



Application

17063 - 2022 Roadway Modernization

17706 - W. Broadway Ave/Douglas Drive Realignment

Regional Solicitation - Roadways Including Multimodal Elements

Status: Submitted  
Submitted Date: 04/13/2022 12:36 PM

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## Primary Contact

**Name:**\* He/him/his      Mark      Ray  
Pronouns      First Name      Middle Name      Last Name

**Title:** Director of Public Works

**Department:**

**Email:** mark.ray@crystalmn.gov

**Address:** 4141 Douglas Drive North

**\*      City      State/Province      Postal Code/Zip**  
Crystal      Minnesota      55422

**Phone:**\* 763-531-1160  
Phone      Ext.

**Fax:**

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

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## Organization Information

**Name:** CRYSTAL, CITY OF

Jurisdictional Agency (if different):

Organization Type:

City

Organization Website:

Address:

4141 DOUGLAS DR N

\*

CRYSTAL

Minnesota

55422

City

State/Province

Postal Code/Zip

County:

Hennepin

Phone:\*

763-531-1110

Ext.

Fax:

PeopleSoft Vendor Number

0000020937A2

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## 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 roadways. The project includes mobility and safety enhancements and modernizes the intersection. West Broadway Avenue (CSAH 8) is a minor arterial north of the intersection, and a major collector south of the intersection. Douglas Drive (CSAH 103) is a minor arterial roadway. Existing roadway volumes are 12,800 ADT (2016) and forecasted roadway volumes (2040) are anticipated to reach 15,600 ADT. The location of the roadway is of critical importance to the City of Crystal 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 (CSAH 8), Douglas Drive (CSAH 102), Hanson Court N, and 53rd Avenue N. The project installs sidewalks and a regional trail connection 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 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 contributing to community image and redevelopment investments

According to the City of Crystal Comprehensive Plan 2040, and Thrive MSP 2040 Forecasts, the City of Crystal is anticipated to grow by 1,100 residents, gain 200 additional households, and employ an additional 500 people between 2020 and 2040. The increased traffic volumes indicate that without roadway improvements, the intersection operations, turning movements, 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 by providing 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

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## 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** \$3,250,536.00

**Match Amount** \$812,634.00

*Minimum of 20% of project total*

**Project Total** \$4,063,170.00

*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:** 2026, 2027

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

**Additional Program Years:** 2025

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

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## Project Information-Roadways

**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.**

8102

*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*

**Zip Code where Majority of Work is Being Performed**

55429

(Approximate) Begin Construction Date 03/02/2026  
(Approximate) End Construction Date 10/29/2027

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

**From:**  
(Intersection or Address)

**To:**  
(Intersection or Address)

*DO NOT INCLUDE LEGAL DESCRIPTION*

**Or At** Int. between W. Broadway Avenue and Douglas Drive

**Miles of Sidewalk (nearest 0.1 miles)** 0.2

**Miles of Trail (nearest 0.1 miles)** 0.2

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

**Primary Types of Work** Roundabout construction, sidewalks and regional trail, grading, aggregate base, lighting, storm sewer, median, erosion control

*Examples: GRADE, AGG BASE, BIT BASE, BIT SURF, SIDEWALK, CURB AND GUTTER, STORM SEWER, SIGNALS, LIGHTING, GUARDRAIL, BIKE PATH, PED RAMPS, BRIDGE, PARK AND RIDE, ETC.*

**BRIDGE/CULVERT PROJECTS (IF APPLICABLE)**

**Old Bridge/Culvert No.:** N/A

**New Bridge/Culvert No.:** N/A

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

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## 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.

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).

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

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](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 2022 funding cycle).

**Strategic Capacity (Roadway Expansion):** \$1,000,000 to \$10,000,000

**Roadway Reconstruction/Modernization:** \$1,000,000 to \$7,000,000

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

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

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

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

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

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

9. In order for a selected project to be included in the Transportation Improvement Program (TIP) and approved by USDOT, the public agency sponsor must either have a current Americans with Disabilities Act (ADA) self-evaluation or transition plan that covers the public right of way/transportation, as required under Title II of the ADA. The plan must be completed by the local agency before the Regional Solicitation application deadline. For the 2022 Regional Solicitation funding cycle, this requirement may include that the plan is updated within the past five years.

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

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

**Date plan completed:** 01/03/2020

**Link to plan:**

[https://p1cdn4static.civiclive.com/UserFiles/Servers/Server\\_10879634/File/Resident/Public%20Works/ADAPlan.pdf](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, per FHWA direction established 8/27/2008 and updated 6/27/2017. Unique projects are exempt from this qualifying requirement.

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

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

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

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

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

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

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

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## **Roadways Including Multimodal Elements**

*1. All roadway and bridge projects must be identified as a principal arterial (non-freeway facilities only) or A-minor arterial as shown on the latest TAB approved roadway functional classification map.*

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

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

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

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

### **Bridge Rehabilitation/Replacement and Strategic Capacity projects only:**

*3. Projects requiring a grade-separated crossing of a principal arterial freeway must be limited to the federal share of those project costs identified as local (non-MnDOT) cost responsibility using 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 bridge clear span must exceed 20 feet.*

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

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

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

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

*7. All roadway projects that involve the construction of a new/expanded interchange or new interchange ramps must have approval by the Metropolitan Council/MnDOT Interchange Planning Review Committee prior to application submittal. Please contact Michael Corbett at MnDOT (Michael.J.Corbett@state.mn.us or 651-234-7793) to determine whether your project needs to go through this process as described in Appendix F of the 2040 Transportation Policy Plan.*

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

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## **Requirements - Roadways Including Multimodal Elements**

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## Specific Roadway Elements

<b>CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES</b>	<b>Cost</b>
Mobilization (approx. 5% of total cost)	\$185,000.00
Removals (approx. 5% of total cost)	\$205,600.00
Roadway (grading, borrow, etc.)	\$0.00
Roadway (aggregates and paving)	\$227,670.00
Subgrade Correction (muck)	\$129,500.00
Storm Sewer	\$362,000.00
Ponds	\$0.00
Concrete Items (curb & gutter, sidewalks, median barriers)	\$126,900.00
Traffic Control	\$56,000.00
Striping	\$2,500.00
Signing	\$17,500.00
Lighting	\$160,000.00
Turf - Erosion & Landscaping	\$108,000.00
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	\$1,511,000.00
Other Roadway Elements	\$765,000.00
<b>Totals</b>	<b>\$3,856,670.00</b>

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## Specific Bicycle and Pedestrian Elements

<b>CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES</b>	<b>Cost</b>
Path/Trail Construction	\$0.00
Sidewalk Construction	\$166,900.00
On-Street Bicycle Facility Construction	\$0.00
Right-of-Way	\$0.00

Pedestrian Curb Ramps (ADA)	\$39,600.00
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
<b>Totals</b>	<b>\$206,500.00</b>

## Specific Transit and TDM Elements

<b>CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES</b>	<b>Cost</b>
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
<b>Totals</b>	<b>\$0.00</b>

## Transit Operating Costs

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

## Totals

<b>Total Cost</b>	\$4,063,170.00
<b>Construction Cost Total</b>	\$4,063,170.00
<b>Transit Operating Cost Total</b>	\$0.00

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

Existing Employment within 1 Mile:	6482
Existing Manufacturing/Distribution-Related Employment within 1 Mile:	1199
Existing Post-Secondary Students within 1 Mile:	0
Upload Map	1649821396086_Regional Economy.pdf

Please upload attachment in PDF form.

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## 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

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## Measure A: Current Daily Person Throughput

Location	Douglas Drive and West Broadway Intersection
Current AADT Volume	12800
Existing Transit Routes on the Project	3

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

Upload Transit Connections Map 1649821515696\_Transit Connections.pdf

Please upload attachment in PDF form.

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## Response: Current Daily Person Throughput

Average Annual Daily Transit Ridership	0
Current Daily Person Throughput	16640.0

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## 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

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## 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:*

The project is located within a half mile of Census Tracts 207, 208.08, 208.04, and 209.03. According to the 2020 Census the total population in the above tracts is 12,809. Fourteen percent of the total population is black or African American, 10 percent is Hispanic or Latino, 6 percent is two or more races, 5 percent is Asian, and 0.4 percent indigenous (American Indian and Alaska Native). The project is located in an area above the regional average for population in poverty or population of color.

The City of Crystal adopted an updated comprehensive plan in 2019. The update process included engagement with equity populations. That process included input solicited through the city's newsletter and social media. The engagement resulted in transportation goals that prioritize transportation corridors that enhance the appeal of the community and create additional non-motorized transportation opportunities.

**Response:**

More recently, the city solicited public input on this project through the use of an online community survey. The survey was open between March 16th and April 5th, 2022 and asked participants to provide feedback about the W. Broadway Avenue and Douglas Drive intersection.

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. Finally, a direct mailing (postcard) with QR code link to the online survey was sent to over 150 properties within 1,000 feet of the intersection, including apartment residents.



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.

As the project continues, additional public engagement will be completed. That engagement will be targeted towards equity populations that live in close proximity to the proposed project. As is shown on the Crystal Socio-Economic Context (supplemental) Map, outreach will include targeted outreach with the following:

- Hanson Court Apartment (naturally occurring affordable housing)
- Kentucky Lane Apartments (subsidized units)
- Crystal Community Center
- Variety of Schools and Daycares (youth populations)

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

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## **Measure B: Equity Population Benefits and Impacts**

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

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

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

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

This project is designed to provide direct safety, 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. The project is located in a Regional Environmental Justice Area (above the regional average concentration of race/poverty). Typically, populations with higher levels of poverty have more limited access to a vehicle, so providing access to multimodal facilities such as bicycle, pedestrian, and transit facilities is of utmost importance.

The project provides multimodal transportation options, increasing safety and access, and public health benefits to all residents. Pedestrian mobility components will provide improved connections south of the intersection on Douglas Dr. and north of the intersection on W. Broadway Ave. The project provides the following benefits to equity populations:

**Response:**

1) The project provides safety benefits to equity populations utilizing bicycling and walking, and other non-motorized options. Components of 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 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 multimodal options, separated from vehicles. Lighted sidewalks help illuminate the facility and allow for exercise and recreation activities. The proposed 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 also reducing queuing, and minimizing conflict points for those navigating the intersection.

#### Negative Impacts:

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.

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

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## Measure C: Affordable Housing Access

*Describe any affordable housing development 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:*

*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.*

As is shown on the Socio-Economic Conditions map, there are 474 publicly subsidized or naturally occurring affordable rental housing units in census tracts within ½ mile of the proposed project. Specifically, there are numerous affordable housing options in close proximity of the project, which include multiple apartment complexes and many other duplexes and multi-family homes are also located within the corridor area. As is shown on the Equity and Affordable Housing (supplemental) map those options include:

- Kentucky Lane Apartments (50 affordable units)
- The Cavanagh (130 affordable units)
- Bass Lake Court (34 affordable units)
- Hansen Court Apartments (33 affordable units)

**Response:**

Under development: 5240 Apts (58 affordable units at 5240 West Broadway to be built in 2022-2023).

This project improves the W. Broadway Avenue and Douglas Drive intersection, providing much improved multimodal access and improved 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 numerous destinations both north, west, and south of the intersection. Activities in the area include but are not limited to 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 Near Food Shelf; and going to the Crystal Community Center.

The project includes multimodal 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.

Finally, Transit Route 716 runs north and south through the intersection north with four stops within the immediate project area. The improvements will allow transit users easier access to bus routes.

The City of Crystal has a 2021 Housing Performance Score of 91.

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

---

## Measure D: BONUS POINTS

Project is located in an Area of Concentrated Poverty:

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

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.

1649822593194\_Socio\_Economic Conditions.pdf

---

## Measure A: Year of Roadway Construction

Year of Original Roadway Construction or Most Recent Reconstruction	Segment Length	Calculation	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

The project provides benefits to freight movements between two minor arterials. Existing conditions require left-turning traffic to stop at the intersection, which leads to travel delays and increased noise and emissions. The intersection geometrics (skew) make turning movements for freight challenging. Roundabout control allows trucks to move more freely through the intersection and between Douglas Dr. and W. Broadway Ave.

Response:

CP Railroad has at-grade crossings at W. Broadway Ave. and Douglas Dr. Users experiences 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 Douglas Drive and W. Broadway Avenue is at a severe skew creating challenging sight lines for drivers turning off of Douglas Drive. Installation of the roundabout will remove the skew and feed all four roadways in the area into one intersection improving 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

Significant safety benefits for both motor vehicles and pedestrians will be realized from improved roadway geometrics of the roundabout. The skew between W. Broadway Avenue and Douglas Drive will be removed improving the function of the intersection. 53rd Ave North 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.

**Response:**

*(Limit 700 characters; approximately 100 words)*

**Access management enhancements:**

Yes

Currently there are ten driveways accessing roadways within the project area in close proximity to the W. Broadway Avenue and Douglas Drive intersection. The proposed project will close and remove two access points (associated with 5273 W. Broadway) improving the access management within the immediate area of the intersection. The proposed roundabout connects four roadways (including 53rd Avenue N and Hanson Court) with 5 legs into one intersection consolidating where vehicles access 53rd Ave, Hanson Court, W. Broadway Avenue and Douglas Drive.

**Response:**

*(Limit 700 characters; approximately 100 words)*

**Vertical/horizontal alignment improvements:**

Yes

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 (5 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.

**Response:**

*(Limit 700 characters; approximately 100 words)*

**Improved stormwater mitigation:**

Yes

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.

**Response:**

*(Limit 700 characters; approximately 100 words)*

**Signals/lighting upgrades:**

Yes



**Response:**

The project will replace the existing signalized intersection with a five-leg roundabout. The roundabout will include the installation of lighting which will provide enhanced lighting as compared to existing conditions to provide for 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

West 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 realign W. Broadway Avenue and provide additional distance between apartments and the roadway. The project will also be replacing original watermain 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.

**Response:**

*(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 Reduced by the Project:	Total Peak Hour Delay Reduced by the Project:	EXPLANATION of methodology used to calculate railroad crossing delay, if applicable.	Synchro or HCM Reports
13.0	9.1	3.9	2932	3541	11434.8	13809.9	N/A	164982454 0559_Synchro Reports - PM Report.pdf

---

## Vehicle Delay Reduced

Total Peak Hour Delay Reduced	11434.8
Total Peak Hour Delay Reduced	13809.9

---

## 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):
1.39	1.25	0.14
1	1	0

---

## Total

Total Emissions Reduced:	0.14
Upload Synchro Report	1649824819241_Delay and Emissions.pdf

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

---

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

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

---

## Total Parallel Roadway

Emissions Reduced on Parallel Roadways	0
Upload Synchro Report	

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

---

## New Roadway Portion:

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

---

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

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

---

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

Crash Modification Factor Used:

Crash modification factors for the conversion of a stop-controlled intersection into a single-lane roundabout and a 15 percent reduction in mean speed of the corridor were utilized.

*(Limit 700 Characters; approximately 100 words)*

**Rationale for Crash Modification Selected:**

The study intersection(s) will be converted from stop-controlled intersections to a 5-leg single-lane roundabout. Therefore, a CMF that captured the significant safety benefits associated with single-lane roundabouts was utilized. The roundabout is expected to provide speed reductions at the intersections. This reduction will result in slower vehicular speeds not only along the corridor but also into/out of the roundabout, which is expected to provide even greater safety benefits. Therefore, the 15 percent reduction in mean speed CMF was utilized.

*(Limit 1400 Characters; approximately 200 words)*

Project Benefit (\$) from B/C Ratio	\$4,179,908.00
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:	6
Worksheet Attachment	1649825333196_Crystal BC Sheet.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 A: Pedestrian Safety

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

**Project is primarily a freeway (or transitioning to a freeway) and does not provide safe and comfortable pedestrian facilities and crossings.** No

Existing location lacks any pedestrian facilities (e.g., sidewalks, marked crossings, wide shoulders in rural contexts) and project does not add pedestrian elements (e.g., reconstruction of a roadway without sidewalks, that 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 roadways context (e.g., appropriate for the speed, volume, crossing distance, and other location attributes). Refer to the Regional Solicitation Resources web page for guidance links.

The proposed project will eliminate a signalized intersection and replace it with a five-leg roundabout that ties into the existing sidewalk system 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. Existing pedestrian ramps do not meet current ADA standards.

The existing intersection layout makes it very challenging to walk along the west side of W. Broadway Avenue. There is not a marked crosswalk across the southern most Douglas Dr. lane (right turn lane onto W. Broadway Ave), which requires pedestrians walking southbound to cross nine lanes of traffic through a five-stage crossing to continue south on W. Broadway Avenue. Further, pedestrians moving north along the west side of W. Broadway Avenue cannot continue north without crossing outside of a crosswalk or back tracking.

**Response:**

The project will enhance mobility and safety by creating an environment where pedestrians are able to move through the intersection much more freely and on facilities that meet ADA standards. The proposed 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.

In summary, the project design includes several PEDSAFE countermeasures that have proven safety benefits for pedestrians and bicyclists

navigating the intersection. In particular:

- Installation of the roundabout will result in improved intersection safety through the elimination of right-angle crashes, provision of more efficient traffic flow, and the slowing of vehicular traffic approaching the intersection.

- Use of curb ramps with marked crosswalks improves orientation for visually impaired pedestrians and allows people using wheelchairs, strollers, or walkers to navigate the crossing. This approach also clearly designates to vehicular traffic where pedestrians may be crossing.

- Providing crossing islands/pedestrian refuge islands are shown to reduce pedestrian crashes by 32 percent.

- 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.

- Modifying the skewed intersections, which will provide shorter and safer crossing conditions 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 and replaced with a five-leg roundabout, which will require vehicles to slow and yield. The roundabout 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 single-lane 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 project is in close proximity to 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.

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

Existing road has transit running on or across it with 1+ transit stops in the project area (If flag-stop route with no fixed stops, then 1+ locations in the project area where roadside stops are allowed. Do not count portions of transit routes with no stops, such as non-stop freeway sections of express or limited-stop routes. If service was temporarily reduced for the pandemic but is expected to return to 2019 levels, consider 2019 service for this item.) 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. If service frequency was temporarily reduced for the pandemic but is expected to return to 2019 levels, consider 2019 frequency for this item.) Yes

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 apartment building located at the corner of W. Broadway Avenue and Hanson Court (Hanson Court Apartments). As noted previously, Becker Park is just over 1,000 feet to the north is the location of 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

This project will have a positive impact on the City of Crystal's multimodal transportation system. Currently, the W. Broadway Avenue and Douglas Drive intersection acts as a barrier to multimodal transportation, primarily non-motorized. The existing signalized intersection does not have ADA compliant pedestrian ramps, pedestrian routes through the intersection are limited, and significant pedestrian delays are experienced due to only be able to cross when the walk light is operational. All these factors make it difficult to access transit and discourage non-vehicular travel. The City of Crystal asked about pedestrian and bicycle safety at this intersection in a community survey. Most respondents stated that the intersection is difficult for pedestrians to navigate and that there is no place for bicycles to safely travel through the intersection. The project will alleviate these issues by removing the signal and replacing it with five-leg roundabout.

**Response:**

The project is consistent with the Regional Bicycle Transportation Network (RBTN) Map and is located within a RBTN Tier 2 corridor. The project area is also included as a part of planned regional bikeways. Currently, the bikeway system through the corridor ends approximately 1,700 feet south of the intersection along Douglas Drive and about 3,800 feet (just under 3/4 mile) north of the intersection on W. Broadway Avenue. This project will upgrade the intersection and will help to facilitate future connection of the two bikeways, including a potential regional trail.

Specifically, the proposed project will provide infrastructure that complies with ADA standards and allows pedestrians, bicyclists, and wheelchairs to safely cross W. Broadway Avenue and Douglas Drive. Improving this intersection to roundabout control will enhance safety by allowing for a

connected sidewalk system and two-stage crossing on all five roundabout legs. Additionally, the project includes streetlights both inside and outside the roundabout, enhancing visibility and providing safer street crossing when it is dark outside.

This project will improve pedestrian, bicycle, and wheelchair access to the existing transit system. Bus route 716 runs north/south along Douglas Drive, continuing north on W. Broadway Avenue. There are four bus stops within the immediate project area. The proposed improvements will allow transit users easy and safe access to stops on either side of Douglas Drive and W. Broadway Avenue.

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

---

## Transit Projects Not Requiring Construction

*If the applicant is completing a transit application that is operations only, check the box and do not complete the remainder of the form. These projects will receive full points for the Risk Assessment.*

*Park-and-Ride and other transit construction projects require completion of the Risk Assessment below.*

**Check Here if Your Transit Project Does Not Require Construction**

---

## Measure A: Risk Assessment - Construction Projects

### 1. Public Involvement (20 Percent of Points)

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

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

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.*

The city solicited public input on this project through the use of an online community survey. The survey was open between March 16th and April 5th, 2022, and asked participants to provide feedback about the W. Broadway Avenue and Douglas Drive intersection. 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. Finally, a direct mailing (postcard) with QR code link to the online survey was sent to over 150 properties within 1,000 feet of the intersection, including apartment residents. In total, the survey generated 559 responses.

