

Future Bridge Traffic Impact Study

GRAND FORKS-EAST GRAND FORKS
METROPOLITAN PLANNING ORGANIZATION



FINAL DOCUMENT

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Notice

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Executive Summary

The Grand Forks-East Grand Forks Metropolitan Planning Organization (MPO) cooperated with local, state, and federal partners, to conduct this traffic impact study of a future bridge between Grand Forks, ND and East Grand Forks, MN across the Red River.

Safe and convenient access across the Red River is a priority for the Grand Forks-East Grand Forks region. In 2020, the two cities prepared the Grand Forks – East Grand Forks Hydraulic Analysis of South End Red River Bridge study to review river crossing alignments. This and the 2018 Metropolitan Transportation Plan (MTP) provide a starting point for the Traffic Impact Study. The purpose of this study is to develop and evaluate alternatives for a new bridge that will provide improved mobility and safety and support economic development in the region, within the feasible corridor locations documented in the prior hydraulics study.

PROJECT PURPOSE

Prior studies and plans dating back to the 1960's have identified the need for a new local river crossing between the two cities to reduce congestion at the existing crossings and the surrounding roadway network. These include the 2018 Metropolitan Transportation Plan and the 2020 Hydraulic Analysis of South End Red River Bridge study. The conclusions of these studies support further analysis of a new river crossing in the corridors: Elks Drive and 32nd Avenue S. The current study will develop and evaluate river crossing alternatives in these corridors and related improvements on the local street system as needed. The following purpose statement has been prepared for the project.

The purpose of the Grand Forks-East Grand Forks Future Bridge Project is to improve mobility and connectivity between Grand Forks and East Grand Forks by reducing congestion on the Point Bridge and connecting roadways while providing a more direct connection for trips between the two cities.

PROJECT NEEDS

The project needs discussion identified transportation deficiencies that currently exist or are reasonably expected to occur within the project area. The needs section discusses the transportation problems which led to the initiation of the project (primary needs). In addressing these needs, the agencies involved also look for other transportation problems or opportunities for system improvements within the area that may be addressed concurrently (secondary needs). The study needs are as follows:

- Primary Needs
 - Mobility/Congestion
 - Multimodal System Linkage
- Secondary Needs
 - Crashes
 - Social and Economic Factors

STAKEHOLDER AND PUBLIC INVOLVEMENT

A key part to the completion of the study was the stakeholder and public involvement process, which included partner agencies through the MPO TAC; an Ad Hoc Committee of community representatives and elected officials; public meetings; and an interactive project website. Alliant facilitated input opportunities and other applicable forms of engagement with many different stakeholders to understand stakeholder needs, concerns, and input on the alternatives. Stakeholders were involved throughout the process, at different involvement frequencies depending on the stakeholder role in decision-making, as shown in **Figure ES-1**.

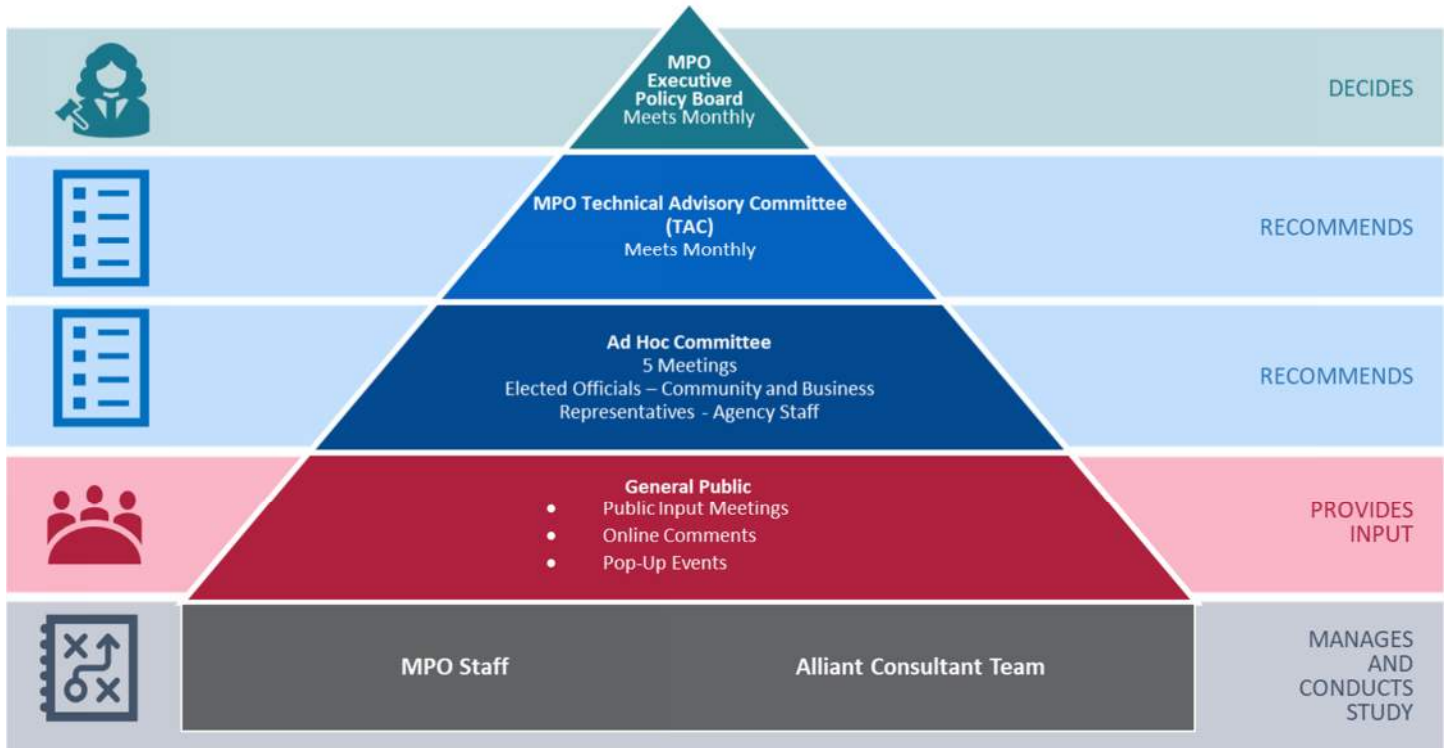


Figure ES-1. Proposed Decision-Making Structure

The Ad Hoc Committee was created specifically for the Future Bridge Traffic Impact Study to provide a balanced representation of stakeholder interests, affected communities, and geographic areas and serve as communication link between those interests and communities and the project team. Committee members were appointed by the MPO Executive Policy Board. The Ad Hoc meetings were livestreamed for the public to view and recordings were archived for viewing at any time.

Two public open houses were held during the study. Each open house had an ongoing online component where participants could view information and submit comments at any time over a multi-week period, as well as a live event. The live event for the first meeting was online and the second live event was held both online and in person.

ALTERNATIVES ANALYSIS

Based on prior studies (the 2018 Metropolitan Transportation Plan and the 2020 Hydraulic Analysis of South End Red River Bridge study), the alternatives to be analyzed in this study were as follows:

- No Build (no new bridge)
- Elks Drive Bridge Corridor
- 32nd Avenue Bridge Corridor

Each of the alternatives would include mitigation needed based on the intersection traffic operations and traffic control warrants analysis. In both the Elks Drive and 32nd Avenue bridge options, precise corridor alignments or landing locations were not identified in this study. However, for either location, a new bridge would be expected to have the following characteristics:

- 2 travel lanes for vehicles
- Signed for no trucks
- Bicycle/pedestrian trail on bridge
- Greenway trail routed under bridge (similar to other bridges)
- High point about 3 feet above street level in Grand Forks
- Flood wall closure system would be maintained (assumed to be a street opening similar to Elks Drive today)

Figure ES-2 shows a visualization of what the bridge could look like. The photo was taken at Elks Drive, but the look would be similar at Elks Drive or at 32nd Avenue.



Figure ES-2. Potential Future Bridge Visualization

The alternatives were evaluated based on whether they were compatible with the project purpose and how well they meet the project needs. The need categories evaluated were Mobility and Congestion, Multimodal System Linkage, and Community and Economic Factors. Although Safety is an identified need, it was not evaluated specifically due to the amount of analysis needed to forecast results; however, it is assumed that all three options (including No Build) would include safety improvements, especially around schools. Environmental impacts and benefit/cost were also evaluated.

Table ES-1 shows the higher order criteria where the two alternatives had different scores. The criteria that are not shown had the same score for both Elks Drive and 32nd Avenue options.

Table ES-1. Evaluation Summary Key Differentiators

Evaluation Criteria		Alternatives Rating				
		No New Bridge	Elks Drive	32 nd Avenue		
Purpose and Need	Multimodal System Linkage					
	Total miles of travel on the system (distance)	N	+	++		
	Total hours of travel on the system (time)	N	+	++		
	Total miles of travel on study corridors (distance)	N	+	++		
	Total hours of travel on study corridors (time)	N	+	++		
	Ped/bike connectivity	-	+	++		
	Community and Economic Factors					
	Total miles of travel on study corridors (distance)	N	+	++		
	Traffic change on study corridors adjacent to schools	N	+	N		
	Consistency with approved transportation plans	-	N	+		
Env. Impacts	Environmental Impacts					
	Potential impact on flood protection system	N	N	-		
	Soil stability	N	-	N		
Cost	Benefit/Cost					
	Bridge Cost (\$millions)	N/A	\$30.0	\$36.4		
	Intersection Mitigation Cost (\$ millions)	\$17.2 - \$25.8	\$2.4 - \$3.6	\$3.1 - \$4.7		
	Total Planning Level Cost Estimate (\$ millions)	\$17.2 - \$25.8	\$32.4 - \$33.6	\$39.5 - \$41.4		
	Transportation Benefits (\$ millions)	N/A	\$30.3	\$48.5		
	Benefit-Cost Ratio	N/A	<1	>1		
Rating		++	+	N	-	--

The following lists key takeaways from the study:

- Both new bridge options address the identified needs
- Both new bridge options provide a more equitable distribution of traffic
- The 32nd Avenue bridge option has a greater cumulative benefit for hours and miles traveled and a positive benefit-cost ratio
- School safety is a concern today that can be addressed independent of decisions or next steps on a river crossing alternative. Improvements made in the near term would be expected to remain useful with any alternative.
- This study is not recommending one option over the other

1. Introduction

The Grand Forks-East Grand Forks Metropolitan Planning Organization (MPO) cooperated with local, state, and federal partners, to conduct this traffic impact study of a future bridge between Grand Forks, ND and East Grand Forks, MN across the Red River.

