. It's just very busy with people turning off, or trying to enter, the roadway. Plus stoplight, plus pedestrians, plus train. There's a lot going on in a small area. I see people run the light going S on Broadway all the time. Or, fly around a stopped city bus at the corner, to go S on Douglas. It's just a bad intersection. I've drive through every day and see the craziest things. There needs to be a pedestrian overpass, at a minimum. Ideally, I think a roundabout would work best.	3/23/2022 11:51 PM
78	Leave it alone. What ever you do, will not be worth the money!	3/23/2022 9:18 PM
79	Roundabout!	3/23/2022 7:46 PM
80	The turn from northbound Douglas to westbound Broadway seems to catch some drivers by surprise as navigating the proper turn lanes isn't easy as you come around the curve. As for near accidents, I've seen far more at 51st Place and Broadway with people speeding and driving recklessly while trying to avoid the trains.	3/23/2022 7:32 PM
81	I can't recall getting into any accidents or near misses at the W. Broadway/Douglas Dr. and have never heard of people using 53rd Ave. to avoid the intersection. I agree that the intersection could be improved but am mostly indifferent on how it's done, but PLEASE no bike lanes!	3/23/2022 7:31 PM
82	I think it's great that the city is looking to fix this "problematic" intersection!	3/23/2022 6:08 PM
83	Near misses happen because of the 'yield' for right turns going south on Douglas Drive. I used to utilize 53rd to go to the bank - not to avoid the big businesses per se but it was a fast shortcut. Long waits happen by those train tracks. I don't feel like anything other than those going south from west Broadway are really an issue.	3/23/2022 5:33 PM
84	No	3/23/2022 4:59 PM
85	The only real safety issues I see here are very poor drivers. Fix them first. The council is appearing old and outdated.	3/23/2022 4:28 PM
86	I would think a roundabout could be a great option here except for how close the apartments are to the intersection. And the train tracks also being so close do it help with a potential, slight shift to the road to accommodate.	3/23/2022 4:27 PM
87	If you are looking to make this intersection more pleasant to the eye, you may want to look at the businesses surrounding the area. Burger King boarded up, the car wash/used car lot, and the Speedway. A yellow flashing light could help with cars sitting at the red light.	3/23/2022 4:23 PM
88	I have been driving thru this intersection daily for over 50 years and don't see the need to change it. Also I did have a business with 40 + employees 2 blocks south of this intersection , no problem for them either.	3/23/2022 1:58 PM
89	Thanks for taking on this project! It's a dangerous intersection!	3/22/2022 11:07 PM
90	I have zero problem with that intersection. We should be putting more effort into attracting better restaurants, breweries, distilleries, and small shops people actually want make the trip to Crystal to go to.	3/22/2022 10:17 PM
91	access from 53rd Ave eastbound briefly onto Douglas NB to gain access to Broadway EB/SB is critical now that there is no left turn from SB Douglas onto 51 Ave EB due to silent train crossing. Intersection updates at Douglas/Broadway should consider this for Becker Neighborhood residents to maintain easy access to East/Southbound Broadway and ultimately access to CR81 and HWY100	3/22/2022 4:40 PM
92	No comments	3/22/2022 4:26 PM

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93	No	3/22/2022 6:50 AM
94	None.	3/22/2022 6:07 AM
95	I live nearby and actually LIKE this intersection. The light cycles responsively and there is rarely congestion. I have traversed this intersection many times as a pedestrian and I find nothing about doing so to be challenging. Changing this intersection would be a complete waste of money. For that very reason the city will probably do it regardless of survey results. Hopefully I'm wrong. If money must be spent, fix potholes or something similarly plainly problematic. And please if nothing else do not make this intersection into a roundabout as has seemingly become trendy.	3/21/2022 9:48 PM
96	I often need to turn left onto Douglas coming north and then immediately right into west bound 53rd as I live on 53rd. There used to be a yield signal for right turning traffic coming from the north so that I could turn left and get into the right lane without issue. Now traffic does not yield and that is near impossible.	3/21/2022 8:52 PM