**Response:**

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

**2.Layout (25 Percent of Points)**

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

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

1649826070056\_Douglas W Broadway 5-Leg Roundabout  
Concept\_rev 2.11.22.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):	\$4,063,170.00
Enter Amount of the Noise Walls:	\$0.00
Total Project Cost subtract the amount of the noise walls:	\$4,063,170.00
Enter amount of any outside, competitive funding:	\$0.00
Attach documentation of award:	
Points Awarded in Previous Criteria	
Cost Effectiveness	\$0.00

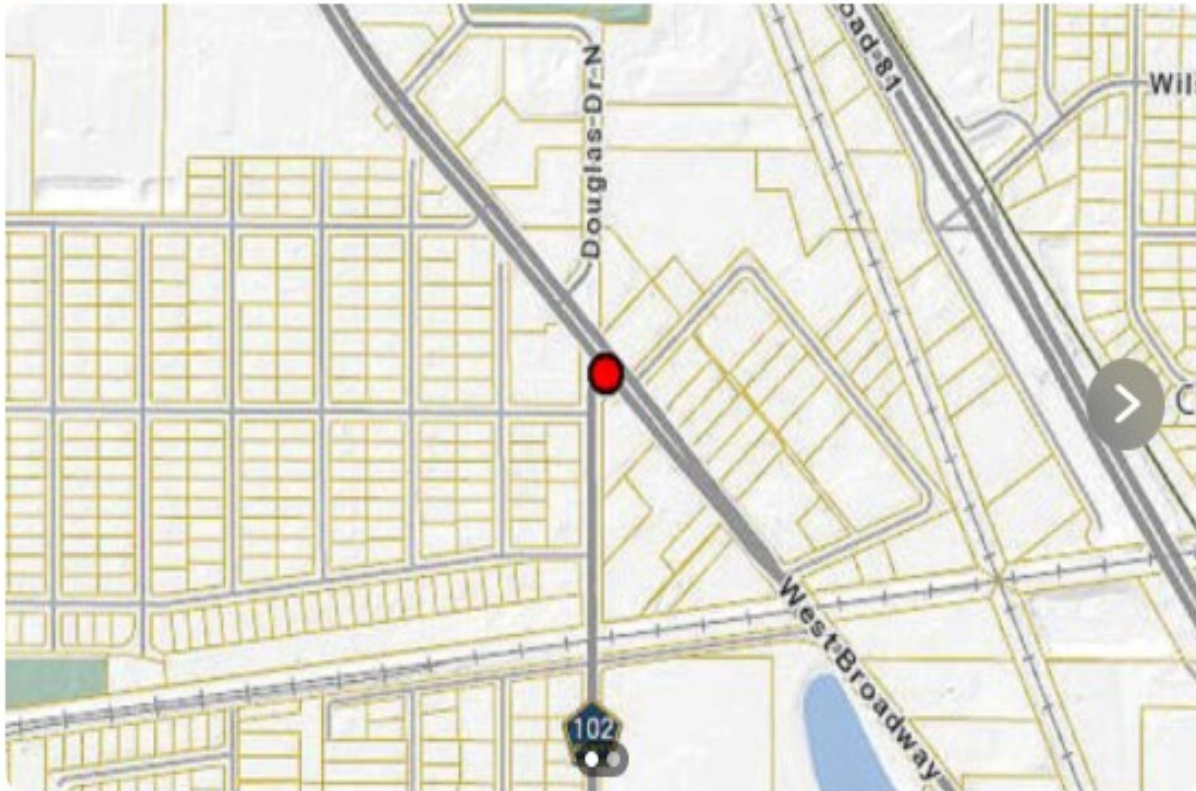
---

### 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**



Like



Comment

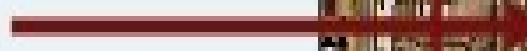
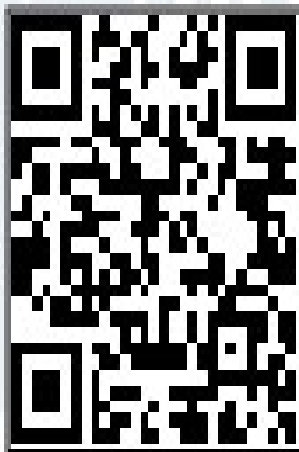


Share



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.*

<b>File Name</b>	<b>Description</b>	<b>File Size</b>
07 - LOS - Crystal - CSAH 008 & CSAH 102 Spot Mobility & Safety Project - 2022.03.25.pdf	Hennepin County - Letter of Support	89 KB
2040 Comp Plan pp 19-25.pdf	Comprehensive Plan - Support Documentation 1 of 2	1.1 MB
2040 Comp Plan pp 34-46.pdf	Comprehensive Plan - Supporting Documentation - 2 of 2	8.9 MB
Crystal BC Sheet.pdf	Crystal Benefit Cost Sheet	534 KB
Crystal One Page Project Sheet.pdf	City of Crystal - One Page Project Summary	842 KB
Crystal Safety Analysis.pdf	Crystal Safety Analysis	377 KB
DECENNIALPL2020.P2-2022-03-30T164037.pdf	Census Information 1 of 2	122 KB
DECENNIALPL2020.P2-2022-03-30T164037.xlsx	Census Information	29 KB
DECENNIALPL2020.P2-2022-03-30T1640372.pdf	Census Information 2 of 2	108 KB
Delay and Emissions.pdf	Delays and Emissions	55 KB
Douglas W Broadway 5-Leg Roundabout Concept_rev 2.11.22.pdf	Project Layout	1.1 MB
Level of Congestion.pdf	Metro Council - Level of Congestion	6.8 MB
Project Photograph.pdf	Project Photograph	772 KB
Regional Economy.pdf	Met Council - Regional Economy	3.1 MB
Res No 2022- 22 Approval of 20.... Program Grant Application.pdf	Resolution	427 KB
Socio_Economic Conditions.pdf	Met Council - Socio Economic Conditions	3.3 MB
Survey Results.pdf	Community Survey Results	166 KB
Synchro Reports - PM Report.pdf	Synchro Reports	107 KB
Transit Connections.pdf	Met Council - Transit Connections	3.1 MB

# Regional Economy

## Results

**WITHIN ONE MI** of project:  
Postsecondary Students: 0

Totals by City:

### Crystal

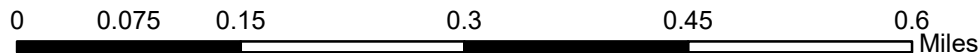
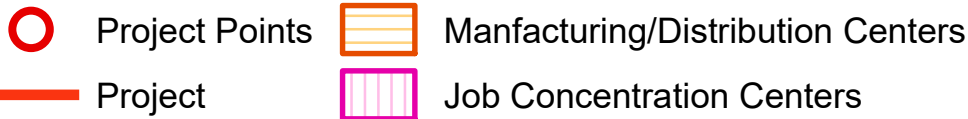
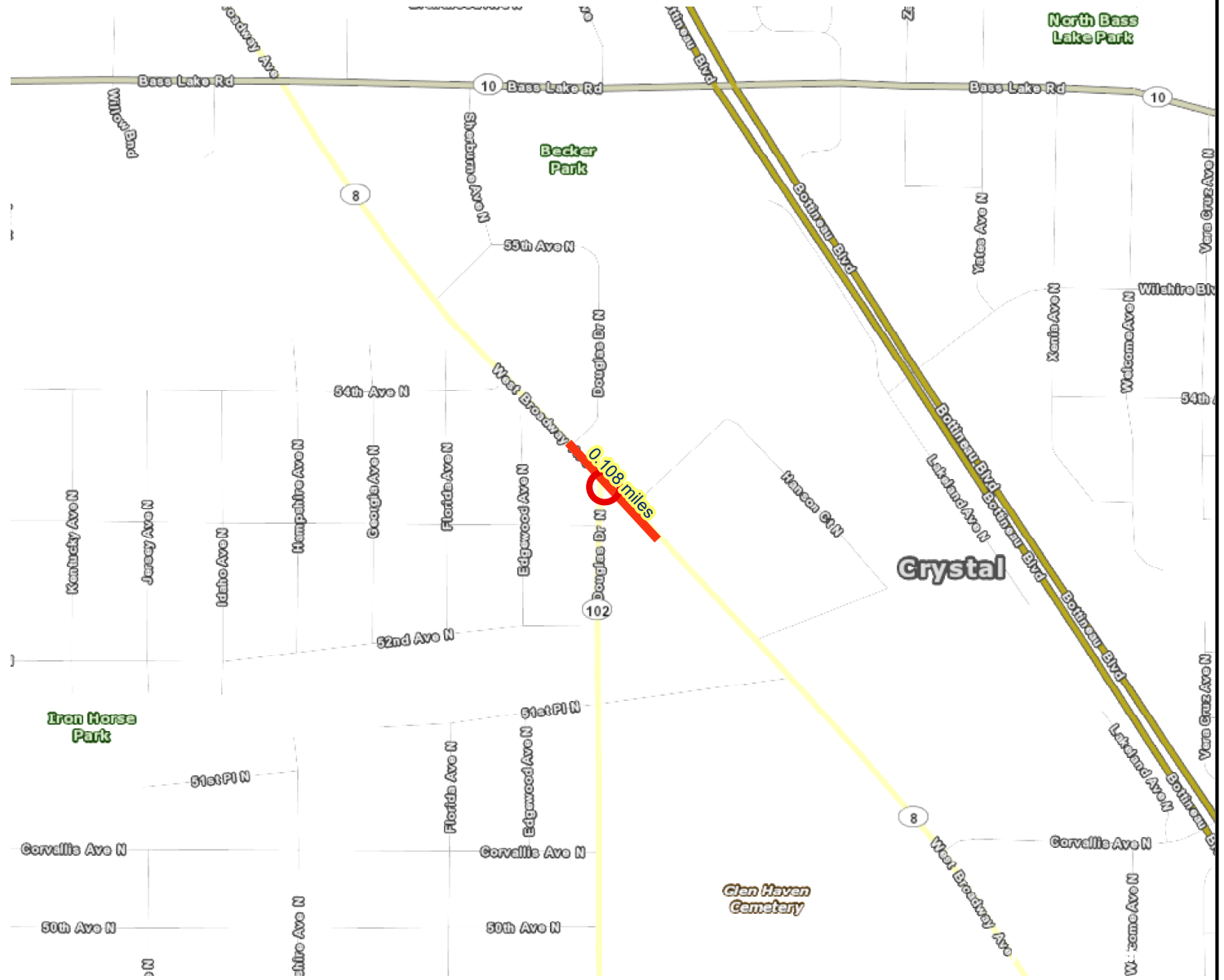
Population: 12713  
Employment: 3155  
Mfg and Dist Employment: 477

### New Hope

Population: 7919  
Employment: 3325  
Mfg and Dist Employment: 722

### Robbinsdale

Population: 626  
Employment: 2  
Mfg and Dist Employment: 0



# Transit Connections



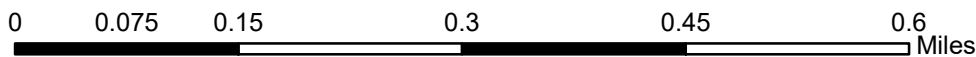
## Results

Transit with a Direct Connection to project:  
716

*\*indicates Planned Alignments*

Transit Market areas: 3

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



Created: 4/5/2022  
LandscapeRSA3



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

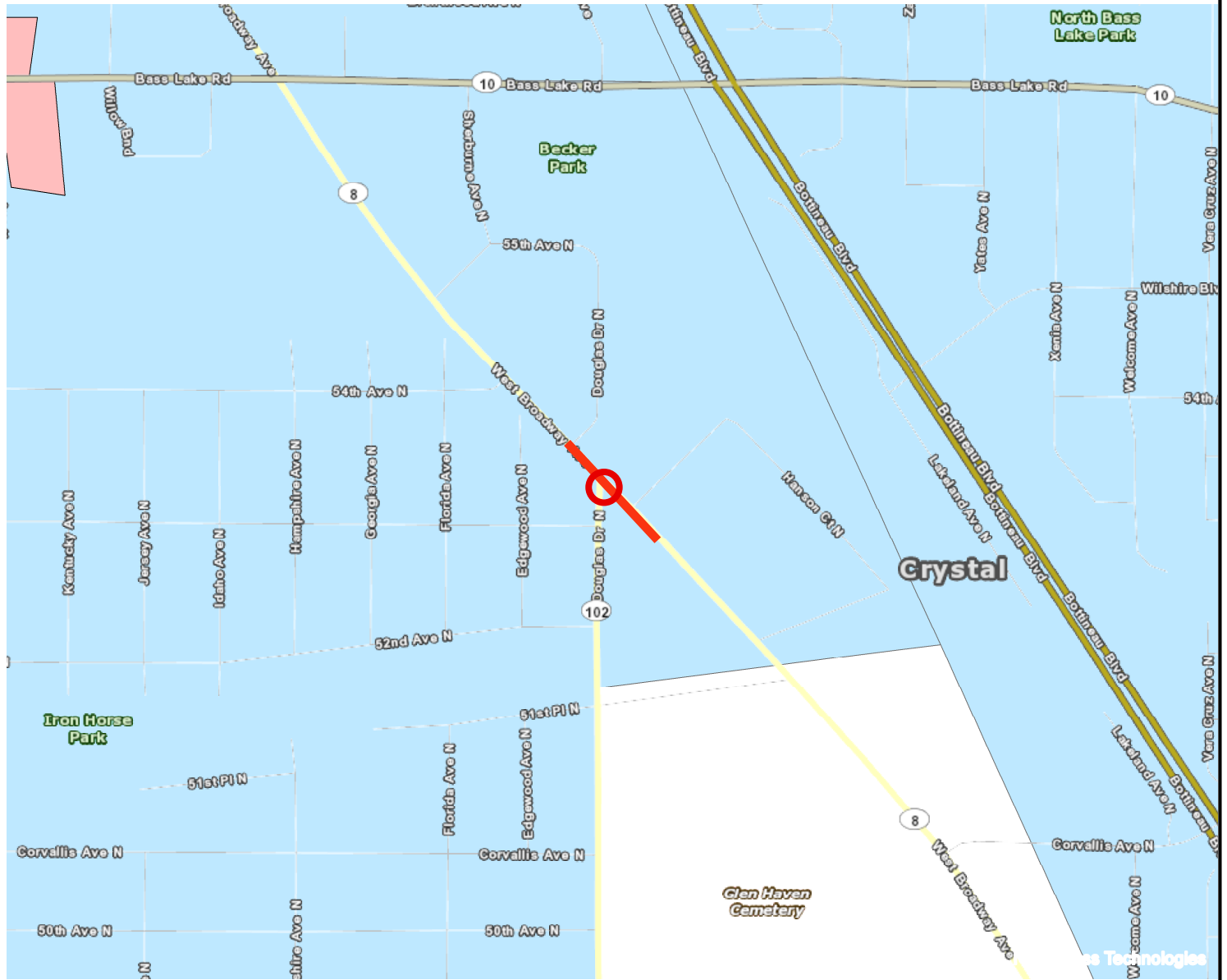






# Socio-Economic Conditions

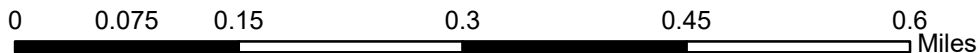
## Results

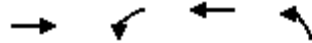
Total of publicly subsidized rental housing units in census tracts within 1/2 mile: 474

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



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



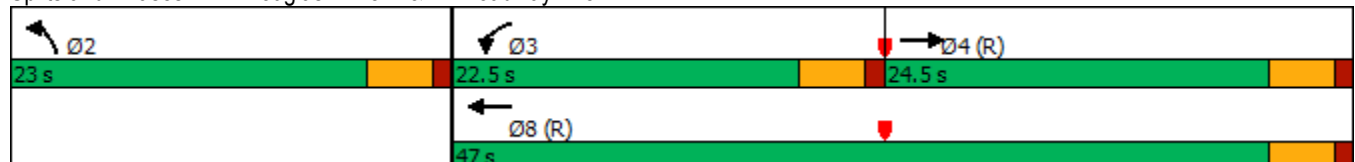


Lane Group	EBT	WBL	WBT	NBL
Lane Configurations	↑↑	↑	↑↑	↑↑
Traffic Volume (vph)	338	34	371	311
Future Volume (vph)	338	34	371	311
Turn Type	NA	Prot	NA	Prot
Protected Phases	4	3	8	2
Permitted Phases				
Detector Phase	4	3	8	2
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	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	0.35	0.21	0.19	0.43
Control Delay	6.5	31.1	6.4	21.6
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	6.5	31.1	6.4	21.6
LOS	A	C	A	C
Approach Delay	6.5		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: 0.43  
 Intersection Signal Delay: 11.0  
 Intersection Capacity Utilization 44.4%  
 Analysis Period (min) 15  
 Intersection LOS: B  
 ICU Level of Service A

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



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1: Douglas Drive N & W Broadway Ave

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Direction	All
Future Volume (vph)	1390
Total Delay / Veh (s/v)	11
CO Emissions (kg)	0.68
NOx Emissions (kg)	0.13
VOC Emissions (kg)	0.16

---

3: W Broadway Ave & Hanson Ct N

---

Direction	All
Future Volume (vph)	810
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

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Direction	All
Future Volume (vph)	732
Total Delay / Veh (s/v)	2
CO Emissions (kg)	0.18
NOx Emissions (kg)	0.03
VOC Emissions (kg)	0.04

Intersection				
Intersection Delay, s/veh	9.1			
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	434	378	673
Demand Flow Rate, veh/h	76	443	386	687
Vehicles Circulating, veh/h	693	381	429	74
Vehicles Exiting, veh/h	68	434	340	754
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	9.4	8.8
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	443	386	687
Cap Entry Lane, veh/h	681	936	891	1280
Entry HV Adj Factor	0.986	0.980	0.980	0.980
Flow Entry, veh/h	75	434	378	673
Cap Entry, veh/h	671	916	873	1254
V/C Ratio	0.112	0.474	0.433	0.537
Control Delay, s/veh	6.6	9.8	9.4	8.8
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	810
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	604
Entry HV Adj Factor	1.000
Flow Entry, veh/h	18
Cap Entry, veh/h	604
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)	1452
Total Delay / Veh (s/v)	0
CO Emissions (kg)	0.88
NOx Emissions (kg)	0.17
VOC Emissions (kg)	0.20

**Regional Solicitation - Crystal**

1

Broadway Ave and Douglas Dr		
Existing Volume	1390	vehicles
Existing Delay	11	sec/veh
Existing Total Delay	15290	seconds
Future Volume	1452	vehicles
Future Delay	9.1	sec/veh
Future Total Delay	13213.2	seconds
Total Delay Reduction	2076.8	seconds

2

Broadway Ave and Hanson Ct		
Existing Volume	810	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	732	vehicles
Existing Delay	2	sec/veh
Existing Total Delay	1464	seconds
Future Volume	0	vehicles
Future Delay	0	sec/veh
Future Total Delay	0	seconds
Total Delay Reduction	1464	seconds

<b>Total Network Delay Reduction</b>	<b>3540.8</b>	<b>seconds</b>
--------------------------------------	---------------	----------------

Emissions

Existing	1	2	3	4	5	Total
CO	0.68	0.12	0.18			0.98
NO	0.13	0.02	0.03			0.18
VOC	0.16	0.03	0.04			0.23
				Network Total		1.39

Build	1	2	3	4	5	Total
CO	0.88					0.88
NO	0.17					0.17
VOC	0.2					0.2
						Network Total
						1.25

<b>Reduction</b>	<b>0.14</b>
------------------	-------------

**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*	\$4,063,170	Installation Year	2026
Project Service Life	20 years	Traffic Growth Factor	2.0%

\* exclude Right of Way from Project Cost

**C. Crash Modification Factor**

0.26	Fatal (K) Crashes	Reference	Crash Clearinghouse
0.26	Serious Injury (A) Crashes		
0.26	Moderate Injury (B) Crashes	Crash Type	KABC
0.26	Possible Injury (C) Crashes		
0.26	Property Damage Only Crashes		<a href="http://www.CMFClearinghouse.org">www.CMFClearinghouse.org</a>

**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		<a href="http://www.CMFClearinghouse.org">www.CMFClearinghouse.org</a>

**E. Crash Data**

Begin Date	1/1/2019	End Date	12/31/2021	3 years
Data Source	MnDOT			
Crash Severity	KABC	All		
K crashes				
A crashes				
B crashes		2		
C crashes		2		
PDO crashes			4	

**F. Benefit-Cost Calculation**

\$4,179,908	Benefit (present value)	<b>B/C Ratio = 1.03</b>
\$4,063,170	Cost	

Proposed project expected to reduce 2 crashes annually, 0 of which involving fatality or serious injury.