Safe and convenient access across the Red River is a priority for the Grand Forks-East Grand Forks region. In 2020, the two cities prepared the Grand Forks – East Grand Forks Hydraulic Analysis of South End Red River Bridge study to review river crossing alignments. This and the 2018 Metropolitan Transportation Plan (MTP) provide a starting point for the Traffic Impact Study. The purpose of this study is to develop and evaluate alternatives for a new bridge that will provide improved mobility and safety and support economic development in the region.

1.1 STUDY AREA

The traffic study area is defined by study corridors and intersections, based on the anticipated traffic influence area in Grand Forks and East Grand Forks. The study areas for other resources may be smaller, depending on the extent of potential impacts. The City of Grand Forks is in Grand Forks County, North Dakota. The City of East Grand Forks is in Polk County, Minnesota. The Red River runs between the two cities. The study corridors and intersections are listed in **Table 1-1**. The study area is illustrated in **Figure 1-1**.

Table 1-1. Study Roadways and Intersections

Location	Grand Forks	East Grand Forks
Study Roadways	○ 32 nd Avenue S	○ Bygland Road SE/3 rd Avenue SE/2 nd Avenue NE/Harley Drive
	○ 24 th Avenue S	○ US 2
	○ Elks Drive	○ Rhinehart Drive SE
	○ Demers Avenue	○ TH 220
	○ 4 th Avenue S/Minnesota Avenue	○ 1 st Street SE
	○ S Washington Street	○ Greenway Boulevard SE
	○ Cherry Street	○ 190 th Street SW
	○ Belmont Road	
Study Intersections	○ 32 nd Avenue S & S Washington Street	○ Bygland Road SE (CR 72) & 1 st Street SE
	○ 32 nd Avenue S & Cherry Street	○ Bygland Road SE (CR 72) & Rhinehart Drive SE
	○ 32 nd Avenue S & Belmont Road	○ Rhinehart Drive SE & Greenway Boulevard SE
	○ 24 th Avenue S & S Washington Street	○ Rhinehart Drive SE & Future 24 th Street SE
	○ 24 th Avenue S & Cherry Street	○ Rhinehart Drive SE & Future 32 nd Street SE
	○ 24 th Avenue S & Belmont Road	○ Rhinehart Drive SE & 190 th Street SW
	○ Belmont Road & Elks Drive	○ Bygland Road SE (CR 72) & Greenway Boulevard SE
	○ Demers Avenue & S Washington Street	○ Bygland Road SE (CR 72) & Bygland Road SE/190 th Street SW
	○ 4 th Avenue S & Cherry Street	○ TH 220 & Harley Drive
	○ 4 th Avenue S & Belmont Road	○ TH 220 & US 2

Legend

- Study Intersections
- ▬ Study Corridors
- ▬ Bridge Alternatives

0 0.25 0.5 Miles

N

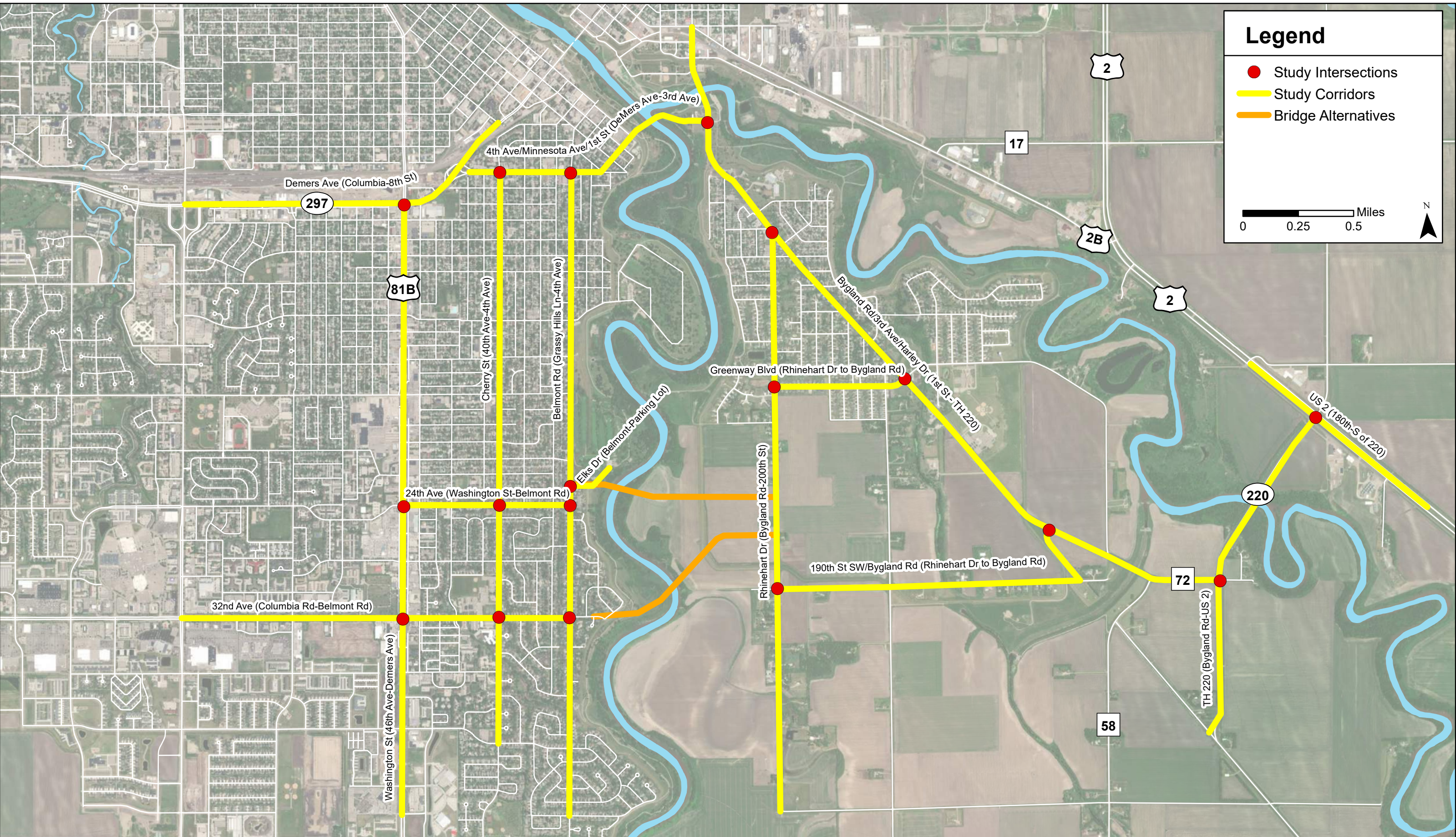


Figure 1-1
Study Area

1.2 STUDY PURPOSE

The Alliant Engineering, Inc. (Alliant) team was hired as a consultant to the Grand Forks-East Grand Forks Metropolitan Planning Organization (MPO) and local, state, and federal partners to conduct a traffic impact study of a future bridge between Grand Forks, ND, and East Grand Forks, MN, across the Red River.

Prior studies and plans have identified the need for a new local river crossing between the two cities to reduce congestion at the existing crossings and the surrounding roadway network. These include the 2018 Metropolitan Transportation Plan and the 2020 Hydraulic Analysis of South End Red River Bridge study. The conclusions of these studies support further analysis of a new river crossing in the corridors: Elks Drive and 32nd Avenue S. The current study will develop and evaluate river crossing alternatives in these corridors and related improvements on the local street system as needed.

1.3 STAKEHOLDER AND PUBLIC INVOLVEMENT

A key part to the completion of the study was the stakeholder and public involvement process, which included partner agencies, an Ad Hoc Committee, public meetings, and a website.

1.3.1 Stakeholders and Audiences

The following stakeholders were identified for involvement in this study:

- MPO Executive Policy Board (Board)
- MPO Technical Advisory Committee (TAC)
- Partner Agencies (may also be represented on Board and/or TAC)
 - City of Grand Forks, ND
 - City of East Grand Forks, MN
 - Grand Forks County, ND
 - Polk County, MN
 - NDDOT
 - MnDOT
 - Federal Highway Administration
 - Other Local, State and Federal Agencies
- Ad Hoc Committee
 - Elected Officials
 - Neighborhood/School District/Business Representatives
- Other Organizations and Members of the Public
 - Residents adjacent to key corridors
 - Neighborhood residents
 - Greater MPO area residents
 - Schools, including
 - Kelly
 - Viking
 - Phoenix

- Local businesses
- Greenway advocates
- Emergency services
- Bicyclists, pedestrians, and other non-motorized users if not included in above groups
- Environmental agencies (via the PEL process)

1.3.2 Engagement Level and Decision Process

This project required a two-way conversation between the stakeholders, including the public, and the project team. Alliant facilitated input opportunities and other applicable forms of engagement with many different stakeholders to understand stakeholder needs and concerns. Stakeholders were involved throughout the process, at different involvement frequencies depending on the stakeholder role in decision-making, as shown in **Figure 1-2**.

Due to the COVID-19 pandemic, the engagement plan emphasized online meetings and engagement. The plan originally deemphasized indoor group settings such as in-person public open houses but was adjusted to include an in-person public open house in December 2021.