97	Consider A round about to remove the stop	3/21/2022 8:11 PM
98	Find it difficult to get to Hanson Court adjacent to tracks, traffic is often speeding heading North on West Broadway makes it difficult to judge crossing to Hanson Court.	3/21/2022 8:04 PM
99	"Old and tired"? Grow up! This is not the intersection that should be revamped. In my humble opinion 53rd should have a right turn only from EB 53rd Ave to Douglas drive. People drive on 53rd at elevated speeds with very few stop signs to help slow traffic down. Not allowing WB traffic onto 53rd Ave N from Douglas Dr would help this entire neighborhood! Also, there is an obvious issue of having too many driveways (access) too close to the intersection (W Bdwy/Douglas Dr). The Speedway station is a huge eyesore and it's southern driveway is an obvious issue especially when crossing NB W Bdwy. The Hanson court apartments driveway is in the intersection, and I rarely see traffic flow legally in and out of that driveway. The northern intersection of W Bdwy/Douglas Dr (in front of the fire station) should not allow traffic to turn left unless it's a fire truck. Again, this intersection should be a right turn only from SB Douglas Dr onto W Bdwy (unless an emergency vehicle). Notice I said right turn only (no straight across to the southern Speedway driveway). Lately (the last few years) there have been questionable changes in traffic control in the city of Crystal. I understand some of these changes are made to protect us from ourselves but many changes have not been appreciated. I have also noticed fewer people are following the MN state statutes with regard to driving. I would love to see more education and enforcement for the motoring public. That, you'll find, would fix the issues of the W Bdwy/Douglas Dr intersections (yes intersections plural) and the surrounding driveways. In short, there's so much more than this "old and tired" mindset. Remember, words have meaning. If you're going to use words, please use them correctly. C. Brooks	3/21/2022 8:01 PM
100	Suggest to move intersectin lights back to Hannson Ct N, and have 53rd connect to hannson and no turn onto douglas dr. Then move tower automart so there can be a turn lane for doulas drive. Or have two sets of light .	3/21/2022 5:05 PM
101	I have been in an accident when someone turned from Broadway south onto Douglas. The conditions were icy though and I slid into Douglas from 53rd Ave. The other driver neglected to stop seeing me sliding or they could not stop either. If I could redesign the intersection, I would extend 53rd all the way to broadway and terminate Douglas at 53rd. I would not use 54th Ave as the neighborhood access to Broadway because it's a an awkward turn onto 54th from both the the North and South directions of Broadway and there's a light at 55th Ave that would be super close. Broadway is used as a quick way to get to Bottineau for easy access to 100. When the city put in the "no horns" crossing for the railroad on Douglas, they removed one access point for the residents of the Becker neighborhood to get to Broadway via 51st place, if you're seeing an increase in accidents at the Broadway/Douglas intersection that could be part of the reason why. If the intersection is removed any problems from Douglas would just get moved to 54th Ave.	3/21/2022 4:37 PM
102	Very large amount of traffic turns west on 53rd and then north on Edgewood Ave to get to Speedway gas station, since there is no way to get there from north bound West Broadway. We have been complaining about the entrance from Edgewood for years. This entrance needs to be closed and another one created for north bound traffic for Speedway from west Broadway. The car stereo and traffic noise the neighborhood is exposed to is ridiculous, and getting worse.	3/21/2022 4:31 PM

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103	I would rather see 4 story condo living with businesses underneath with street access, rather than a bunch of dead car lots, throughout the entire intersection.	3/21/2022 3:10 PM
104	It's an awkward intersection that's probably too close to the apartments and other businesses in the immediate area that sometimes make the area difficult to maneuver. There seems to be a lot of red light running at the intersection as well.	3/21/2022 3:01 PM