### F. Analysis Assumptions

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

Link: [mndot.gov/planning/program/appendix\\_a.html](http://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	1.48	0.49	\$113,620
C crashes	1.48	0.49	\$59,280
PDO crashes	2.68	0.89	\$11,613

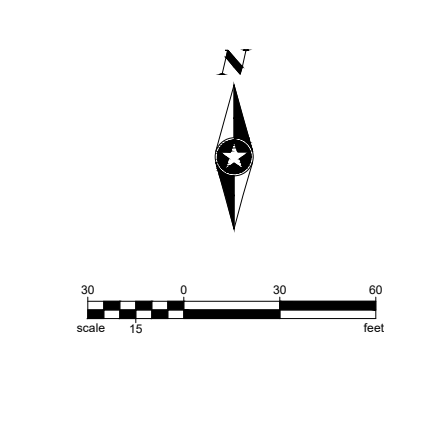
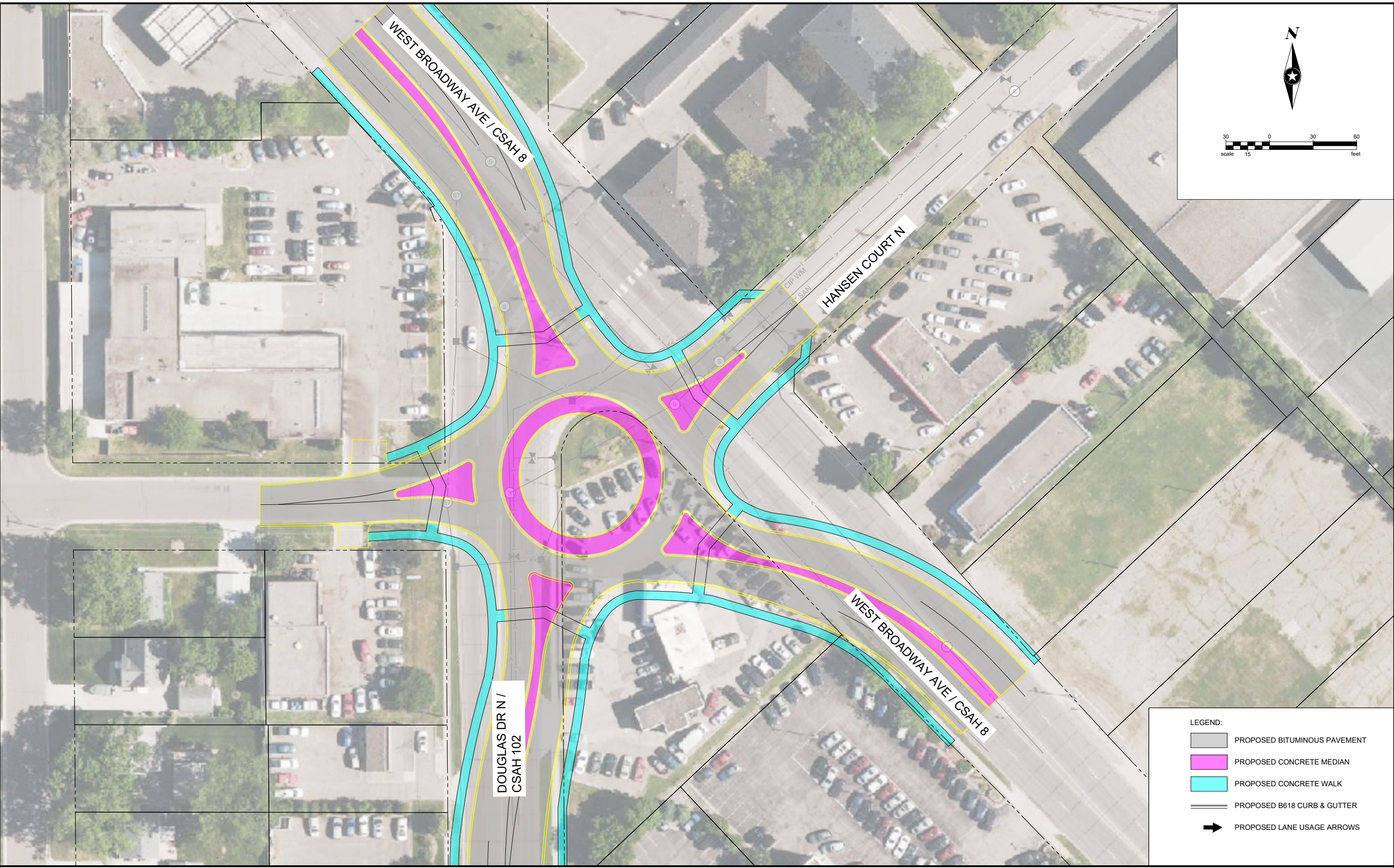
**\$184,513**

### H. Amortized Benefit






Year	Crash Benefits	Present Value
2026	\$184,513	\$184,513
2027	\$188,204	\$186,895
2028	\$191,968	\$189,308
2029	\$195,807	\$191,752
2030	\$199,723	\$194,227
2031	\$203,718	\$196,735
2032	\$207,792	\$199,275
2033	\$211,948	\$201,847
2034	\$216,187	\$204,453
2035	\$220,511	\$207,092
2036	\$224,921	\$209,766
2037	\$229,419	\$212,474
2038	\$234,008	\$215,217
2039	\$238,688	\$217,995
2040	\$243,461	\$220,809
2041	\$248,331	\$223,660
2042	\$253,297	\$226,547
2043	\$258,363	\$229,472
2044	\$263,530	\$232,434
2045	\$268,801	\$235,435
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 = \$4,179,908**

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**LEGEND:**

-  PROPOSED BITUMINOUS PAVEMENT
-  PROPOSED CONCRETE MEDIAN
-  PROPOSED CONCRETE WALK
-  PROPOSED B618 CURB & GUTTER
-  PROPOSED LANE USAGE ARROWS

SEH Project	CR163453	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
Drawn By							
Designed By							
Checked By							

**SEH** **PRELIMINARY**

DATE \_\_\_\_\_ LICENSE NO. \_\_\_\_\_

CRYSTAL, MN

**DOUGLAS DR / WEST BROADWAY AVE  
5-LEG ROUNDABOUT CONCEPT**

HENNEPIN COUNTY  
MINNESOTA

March 25, 2022

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

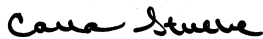
Re: Support for 2022 Regional Solicitation Application  
CSAH 8 (W Broadway Avenue) at CSAH 102 (Douglas Drive) Spot Mobility and Safety Project

Dear Ms. Koutsoukos,

Hennepin County has been notified that the City of Crystal is submitting an application for funding as part of the 2022 Regional Solicitation through the Metropolitan Council. 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. It is anticipated that a new intersection design will be introduced to better facilitate user activity. Furthermore, this project will promote future redevelopment opportunities in the area.

Hennepin County supports this funding application and will operate and maintain the roadway facilities along CSAH 8 (W Broadway Avenue) and CSAH 102 (Douglas Drive) for the useful life of these improvements. At this time, Hennepin County has no funding programmed for this project in its 2022-2026 Transportation Capital Improvement Program (CIP). Therefore, county staff is currently unable to commit county cost participation in the project. Additionally, we kindly request that the City of Crystal includes county staff as part of the project development process to discuss potential intersection modification strategies. Hennepin County 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.

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



## REDEVELOPMENT

This section identifies areas of the city, shown on the 2040 planned land map, where there is a significant potential for redevelopment to occur. The city believes that there is strong potential for redevelopment to occur in any number of these areas due to natural market forces, the city's desire to replace blighted or functionally obsolete land uses, or a combination of both.

### GENERAL REDEVELOPMENT GOALS

There are areas of the city where redevelopment is likely to be considered at some point in the future. The identification of these areas does not mean that it is definite that redevelopment would occur within the time frame of this plan. Depending on the specific site characteristics and market forces at the time of redevelopment, the physical extent of redevelopment activities may be greater or less than the area shown in this plan. Key parcels have been identified that appear to be most likely to trigger redevelopment in each area, but they are not absolutely essential for redevelopment to occur in most of these areas. Areas not indicated as potential redevelopment areas in this plan are not precluded from being redeveloped.

Many of the descriptions of the potential redevelopment areas indicate that the likely new use would be medium or high density residential. This is a function of the cost of redevelopment in that the new use must be of higher density for the project to be financially feasible. Each project would have to be examined on its own merits and with due consideration to the characteristics of the surrounding area and community input.

Redevelopment projects may be completely privately financed, or receive some assistance from the city and its Economic Development Authority (EDA). Such assistance may take the form of tax increment financing, tax abatement, housing tax credits, grants from other units of government, or other funding sources. Each request for financial assistance will be evaluated in accordance with the policies and procedures governing each respective funding source.

Due to a combination of market realities, financial constraints, limited eminent domain powers and community concerns about density, traffic, change in general and other issues, it would be unrealistic to expect that all of the areas described in this section will be redeveloped within the time frame of this plan. Instead, this plan should be viewed as a menu from which citizens, developers, the Planning Commission, the EDA and the City Council may compare and contrast various redevelopment opportunities within the city, and select the best project sites for redevelopment.

Redevelopment projects may trigger, or be triggered by, adjacent public improvements such as roadway reconstruction, water and sewer upgrades, or streetscaping. In cases where near-term public improvements are being considered in a potential redevelopment area, but no redevelopment project is imminent, due consideration will be given to the impact of said improvements on the future redevelopment potential of the area.

### DESCRIPTIONS OF SPECIFIC POTENTIAL REDEVELOPMENT AREAS

The following is a description of four potential redevelopment areas in Crystal as shown on the 2040 planned land use map (see Figure E-3).

**Areas A and C.** These existing commercial areas may see redevelopment within the timeframe of this plan as a result of the planned extension of the Blue Line of the region's light rail line (LRT) transit system. As discussed in more detail in chapter J of this plan, Metro Transit is planning a LRT station at the intersection of Bass Lake Road and Highway 81 (Bottineau Boulevard) in Crystal. In addition, a LRT



station is planned at 42nd Avenue North and Bottineau Boulevard in downtown Robbinsdale, about one mile from area C. Both redevelopment areas are also accessed by Metro Transit bus routes. As of the writing of this plan, the city is considering new development zoning regulations for its proposed redevelopment areas. These regulations could include allowing a mix of commercial and residential uses, reduced parking ratios, and building placement guidelines. Area A has been guided on the 2040 map for mixed use development.

Although a small portion, approximately 31 acres, of the 63<sup>rd</sup> Avenue station area lies within Crystal a majority of the station area lies within Brooklyn Park. The City of Crystal did not participate in the creation of the 63<sup>rd</sup> Avenue station area plan. The 63<sup>rd</sup> station area within Crystal consists of a 13 acre city-owned community park and single-family homes, neither of which provides favorable redevelopment opportunities. As such, the portion of the 63<sup>rd</sup> station area within Crystal is not designated as a redevelopment area.

A station area plan (Appendix A) for the Bass Lake Road LRT station was completed in 2016 to envision new land uses within ½ mile of the proposed station. This plan designated potential “opportunity sites” in what is proposed as area A that have redevelopment potential under the right set of circumstances. Decisions to participate in redevelopment would be made by individual property owners based on market opportunity. However since 2016 the city has undertaken projects to improve the public realm that were first described in the station area plan. These projects include a streetscape plan along Bass Lake Road between Highway 81 (Bottineau Boulevard) and West Broadway Avenue, and a redevelopment of Becker Park to transition the park from a sports facility use to a community gathering area with improved pedestrian connections to both the LRT station and the surrounding commercial area. It is hoped that improving the public realm in these ways will spur redevelopment in the station area.

The Bass Lake Road LRT station area plan has policy recommendations for the city’s 2040 comprehensive plan. The following are those policy recommendations, with comments from the city detailing how the policy is being implemented, or is planned for implementation. Detailed information about these recommendations are found in the relevant chapters of this plan.

1. **Prioritize development opportunities around the station area.** The city has created redevelopment Area A surrounding the proposed station. The boundary of the redevelopment area adjacent to the LRT station is based on the “opportunity sites” described in the station area plan.
2. **Allow flexibility for higher densities in the station area.** This plan requires that any residential development in Area A be at least 25 units per gross acre, and states as a policy goal to create new zoning regulations that will allow a mix of uses, including multiple-family development, within Area A. These new regulations will also reduce parking ratios and reduce building setbacks from the street.
3. **Emphasize streetscape improvements in the station area.** In 2018 the city completed streetscape improvements on the north side of Bass Lake Road within the station area. In 2019 the city is reconstructing Becker Park which will include connections to existing and planned regional trails.
4. **Prioritize pedestrian and bicycle connections in the station area.** The improvements described in number 3, above, will improve the pedestrian experience through better connections from the proposed station to the city’s main commercial area.
5. **Make Becker Park an important element of the station area.** The city has completed a master plan for Becker Park and construction on improvements to the park are slated to

begin in 2019. The goal of the improvements is to create a community gathering area in the park, which is adjacent to the proposed station. The city also has a goal of creating new zoning regulations that will allow a mix of commercial and higher density residential land uses around Becker Park that will further contribute to the community's use of the park and LRT transit system.

In 2018 a market analysis was completed for four of the five cities along the proposed 13-mile LRT corridor (Appendices B and C). A station area development assessment was completed that provided input from several developers on how LRT service may impact the various station areas. Developers stated that the strength of the Bass Lake Road station area is its abundance of retail, anchored by the recently renovated Crystal Shopping Center. The demographic make up and condition of some properties were seen as challenges. This plan proposes to offset these challenges by making improvements to the public realm as described above.

**Area B.** This site is the Former Canadian Pacific Railway (CPRR) property west of Douglas Drive and north of the CPRR tracks and contains existing commercial uses adjacent to a single-family residential neighborhood. The zoning of the site no longer allows new commercial uses, but the existing uses may continue in their present form. The following are considerations for re-use, expansion or redevelopment of this area.

1. Any expansion of existing uses or redevelopment of the property shall be compatible with adjacent residential land uses, including but not limited to issues of traffic, parking, noise, hours of operation, buffering, screening, impervious coverage, building size, form and materials. Uses that are considered incompatible with the adjacent area are those that are customer-intensive commercial uses such as retail or medical office, and auto-related businesses, such as vehicle wash, sales or repair.
2. The site development standards in the city's unified development code shall be applicable to any re-use, expansion or redevelopment of the site. However, no building's height shall exceed any of the following: 3 stories, 40 feet, or the building's setback from the east, west or north boundaries of the property.
3. Vehicular access shall be primarily from Douglas Drive and access from Idaho Avenue shall be minimized.

**Area D.** This area mostly contains a mix of smaller commercial uses and vacant parcels, adjacent to low density residential. There is some potential for redevelopment along the east side of Douglas Drive, but it would be challenging due to topographic conditions and a need to acquire some houses to assemble an optimally sized site. Redevelopment of the west side, along the unimproved Edgewood Avenue north of 34th Avenue, is mainly limited by fragmented property ownership but otherwise appears to be a good candidate for infill development. The city is considering new development zoning regulations for area D. These regulations could include allowing a mix of commercial and residential uses, reduced parking ratios, and building placement guidelines.

#### **LAND USE CHANGES TO ACCOMMODATE DEVELOPMENT BY 2040**

It is expected that redevelopment of some existing land uses will occur in addition to the land use changes anticipated on the 2040 map (see Figure E-3). Redevelopment will be driven by market forces, owners' willingness to sell, and input from the community on specific land use proposals. In 2010, the city had 9,183 households and is projected to grow to 9,700 households by 2040. This represents a growth of 517 households during this 30 year period. Table E-3 provides a scenario

under which housing units could be constructed to meet the needs of this projected population increase. Some of the projected population growth can be accommodated by accessory dwelling units. In 2018 the city revised its zoning regulations to allow more property owners to construct this type of residential living space.

#### LAND USE IMPLEMENTATION ITEMS

The official controls for Crystal is its Unified Development Code (UDC), which are the zoning and subdivision regulations for the city. These official controls serve as a measure of employment-bearing land use intensity by regulating the following:

1. **Commercial building height.** In 2018 the City Council approved an amendment to the zoning regulations to increase the allowable building height in commercial and industrial areas to 5 stories or 60 feet, whichever is less. Taller buildings may be allowed with a conditional use permit approved by the City Council.
2. **Lot coverage.** The city has zoning requirements that allow 85 or 90 percent of a property to be impervious surface in commercial and industrial areas.
3. **Building setbacks.** The city has long-standing regulations in place to require that commercial buildings meet specific locational (setback) standards. In 2019 the City Council is expected to consider additional UDC amendments relating to building placement for its commercial areas.
4. **Lot area, width and depth.** The city has regulations in place as minimum standards for lot area, width and depth for commercial and industrial properties.

In 2018 the City Council approved a complete update to the UDC, which is found in Appendix D, along with the city's Official Zoning Map. The 2018 update included regulations to allow more dwelling units in the city, such as new regulations for accessory dwelling units and reduced lot size requirements.

In 2019 the City Council is expected to consider additional UDC amendments to create new regulations governing the redevelopment areas described in this chapter. These proposed changes would allow a mix of residential and commercial uses, reduced parking ratios, alternative building placement, and higher densities.

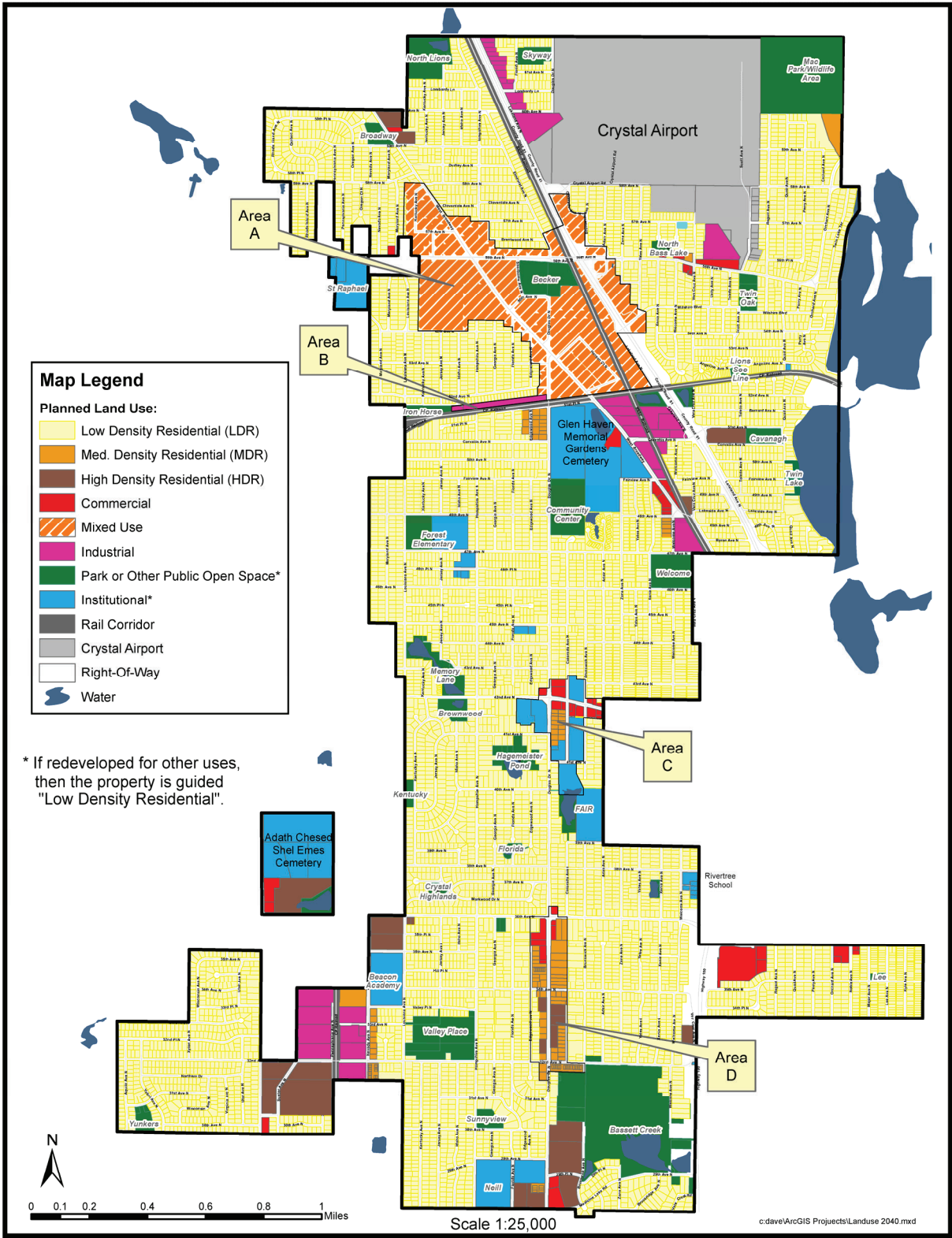


FIGURE E-3 2040 PLANNED LAND USE MAP

<b>Number of Housing Units</b>	<b>Time period</b>	<b>Description of growth</b>
193	April 1, 2010 to December 31, 2017	Net gain of units during this period based on building permits issued.
20	January 1, 2018 to April 1, 2020	Number of single-family homes anticipated based on historic trends and available lots.
74	Present to 2040	Number of accessory dwelling units that could be constructed based on a conservative estimate that 1% of homes would add such a unit by 2040.
+230	Present to 2040	The city has identified four redevelopment areas in the 2040 plan, totaling 276 acres. Area A has been guided for mixed use development and the city is expecting to adopt new zoning regulations in 2019 that will allow for multi-family residential development at minimum density of 25 units per acre within that area. While it is impossible to predict which sites within those 276 acres will redevelop by 2040, the household forecast would be met with redevelopment of less than 10 acres by 2040.