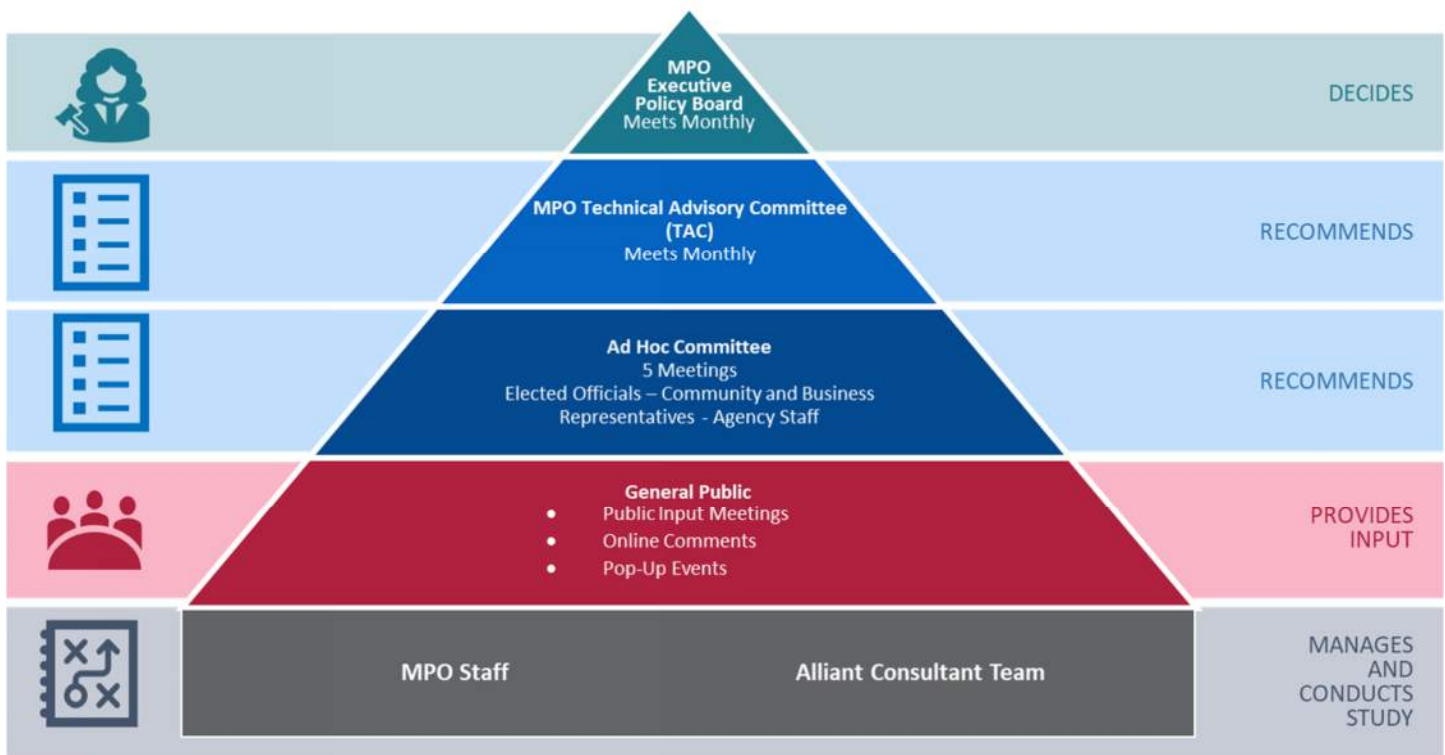


Figure 1-2. Proposed Decision-Making Structure

1.3.3 Ad Hoc Committee

The Ad Hoc Committee for the Future Bridge Traffic Impact Study provided a balanced representation of stakeholder interests, affected communities, and geographic areas and serve as communication link between those interests and communities and the project team. Committee members were appointed by the MPO

Executive Policy Board. Seats and rationale are described in **Table 1-2**. The Ad Hoc meetings were livestreamed for the public to view and recordings were archived for viewing at any time.

Responsibilities of the Ad Hoc Committee members were as follows:

- Represent their constituents’ perspectives during group deliberations
- Communicate project progress with their constituents with agency staff as requested.
- Prepare for and participate in up to five meetings (1-2 hours each) during the project
- Attend study public outreach events and review online and other public comments
- Work to develop consensus recommendations to the MPO Executive Policy Board at each step in the decision process

Table 1-2. Seats for Ad Hoc Committee

Committee Seat	Representing
Elected Officials	
Grand Forks City Council – Ward 5	Single seat to capture both bridge alignments
East Grand Forks City Council – At Large	Single seat to capture both bridge alignments
Community and Business	
32nd Avenue Neighborhood (GF)	Directly adjacent neighborhood
Elks Drive/24th Ave Neighborhood (GF)	Directly adjacent neighborhood
Near Southside Neighborhood (GF)	Indirectly affected neighborhood (traffic)
Rhinehart Neighborhood (EGF)	Directly adjacent neighborhood
Bygland Neighborhood (EGF)	Directly adjacent neighborhood
Rhinehart Township	Directly adjacent neighborhood
Grand Forks School District	Schools with potential traffic impacts
Chamber of Commerce (GF Rep)	Business/economic interest
Chamber of Commerce (EGF Rep)	Business/economic interest
Agency Staff (Advisory Role/Non-Recommendng)	
City of Grand Forks, ND	North Dakota City
City of East Grand Forks, MN	Minnesota City
Grand Forks County, ND	North Dakota County
Polk County, MN	Minnesota County (unincorporated area)
North Dakota Dept. of Transportation	State of North Dakota Transportation
Minnesota Dept. of Transportation	State of Minnesota Transportation
Federal Highway Administration	Federal Transportation
BNSF Railway	Freight Rail
Grand Forks Airport Authority	Airport
Grand Forks-East Grand Forks MPO	Regional Transportation/Planning

1.3.4 Public Open Houses and Project Website

In addition, the project team developed a website for the project. This website was linked from the MPO website for ease of access. The website includes the following pages:

- Home page with announcements, a project overview, and a form to sign up for email updates
- Public Involvement page where the open houses are hosted and summarized
- Ad Hoc Group page with the roster, meeting materials, and meeting recordings
- Study Documents page where technical memorandums and other documents are posted as they are published
- Resources page where relevant previous studies are linked

Two public open houses were held during the study. Each open house had an ongoing online component where participants could view information and submit comments at any time over a multi-week period, as well as a live event. The live event for the first meeting was online and the second live event was held both online and in person. Meeting materials and survey responses are provided in **Appendix A**.

1.3.4.1 Open House 1

The purpose of the first open house was to share information on the background of the project, identify issues and opportunities, and obtain input on the draft purpose and need.

This open house was hosted online for 3 weeks during July and August 2021, and had a live online presentation on Tuesday, July 27 from 6:30-7:30pm where participants could provide input and discussion via the meeting chat. A recording was available online for the remainder of the online engagement period. Attendance was low for the live event (13 participants) but there was good traffic to the website. An additional 40 people viewed the live event recording, and over a thousand people visited the website. **Table 1-3** details participation levels obtained through website traffic statistics. 281 survey responses were submitted and 48 comments were placed on an interactive map.

Table 1-3. Website Traffic Statistics (Open House #1)

	Before Open House	After Open House
Total Site Visits	2,186	6,605 (increase of 3,093 during open house period)
Total Unique Users	445	1,796 (increase of 1,049 during open house period)

The survey asked participants to rank their priorities. The results are shown in **Figure 1-3**. 253 people responded to this question and 40 of them wrote in a comment for “other” priority, which included impact on neighborhood character and quality of life, impact on property values, added option for bridges during a flooding event, and convenience and access across the river.

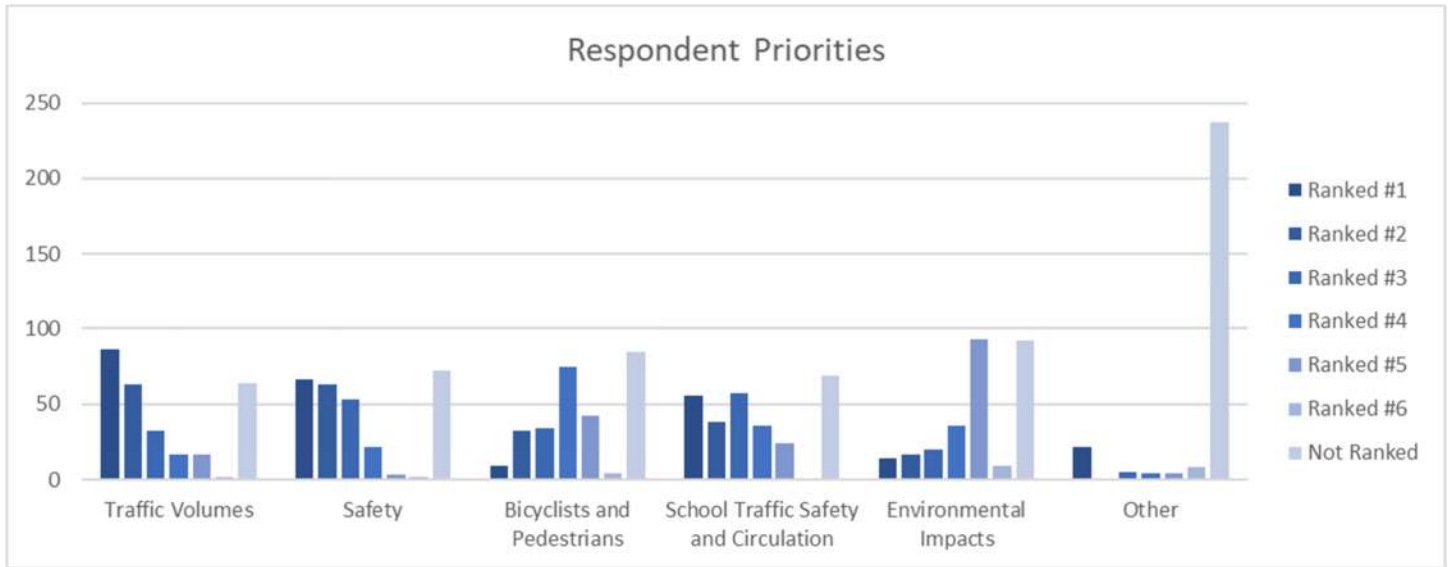


Figure 1-3. Survey Respondent Priorities

Respondents were also asked whether they agreed or disagreed with the purpose and need statement. The results are shown in **Figure 1-4**. 59% of respondents “Strongly Agree” with the project purpose and need, while only 17% “Strongly Disagree” – over three times as many people strongly agreed than strongly disagreed. 264 people responded to this question and 181 of them added a comment. Of those who strongly agreed, comment themes included added convenience, reduction in traffic and congestion especially on other bridges, both cities are growing south. Of those who strongly disagreed, common themes included a benefit for East Grand Forks only, negative impacts to neighborhoods around 32nd Avenue, preference for a bridge farther south, and increased traffic around schools.

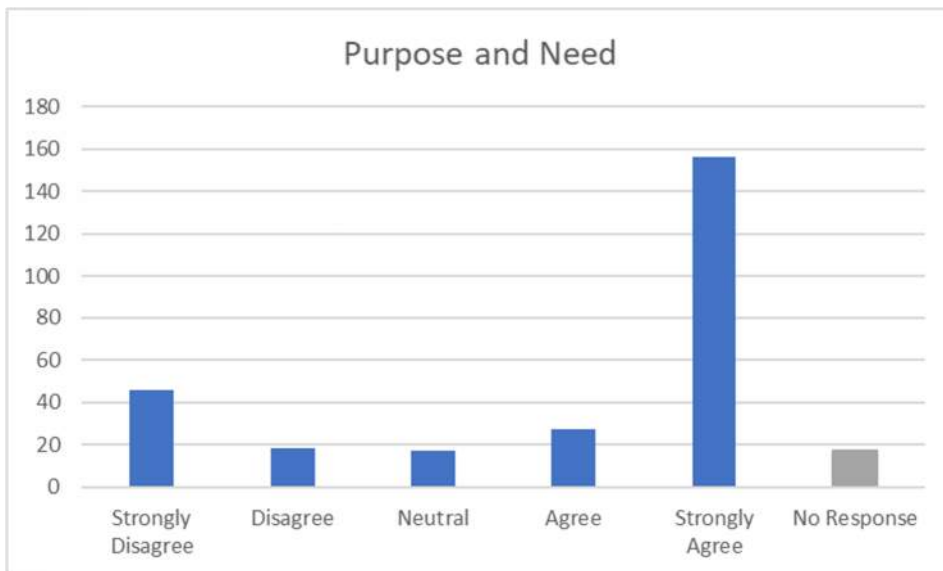


Figure 1-4. Survey Respondent Opinion of Purpose and Need

1.3.4.2 Open House 2

The purpose of the second open house was to share the evaluation results, envision what a new bridge could look like, highlight pedestrian safety and traffic calming strategies around schools, and get input on all three alternatives:

- No New Bridge
- New Bridge at Elks Drive
- New Bridge at 32nd Avenue

This open house was hosted online for 3 weeks during December 2021 and January 2022 and had a live in-person event on Thursday, December 16 from 4:30-6:30 pm where participants could view display boards, watch a presentation, and ask questions to project staff. The boards and live presentation were also available online. Participants both online and in person were encouraged to provide comments via a survey, which was the same for both formats.