105	There is not a need to enhance this intersection given the types of businesses that are located there.	3/21/2022 2:47 PM
106	53rd is far too busy and the traffic is too fast. I feel 53rd should be blocked off to traffic not living on that street.	3/21/2022 1:27 PM
107	I don't see any new issues at this intersection and it doesn't seem like traffic levels have increased to change anything over the last 25 years I've been using this roadway on a daily basis. I assume enough people have complained to bring some attention to it. I would be interested in viewing a proposal, but not at the cost of W Broadway traffic being diverted.	3/21/2022 12:23 PM
108	Why fix it when it isn't broken it's been like that for years and really how many accidents have occurred they're zero to none quit ripping up everything that's still usable in our lifetime and spending more money we don't have and raising our taxes to pay for it stop	3/21/2022 10:32 AM
109	Anything but a roundabout I am not in favor of those	3/21/2022 9:07 AM
110	I like round abouts because you can move through traffic without a light. You don't have to pay for electricity with round about Less vehicle emissions because you don't sit there very long. Pedestrian traffic can move better through the area in round about	3/20/2022 7:27 PM
111	DO NOT put in a round about- then I will stop drive the road and will find other business instead of in my city of Crystal	3/20/2022 5:18 PM
112	Do not allow golf carts on the road. I have seen several of them on Broadway and on Douglas.	3/20/2022 1:12 PM
113	People fly around the corner from West Broadway to Douglas going south. If one is trying to get on Douglas drive from 53rd you practically get hit. There's not enough space for those speeding cars and the view is limited even to see them coming from west Broadway to douglas. I've lived here and dealt with that intersection most of my life. Its never been easy but with more traffic and more speed it has become dangerous. I often go down to 52 nd where I can see the cars approaching. Unfortunately 53rd as well as 49th\Fairview have become a race track since the stop signs have been taken down.	3/20/2022 12:20 PM
114	I've witnessed jaywalking crossing Broadway (near Speedway) many times	3/20/2022 11:10 AM
115	1. When sitting in car waiting for train, which sometimes comes to complete stop, waiting time can be up to 20 minutes. 2. Green Light is longer on westbroadway. I sit on Douglas sometimes it takes 3 or 4 green lights to be able to move up to west Broadway to take left or right turn onto westbroadway. Change timing of lights doing busy times, such as 5 to 7 pm. 3. Get rid of or re do apts. They are out dated. Clean up crystal, starting to look like north mpls.	3/20/2022 10:53 AM
116	Please don't put in a roundabout. It is too tight a space to be effective and would not improve pedestrian or bike safety.	3/20/2022 10:41 AM
117	I do believe that it looks old and tired, however, I'm not aware of any functional issues with the intersection.	3/20/2022 9:17 AM
118	It's fine as is. No bike lanes, please. Thanks.	3/19/2022 11:21 PM
119	I believe both roads are controlled by Hennepin County. The County is causing many of the problems due to the traffic light delays. Many times I've complained to both the City of Crystal and Hennepin County. Hennepin County normally doesn't respond.	3/19/2022 11:00 PM
120	There's no problem with this intersection. Let's not waste tax dollars on something so useless. Let's get better crime rights shall we	3/19/2022 10:53 PM
121	Actually I would like to see something done about the excessive speeding going west off Douglas onto 34th	3/19/2022 9:51 PM
122	None	3/19/2022 9:21 PM
123	Round about	3/19/2022 8:53 PM

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124	It's been fine forever. People need to drive like they are suppose to and obey traffic signals. A round about will cause a mess at West Broadway and Douglas Drive!	3/19/2022 3:24 PM
125	Those apartments are ugly and seem like they are in the way.	3/19/2022 3:12 PM
126	My biggest concern at this intersection is the safety of pedestrians and bikes. There are too many medians and it's confusing to both pedestrians and vehicles.	3/19/2022 2:52 PM
127	No round abouts. They are difficult for older drivers to manage and cause a lot of issues.	3/19/2022 2:41 PM