**TABLE E-3 HOUSING UNIT GROWTH TO MEET METROPOLITAN COUNCIL’S PROJECTIONS**

Within Urban Service Area	Allowed Density Range Housing Units/Acre		Land Area Existing (in acres) and percentage of land use	Land Area Planned (in acres) and percentage of land use	Land Area Planned (in acres) and percentage of land use	Land Area Planned (in acres) and percentage of land use	Number Change (in acres)	Percent Change	Estimated percentage of land in residential use (2040)
	Minimum	Maximum	2018	2020	2030	2040	2018-2040	2018-2040	
Low Density Residential	1	6	1786.93 (48.3%)	1786.13 (48.3%)	1772.29 (47.9%)	1758.45 (47.56%)	- 28.48	- 1.59	90
Medium Density Residential	6	16	26.39 (.71%)	26.92 (.73%)	35.64 (.99%)	44.35 (1.2%)	17.96	68.06	90
High Density Residential	16	40	96.51 (2.6%)	94.57 (2.5%)	88.98 (2.4%)	83.39 (2.3%)	-13.12	-13.59	90
Commercial			149.65 (4.1%)	146.65 (9.9%)	94.07 (2.5%)	41.48 (1.12%)	- 108.17	-72.28	20
Mixed Use	25	50	Not Applicable	6.0 (.02%)	77.70 (2.1%)	149.39 (4.04%)	Not Applicable	Not Applicable	50
Industrial			98.48 (2.6%)	96.51 (2.6%)	82.41 (2.2%)	68.30 (1.8%)	-30.18	- 30.65	0
Park			246.50 (6.7%)	246.74 (6.7%)	252.74 (6.8%)	258.74 (6.99%)	12.24	4.97	0
Institutional			191.86 (5.2%)	191.03 (5.1%)	190.73 (5.2%)	190.42 (5.2%)	-1.44	-0.75	0
Rail Corridor			46.89 (1.3%)	46.89 (1.3%)	46.89 (1.3%)	46.89 (1.3%)	0	0	0
Crystal Airport			286.66 (7.8%)	286.66 (7.8%)	278.66 (7.6%)	286.66 (7.4%)	0	0	0
Roadway Right of Way			767.13 (20.8%)	769.13 (20.8%)	769.13 (20.8%)	769.13 (20.8%)	2	.26	0
<b>TOTAL (all sewered; there are no unsewered areas in Crystal)</b>			3,697	3,697	3,697	3,697	0	0	

TABLE E-4 2040 PLANNED LAND USE

## CHAPTER H: ROADWAY FUNCTIONAL CLASSIFICATIONS

This chapter describes how each roadway fits into the regional transportation system and hierarchy of different types of roadways. It also considers specific changes to roadway configurations including increasing or reducing the number of lanes on some arterial or major collector roadways. The following terms are used frequently throughout this chapter:

- **Principal arterial.** In the metropolitan area principal arterials are typically trunk highways owned by the Minnesota Department of Transportation (“MnDOT”). Most are freeways, which have controlled access with grade-separated interchanges, or expressways, which have limited access with at-grade, signalized intersections at major cross streets. Principal arterials tend to favor maximum mobility to promote traffic flow and minimal access points.
- **Minor arterial.** These roadways are generally county roadways balancing mobility and access. Older minor arterials typically favor access more than more recently constructed minor arterials.
- **Major collector.** These roadways are typically city streets but also include some county facilities. Major collectors slightly favor access over mobility.
- **Minor collector.** These roadway are city streets that typically have been designated as Municipal State Aid (“MSA”) routes. They favor access over mobility.
- **Other local streets.** These roadways represent the majority of mileage in the city’s roadway system. They also favor access over mobility.

### CLASSIFICATION OF CITY ROADWAYS

Functional classification designations help identify which routes are most worthy of federal funding, guide local decisions regarding mobility versus access, and in developing areas identify needs for right-of-way preservation and land use regulation for future routes. These designations are based on parameters established by Metropolitan Council. This comprehensive plan established the following functional classifications (see Figure H-1):

- TH 100 is a principal arterial.
- The following routes are minor arterials:
  - Part of CSAH 8 (West Broadway Avenue) from Douglas Drive to 56<sup>th</sup> Ave.
  - CSAH 9 (42<sup>nd</sup> Ave.)
  - CSAH 10 (56<sup>th</sup> Avenue/Bass Lake Road)
  - CSAH 70 (Medicine Lake Road)
  - CSAH 81 (Bottineau Boulevard)
  - CSAH 102 (Douglas Drive south of West Broadway)
  - CSAH 156 (Winnetka Avenue from 30<sup>th</sup> Avenue to 39<sup>th</sup> Avenue)
- The following routes are major collectors:
  - CSAH 8 (West Broadway) north of 56th Avenue
  - CSAH 8 (West Broadway) south of Douglas Drive
  - 36th Avenue
- The following routes are minor collectors:
  - 32nd Ave. from Welcome Ave. to New Hope border.
  - 34<sup>th</sup> Ave. from Welcome Ave. to Hampshire Ave.
  - 38<sup>th</sup> Ave. from Welcome Ave. to Hampshire Ave.
  - 47th Ave. from Welcome Ave. to Louisiana Ave.

- 47<sup>th</sup> Ave. from CSAH 81 (Bottineau Blvd) to CSAH 8 (W. Broadway).
- Fairview Ave. west of CSAH 102 (Douglas Drive) to New Hope.
- Corvallis Ave. from CSAH 8 (West Broadway) to CSAH 81 (Bottineau Boulevard).
- 54<sup>th</sup> Ave. from CSAH 8 (West Broadway ) to Nevada Ave.
- 55<sup>th</sup> Ave. from Douglas Drive to Sherburne Ave.
- Wilshire Boulevard from Regent Ave. to CSAH 81 (Bottineau Blvd).
- 58<sup>th</sup> Ave. from CSAH 10 (Orchard Ave.) to Regent Ave.
- 58<sup>th</sup> Ave. from Elmhurst Ave. to Sumter Ave.
- Winnetka Ave. from 58<sup>th</sup> Ave. to 60<sup>th</sup> Ave.
- Sumter Ave. from 58<sup>th</sup> Ave. to CSAH 10.
- Nevada Ave. from CSAH 10 to 54<sup>th</sup> Ave.
- Sherburne Ave. from CSAH 10 to 55<sup>th</sup> Ave.
- Douglas Dr. from 55<sup>th</sup> Ave. to CSAH 8.
- Regent Ave. from 58<sup>th</sup> Ave. to Wilshire Blvd.
- Welcome Ave. from 42<sup>nd</sup> Ave. to 46<sup>th</sup> Ave. and 47<sup>th</sup> Ave. to CSAH 8
- Noble Ave.
- Hampshire Ave. from 38<sup>th</sup> Ave. to 47<sup>th</sup> Ave.
- Hampshire Ave. from CSAH 70 (Medicine Lake Road) to 36<sup>th</sup> Ave.
- Adair Ave. from 36<sup>th</sup> Ave. to 47<sup>th</sup> Ave.
- Louisiana Ave. from CSAH 9 (42nd Ave.) to Fairview Ave.
- Xenia Ave. from 46<sup>th</sup> Ave. from 46<sup>th</sup> to 47<sup>th</sup> Ave.
- 46<sup>th</sup> Ave. from Welcome Ave. to Xenia Ave.

- Forecasted 2040 traffic volumes for principal and minor arterials were developed by Hennepin County in 2016 for its 2040 Transportation Systems Plan. The city accepts and incorporates these annual average daily traffic (AADT) forecasts into this plan as shown in italics in Figure H-1.

- The city has allocated the 2040 employment, housing and population forecasts from Chapter D to specific Traffic Analysis Zones (TAZ) based on reasonable expectations for infill development and redevelopment consistent with Chapter E (see Figures H-2 and H-3). A traffic analysis zone is a unit of geography used in transportation planning models. The TAZ used in this plan was determined by the Metropolitan Council.

- All existing principal and minor arterial roadways are owned and maintained by either the Minnesota Department of Transportation or Hennepin County. Information on the existing number of lanes and future number of lanes is available through their Comprehensive Planning documents. Additionally, heavy commercial traffic volumes is available from the respective jurisdictions.



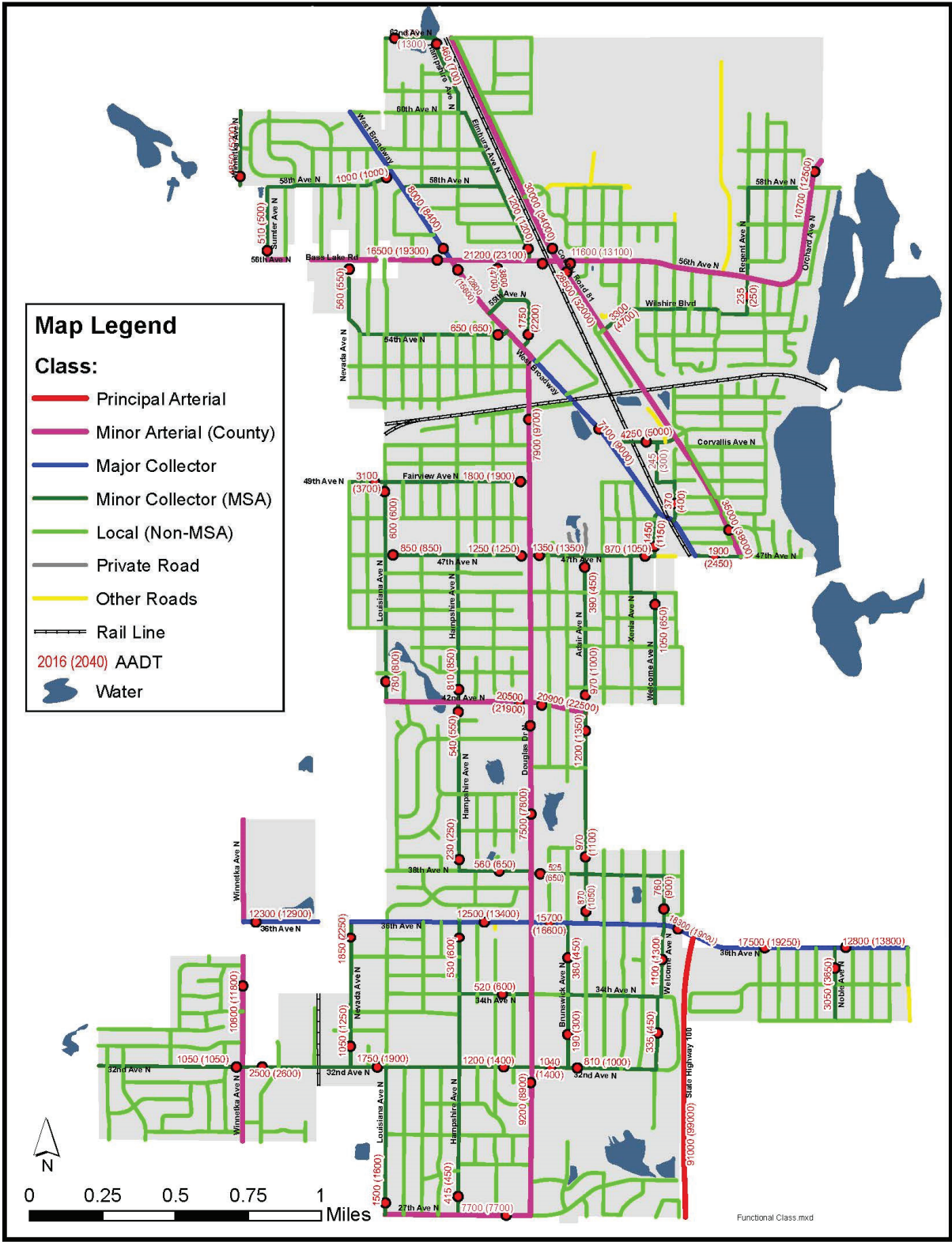


FIGURE H-1 CRYSTAL ROADWAY FUNCTIONAL CLASSIFICATIONS

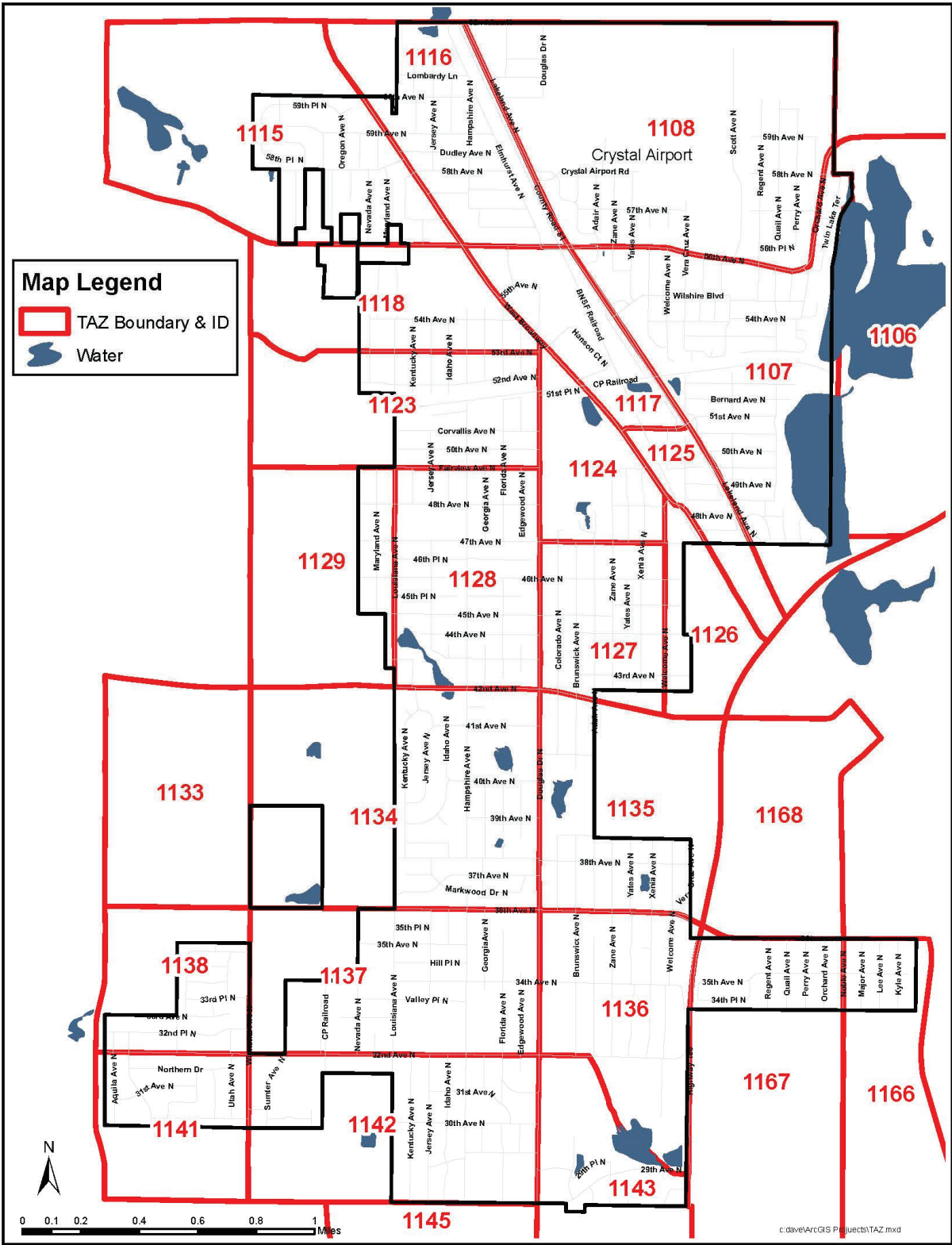


FIGURE H-2 TRAFFIC ANALYSIS ZONES

**ORIGINAL MET COUNCIL FORECAST from Met Council's Regional Development Framework as of April 5, 2018**

TAZ	POPULATION Change 2010-2040						HOUSEHOLDS Change 2010-2040						EMPLOYMENT Change 2010-2040					
	2010	2020	2030	2040	Number Change	Percent Change	2010	2020	2030	2040	Number Change	Percent Change	2010	2020	2030	2040	Number Change	Percent Change
	1107	2243	2338	2425	2517	274	12.2	885	921	946	970	85	9.6	209	234	245	259	50
1108	1429	1491	1506	1532	103	7.2	594	606	602	600	6	1	119	268	270	269	150	126
1115	957	930	979	1015	58	6.1	395	425	441	450	55	13.9	253	356	450	559	306	121
1116	1096	1026	1052	1081	-15	-1.3	453	482	491	500	47	10.3	285	289	295	299	14	4.9
1117	430	571	621	668	238	55.3	228	250	266	280	52	22.8	689	848	902	968	279	40.5
1118	734	664	704	743	9	1.2	257	274	287	300	43	16.7	751	609	627	639	-112	-15
1123	963	1058	1128	1199	236	24.5	414	443	467	490	76	18.3	56	53	57	60	4	7.1
1124	397	415	424	436	39	9.8	165	172	176	180	15	9.1	36	56	58	60	24	66.7
1125	292	303	333	362	70	24	119	131	141	150	31	26.1	28	36	37	40	12	42.9
1126	136	144	144	145	9	6.6	58	60	60	60	2	3.4	10	13	11	10	0	0
1127	1129	1102	1114	1132	3	0.3	436	452	455	460	24	5.5	118	126	128	130	12	10.2
1128	1799	1727	1737	1757	-42	2.3	694	711	710	710	16	2.3	61	90	90	90	29	47.5
1129	394	350	347	345	-49	-12.4	143	145	142	140	-3	-2.1	6	1	1	0	-6	100
1134	1687	1849	1865	1889	202	12	750	758	753	750	0	0	201	178	185	190	-11	-5.5
1135	759	764	781	802	43	5.6	305	317	323	330	25	8.2	154	171	200	239	85	55.2
1136	1381	1248	1274	1309	-72	-5.2	504	514	511	510	6	1.2	204	192	202	210	6	3
1137	1416	1533	1546	1574	158	11.1	623	635	632	630	7	1.1	366	518	514	509	143	39.1
1138	616	584	580	577	-39	-6.3	251	255	253	250	-1	-0.4	20	22	21	20	0	0
1141	687	605	600	596	-91	-13.2	262	266	264	260	-2	-0.8	4	9	9	10	6	150
1142	2214	2395	2422	2474	260	11.7	980	1001	999	1000	20	2	144	73	72	70	-74	-51.4
1143	581	750	759	774	193	33.2	338	344	342	340	2	0.6	122	146	154	160	38	31.2
1166	391	409	409	412	21	5.3	158	161	160	160	2	1.3	35	32	31	30	-5	-14.3
1167	420	443	449	457	37	8.8	171	176	178	180	9	5.3	58	80	81	80	22	37.9
<b>TOTALS</b>	<b>22,151</b>	<b>22,700</b>	<b>23,200</b>	<b>23,800</b>	<b>1,649</b>	<b>7.4</b>	<b>9,183</b>	<b>9,500</b>	<b>9,600</b>	<b>9,700</b>	<b>517</b>	<b>5.6</b>	<b>3,929</b>	<b>4,400</b>	<b>4,640</b>	<b>4,900</b>	<b>972</b>	<b>24.7</b>

**FIGURE H-3 2040 METROPOLITAN FORECASTS BY TRAFFIC ANALYSIS ZONES (TAZ).** Unless noted otherwise, numbers are positive.

### **ROADWAY FUNCTIONAL CLASSIFICATION POLICIES**

The following are the city’s policies relating to roadway functional classification.

1. MSA routes except 36<sup>th</sup> Avenue are classified as “minor collectors.”
2. No new roadways should be constructed with more than one travel lane in each direction unless they also have a center left turn lane or, preferably, a median with left turn lanes.
3. Streetscape improvements should be used to enhance the visual appeal of the community for visitors and residents alike. Enhanced streetscaping, while taking into consideration maintenance needs and costs, should be a consideration for any major new roadway construction or existing roadway reconstruction project. Also, such improvements may be implemented along existing roadways where reconstruction is not anticipated for some time, provided that the streetscaping will not substantially conflict with anticipated long term improvements for the roadway or have significant maintenance requirements or cost implications.
4. The city will work with Hennepin County in applying its access management guidelines (from its 2040 Transportation Systems Plan) to any areas of new development or significant redevelopment in the city where such areas abut a minor arterial roadway. MnDOT Access Management Guidelines are not applicable because the only principal arterial roadway in the city, Trunk Highway 100, is a freeway with no direct access except at the 36<sup>th</sup> Avenue interchange.