Around 20 people attended the live event and over 1,700 new visitors for this event period. **Table 1-4** details participation levels obtained through the in-person sign-in sheet, website traffic statistics, and the survey.

Table 1-4. Website Traffic Statistics (Open House #2)

	In Person	Online
Total Visits	20+	6,052
Unique Users	--	1,768 new (3,857 on website to date)
Survey Responses	13	354

The survey asked participants to rank how well they feel each alternative meets the project purpose and need. The results are shown in **Figure 1-5**. They were also asked what they would change, if anything, to improve the performance of each bridge option. Key takeaways from these write-in responses include:

- Elks Drive Option
 - Improve traffic control at affected intersections (signal/roundabout)
 - Increase elevation
 - Modify Grand Forks bridge approach
- 32nd Avenue Option
 - Improve pedestrian safety and loading zones around schools
 - Improve traffic control at affected intersections – signal/roundabout
 - Increase elevation
 - Widen/add lanes

How well do you feel each alternative meets the project purpose and need?

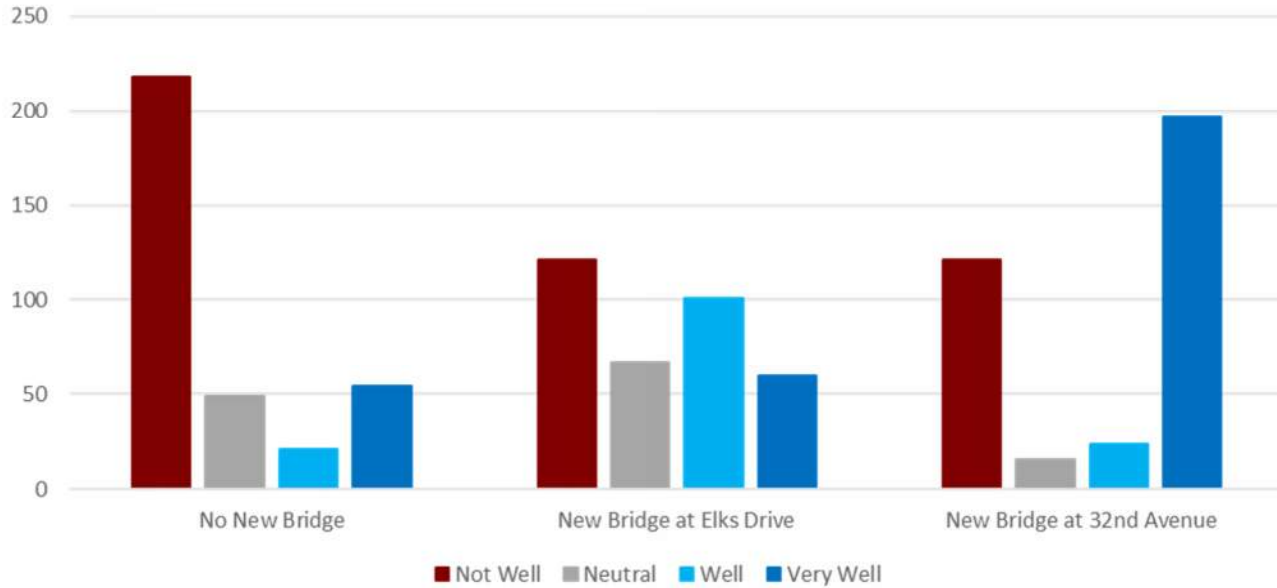


Figure 1-5. Alternatives Meeting Purpose and Need Ratings

Respondents were also asked which alternative they preferred. The results are shown in **Figure 1-6**.

Which alternative do you prefer?

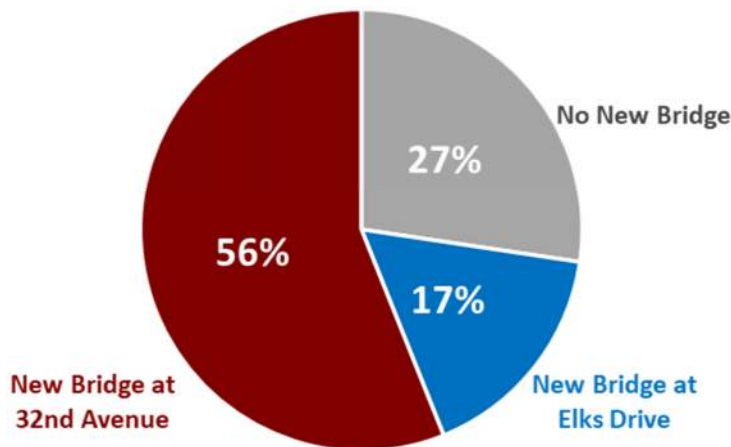


Figure 1-6. Survey Respondent Opinion of Purpose and Need

Participants were also asked if they had any comments or questions on the bridge alternatives or the study. 157 people responded to this question and the following themes came up often:

- Concerns about increased traffic in neighborhoods (especially around schools) and overall benefit to Grand Forks
- Desire for a bridge farther south
- Enthusiasm about a new connection across the river
- Questions about funding – where will the money come from, what portion will each city pay?
- Flooding – impacts to flood system/options after flood/suggest making bridge higher
- Concerns about impacts to the Greenway

1.4 PREVIOUS STUDIES

Prior studies and plans have identified the need for a new local river crossing between Grand Forks and East Grand Forks to reduce congestion on the Point Bridge and the surrounding roadway network. The two most recent documents are the 2018 Metropolitan Transportation Plan and the 2020 Hydraulic Analysis of South End Red River Bridge.

- The 2045 Metropolitan Transportation Plan (2018) identified needs for two new bridges: an intracity bridge for travel between Grand Forks and East Grand Forks and an intraregional bridge for regional trips. The preferred alignment for the intracity bridge was identified as 32nd Avenue.

The Hydraulic Analysis of South End Red River Bridge (2020) study identified two crossing locations for further analysis: Elks Drive and 32nd Avenue. This study also demonstrated that a crossing at 47th Avenue is infeasible because of the need for complicated flood mitigation.

1.5 STUDY APPROACH

The project was conducted in three phases: Discovery, Development, and Design. Study content as it relates to the phase and goals is summarized in **Table 1-5**.

Table 1-5. Study Phases and Goals

Phase and Goals	Study Tasks
<p>Discovery <i>Discover and understand existing and future conditions, constraints, and stakeholder needs and concerns.</i></p>	<ul style="list-style-type: none"> • Study purpose and goals • Existing and future conditions • Project needs and benefits
<p>Development <i>Develop and evaluate potential crossing and traffic options that respond to identified issues and needs.</i></p>	<ul style="list-style-type: none"> • Alternatives • Evaluation results
<p>Documentation <i>Summarize the study results and set up the project for the next step</i></p>	<ul style="list-style-type: none"> • Study report

2. Existing and Future Conditions

2.1 EXISTING TRANSPORTATION SYSTEM AND INFRASTRUCTURE

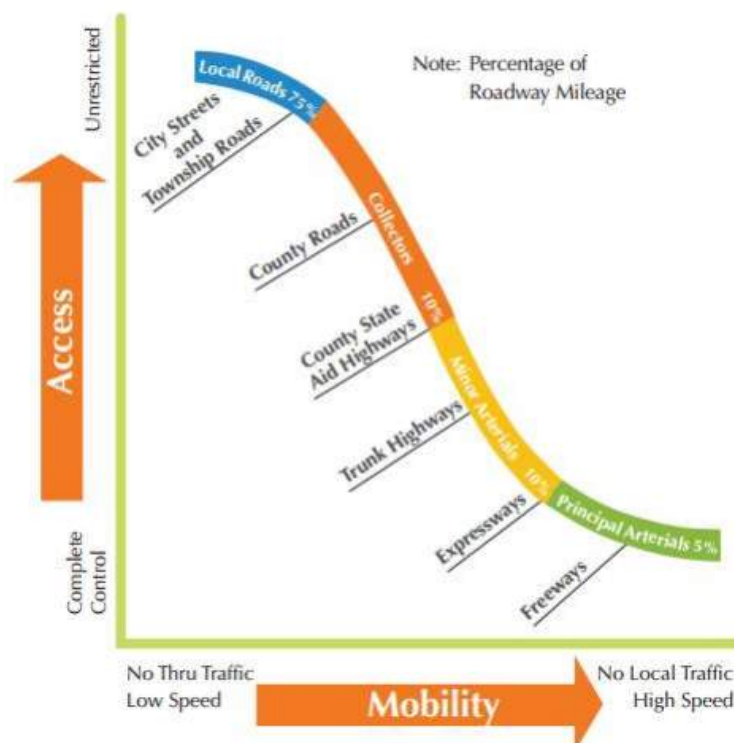
Key components of the existing transportation system and infrastructure relevant to the Future Bridge Traffic Impact Study include roadway characteristics, infrastructure, public/private access, and multimodal characteristics. These features and conditions are documented in the following sections.

2.1.1 Roadway Characteristics

The following sections define the key roadway characteristics including the functional classification, roadway geometrics, traffic control devices, parking, and right of way.

2.1.1.1 Functional and Funding Classification

Roadways serve two major functions: access and mobility. The function of a roadway is dependent on its classification. Interstates and principal arterials provide the highest degree of mobility but are limited in providing land access. Local streets provide a high degree of land access with less mobility. **Figure 2-1** shows a comparison of the different functional classifications relating access to mobility.