128	Access to the neighborhood behind Target is limited on the east to 53rd, 52nd and 54th. With 53rd being a fairly primary access point. Please do not simply close off the Douglass/53rd intersection. Nor should 53rd become a major thoroughfare between Douglas and Winnetka. Thanks.	3/19/2022 1:21 PM
129	I don't have any problems with this intersection as it is now	3/19/2022 12:19 PM
130	Too many used car lots in this area. Train traffic wait at times is very long and backs up traffic on Douglas Drive and West Broadway.	3/19/2022 11:43 AM
131	The problem with this area is cars driving behind the Target store to access the Apartments to the west of the Target building. They use this as a short cut from Broadway to behind the Target building to the apartments on the west of the Target building. These vehicles speed and often disregard the stop signs right at the back of Target store. This area should be not used as a Crystal street as a short cut to the other areas west of Target.	3/19/2022 11:11 AM
132	Don't suppose you can fly over the tracks at 52nd? That's one of the times I see the most problems is when people are frustrated and in a hurry to get somewhere after being stopped, but others live in the neighborhood and need to make turns.	3/19/2022 10:22 AM
133	The only thing I've ever seen that would even come close to being a problem is when you have to wait for a train...otherwise I e never had a problem at this intersection and I've lived here for 25 years.	3/19/2022 10:00 AM
134	No	3/19/2022 9:37 AM
135	I use this intersection frequently to get from my home near Basset Creek Park to get to Target. I'm used to it, but it did take some getting used to. My teen drivers say they avoid it.	3/19/2022 9:24 AM
136	Fire the city manager ... she is terrible.	3/19/2022 9:10 AM
137	I would love a roundabout!	3/19/2022 9:04 AM
138	Trains impact the whole thing.... nothing u can do with that.	3/19/2022 7:01 AM
139	What about putting in a roundabout in the intersection?	3/19/2022 6:45 AM
140	It's been like that for 90 years. If your going to spend our hard earned money fix the ghetto Target shopping center with businesses people are attracted to.	3/19/2022 6:34 AM
141	The bigger issue over there is the car wash exit directly on to 53rd and the Douglas. Between that and Boss garage Douglas to 53rd has too much traffic and is really dangerous with the amount of cars parked out there blocking access for people who live here.	3/19/2022 6:28 AM
142	During off peak hours it's fine but when it's high traffic volumes and the train is coming by its a clusterfrack	3/19/2022 6:19 AM
143	.	3/19/2022 4:41 AM
144	The sharp curve immediately preceding the actual intersection never feels safe or comfortable.	3/19/2022 4:29 AM
145	No	3/19/2022 4:15 AM
146	How about getting ride of that shitty Super America. Everyone uses the Holiday on 81 anyway. Knock down that abandoned burgerking. There's a lot of things that can be done to improve the attractiveness of Crystal without bulldozing housing. This whole thing stinks of getting rid of those apartment buildings at that intersection so you people can maintain the fantasy that Crystal hasn't been going down hill for a while. Do something for the people. Your just trying to remove the people.	3/19/2022 12:31 AM
147	Nothing needs to be done with the intersection. It operates fine like it is.	3/19/2022 12:10 AM

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148	Listen this is crystal not Plymouth and not Edina. You guys tried to pretty up the area on bass lake rd with on street parking, and a Main Street feel. That where the near misses happen. People trying to park under pressure on a road where people are going to fast. Honestly it was a waste of money better, better and more parking for what a sex shop and a wig store come on...	3/19/2022 12:09 AM
149	I lived at the Hanson CT Apartments. Getting into the parking lot was always super awkward.	3/18/2022 11:34 PM
150	No but address the train would be nice! Especially how often it stops too!	3/18/2022 11:27 PM
151	I don't see a problem with the intersection. Never had any issues.	3/18/2022 10:44 PM
152	I think it's dangerous. People do not yield as they're supposed to.	3/18/2022 10:40 PM
153	Leave it as is.	3/18/2022 10:38 PM
154	Exiting onto Douglas from 53rd is a problem due to the tracks and traffic. That's the problem. Especially with the bus stops and the car wash in that corner. I live off 53rd and go the other way to avoid trying to get on to Douglas. Or go south and then reroute to go north.	3/18/2022 10:38 PM