### **ROADWAY FUNCTIONAL CLASSIFICATION IMPLEMENTATION ITEMS**

The following are the city’s implementation strategies relation to roadway functional classifications.

1. Continue to monitor and evaluate the road network system to align traffic demands on the system with the design, maintenance, and operation of the roadway system.
2. Hennepin County has in the past expressed their interest in eliminating CSAH 8 from their road system by turning it over to the city. The city would accept responsibility for this roadway only after it is reconstructed to the city’s urban standards with municipal consent or the county provides the city with the funds to accomplish same. The city is unsure whether the segment north of CSAH 10 (56th/Bass Lake Rd) is a good candidate for turnback and would not consider such a change without further study and consultation with the cities of New Hope and Brooklyn Park.
3. Consider specific streetscape improvements along existing roadways that are not likely to be subject to major roadway improvements, such as full reconstruction and/or widening, for the foreseeable future. Take maintenance expectations and costs into consideration when evaluating any potential improvements.

## CHAPTER I: NON-MOTORIZED TRANSPORTATION

This chapter addresses the need for facilities to accommodate pedestrian and bicycle travel. The following terms are used frequently throughout this chapter:

- **Sidewalk** - A facility primarily for pedestrians, and typically (but not always) constructed of concrete. Sidewalks may be placed directly behind the curb or may be separated from the roadway by a boulevard area.
- **Multi-use trail** - A facility for both pedestrians and bicyclists, and typically (but not always) constructed of bituminous pavement. Multi-use trails may be placed in the same manner as sidewalks or substantially further separated from the roadway; for example, trails are sometimes located in separate right-of-way or in a public park.
- **Bike lane** - A facility primarily for bicyclists. Bike lanes may be shared as a roadway shoulder (“breakdown lane”). The city of Crystal does not currently have any dedicated bike lanes, although these can be found on some county roads.

### BACKGROUND

Most of Crystal was developed in an era when little thought was given to long-term planning in general and non-motorized transportation facilities in particular. This means that the city’s natural, obvious potential routes typically along lowlands, lakefronts, and creeksides were mostly platted and developed many decades ago. Today Crystal has limited opportunities to create a system of facilities for non-motorized transportation. In addition, the city’s resources are limited and the city will not have the sort of complete, interconnected system found in many of the more recently developed suburbs.

An existing and proposed sidewalk and trail plan is Figure I-1. This figure includes regional trails under the jurisdiction of the Three Rivers Park District as well as the planned and existing facilities proposed for the Regional Bicycle Transportation Network (RBTN) by the Metropolitan Council. In some cases, trails may be under multiple jurisdictions. For example, Hennepin County may provide the right-of-way for a trail, but the trail itself is constructed and maintained by Three Rivers Park District.

The following is a description of existing and proposed regional trail facilities referenced on Figure I-1:

- Crystal Lake Regional Trail. 4.3 miles of this trail are complete through Robbinsdale and Crystal. Ultimately the trail will continue through the northwest metro area cities of Brooklyn Park, Osseo, and Maple Grove to Elm Creek Park Reserve.
- Bassett Creek Regional Trail. The 7 mile trail connects French Regional Park in Plymouth to Theodore Wirth Regional Park in Minneapolis through the cities of New Hope, Crystal and Golden Valley.
- CP Rail Extension Regional Trail Search Corridor. This regional search trail corridor is proposed by Metropolitan Council, and a portion of the trail would connect through Crystal. The search process is being managed by Three Rivers Park District.

### NON-MOTORIZED TRANSPORTATION POLICIES

1. Due to the city’s limited resources, a culture should be created that the city’s streets are an important part of its non-motorized transportation system. Not only do streets connect people

to the places they want to go, but they are also used as a gathering space for neighborhood bonding.

2. Take advantage of low-cost opportunities to improve and publicize existing non-motorized transportation opportunities. Examples include designating striped shoulders or parking lanes as bike lanes and adoption of an official sidewalk, trail and bike lane map.
3. In some areas where a multi-use trail is desired, it may be more practical to utilize a combination of a sidewalk and a bike lane.
4. Explore the potential to create additional non-motorized transportation opportunities where remnants of the pre-development landscape remain.

### **NON-MOTORIZED TRANSPORTATION IMPLEMENTATION ITEMS**

1. Adopt an official sidewalk and trail map showing existing and proposed facilities.
2. Consider options for improving safety at the marked pedestrian crosswalk on CSAH 102 (Douglas Drive) at Fairview Avenue near the Crystal Community Center / pool complex.
3. Where feasible, roadways with existing striped shoulders or parking lanes on both sides of the street could be designated as bike lanes. These existing segments are as follows:
  - CSAH 10 (56<sup>th</sup> Avenue a.k.a. Bass Lake Road) east of Yates Avenue.
  - Noble Avenue south of 36<sup>th</sup> Avenue.
  - 32<sup>nd</sup> Avenue from Nevada Avenue to Winnetka Avenue.
  - Louisiana Avenue from CSAH 70 (27<sup>th</sup> Avenue a.k.a. Medicine Lake Rd) to 32<sup>nd</sup> Avenue.
  - CSAH 70 (27<sup>th</sup> Avenue a.k.a. Medicine Lake Road) west of CSAH 102 (Douglas Drive).
4. As additional roadways are re-striped or reconstructed with shoulders or parking lanes on both sides of the street, they too could be designated as bike lanes. These potential segments include but are not limited to the following:
  - West Broadway north of 57<sup>th</sup> Avenue (reconstruction).
  - West Broadway south of Fairview Avenue (reconstruction).
  - 36<sup>th</sup> Avenue west of CSAH 102 (Douglas Drive)
  - 36<sup>th</sup> Avenue east of Regent Avenue
5. Study the feasibility of a ped/bike bridge in the general vicinity of CSAH 81 (Bottineau Boulevard) and CSAH 10 (56<sup>th</sup> Avenue / Bass Lake Road).

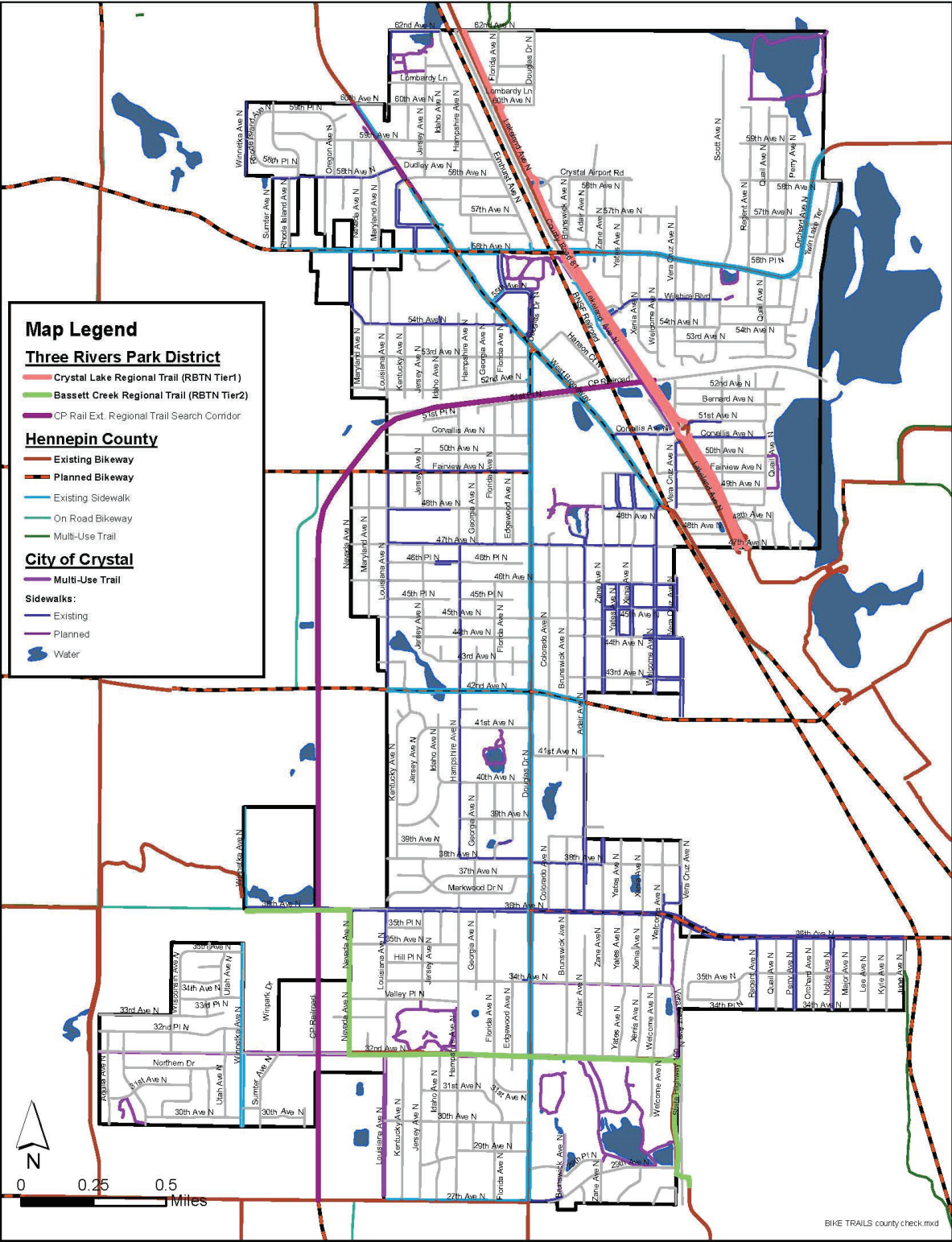


FIGURE I-1 EXISTING AND PLANNED SIDEWALKS AND TRAILS

## CHAPTER J: PUBLIC TRANSIT

This chapter discusses Metro Transit’s current service in Crystal and the potential to extend the Blue Line of the metropolitan area light rail system (LRT) from downtown Minneapolis through Crystal to end in Brooklyn Park. This regional transit route would pass through Crystal generally parallel to CSAH 81 (Bottineau Boulevard), and includes a station in the vicinity of CSAH 10 (56<sup>th</sup> Ave. a.k.a. Bass Lake Road). Figure J-1 shows the current public transit system in Crystal, with the proposed extension of the Blue Line LRT.

### BACKGROUND

Crystal is served by Metro Transit, an arm of the Metropolitan Council. Therefore route locations and frequency and type of service are determined by another government agency beyond the city’s control. Crystal has been identified by Metro Transit as being located in Transit Market Area III, which is described as having:

“...moderate density but tends to have a less traditional street grid that can limit the effectiveness of transit. It is typically urban with large portions of suburban and suburban edge communities. Transit service in this area is primarily commuter express bus service with some fixed-route local service providing basic coverage. General public dial-a-ride services are available where fixed-route is not viable.”

The following Metro Transit bus routes currently serve Crystal:

- **14:** follows 36<sup>th</sup> and Douglas in Crystal; connects to the Robbinsdale transit center (Hubbard Marketplace) and serves Honeywell in Golden Valley as well as downtown Minneapolis via West Broadway.
- **705:** Follows Winnetka Avenue intermittently through Crystal; connects to the Starlite transit center in Brooklyn Park and the Louisiana Avenue transit center in St. Louis Park.
- **716:** Follows Douglas Drive and West Broadway in Crystal; connects to the Robbinsdale transit center and serves the 63<sup>rd</sup> Avenue & Bottineau Boulevard park-n-ride facility as well as the Zane Avenue corridor in Brooklyn Park.
- **717:** Follows 42<sup>nd</sup> Avenue through Crystal; connects to Cub Foods at Nathan Lane in Plymouth and the Robbinsdale transit center (Hubbard Marketplace).
- **721:** Follows 56<sup>th</sup> Avenue North (Bass Lake Road) in Crystal; connects to the Brooklyn Center transit center (Brookdale) and serves Hennepin Technical College in Brooklyn Park.
- **755:** Follows Winnetka Avenue in Crystal with a limited service loop to Nevada Avenue; serves New Hope as well as downtown Minneapolis via Golden Valley and TH 55.
- **758:** Follows Douglas Drive and West Broadway and a short segment of Noble Avenue in Crystal; connects to the Robbinsdale transit center (Hubbard Marketplace) and serves Honeywell in Golden Valley.
- **764:** Similar to 715, except that instead of connecting to the Robbinsdale transit center (Hubbard Marketplace), it provides express service to downtown Minneapolis via TH 100 and I-394.
- **767:** Follows 56<sup>th</sup> Avenue (Bass Lake Road) and West Broadway on its way from New Hope to the 63<sup>rd</sup> Avenue & Bottineau Boulevard park-n-ride facility and express service from there to downtown Minneapolis via I-94.



Metro Mobility also operates a non-fixed route within the twin cities metropolitan area, including Crystal. Transit Link dial-a-ride service is available in Crystal, but there are not any transit hubs in Crystal connecting to regular bus routes.

In addition to the bus service in Crystal, the potential extension of the Blue Line LRT would pass through Crystal on an alignment parallel to CSAH 81 (Bottineau Boulevard) and the BNSF railroad. This facility is indicated in Metropolitan Council's 2040 Transportation Policy Plan and is a 13-mile route with eleven proposed stations (see Figure J-1). In early 2018 engineering plans were completed to represent 90% design for this LRT project. Construction of the proposed line is expected to begin in 2020, with service starting in 2024. A station area plan was completed in 2016 for the Bass Lake Road LRT station (see chapter E for more information about this planning effort).

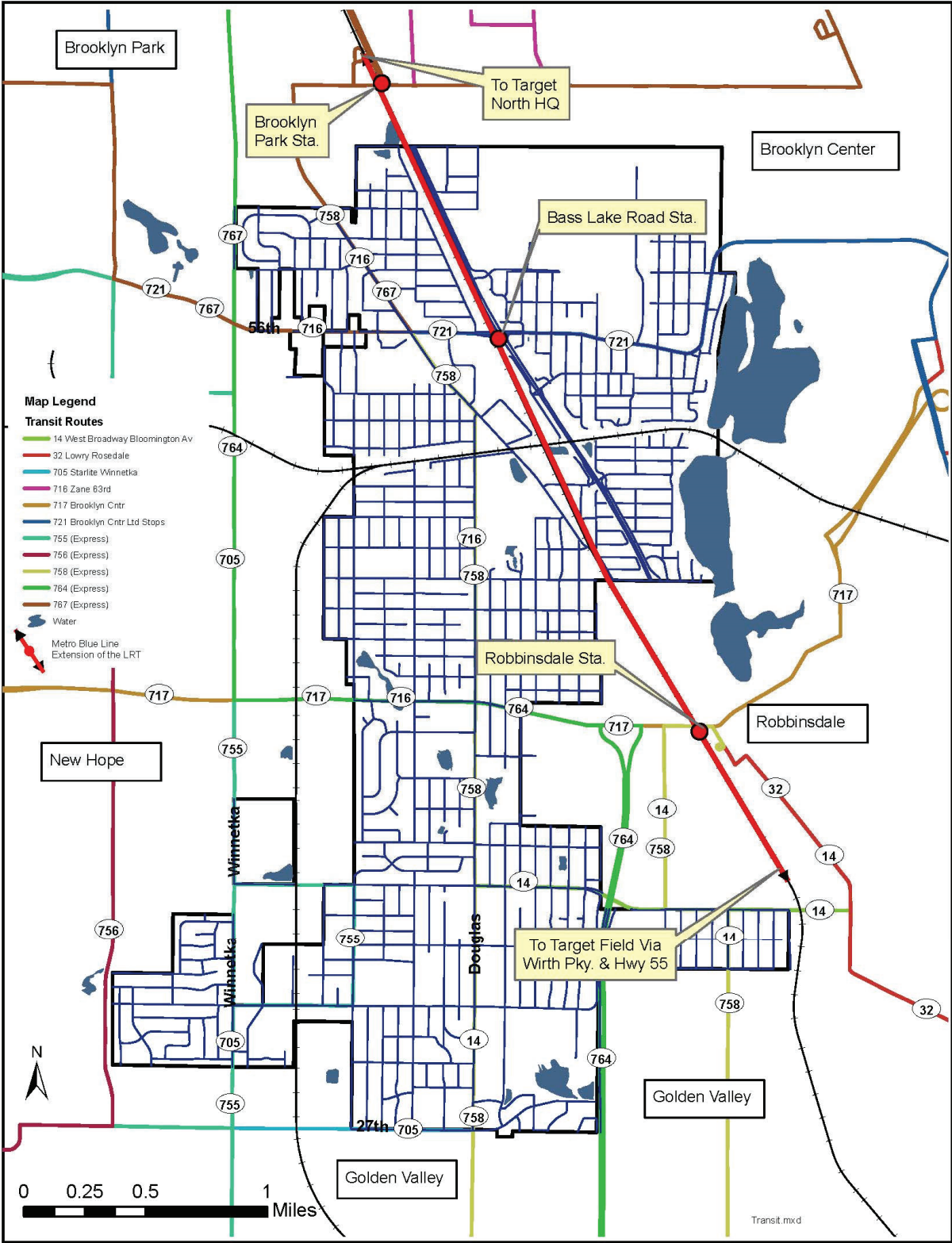


FIGURE J-1 EXISTING PUBLIC TRANSIT ROUTES, WITH PROPOSED BLUE LINE LRT EXTENSION

**PUBLIC TRANSIT POLICIES**

1. Because the city does not have the resources or authority to operate its own public transit service, and is dependent on a regional agency (Metro Transit) for that service, there is little for the city to do in terms of policy regarding the bus route system.
2. It is the policy of the city to assist Metro Transit in the development of the Blue Line Extension LRT project. The city's assistance will take the form of staff participation in design and related work but not direct financial participation.

**PUBLIC TRANSIT IMPLEMENTATION ITEMS**

1. Monitor and, as needed, participate in any Metro Transit consideration of modifying, expanding or eliminating transit service to the city.
2. Exercise the city's land use authority and any applicable municipal consent powers regarding any such changes in service or new facilities proposed by Metro Transit.
3. Continue to assist with the development of the Blue Line Extension LRT project.

**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*	\$4,063,170	Installation Year	2026
Project Service Life	20 years	Traffic Growth Factor	2.0%

\* exclude Right of Way from Project Cost

**C. Crash Modification Factor**

0.26	Fatal (K) Crashes	Reference	Crash Clearinghouse
0.26	Serious Injury (A) Crashes		
0.26	Moderate Injury (B) Crashes	Crash Type	KABC
0.26	Possible Injury (C) Crashes		
0.26	Property Damage Only Crashes		<a href="http://www.CMFclearinghouse.org">www.CMFclearinghouse.org</a>

**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		<a href="http://www.CMFclearinghouse.org">www.CMFclearinghouse.org</a>

**E. Crash Data**

Begin Date	1/1/2019	End Date	12/31/2021	3 years
Data Source	MnDOT			
Crash Severity	KABC	All		
K crashes				
A crashes				
B crashes		2		
C crashes		2		
PDO crashes				4

**F. Benefit-Cost Calculation**

\$4,179,908	Benefit (present value)	<b>B/C Ratio = 1.03</b>
\$4,063,170	Cost	

Proposed project expected to reduce 2 crashes annually, 0 of which involving fatality or serious injury.

### F. Analysis Assumptions

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

Link: [mndot.gov/planning/program/appendix\\_a.html](http://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	1.48	0.49	\$113,620
C crashes	1.48	0.49	\$59,280
PDO crashes	2.68	0.89	\$11,613

**\$184,513**

### H. Amortized Benefit

Year	Crash Benefits	Present Value
2026	\$184,513	\$184,513
2027	\$188,204	\$186,895
2028	\$191,968	\$189,308
2029	\$195,807	\$191,752
2030	\$199,723	\$194,227
2031	\$203,718	\$196,735
2032	\$207,792	\$199,275
2033	\$211,948	\$201,847
2034	\$216,187	\$204,453
2035	\$220,511	\$207,092
2036	\$224,921	\$209,766
2037	\$229,419	\$212,474
2038	\$234,008	\$215,217
2039	\$238,688	\$217,995
2040	\$243,461	\$220,809
2041	\$248,331	\$223,660
2042	\$253,297	\$226,547
2043	\$258,363	\$229,472
2044	\$263,530	\$232,434
2045	\$268,801	\$235,435
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 = \$4,179,908**

## 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 53<sup>rd</sup> 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 12,800 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 53<sup>rd</sup> 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.