Source: FHWA Publications No. FHWA-RD-91-044 (Nov 1992)

Figure 2-1. Access and Mobility Relationship to Functional Classification



The study roadways are classified as detailed in **Table 2-1**. **Figure 2-2** shows the transportation system functional classification of the roadway network.

Table 2-1. Study Corridor Functional Classification

Corridor	Functional Classification
32nd Avenue S	Principal Arterial west of S Washington Street Minor Arterial east of S Washington Street
24th Avenue S	Collector
Elks Drive	Local Road
Demers Avenue	Principal Arterial
4th Avenue S/Minnesota Avenue/ 1st Street SE	Minor Arterial
S Washington Street	Principal Arterial
Cherry Street	Collector
Belmont Road	Minor Arterial
Bygland Road SE/3rd Avenue SE/ 2nd Avenue NE/Harley Drive	Minor Arterial
US 2	Principal Arterial
Rhinehart Drive SE	Major Collector north of Greenway Blvd SE Minor Collector Between Greenway Blvd SE and 182 nd Street SW Local Road south of 182 nd Street NW
TH 220	Minor Arterial
Greenway Boulevard SE	Major Collector
190th Street SW	Local Road

2.1.1.2 Roadway Access Inventory

Access is a key factor affecting the quality of roadway mobility and safety. An illustration of each public access point and non-residential driveway along the study corridors is provided in **Figure 2-3**.

Legend

- Bridge Alternatives
- Local Road
- Minor Collector
- Major Collector
- Minor Arterial
- Principal Arterial

0 0.25 0.5 Miles

N

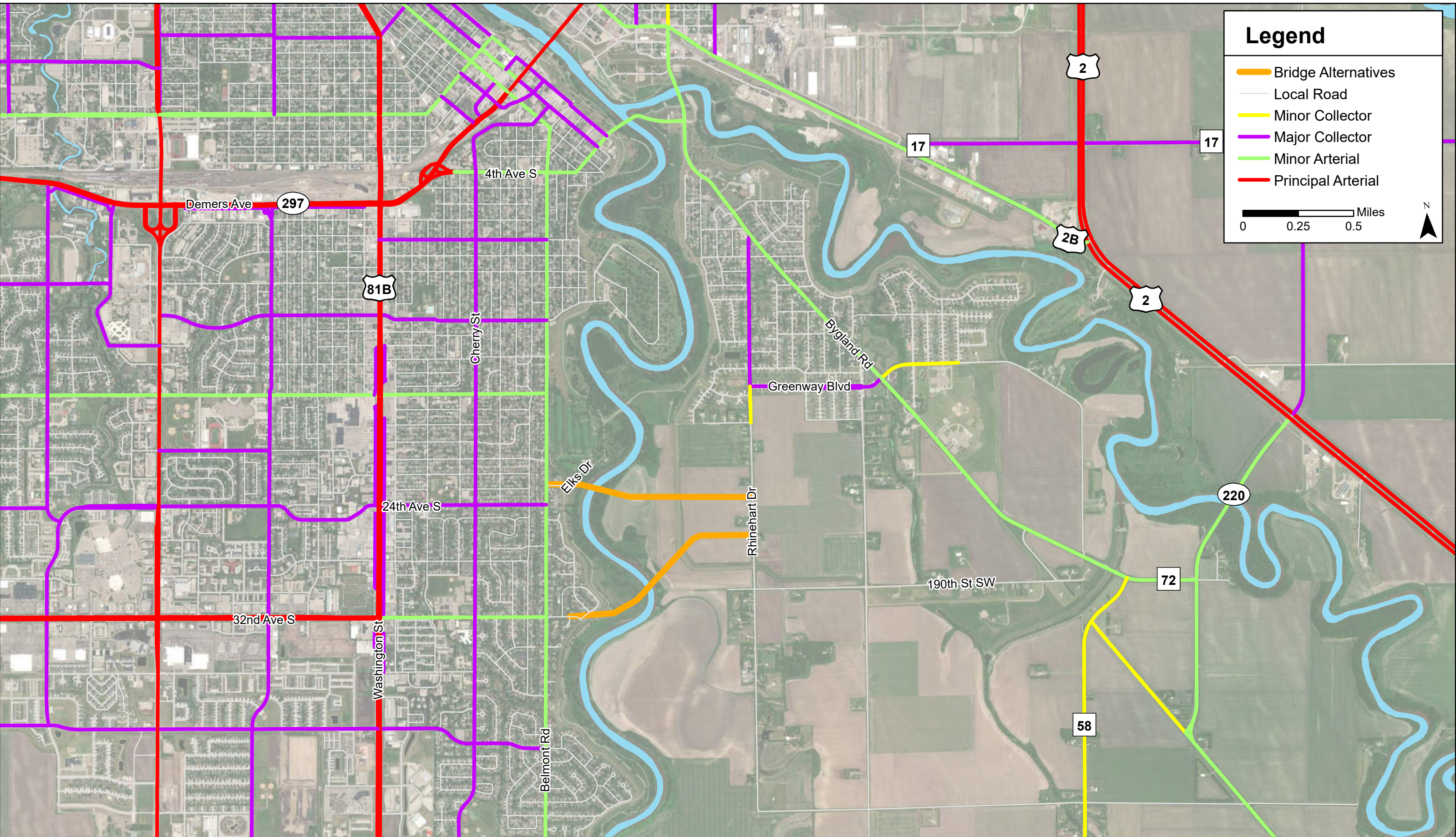
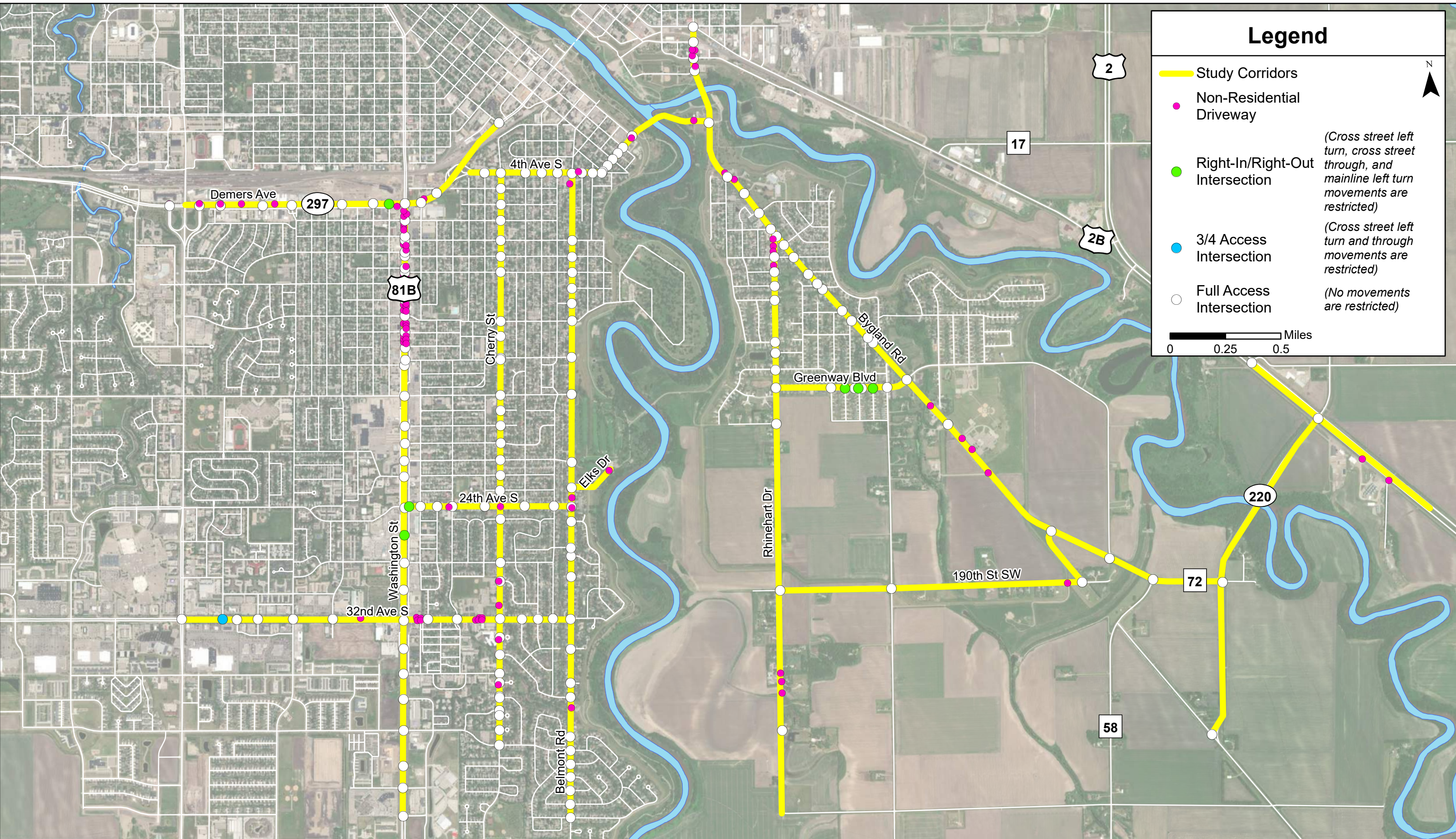


Figure 2-2
Transportation System Functional Classification

Source: ESRI World Imagery Basemap



Legend

- Study Corridors
- Non-Residential Driveway
- Right-In/Right-Out Intersection
(Cross street left turn, cross street through, and mainline left turn movements are restricted)
- 3/4 Access Intersection
(Cross street left turn and through movements are restricted)
- Full Access Intersection
(No movements are restricted)

0 0.25 0.5 Miles

2.1.1.3 Lane Geometrics, Traffic Control, and Typical Sections

Roadway typical sections vary within the study area. The following general characteristics are present:

- **32nd Avenue S:**
 - Four lane divided urban design roadway with left and right turn lanes west of S Washington Street. No on-street parking.
 - Two lane urban residential east of S Washington Street. Parking is generally allowed on both sides.
- **24th Avenue S:**
 - Two lane urban residential design. Parking is generally allowed on both sides.
- **Elks Drive:**
 - Two lane urban residential with no lane markings. Parking is allowed on the south side.
- **Demers Avenue:**
 - Four lane divided urban design roadway with left and right turn lanes southwest of 4th Avenue S. No on-street parking.
 - Four lane undivided urban design roadway with minimal access northwest of 4th Avenue S. No on-street parking.
- **4th Avenue S/Minnesota Avenue/1st Street SE:**
 - Three lane (two lanes westbound, one lane eastbound) urban residential eastward from the alley east of Cherry Street. Parking is allowed on the south side.
 - Two lane urban residential with turn lanes at key intersections east of the alley. Parking is allowed on the south side west of the Point Bridge. Along the bridge and to the east there is no parking.
- **S Washington Street:**
 - Five lane (two lanes each direction with a two-way center left turn lane) urban design north of Hammerling Avenue. No on-street parking.
 - Four lane divided urban design roadway with left and right turn lanes South of Hammerling Avenue. No on-street parking.
- **Cherry Street:**
 - Two lane urban residential design. Parking is generally allowed on both sides south of 17th Avenue. Between 17th Avenue and 10th Avenue parking is generally allowed on the west side. No on-street parking north of 10th Avenue.
- **Belmont Road:**
 - Two lane urban residential design. Parking is generally allowed on both sides south of 32nd Avenue S. Parking is allowed on the west side north of 32nd Avenue S.
- **Bygland Road SE/3rd Avenue SE/2nd Avenue NE/Harley Drive:**
 - Two lane roadway with turn lanes at key locations, transitions between rural on the eastern end and urban on the western end. No on-street parking southeast of Greenway Boulevard SE. Parking is generally allowed on both sides northwest of Greenway Boulevard SE.
- **US 2:**
 - Four-lane divided rural roadway design with turn lanes at key intersections and driveways. No on-street parking.