155	I strongly agree with making this area more attractive and updated looking. Crystal needs to start making several areas in the city more updated looking. I love what New Hope did near Hivee. Crystal should / could do similar projects.	3/18/2022 10:28 PM
156	Time to clean up that area, Burger King? That whole area is starting to look really run down. Update with a new gas station. Would love to see a Kwik trip in the area.	3/18/2022 10:24 PM
157	Thanks for your work.	3/18/2022 10:02 PM
158	I think the Intersection is fine for my needs. I live by the police station and have worked at the Crystal Target for 14 years. I haven't had any problems with that intersection on my way to and from work.	3/18/2022 9:57 PM
159	Thank you!	3/18/2022 9:55 PM
160	One of these roads NEEDS to be an over head with on & off ramps before there is a serious HUGE accident. This is a MAJOR intersection & congestion sight. You know the car volume is major here. It is a mess that needs to be straightened out. Make it so. Please.	3/18/2022 9:52 PM
161	My only issue with this intersection is the current situation with the cross walk as I do frequently ride my bike and it's hard to cross the street from Douglas dr across Broadway to Becker park.	3/18/2022 9:43 PM
162	No	3/18/2022 9:42 PM
163	What ever you decide remember to include boulevard trees and some green space. The Crystal Town Center over all is asphalt and concrete. Little attention to green spaces to make this area more appealing and healthy.	3/18/2022 9:42 PM
164	I think a round-a-bout would improve traffic flow for everyone. I'm really glad this is being considered.	3/18/2022 9:39 PM
165	Just keep the pot holes filled. Regardless of the street configuration it is sandwiched between used car lots, a car wash and a gas station! Ours is a residential community. There are other roads!	3/18/2022 9:37 PM
166	there should be some obvious sign that a right from West Broadway to Douglas Drive is a yield... Not a green right arrow. People need to yield to the people turning left onto Douglas with a green arrow.	3/18/2022 9:37 PM
167	I have lived in crystal for 42 years and have never had an issue at this intersection.	3/18/2022 9:22 PM
168	Please take into account the sporadic heavy traffic from the trains	3/18/2022 9:14 PM
169	We do not need to make the intersection more pleasing for the shady business or apartments.	3/18/2022 9:12 PM
170	Leave it alone	3/18/2022 9:00 PM
171	No	3/18/2022 8:59 PM
172	Get rid of that ugly Burger King building	3/18/2022 8:59 PM

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173	I think the intersection is fine as it is. Have lived in or near Crystal for years and have never has a problem with this intersection.	3/18/2022 8:58 PM
174	It would be good to make a distinction between the northern intersection of Douglas and west Broadway (north of the Hanson court and that becomes 55th near the park and has no signal be the Douglas intersection at the light.) The more northern intersection is more dangerous with people trying to cross Douglas then also having it so close to the light.	3/18/2022 8:56 PM
175	All those questions and not one about the horrible train crossing. People avoid the intersection not because of the light, but because of the high chance you're going to be trapped there waiting for a train. Don't waste time/money on redesigning and just ignore the elephant in the room.	3/18/2022 8:55 PM
176	None	3/18/2022 8:51 PM
177	I have never thought it was a problem.	3/18/2022 8:49 PM
178	Why hasn't Douglas Dr been converted to 3 lanes here?	3/18/2022 8:44 PM
179	No	3/18/2022 8:44 PM
180	Worked at Timesavers for years, never had a problem with that intersection. It does seem that the stop lights could be timed better in the off peak hours as could many stoplights on Douglas Drive, especially 47th Ave.	3/18/2022 8:42 PM
181	I have lived near the intersection for 45 years and have never had trouble with it or saw trouble with it.	3/18/2022 8:42 PM
182	My husband travels this intersection daily for work and we live in Crystal and frequent businesses in the area, so I support whatever makes this the safest possible intersection for everyone.	3/18/2022 8:40 PM