**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*	\$3,750,245	Installation Year	2026
Project Service Life	20 years	Traffic Growth Factor	2.0%

\* exclude Right of Way from Project Cost

C. Crash Modification Factor			
0.26	Fatal (K) Crashes	Reference	Crash Clearinghouse
0.26	Serious Injury (A) Crashes		
0.26	Moderate Injury (B) Crashes	Crash Type	KABC
0.26	Possible Injury (C) Crashes		
0.26	Property Damage Only Crashes		<a href="http://www.CMFClearinghouse.org">www.CMFClearinghouse.org</a>

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		<a href="http://www.CMFClearinghouse.org">www.CMFClearinghouse.org</a>

E. Crash Data				
Begin Date	1/1/2019	End Date	12/31/2021	3 years
Data Source	MnDOT			
	Crash Severity	KABC	All	
	K crashes			
	A crashes			
	B crashes	2		
	C crashes	2		
	PDO crashes		4	

F. Benefit-Cost Calculation		
\$4,179,908	Benefit (present value)	<b>B/C Ratio = 1.12</b>
\$3,750,245	Cost	
Proposed project expected to reduce 2 crashes annually, 0 of which involving fatality or serious injury.		

### F. Analysis Assumptions

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

Link: [mndot.gov/planning/program/appendix\\_a.html](http://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	1.48	0.49	\$113,620
C crashes	1.48	0.49	\$59,280
PDO crashes	2.68	0.89	\$11,613

**\$184,513**

### H. Amortized Benefit

Year	Crash Benefits	Present Value
2026	\$184,513	\$184,513
2027	\$188,204	\$186,895
2028	\$191,968	\$189,308
2029	\$195,807	\$191,752
2030	\$199,723	\$194,227
2031	\$203,718	\$196,735
2032	\$207,792	\$199,275
2033	\$211,948	\$201,847
2034	\$216,187	\$204,453
2035	\$220,511	\$207,092
2036	\$224,921	\$209,766
2037	\$229,419	\$212,474
2038	\$234,008	\$215,217
2039	\$238,688	\$217,995
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2042	\$253,297	\$226,547
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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 = \$4,179,908**



<input 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 has been slightly ... [READ MORE]
<input type="checkbox"/>	0.445	55.5	★★★★★	All	K (fatal),A (serious injury),B (minor injury),C (possible injury)	Urban	SRINIVASAN, ET AL., 2011	Countermeasure name has been slightly ... [READ MORE]
<input type="checkbox"/>	0.4 [B]	60	★★★★	All	A (serious injury),B (minor injury),C (possible injury)	Urban	RODEGERDTS ET AL., 2007	Countermeasure name changed to match ... [READ MORE]
<input type="checkbox"/>	0.33 [B]	67	★★★★	All	All	Suburban	RODEGERDTS ET AL., 2007	Countermeasure name changed to match ... [READ MORE]

Broadway Avenue and Douglas Drive

INCIDENTID	RTESYS	COLRTENUMBE	MEASURE	COUNTY_S	CITY_NAME	TOWNSHIP	MNDOT_D	STATE_PAT	TRIBAL_GC	LOCALID	ACCIDENT_CRASH_MC
895873	4	8	1.635	27	Crystal		M	25		21000944	2.11E+08 3
819613	4	102	4.518	27	Crystal		M	25		20004047	2.02E+08 7
817055	4	102	4.532	27	Crystal		M	25		20003700	2.02E+08 6
744138	4	102	4.54	27	2393683			25		19004293	1.92E+08 8

CRASH_DA	CRASH_YE/CRASH_DA	CRASH_HO	DIVIDEDRD	CRASHSEVI	NUMBERKI	NUMBERO	MANNERO	FIRSTHARM	RELATIONT	LIGHTCONI	WEATHERP
15	2021 Mon	10 N		5	0	2	5	10	4	1	2
14	2020 Tue	16	98	5	0	2	10	10	4	1	2
29	2020 Mon	12		5	0	2	10	10	4	1	1
31	2019 Sat	11 N		5	0	1	90	10	3	1	1

WEATHERS	RDWYSURF	WORKZON	ROADWAY_INTERSECT	ROUTE_ID	BASIC_TYP	UNITTYPE	VEHICLETY	DIRECTION	PRECRASHI	AGEU1	SEXU1
			1	98 W BROADWAY AVE	040000659	10	2	2	1	26	40 F
			1	98 DOUGLAS DR	040000659	5	2	2	1	21	35 M
			1	98 DOUGLAS DR	040000659	5	2	2	1	21	82 F
			1	98 DOUGLAS DR	040000659	4	2	2	1	30	46 F

PHYSICALC	CONTRIBF	CONTRIBF	NONMOTC	NONMOTC	RDWYDESI	TRAFFICCO	SPEEDLIMI	ALIGNMEN	GRADEU1	UNITTYPEU	VEHICLETY	DIRECTION
5	90				14	20	35	12	21	2	2	1
5	99				12	20	35	13	21	2	4	1
5	10				13	20	35	11	21	2	2	1
9	90				14	20	35	11	21			

PRECRASHI	AGEU2	SEXU2	PHYSICALC	CONTRIBF/	CONTRIBF/	NONMOTC	NONMOTC	RDWYDESI	TRAFFICCO	SPEEDLIMI	ALIGNMEN	GRADEU2
26	63	F	5	1				14	20	35	11	21
21	54	M	5	99				12	20	35	13	21
21	22	F	5	1				13	20	35	11	21

UNITTYPE|VEHICLE|Y|DIRECTION|PRECRASH|AGE|U3|SEX|U3|PHYSICAL|C|CONTRIB|F|CONTRIB|F|NONMOT|C|NONMOT|C|RDWY|DES|I|TRAFFIC|C|C|O

SPEEDLIMIT ALIGNMENT GRADEU3 UNITTYPEL VEHICLEYIDIRECTION PRECRASHI AGEU4 SEXU4 PHYSICALC CONTRIBF# CONTRIBF#NONMOTC



NONMOTC RDWYDESI	TRAFFICCO SPEEDLIMI	ALIGNMEN	GRADEU4	UTMX	UTMY	LATITUDE	LONGITUDI	CRASH_DA	STATUS	STATUS_NC
				471644.3	4988539	45.04975	-93.3601	#####	Accepted	Reportable
				471637.5	4988526	45.04963	-93.3602	#####	Accepted	Reportable
				471646.1	4988546	45.04981	-93.3601	#####	Accepted	Reportable
				471646.5	4988559	45.04992	-93.3601	#####	Accepted	Reportable

AGENCY\_O AGENCY\_O NARRATIVE

MN027040 Police Crystal

MN027040 Police VEH 1

MN027040 Police When I

MN027040 Police Unit 1 was traveling northbound on West Broadway, driver admitted to falling asleep while driving and woke up when she hit t

the street sign. Driver was checked out by North Memorial Ambulance but refused to be transported. No other vehicles or pedestrians were involved

I in the incident.

Douglas Drive and 53rd Street

INCIDENTID	RTESYS	COLRT	ENUMBE	MEASURE	COUNTY_S	CITY_NAM	TOWNSHIP	MNDOT_D	STATE_PAT	TRIBAL_GC	LOCALID	ACCIDENT_	CRASH_MC
708195	4	102	4.511	27	Crystal	M	25	19002229	1.91E+08	5			
732570	4	102	4.513	27	Crystal	M	25	19003376	1.92E+08	7			
938027	10	87	0.61	27	Crystal	M	25	21003083	2.12E+08	9			
724862	10	87	0.614	27	Crystal	M	25	19002760	1.92E+08	6			

CRASH_DA	CRASH_YE/CRASH_DA	CRASH_HO	DIVIDEDRD	CRASHSEVI	NUMBERKI	NUMBERO	MANNERO	FIRSTHARM	RELATIONT	LIGHTCONI	WEATHERP
6	2019 Mon	22 W		3	0	1		8	4	4	1
10	2019 Wed	14 S		4	0	3	5	10	4	1	1
2	2021 Thu	9	98	4	0	2	5	10	4	1	1
6	2019 Thu	11 E		3	0	1	5	10	4	1	1

WEATHERS	RDWYSURF	WORKZON	ROADWAY	INTERSECT	ROUTE_ID	BASIC_TYP	UNITTYPE	VEHICLETY	DIRECTION	PRECRASHI	AGEU1	SEXU1
1	98	DOUGLAS DR			040000659	1	2	3	4	24	53	M
1	98	DOUGLAS DR			040000659	10	2	2	3	21	63	M
1	98	53RD AVE	I 53 AV & DC		100002393	10	2	2	3	21	80	F
1	98	53RD AVE N			100002393	2	2	4	3	23	60	M

PHYSICALC	CONTRIBF	CONTRIBF	NONMOTC	NONMOTC	RDWYDESI	TRAFFICCO	SPEEDLIMI	ALIGNMEN	GRADEU1	UNITTYPEU	VEHICLETY	DIRECTION
5	99				12	9	30	11	21	5		
5	2				12	23	30	11	21	2	4	2
5	2				12	23	35	11	21	2	2	1
5	1				12	23	35	11	21	6		



PRECRASHI	AGEU2	SEXU2	PHYSICALC	CONTRIBF#	CONTRIBF#	NONMOTC	NONMOTC	RDWYDESI	TRAFFICCO	SPEEDLIMI	ALIGNMEN	GRADEU2
		48 M	8	99		30	2					
21		45 F	5	1				12	9	35	11	21
21		39 F	5	1				12	9	30	11	21
		8 M	5	2		34	2					

UNITTYPE	VEHICLE	DIRECTION	PRECRASH	AGEU3	SEXU3	PHYSICAL	CONTRIBF	CONTRIBF	NONMOTC	NONMOTC	RDWYDES	TRAFFICCO
2	4	1	34	65	M	5	1				12	9

SPEEDLIMIT ALIGNMENT GRADEU3 UNITTYPEL VEHICLEYI DIRECTION PRECRASHI AGEU4 SEXU4 PHYSICALC CONTRIBF CONTRIBF NONMOTC

35

11

21

NONMOTC RDWYDESI	TRAFFICCO SPEEDLIMI	ALIGNMEN	GRADEU4	UTMX	UTMY	LATITUDE	LONGITUDI	CRASH_DA	STATUS	STATUS_NC
				471633.5	4988516	45.04954	-93.3602	#####	Accepted	Reportable
				471634.3	4988518	45.04956	-93.3602	#####	Accepted	Reportable
				471619.4	4988501	45.0494	-93.3604	#####	Accepted	Reportable
				471625	4988501	45.0494	-93.3603	#####	Accepted	Reportable

AGENCY\_O AGENCY\_O NARRATIVE

MN027040 Police See Incident Report under case number 19002229

MN027040 Police The driver

MN027040 Police Unit #2

MN027040 Police #2 was north on Douglas on the west sidewalk. As the bike came up to the intersection of Douglas / 53rd Ave N, a vehicle was

turning onto Douglas from 53rd Ave N. The driver of #1 stated he stopped at the stop sign, began to proceed forward and did not see the kids on the |

bike. As the vehicle was entering onto Douglas, the bmx bike was unable to stop due to it not having brakes. The bmx bike and the vehicle collided, nc

not causing any damage to the vehicle and minor injuries to the child. Child's parent refused transport.



## HISPANIC OR LATINO, AND NOT HISPANIC OR LATINO BY RACE



**Note:** The table shown may have been modified by user selections. Some information may be missing.

### DATA NOTES

TABLE ID:	P2
SURVEY/PROGRAM:	Decennial Census
VINTAGE:	2020
DATASET:	DECENNIALPL2020
PRODUCT:	DEC Redistricting Data (PL 94-171)
UNIVERSE:	Total population
FTP URL:	<a href="https://www2.census.gov/programs-surveys/decennial/2020/data/">https://www2.census.gov/programs-surveys/decennial/2020/data/</a>
API URL:	<a href="https://api.census.gov/data/2020/dec/pl">https://api.census.gov/data/2020/dec/pl</a>

### USER SELECTIONS

GEOS	Census Tract 207, Hennepin County, Minnesota; Census Tract 208.01, Hennepin County, Minnesota; Census Tract 208.04, Hennepin County, Minnesota; Census Tract 209.03, Hennepin County, Minnesota
TOPICS	Race and Ethnicity

### EXCLUDED COLUMNS

None

### APPLIED FILTERS

None

### APPLIED SORTS

None

### PIVOT & GROUPING

None

Table: DECENNIALPL2020.P2

<b>WEB ADDRESS</b>	<a href="https://data.census.gov/cedsci/table?t=Race%20and%20Ethnicity&amp;g=1400000US27053020700,27053020801,27053020804,27053020903">https://data.census.gov/cedsci/table?t=Race%20and%20Ethnicity&amp;g=1400000US27053020700,27053020801,27053020804,27053020903</a>
<b>TABLE NOTES</b>	Note: For information on data collection, confidentiality protection, nonsampling error, and definitions, see 2020 Census Redistricting Data (Public Law 94-171) Summary File Technical Documentation.
	For information on the statistical methods used to protect confidentiality in these tables, see Disclosure Avoidance and the 2020 Census.
	Source: U.S. Census Bureau, 2020 Census Redistricting Data (Public Law 94-171)
<b>COLUMN NOTES</b>	None

Table: DECENNIALPL2020.P2

Label	Census Tract 207	Percent	Census Tract 208.01	Percent	Census Tract 208.04	percent	Census Tract 209.03	percent	4 tracts	percent	Minnesota	percent	Hennepin	percent
Total:	4,342	100%	2,167	100%	3,037	100%	3,263	100%	12,809	100%	5,706,494	100%	1,281,565	100%
Hispanic or Latino	375	9%	233	11%	446	15%	283	9%	1,337	10%	345,640	6%	98,250	8%
Not Hispanic or Latino:	3,967	91%	1,934	89%	2,591	85%	2,980	91%	11,472	90%	5,360,854	94%	1,183,315	92%
Population of one race:	3,722	86%	1,786	82%	2,445	81%	2,770	85%	10,723	84%	5,124,820	90%	1,122,327	88%
White alone	2,671	62%	1,385	64%	1,833	60%	2,354	72%	8,243	64%	4,353,880	76%	840,845	66%
Black or African American alone	716	16%	257	12%	499	16%	276	8%	1,748	14%	392,850	7%	169,603	13%
American Indian and Alaska Native alone	18	0%	5	0%	14	0%	17	1%	54	0%	57,046	1%	8,016	1%
Asian alone	286	7%	115	5%	84	3%	111	3%	596	5%	297,460	5%	97,348	8%
Native Hawaiian and Other Pacific Islander alone	2	0%	0	0%	0	0%	0	0%	2	0%	2,621	0%	388	0%
Some Other Race alone	29	1%	24	1%	15	0%	12	0%	80	1%	20,963	0%	6,127	0%
Population of two or more races:	245	6%	148	7%	146	5%	210	6%	749	6%	236,034	4%	60,988	5%
Population of two races:	233	5%	142	7%	138	5%	196	6%	709	6%			56,582	4%
White; Black or African American	93		58		47		72							
White; American Indian and Alaska Native	52		38		40		36							
White; Asian	39		23		23		41							
White; Native Hawaiian and Other Pacific Islander	3		0		0		0							
White; Some Other Race	35		15		21		26							
Black or African American; American Indian and Alaska Native	8		1		2		5							
Black or African American; Asian	2		2		2		10							
Black or African American; Native Hawaiian and Other Pacific Islander	1		0		0		0							
Black or African American; Some Other Race	0		5		3		0							
American Indian and Alaska Native; Asian	0		0		0		0							
American Indian and Alaska Native; Native Hawaiian and Other Pacific Islander	0		0		0		2							
American Indian and Alaska Native; Some Other Race	0		0		0		0							
Asian; Native Hawaiian and Other Pacific Islander	0		0		0		3							
Asian; Some Other Race	0		0		0		1							
Native Hawaiian and Other Pacific Islander; Some Other Race	0		0		0		0							
Population of three races:	10		6		7		14							
White; Black or African American; American Indian and Alaska Native	2		2		3		4							
White; Black or African American; Asian	7		1		2		9							
White; Black or African American; Native Hawaiian and Other Pacific Islander	0		0		1		0							

Table: DECENNIALPL2020.P2

Label	Census Tract 207	Percent	Census Tract 208.01	Percent	Census Tract 208.04	percent	Census Tract 209.03	percent	4 tracts	percent	Minnesota	percent	Hennepin	percent
White; Black or African American; Some Other Race	0		2		1		0							
White; American Indian and Alaska Native; Asian	1		1		0		0							
White; American Indian and Alaska Native; Native Hawaiian and Other Pacific Islander	0		0		0		0							
White; American Indian and Alaska Native; Some Other Race	0		0		0		1							
White; Asian; Native Hawaiian and Other Pacific Islander	0		0		0		0							
White; Asian; Some Other Race	0		0		0		0							
White; Native Hawaiian and Other Pacific Islander; Some Other Race	0		0		0		0							
Black or African American; American Indian and Alaska Native; Asian	0		0		0		0							
Black or African American; American Indian and Alaska Native; Native Hawaiian and Other Pacific Islander	0		0		0		0							
Black or African American; American Indian and Alaska Native; Some Other Race	0		0		0		0							
Black or African American; Asian; Native Hawaiian and Other Pacific Islander	0		0		0		0							
Black or African American; Asian; Some Other Race	0		0		0		0							
Black or African American; Native Hawaiian and Other Pacific Islander; Some Other Race	0		0		0		0							
American Indian and Alaska Native; Asian; Native Hawaiian and Other Pacific Islander	0		0		0		0							
American Indian and Alaska Native; Asian; Some Other Race	0		0		0		0							
American Indian and Alaska Native; Native Hawaiian and Other Pacific Islander; Some Other Race	0		0		0		0							
Asian; Native Hawaiian and Other Pacific Islander; Some Other Race	0		0		0		0							
Population of four races:	2		0		1		0							
White; Black or African American; American Indian and Alaska Native; Asian	2		0		1		0							
White; Black or African American; American Indian and Alaska Native; Native Hawaiian and Other Pacific Islander	0		0		0		0							

Table: DECENNIALPL2020.P2

Label	Census Tract 207	Percent	Census Tract 208.01	Percent	Census Tract 208.04	percent	Census Tract 209.03	percent	4 tracts	percent	Minnesota	percent	Hennepin	percent
White; Black or African American; American Indian and Alaska Native; Some Other Race	0		0		0		0							
White; Black or African American; Asian; Native Hawaiian and Other Pacific Islander	0		0		0		0							
White; Black or African American; Asian; Some Other Race	0		0		0		0							
White; Black or African American; Native Hawaiian and Other Pacific Islander; Some Other Race	0		0		0		0							
White; American Indian and Alaska Native; Asian; Native Hawaiian and Other Pacific Islander	0		0		0		0							
White; American Indian and Alaska Native; Asian; Some Other Race	0		0		0		0							
White; American Indian and Alaska Native; Native Hawaiian and Other Pacific Islander; Some Other Race	0		0		0		0							
White; Asian; Native Hawaiian and Other Pacific Islander; Some Other Race	0		0		0		0							
Black or African American; American Indian and Alaska Native; Asian; Native Hawaiian and Other Pacific Islander	0		0		0		0							
Black or African American; American Indian and Alaska Native; Asian; Some Other Race	0		0		0		0							
Black or African American; American Indian and Alaska Native; Native Hawaiian and Other Pacific Islander; Some Other Race	0		0		0		0							
Black or African American; Asian; Native Hawaiian and Other Pacific Islander; Some Other Race	0		0		0		0							
American Indian and Alaska Native; Asian; Native Hawaiian and Other Pacific Islander; Some Other Race	0		0		0		0							
Population of five races:	0		0		0		0							
White; Black or African American; American Indian and Alaska Native; Asian; Native Hawaiian and Other Pacific Islander	0		0		0		0							
White; Black or African American; American Indian and Alaska Native; Asian; Some Other Race	0		0		0		0							

Table: DECENNIALPL2020.P2

Label	Census Tract 207	Percent	Census Tract 208.01	Percent	Census Tract 208.04	percent	Census Tract 209.03	percent	4 tracts	percent	Minnesota	percent	Hennepin	percent
White; Black or African American; American Indian and Alaska Native; Native Hawaiian and Other Pacific Islander; Some Other Race	0		0		0		0							
White; Black or African American; Asian; Native Hawaiian and Other Pacific Islander; Some Other Race	0		0		0		0							
White; American Indian and Alaska Native; Asian; Native Hawaiian and Other Pacific Islander; Some Other Race	0		0		0		0							
Black or African American; American Indian and Alaska Native; Asian; Native Hawaiian and Other Pacific Islander; Some Other Race	0		0		0		0							
Population of six races:	0		0		0		0							
White; Black or African American; American Indian and Alaska Native; Asian; Native Hawaiian and Other Pacific Islander; Some Other Race	0		0		0		0							

**Regional Solicitation - Crystal**

1

Broadway Ave and Douglas Dr		
Existing Volume	1390	vehicles
Existing Delay	11	sec/veh
Existing Total Delay	15290	seconds
Future Volume	1452	vehicles
Future Delay	9.1	sec/veh
Future Total Delay	13213.2	seconds
Total Delay Reduction	2076.8	seconds