- **Rhinehart Drive SE:**
 - Two lane residential design, transitions between rural on the southern end and urban on the northern end. Parking is generally allowed on both sides north of 13th Street SE. No on-street parking south of 13th Street SE.
- **TH 220:**
 - Two lane rural design. No on-street parking.
- **Greenway Boulevard SE:**
 - Two lane suburban residential design. Parking is generally allowed on both sides.
- **190th Street SW:**
 - Two lane rural design. No on-street parking.

Figure 2-4 illustrates the key roadway lane geometrics and traffic control devices.

2.1.1.4 Right of Way, Above Ground Utilities, and Street Lighting

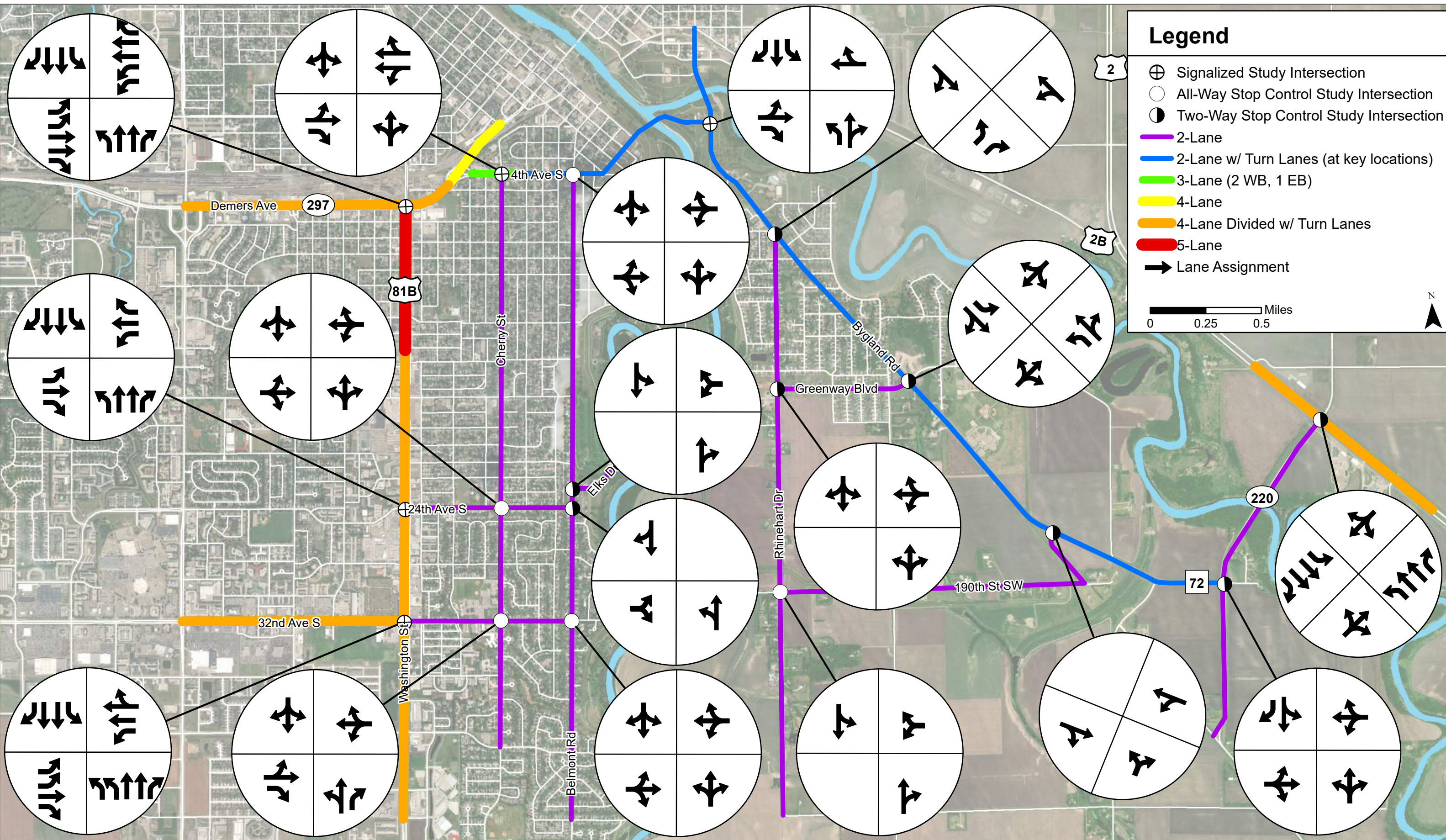
Right of way was estimated using parcel mapping provided by the City of Grand Forks and Polk County (for East Grand Forks). Right of way varies by corridor. Above ground utilities in the corridor consist primarily of electric transformer pads and drainage structures and features. Transmission power lines exist along the following corridors:

- 32nd Avenue S, east of S Washington Street (along the south side)
- 24th Avenue S, ½ block west of Belmont Road (along the south side)
- Demers Avenue, between S 24th Street and S 20th Street (along the north side)
- S Washington Street, south of 32nd Avenue S (along the west side)
- Belmont Road, south of 32nd Avenue S and between 27th and 13th Avenues S (along the east side)
- Rhinehart Drive SE, south of 182nd Street SW (along the west side)
- 190th Street SW (along the south side)

Street lighting is provided along most corridors and at major intersections. **Figure 2-5** illustrates the estimated right of way (based on property parcels) and lighting.

2.1.1.5 Pavement Conditions

Based on visual inspection, pavement conditions on the study corridors appear to be acceptable. There is no pavement on the southern end of Rhinehart Drive SE for roughly 0.10 miles. There are some pavement patches on Rhinehart Drive SE, Belmont Road, 24th Avenue S, and the eastbound lanes of US 2. There is heavy patching on 32nd Avenue S east of S 10th Street. A detailed review of pavement conditions is beyond the scope of this memo. However, further review may be undertaken if needed during the alternatives development process.



Future Bridge Traffic Impact Study



Figure 2-4
Roadway Geometric and Traffic Control Characteristics

Source: ESRI World Imagery Basemap

Legend

- Approx. Right-of-Way
- New Streetlights
- Streetlights
- Study Corridors

0 0.25 0.5 Miles

N

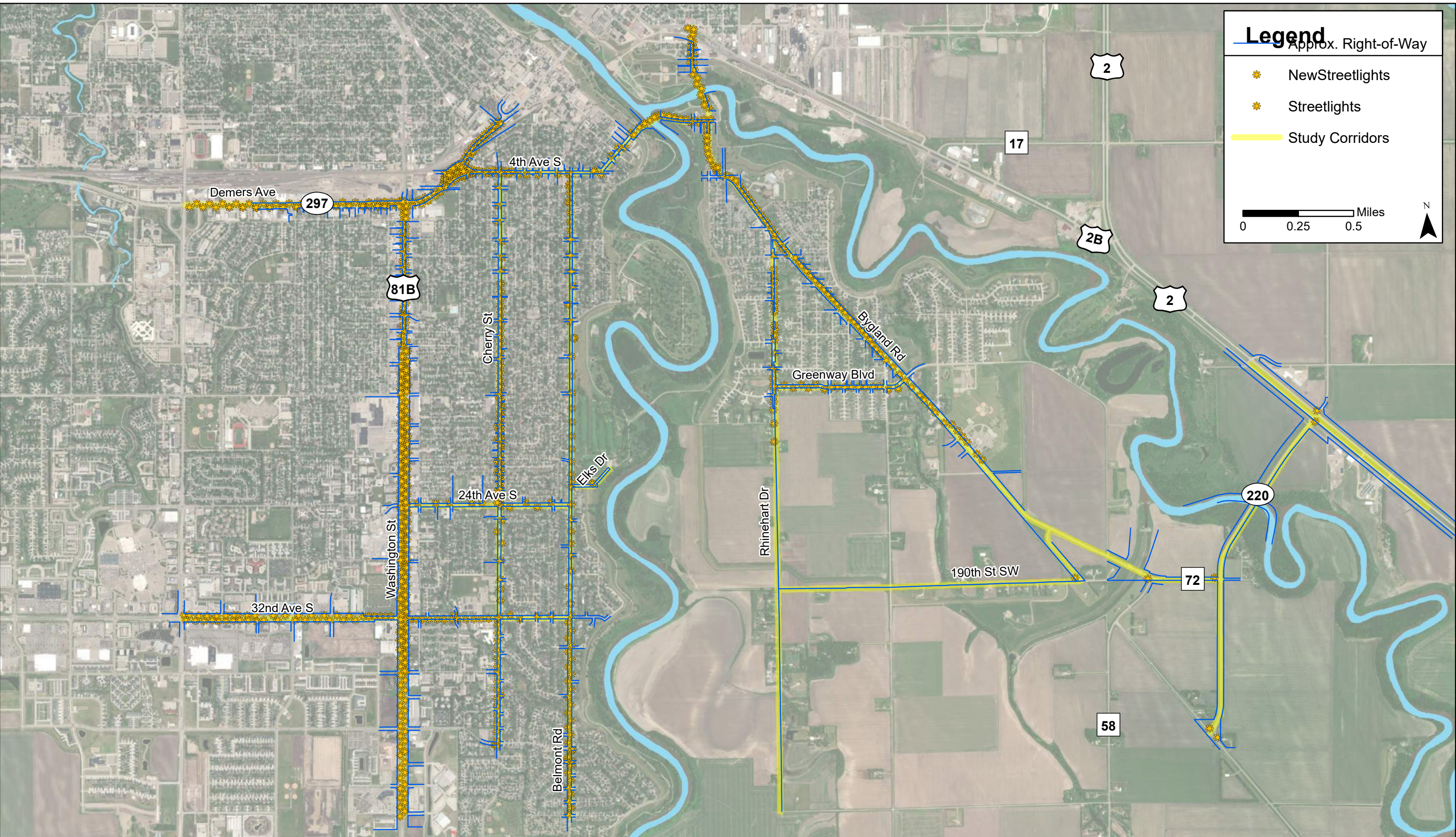


Figure 2-5
Right of Way and Lighting

2.1.1.6 Structures

There are six bridges connecting Grand Forks and East Grand Forks over the Red River: one railroad bridge, two pedestrian-only bridges, and three bridges accessible by vehicles. The railroad bridge, one pedestrian bridge, and the US Hwy 2 bridge are in the study area. Each of the bridges connecting the cities are detailed below:

- **Point Bridge**

The Point Bridge is the southernmost connection between Grand Forks and East Grand Forks. It connects Minnesota Avenue in ND and 1st Street SE in MN. The bridge is signed for no trucks on the Grand Forks side and has a weight restriction of 40,000 pounds. There is a very narrow (3.5 foot) sidewalk on the south side of the bridge; however, signs are posted prohibiting pedestrians and sidewalk leading the bridge has been removed. Bicycles are allowed on the bridge, although there are no bicycle facilities. .