183	I do not have a problem with the current intersection. I have not had to wait unreasonable amounts of time for a light to change and have not had any issues as a pedestrian while walking there.	3/18/2022 8:11 PM
184	I live on the corner of 53rd & Edgewood and vehicles drive way too fast on 53rd past our house. Also, I'm a stay at home mom and I see vehicles all day use the 53rd & Edgewood intersection to turn around back to Douglas. They drive up on our lawn and almost get hit by other vehicles. Would love speed bumps and signs or something to avoid these issues. We have small children and people still speed when they are playing in the yard.	3/18/2022 7:32 PM
185	Crossing the intersection at Burger King and speedway is difficult and dangerous too.	3/18/2022 7:30 PM
186	It would be a huge improvement to have a traffic/street engineer correct the road signal light timing. Thank you.	3/18/2022 7:28 PM
187	I have been using that intersection for 48 years. I have always felt bad about how close the road is to the apartment building. At night those cars on Douglas shine headlights right into the apartments. Would be nice if that could somehow be changed.	3/18/2022 6:13 PM
188	Lots of traffic...inconvenient corner	3/18/2022 6:01 PM
189	Bulldoze the apartments and build a Hardee's	3/18/2022 5:14 PM
190	N/a	3/18/2022 4:59 PM
191	I've been very pleased with the upgrades to the Becker Park area and surrounding area. I'd like to see Crystal continue to update the public spaces in the city.	3/18/2022 4:11 PM
192	Traffic from Douglas and Broadway to Broadway and Bass Lake Road is crazy with people going straight across to from Target. Several near misses there.	3/18/2022 4:06 PM
193	I live on 53rd and Jersey. Taking 53rd to Douglas or Louisiana/Kentucky or 53rd and Winnetka and getting out by McDonald's is all hard for us to get out of our neighborhood. When a train comes why are we sitting at a red light when no traffic coming cause of train on to West Broadway from Douglas? Traffic coming from W. Broadway to go south on Douglas is dangerous for 53rd to come out and Douglas to turn onto 53rd. That's the worst part. Too many traffic lights from Douglas to Wells Fargo Bank so people go around to avoid them.	3/18/2022 3:12 PM
194	I wouldn't be mad if barriers were added to eliminate left turns onto 53rd and into/out of SA.	3/18/2022 3:06 PM

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195	Buy up abandoned business and burner king. It's an eyesore more than the road.	3/18/2022 2:51 PM
196	Roundabouts are always an improvement	3/18/2022 1:43 PM
197	Fix the train tracks that go over Douglas. My cars suspension gets a heck of a work out everytime I cross them.	3/18/2022 1:23 PM
198	The city as a whole needs to be more attractive considering there isn't much in the area anymore. I wish Crystal was more like Robbinsdale and Osseo.	3/18/2022 12:57 PM
199	If you put a new apartment on that street YES they will be cutting through on 53rd because more people will be stopping at a light. Right now we do not have long wait times at a light - we have long wait times because of a TRAIN. If you compound the number of people living in this little area you will have MORE TRAIN BACKUP and more red light backup. If you do put in apartments you probably will need to redo the intersection and yes you may want to make it a "gateway" into the downtown. One last thing - the reason people have accidents is because of the yield sign. MANY people merge onto Douglas without looking where they are going.	3/18/2022 12:41 PM
200	I live off of 53rd Ave and there is way too much traffic at 53rd Avenue and Douglas Drive. The parked vehicles on the sides of 53rd Avenue right by the intersection don't help matters. Please improve these intersections for vehicles, pedestrians and bicycles.	3/18/2022 12:28 PM
201	Interest in bike ped and opportunities to incorporate green infrastructure like trees and other storm water management	3/18/2022 12:24 PM
202	Would LOVE too see a more pedestrian and bike friendly intersection that connects the residents south of the commercial district with carbon free mobility options!!! Namely bike and pedestrian, and considering traffic calming like roundabouts and smaller lanes (potentially 4 to 3 with protected bike ped dedicated lanes??) and also an opportunity to GREEN up the space with some trees as per the comprehensive plan. This could also be a really exciting model for subsequent intersections in crystal like 42nd and Douglas, and 36th and Douglas.	3/18/2022 12:15 PM