2

Broadway Ave and Hanson Ct		
Existing Volume	810	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	732	vehicles
Existing Delay	2	sec/veh
Existing Total Delay	1464	seconds
Future Volume	0	vehicles
Future Delay	0	sec/veh
Future Total Delay	0	seconds
Total Delay Reduction	1464	seconds

<b>Total Network Delay Reduction</b>	<b>3540.8</b>	<b>seconds</b>
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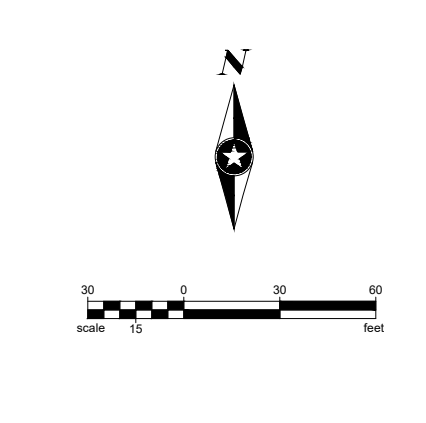
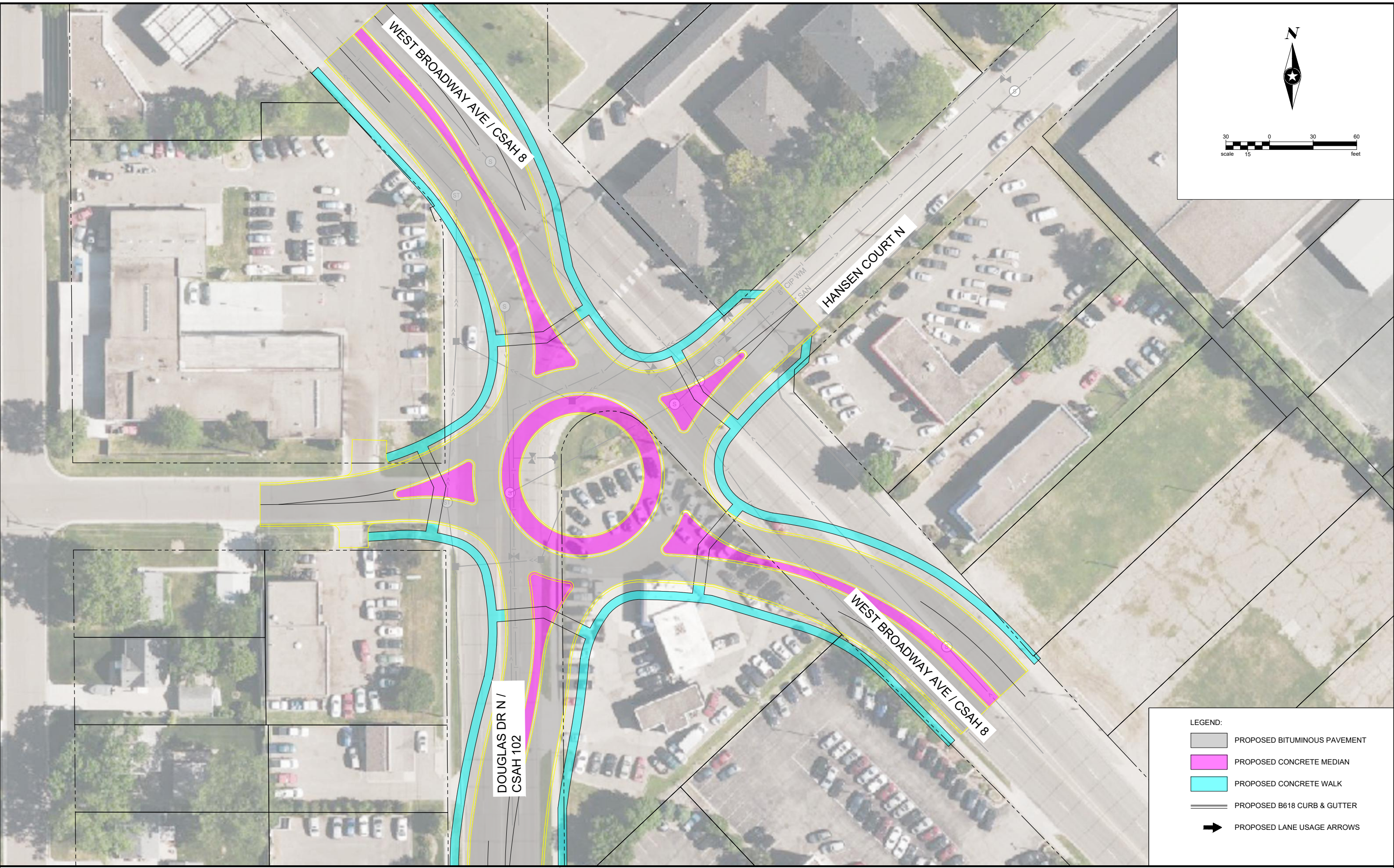
Emissions

Existing	1	2	3	4	5	Total
CO	0.68	0.12	0.18			0.98
NO	0.13	0.02	0.03			0.18
VOC	0.16	0.03	0.04			0.23
				Network Total		1.39






Build	1	2	3	4	5	Total
CO	0.88					0.88
NO	0.17					0.17
VOC	0.2					0.2
						Network Total
						1.25

<b>Reduction</b>	<b>0.14</b>
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X:\AEC\CRYSTL\163453\5-final-dsgn\51-drawings\10-civil\cad\dwg\sheet\CR163453\_PP1 - 5 leg RAB.dwg



**LEGEND:**

-  PROPOSED BITUMINOUS PAVEMENT
-  PROPOSED CONCRETE MEDIAN
-  PROPOSED CONCRETE WALK
-  PROPOSED B618 CURB & GUTTER
-  PROPOSED LANE USAGE ARROWS

SEH Project	CR163453	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
Drawn By							
Designed By							
Checked By							

**SEH** **PRELIMINARY**

DATE \_\_\_\_\_ LICENSE NO. \_\_\_\_\_

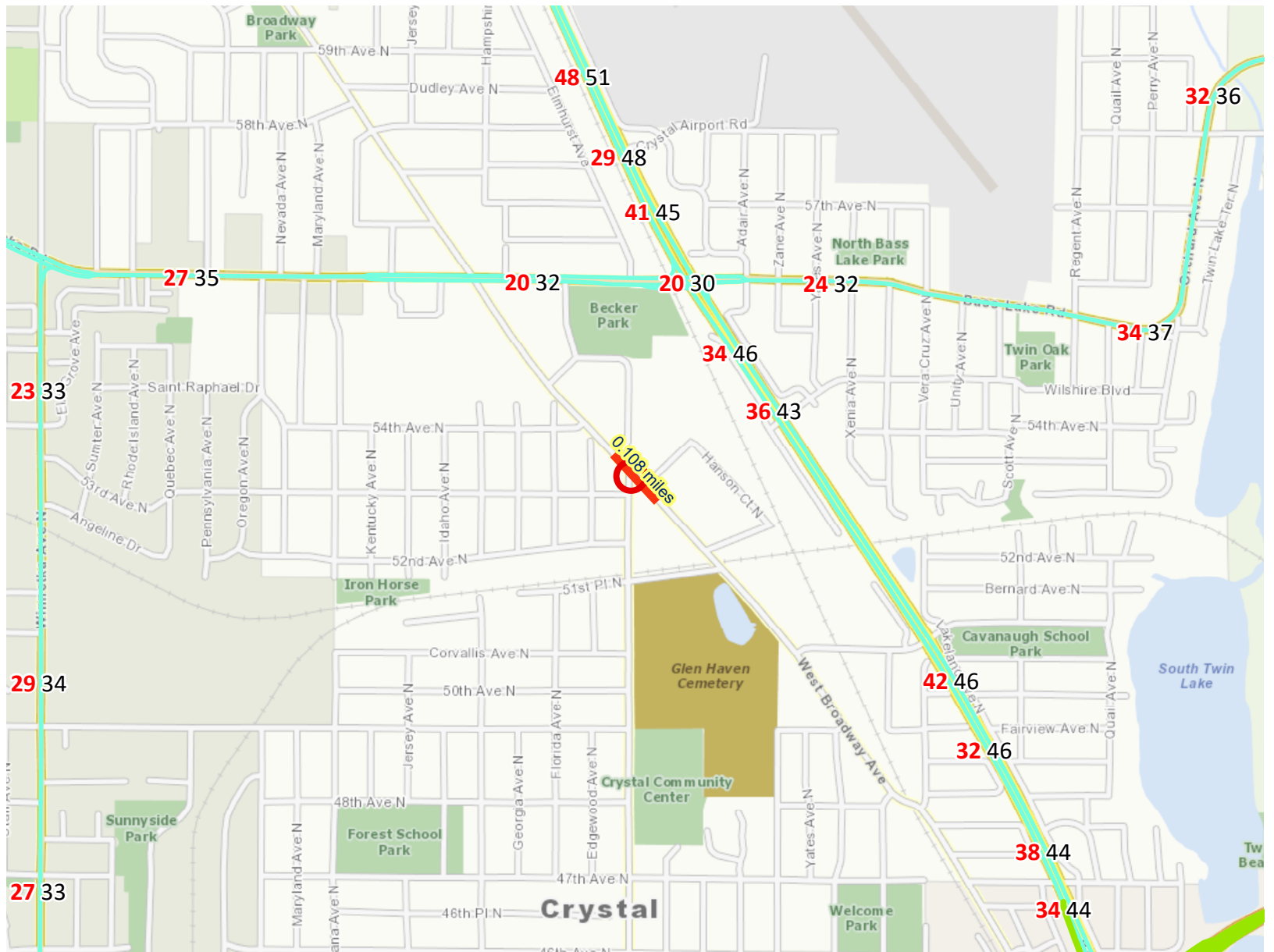
CRYSTAL, MN

**DOUGLAS DR / WEST BROADWAY AVE  
5-LEG ROUNDABOUT CONCEPT**

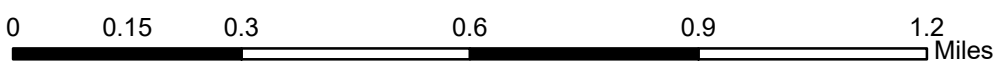


# Level of Congestion

Roadway Reconstruction/Modernization Project: W Broadway and Douglas Roadway Reconstruction | Map ID: 1649170110121



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



Created: 4/5/2022  
LandscapeRSA1



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





# Regional Economy

## Results

**WITHIN ONE MI** of project:  
Postsecondary Students: 0

Totals by City:

### Crystal

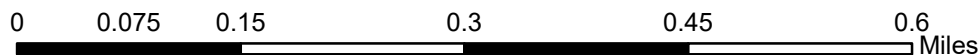
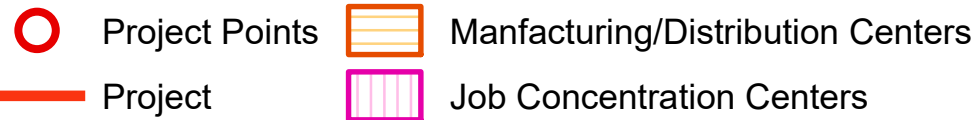
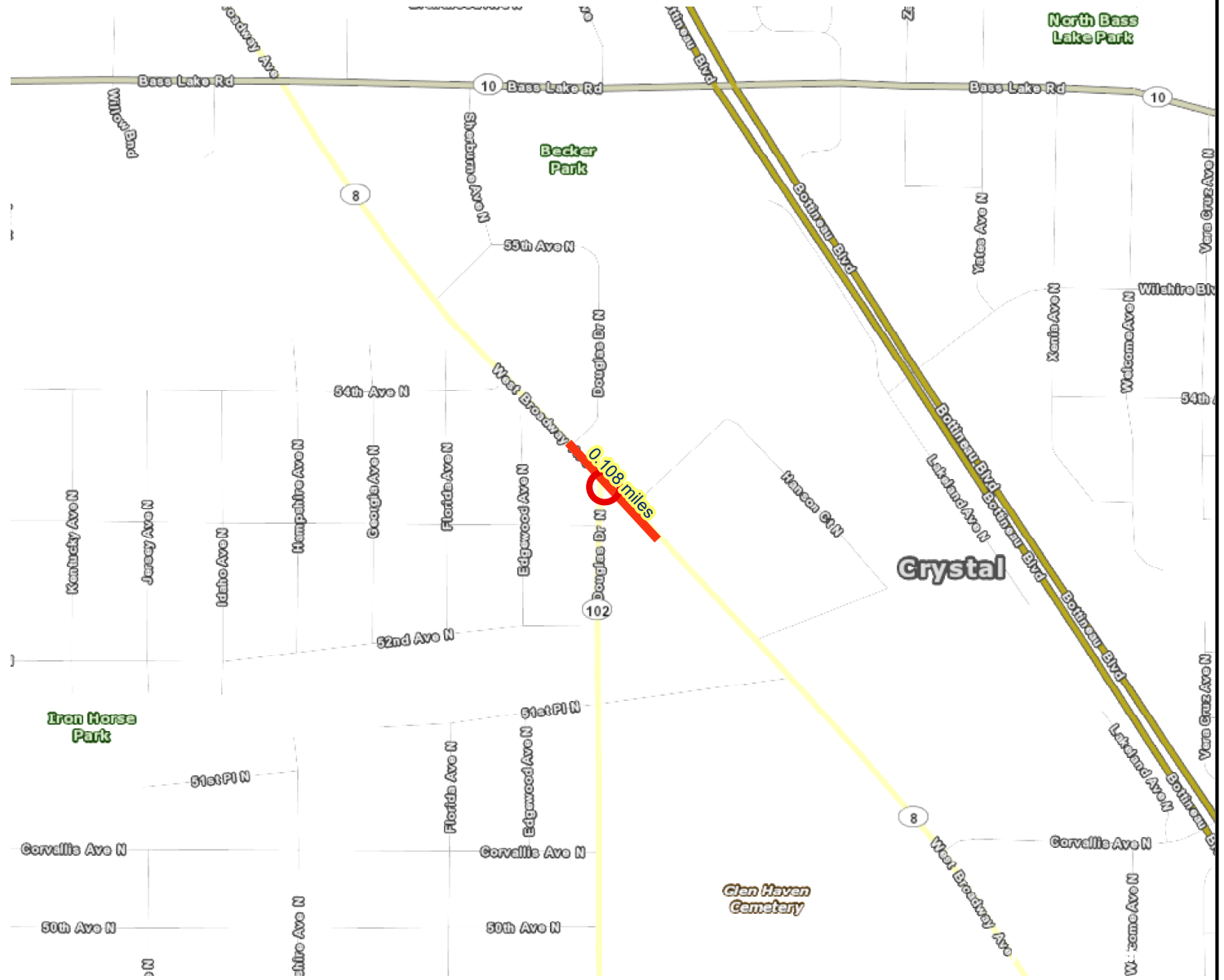
Population: 12713  
Employment: 3155  
Mfg and Dist Employment: 477

### New Hope

Population: 7919  
Employment: 3325  
Mfg and Dist Employment: 722

### Robbinsdale

Population: 626  
Employment: 2  
Mfg and Dist Employment: 0



**CITY OF CRYSTAL  
MINNESOTA**

**RESOLUTION NO. 2022 - 22**

**APPROVAL OF 2022 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 2022 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 City Council hereby approves the 2022 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 15th day of March, 2022.

  
\_\_\_\_\_  
Jim Adams, Mayor

ATTEST:

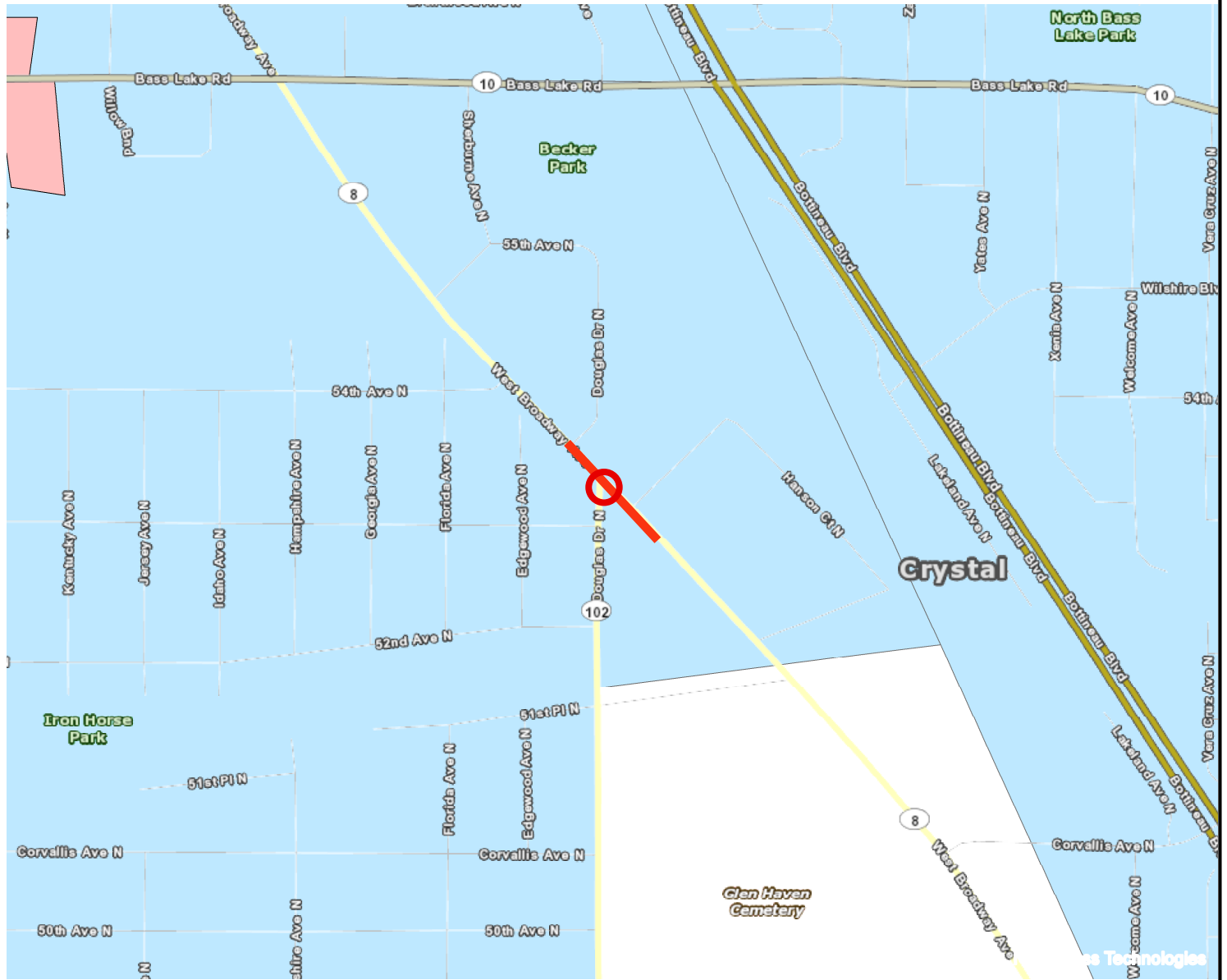
  
\_\_\_\_\_  
Christina Serres, City Clerk





# Socio-Economic Conditions

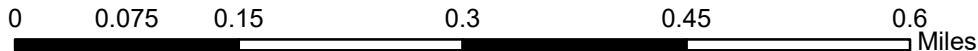
## Results

Total of publicly subsidized rental housing units in census tracts within 1/2 mile: 474

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

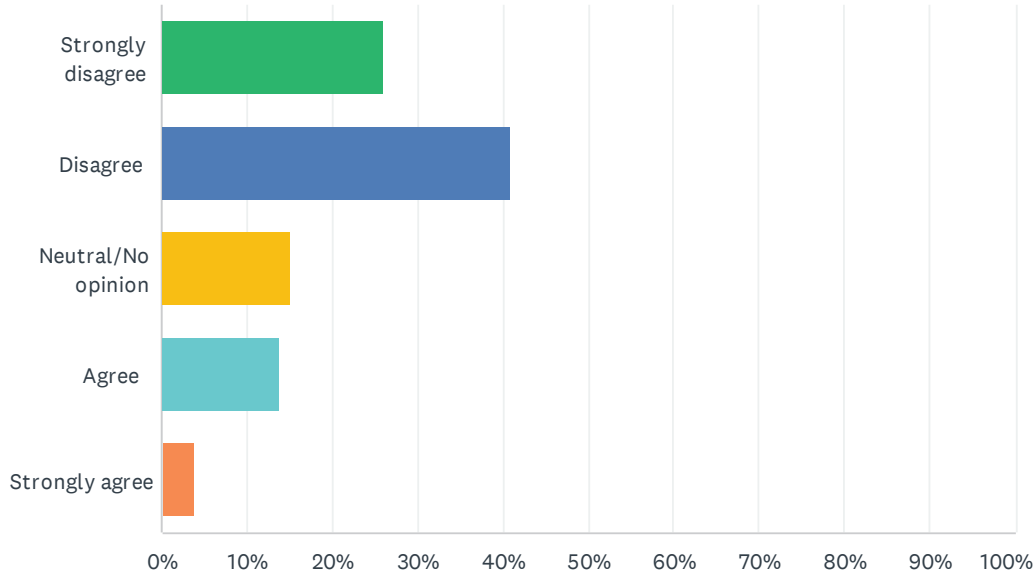


-  Points
-  Lines
-  Area of Concentrated Poverty
-  Regional Environmental Justice Area