- **Sorlie Bridge (not in study area)**

The Sorlie Bridge connects each of the two cities' downtown areas via Demers Avenue. There is a sidewalk on either side of the corridor.

- **Kennedy Bridge (not in study area)**

The Kennedy Bridge is the northernmost connection between the cities via US Highway 2. There is a sidewalk on the north side of the corridor.

- **BNSF Railroad Bridge**

The railroad bridge between Grand Forks and East Grand Forks is located between the Point Bridge and Sorlie Bridge.

- **Pedestrian Bridges**

There are two pedestrian bridges connecting Grand Forks and East Grand Forks. They are both part of the Greenway trail system. Only one is within the project study area.

- The southern bridge is near 17th Avenue S in Grand Forks and Laurel Drive SE in East Grand Forks.
- The northern bridge (not in study area) is near Red Dot Place in Grand Forks and 20th Street NW in East Grand Forks.

2.1.2 Multimodal Characteristics

The following sections document the key features of the pedestrian, bicycle and transit systems in the study area.





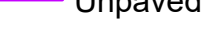
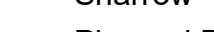




2.1.2.1 Sidewalk, Trails, Bike Lanes, Shared-Use Paths

Sidewalk or multiuse trails exist along most the study roadways. The Grand Forks-East Grand Forks 2045 Metropolitan Transportation Plan (MTP) identifies plans for additional bicycle and pedestrian improvements along many corridors in each city. **Figure 2-6** illustrates the existing and planned future sidewalk, trails and bicycle facilities as documented in the 2045 MTP.

2.1.2.2 Transit Facilities

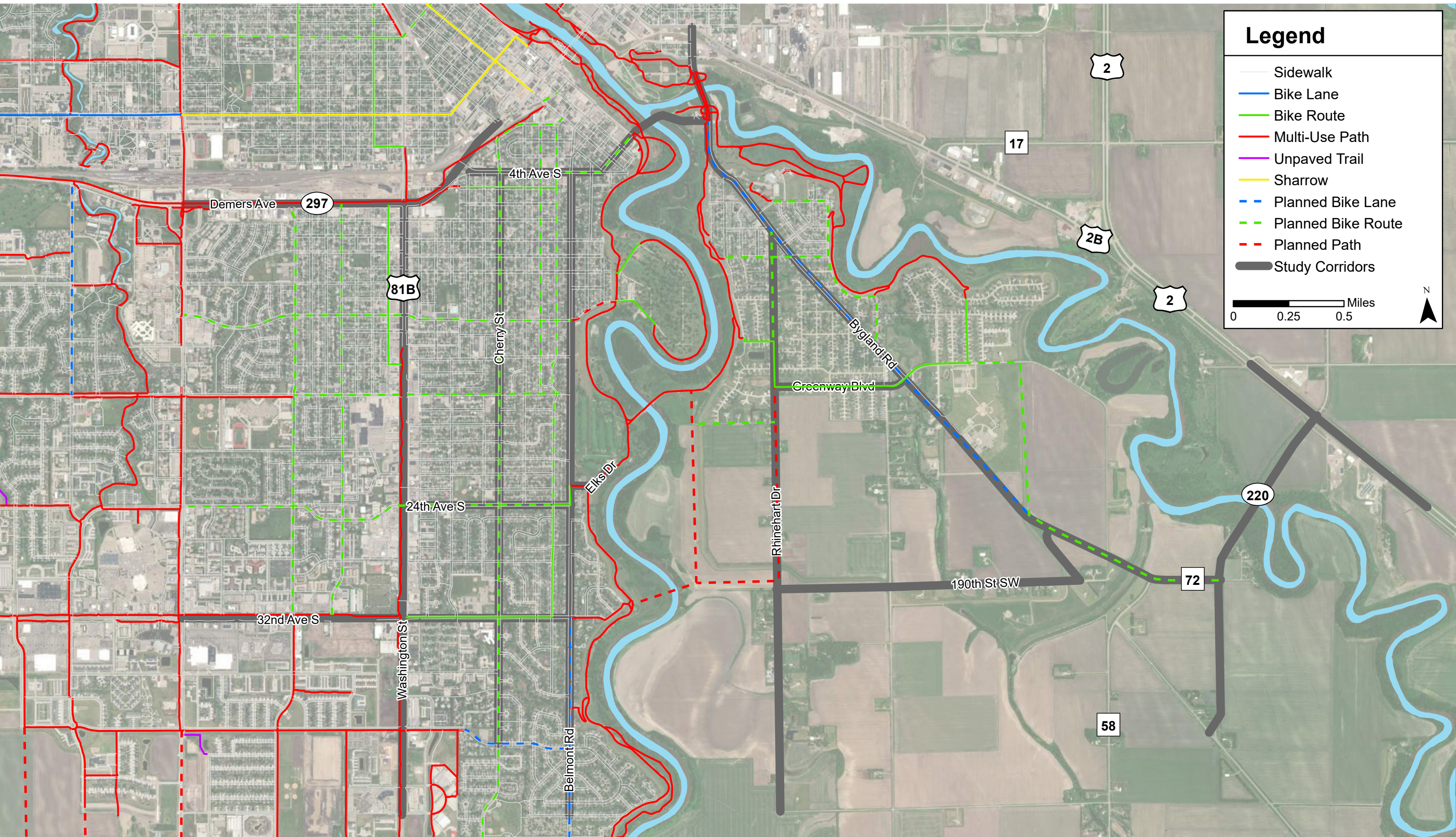
Cities Area Transit (CAT) is the public transportation system serving Grand Forks and East Grand Forks metropolitan area. **Figure 2-7** illustrates the CAT network in and around the study area.

Legend

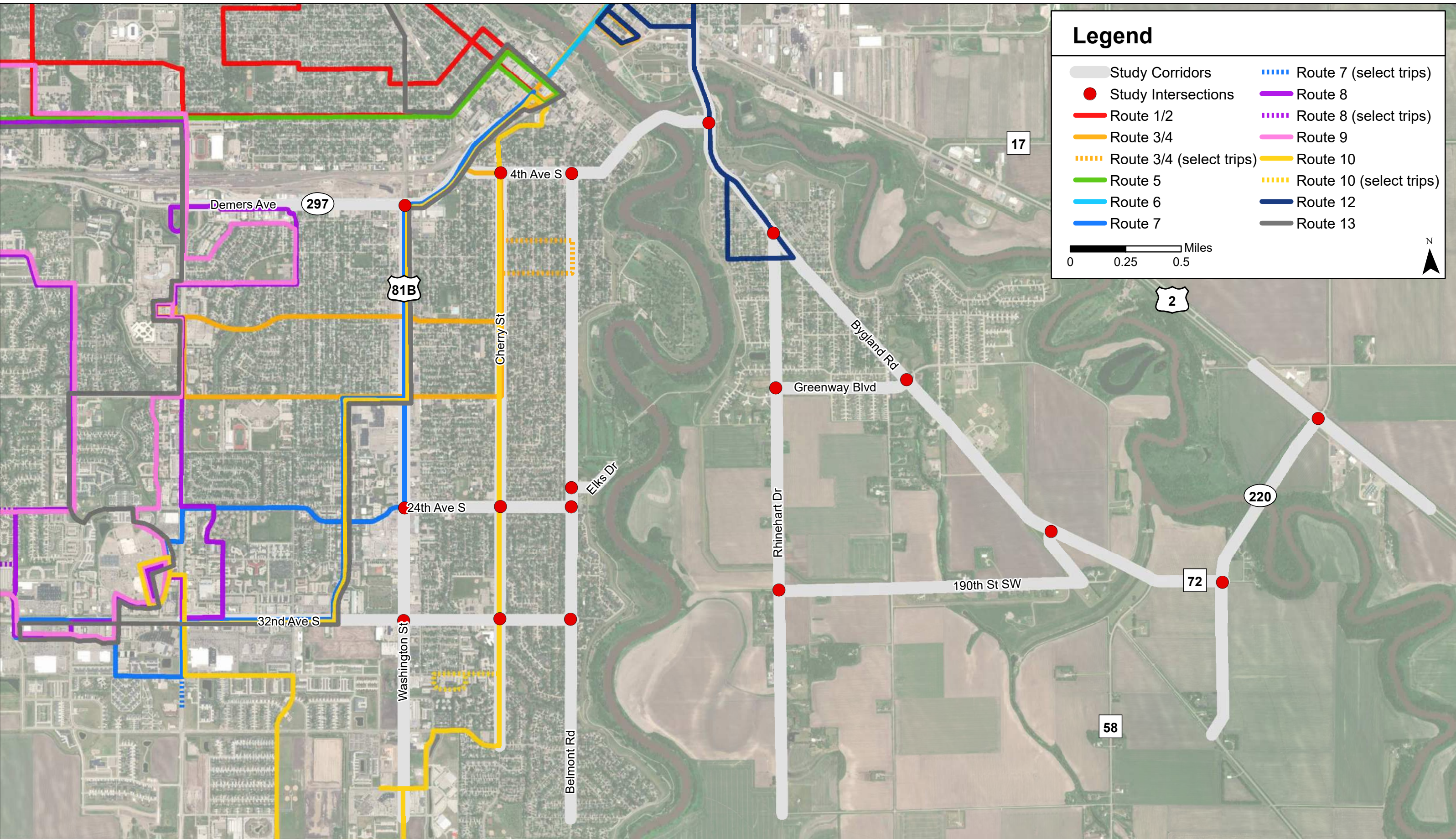
-  Sidewalk
-  Bike Lane
-  Bike Route
-  Multi-Use Path
-  Unpaved Trail
-  Sharrow
-  Planned Bike Lane
-  Planned Bike Route
-  Planned Path
-  Study Corridors

0 0.25 0.5 Miles

N



*Figure 2-6
Existing and Planned Sidewalk, Trails, and Bicycle Facilities*



Legend

- Study Corridors
- Study Intersections
- Route 1/2
- Route 3/4
- Route 3/4 (select trips)
- Route 5
- Route 6
- Route 7
- Route 7 (select trips)
- Route 8
- Route 8 (select trips)
- Route 9
- Route 10
- Route 10 (select trips)
- Route 12
- Route 13

0 0.25 0.5 Miles



*Figure 2-7
Transit Network*

Source: ESRI World Imagery Basemap

2.2 BUILT AND NATURAL ENVIRONMENT

A review of the existing and planned future conditions was completed within the future bridge study corridors. The purpose of this review is to identify issues and resources that should be considered at a screening level because they might differentiate one bridge location from another or because they might present a fatal flaw. This review is being conducted consistent with a Planning and Environmental Linkages (PEL) study and not at the level of detail for formal environmental documentation (National Environmental Policy Act or NEPA), which will be a subsequent step in this process.