203	Please don't make this a roundabout.	3/18/2022 12:06 PM
204	This intersection should be redeveloped to offer easy and safe access to Becker Park, Town Center and the future LRT station for bikes, peds, and cars. There needs to be better ped/bike infrastructure along all of Douglas and W. Broadway.	3/18/2022 11:51 AM
205	Please do not make this a round about. They cause more issue's than they solve.	3/18/2022 11:50 AM
206	Apartment building is too close to West Broadway.	3/18/2022 11:28 AM
207	36th ave and regent is intersection a lot worse than this, and they won't put a stoplight or something, instead you worry about this one? Crystal is getting	3/18/2022 11:28 AM
208	I have lived here 67 years.	3/18/2022 11:25 AM
209	I've never found this intersection to be problematic. The problematic thing in this area is the slow/stopped trains that block Bradway and Douglas. It would be nice if there was some sort of alert at the 81/Corvallis intersection to alert me of a train so I could stay on 81 and take Bass Lake to avoid the trains. On a separate topic, Crystal needs more bike paths. Bass Lake should have one that connects to Plymouth. Douglas should have one that connects to Golden Valley. Broadway should have one that connects to Robbinsdale. Our neighboring cities have better paths but we can't connect to them without biking on streets or sidewalks.	3/18/2022 11:19 AM
210	Not so much Broadway and Douglas but 53 and Broadway (since it was mentioned in the survey) - I use it all the time. I live by 81 amd it's the most direct route to get to Cooper which I'm driving my kid to ask the time. Also if I'm going to Hy-Vee or anything down 42nd I use 53rd and Douglas to cut over - no need to mess with the freeway and that roundabout way. I don't know so much of the intersection of Broadway and Douglas us too chose to the Hanson ct. apartments as they are positioned to close to the road itself, no matter how busy a road it is.	3/18/2022 11:15 AM
211	Roundabouts!!! More roundabouts!!!	3/18/2022 11:09 AM
212	Our family lives in the Forest neighborhood, and we enjoy biking to Becker Park. The least enjoyable part of that ride is this intersection. Anything that can be done would be appreciated!	3/18/2022 11:06 AM
213	The intersection is fine. The train tracks are in rough shape.	3/18/2022 11:04 AM

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214	I'd like a solution that limits/prevents/discourages drivers from taking "short cuts" through residential neighborhoods as I feel that reduces the livability of the neighborhood and city. It's a longstanding issue in the Becker neighborhood.	3/18/2022 11:04 AM
215	We can't run around and "fix" intersections that have worked for 30 years just because people are now impatient or uneducated. Fixing real issues like 36th and Douglas where water collects, icy conditions create major delays or accidents should be way more of a pressing issue. Or even proper walk-ways lit up over Douglas in the areas where drivers can't see anyone at night.	3/18/2022 11:03 AM
216	This would be a perfect location for a roundabout.	3/18/2022 10:57 AM
217	I am not familiar with the right in/right out at Hanson Court so hard to make a statement. It seems that the traffic light now favors N and S Bound traffic on West Broadway. I would still use this intersection to go to Target and other shopping areas around Bass Lake Road. Good luck with the solution!	3/18/2022 10:57 AM
218	When the train comes its even worse. Traffic backs up for quite a ways	3/18/2022 10:54 AM
219	53rd street itself it's extremely dangerous. Cars fly down that street and often assume that cars coming down the other streets such as hampshire, Maryland, etc have stop signs when they don't always and it has caused a lot of very close accidents.	3/18/2022 10:53 AM
220	No	3/18/2022 10:51 AM
221	I use the intersection of Douglas and W Broadway pretty much daily, coming and gping from all the directions. It's always been just one of the unusual/unique places every city has, and hasn't been an issue for me. That said, I can definitely see how making some changes could improve safety, access, and traffic flow. While it may take some time and be disruptive in the short term, the long-term benefits will be worth it.	3/18/2022 10:49 AM
222	Cut thru traffic on 53rd is a real concern of mine.	3/18/2022 10:48 AM