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

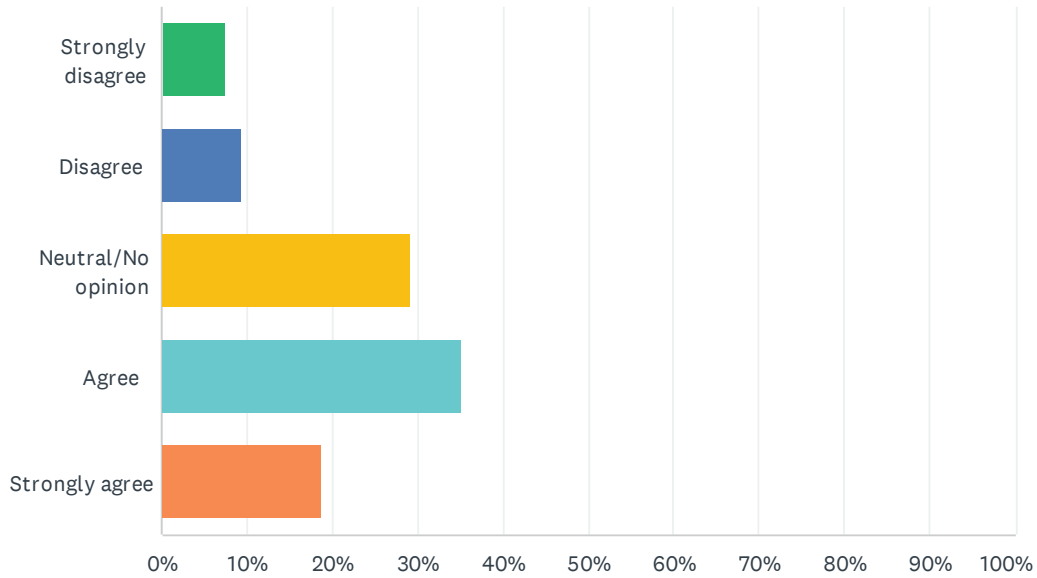
Answered: 559 Skipped: 0



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
<b>TOTAL</b>	<b>559</b>

## Q2 The intersection is difficult for pedestrians to navigate.

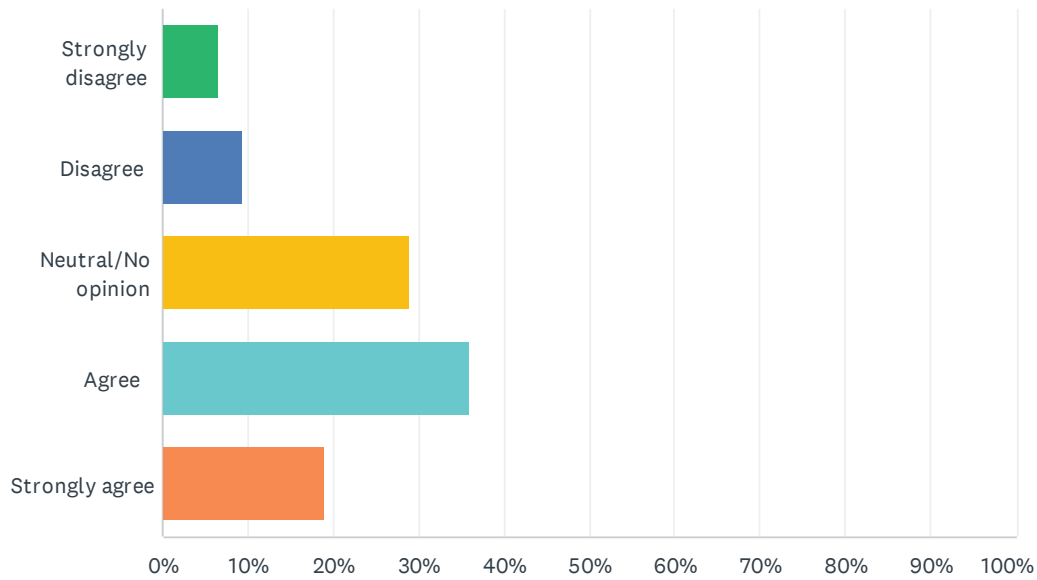
Answered: 558 Skipped: 1



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
<b>TOTAL</b>		<b>558</b>

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

Answered: 559 Skipped: 0

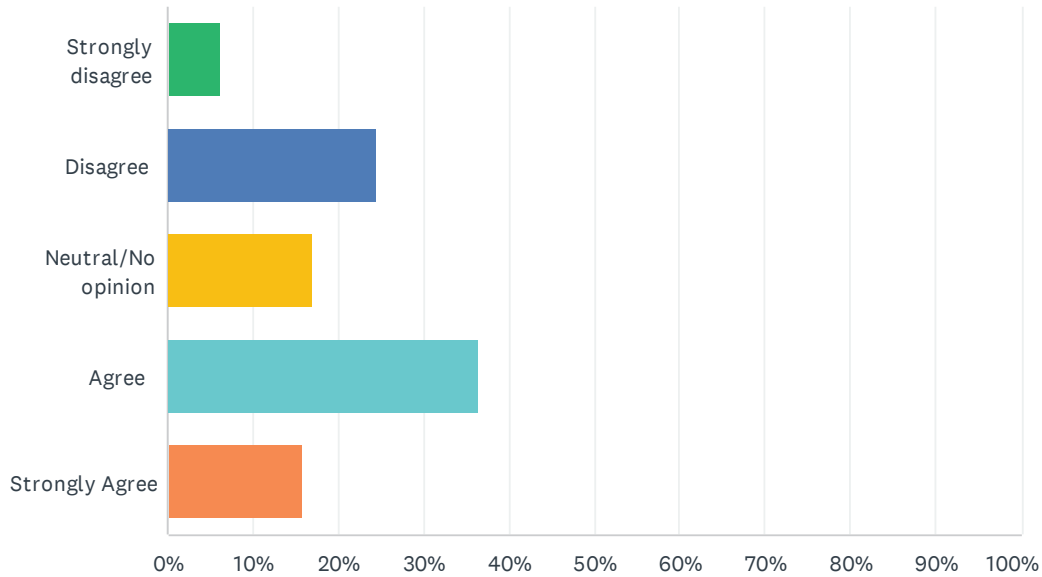


ANSWER CHOICES	RESPONSES	
Strongly disagree	6.62%	37
Disagree	9.30%	52
Neutral/No opinion	28.98%	162
Agree	36.14%	202
Strongly agree	18.96%	106
<b>TOTAL</b>		<b>559</b>



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

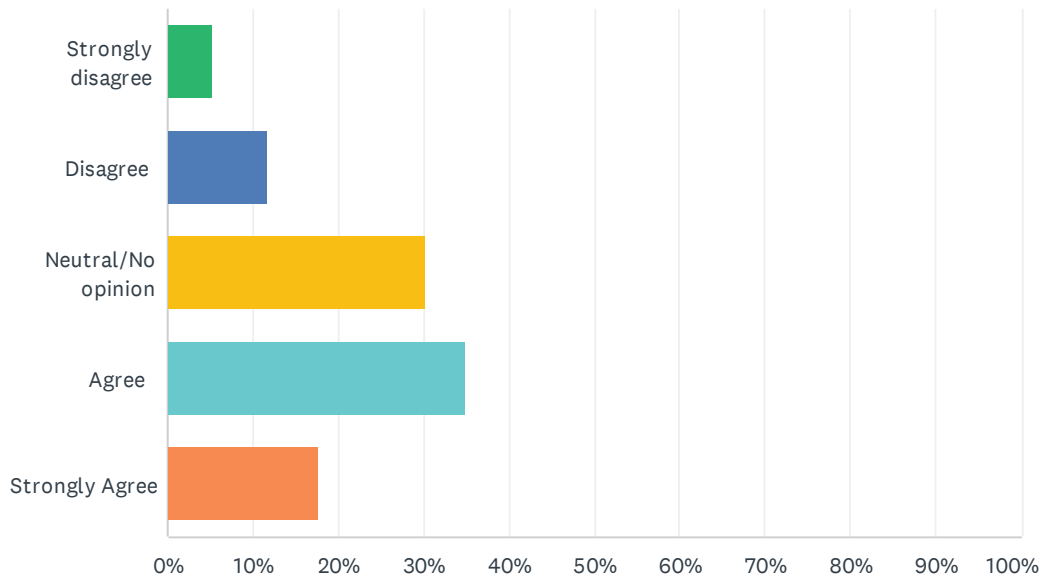
Answered: 558 Skipped: 1



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
<b>TOTAL</b>		<b>558</b>

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

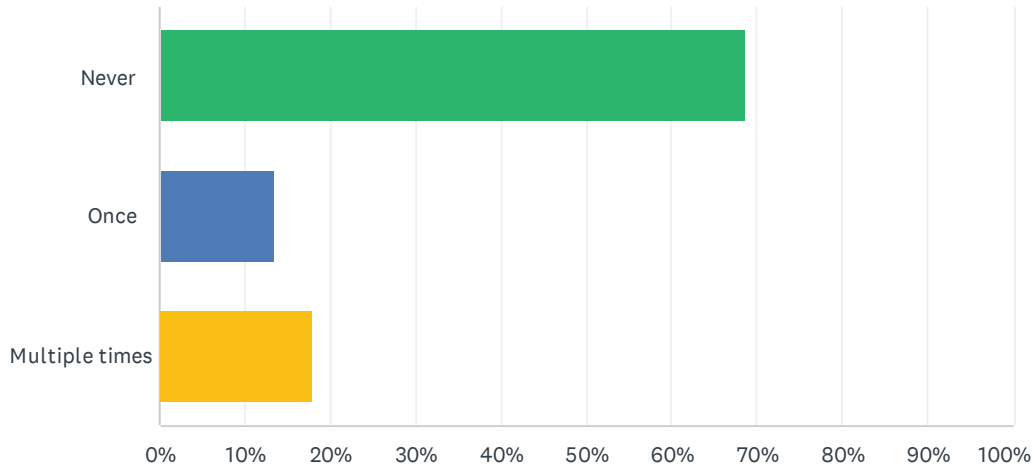
Answered: 559 Skipped: 0



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
<b>TOTAL</b>		<b>559</b>

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

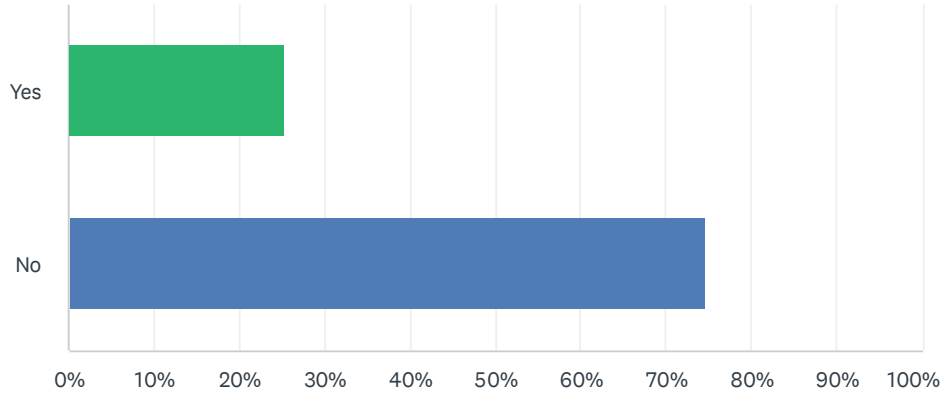
Answered: 557 Skipped: 2



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

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

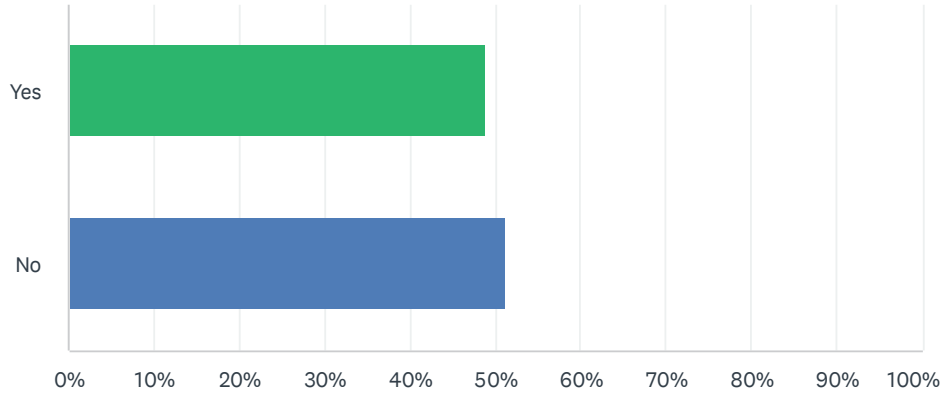
Answered: 558 Skipped: 1



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.?

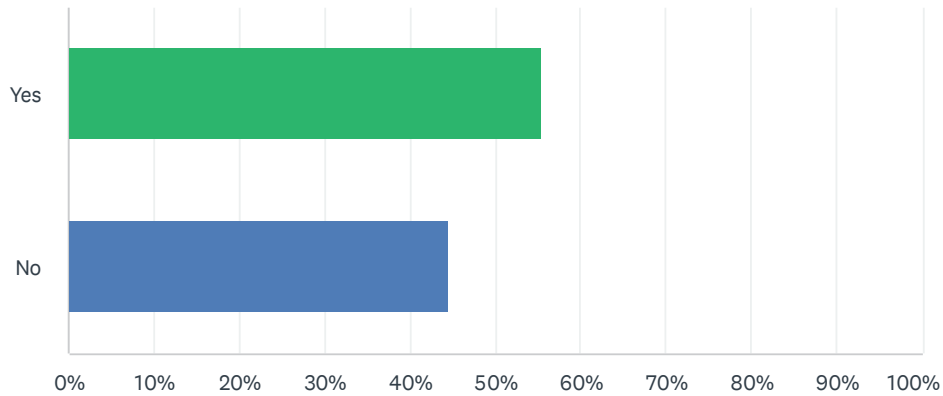
Answered: 554 Skipped: 5



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.?

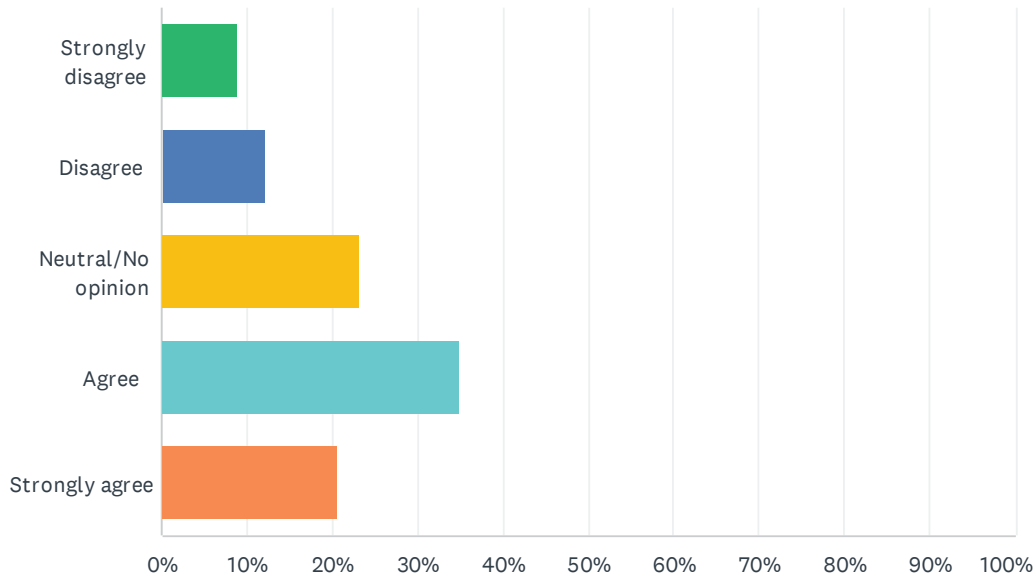
Answered: 553 Skipped: 6



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
<b>TOTAL</b>		<b>559</b>

## 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



## City of Crystal Intersection Survey

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

## City of Crystal Intersection Survey

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

## City of Crystal Intersection Survey

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

## City of Crystal Intersection Survey

	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

## City of Crystal Intersection Survey

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

## City of Crystal Intersection Survey

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

## City of Crystal Intersection Survey

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



## City of Crystal Intersection Survey

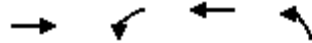
173	I think the intersection is fine as it is. Have lived in or near Crystal for years and have never has a problem with this intersection.	3/18/2022 8:58 PM
174	It would be good to make a distinction between the northern intersection of Douglas and west Broadway (north of the Hanson court and that becomes 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 void 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

## City of Crystal Intersection Survey

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

## City of Crystal Intersection Survey

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

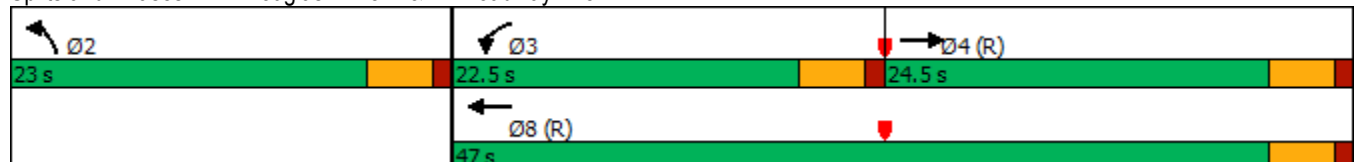


Lane Group	EBT	WBL	WBT	NBL
Lane Configurations	↑↑	↑	↑↑	↑↑
Traffic Volume (vph)	338	34	371	311
Future Volume (vph)	338	34	371	311
Turn Type	NA	Prot	NA	Prot
Protected Phases	4	3	8	2
Permitted Phases				
Detector Phase	4	3	8	2
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	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	0.35	0.21	0.19	0.43
Control Delay	6.5	31.1	6.4	21.6
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	6.5	31.1	6.4	21.6
LOS	A	C	A	C
Approach Delay	6.5		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: 0.43  
 Intersection Signal Delay: 11.0  
 Intersection Capacity Utilization 44.4%  
 Analysis Period (min) 15  
 Intersection LOS: B  
 ICU Level of Service A

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



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1: Douglas Drive N & W Broadway Ave

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Direction	All
Future Volume (vph)	1390
Total Delay / Veh (s/v)	11
CO Emissions (kg)	0.68
NOx Emissions (kg)	0.13
VOC Emissions (kg)	0.16

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3: W Broadway Ave & Hanson Ct N

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Direction	All
Future Volume (vph)	810
Total Delay / Veh (s/v)	0
CO Emissions (kg)	0.12
NOx Emissions (kg)	0.02
VOC Emissions (kg)	0.03

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7: Douglas Drive N & 53rd Street

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Direction	All
Future Volume (vph)	732
Total Delay / Veh (s/v)	2
CO Emissions (kg)	0.18
NOx Emissions (kg)	0.03
VOC Emissions (kg)	0.04

Intersection				
Intersection Delay, s/veh	9.1			
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	434	378	673
Demand Flow Rate, veh/h	76	443	386	687
Vehicles Circulating, veh/h	693	381	429	74
Vehicles Exiting, veh/h	68	434	340	754
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	9.4	8.8
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	443	386	687
Cap Entry Lane, veh/h	681	936	891	1280
Entry HV Adj Factor	0.986	0.980	0.980	0.980
Flow Entry, veh/h	75	434	378	673
Cap Entry, veh/h	671	916	873	1254
V/C Ratio	0.112	0.474	0.433	0.537
Control Delay, s/veh	6.6	9.8	9.4	8.8
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	810
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	604
Entry HV Adj Factor	1.000
Flow Entry, veh/h	18
Cap Entry, veh/h	604
V/C Ratio	0.030
Control Delay, s/veh	6.3
LOS	A
95th %tile Queue, veh	0

1: Douglas/Broadway

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Direction	All
Future Volume (vph)	1452
Total Delay / Veh (s/v)	0
CO Emissions (kg)	0.88
NOx Emissions (kg)	0.17
VOC Emissions (kg)	0.20



# Transit Connections

## Results

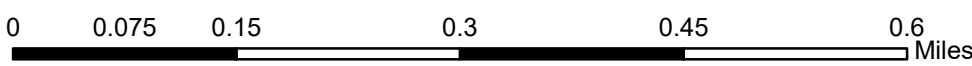
Transit with a Direct Connection to project:  
716

*\*indicates Planned Alignments*

Transit Market areas: 3



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



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