The key elements included in the study scope of work were reviewed as documented below. Items were excluded from the analysis if they were not considered relevant to this initial review. These include relocations, energy usage resulting from the project, and temporary construction. If relevant, these items could be reconsidered during the evaluation process.

2.2.1 Community Resources

2.2.1.1 Environmental Justice

The Grand Forks-East Grand Forks Metropolitan Planning Organization (MPO) Environmental Justice Program Manual outlines the procedures for delineating the presence of environmental justice populations within a study area. Based on this guidance, areas of minority and poverty groups have been identified as occurring within the Grand Forks portion of the study corridor near Cherry Street, S Washington Street, and 4th Avenue South (**Figure 2-8**). Neighborhoods most likely to experience impacts from a new bridge were engaged during the study through representation on the Ad Hoc group in addition to more general project communications (see Section 1.3 and Appendix A).

2.2.1.2 Schools

There are eight schools highlighted within the study area that include elementary, middle, and high schools (**Figure 2-8**). On the Grand Forks side, there are six schools within the study area and on the East Grand Forks side, there are two schools. Due to the close proximity to the bridge alternatives, particularly on 4th Avenue S, 24th Avenue S, and 32nd Avenue S, the Grand Forks schools could see an increase in traffic near the schools. With the increase in traffic, it is important to ensure there are safe routes and access to school. Both Grand Forks and East Grand Forks, the School Districts, the MPO and Safe Kids Grand Forks have developed Safe Routes to Schools maps for schools in the study area and are actively monitoring and updating school walking routes and issues in relation to this study. In addition, ongoing discussions regarding possible consolidation and redistricting for Grand Forks schools will be incorporated into the study as relevant.

2.2.1.3 Historic and Cultural Resources

Both the Minnesota and the North Dakota State Historic Preservation Offices (SHPO) were provided an early opportunity to provide input during the planning stages of this project. Continued coordination should occur to determine if any known historic and cultural resources exist within the study corridor. The SHPO consultation will help determine where the archaeological and historic sites in relation to the study corridor and what measures need to be taken to preserve these areas.

Grand Forks has two historic neighborhoods within the Study limits, the Near Southside Historic District and the Downtown Grand Forks Historic District, that could be affected by the projected (**Figure 2-8**). These areas carry historic protections and the community members are passionate about their preservation, including from traffic impacts. The Near Southside neighborhood in particular today bears a disproportionate traffic burden related to river crossing traffic, setting up an equity conversation that will be important to address. Additionally, the Grand Forks Historical Society is located on Belmont Road just south of Elks Drive and is identified as a Section 106 property.

2.2.1.4 Parks, Open Space, and Recreational Areas

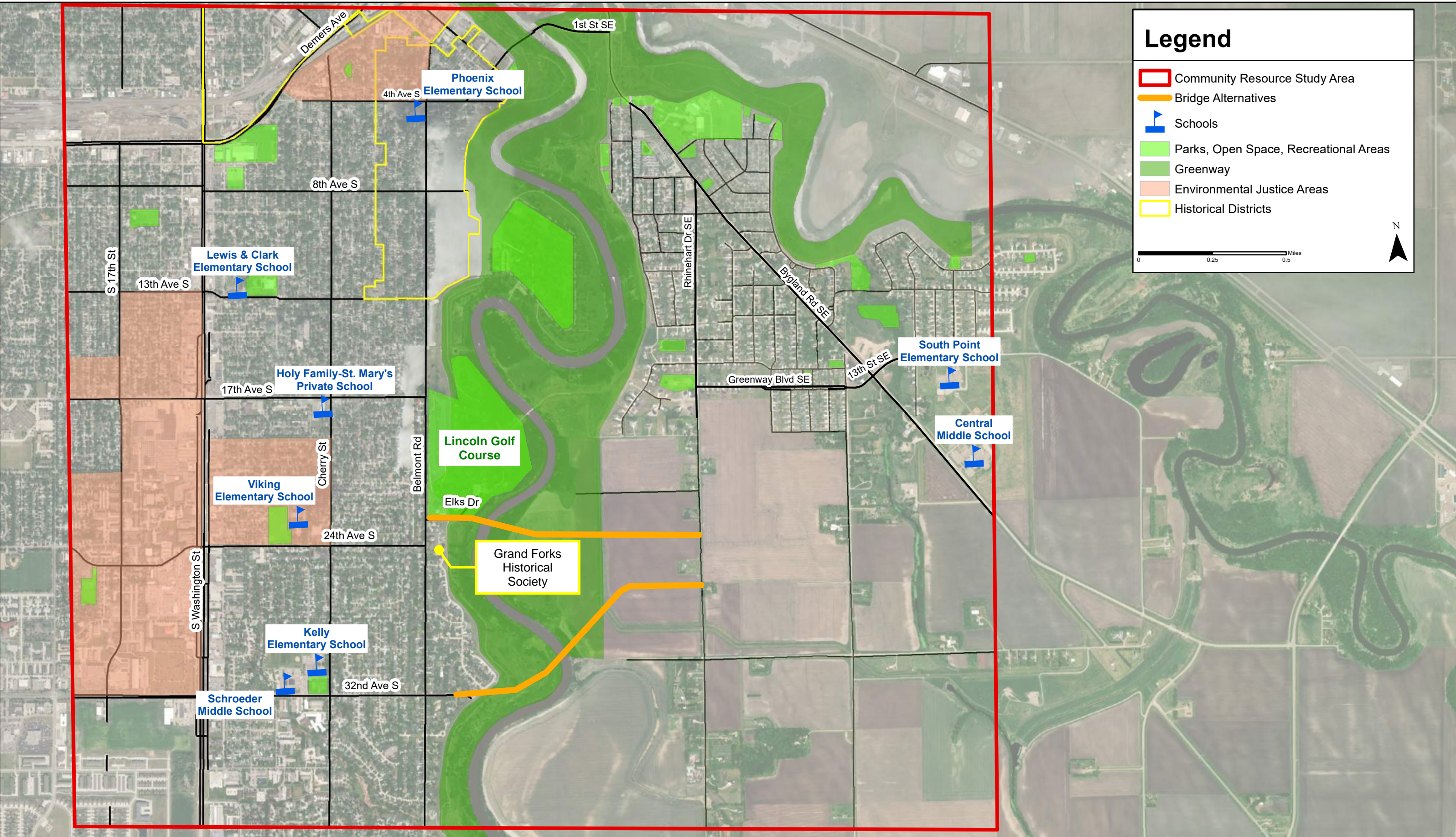
The majority of the parks, open space, and recreational areas within Grand Forks and East Grand Forks occur along the Red River and Red Lake River as part of the Greenway system (**Figure 2-8**). The Greenway system extends north to south along the Red River and east to west along the Red Lake River. There are other designated park areas within both cities that are outside the Greenway system.

The Greenway system, parks, and paths for walking and bicycling is a vital part of the Grand Forks and East Grand Forks community. It is important that bridge alternatives preserve the natural features within the Greenway system and maintain a sufficient park and trail system as outlined in both cities' land use plans. The Grand Forks Greenway Technical Committee provided review and comment during project public open house comment periods (see **Appendix A**).

This portion of the study included preliminary identification of Section 4(f) resources, which are publicly owned parklands, recreation areas, wildlife areas and significant historic sites with special protections in relation to transportation projects. Likely Section 4(f) resources in the study area include the Greenway, the Lincoln Golf Course, and the Grand Forks Historical Society, all of which are identified in Figure 2-8. However, as part of the original Greenway planning, potential future bridge corridors at 17th Avenue, Elks Drive, and 32nd Avenue were identified with the understanding that recreational development and use of these corridors would be avoided so as to allow a future bridge to be constructed without interfering with the Greenway (see The Greenway Master Development and Restoration Plan, July 2000, Greenways Incorporated). Because the future corridors were identified in the master planning for reuse as part of the flood protection system's environmental documents, the Section 4(f) restriction is relaxed.

2.2.1.5 Pedestrian/Bicyclist

Pedestrian and bicycle facilities are discussed and documented in a prior section of this memo.



Legend

- Community Resource Study Area
- Bridge Alternatives
- ▲ Schools
- Parks, Open Space, Recreational Areas
- Greenway
- Environmental Justice Areas
- Historical Districts

N

0 0.25 0.5 Miles

2.2.2 Natural Resources

2.2.2.1 Water Quality

Currently, there are vehicular bridges that connect the downtown areas of Grand Forks and East Grand Forks and there is a pedestrian bridge in the study area near 17th Avenue South in Grand Forks as discussed in section 2.1.6. The proposed bridge alternatives would introduce a new river crossing that does not exist today. Short term impacts to water quality can be anticipated during the construction of the bridge; however, long term impacts to water quality are not anticipated.

In order to mitigate the short term impacts to water quality, the project proponent will be required to obtain a NPDES/SDS General Permit prior to the construction of the project since the project will likely disturb more than one acre of land. The addition of new roadway surfaces also could trigger requirements for a municipal stormwater (MS4) permit in Grand Forks. BMPs will be required to be installed during construction to reduce erosion and sediment loading into the surrounding water resources. To confirm that the BMPs are effectively working, the BMPs will be inspected per the requirements of the Storm Water Pollution Prevention Plan (SWPPP). A complete list of BMPs will be described in the SWPPP that would be prepared for the project prior to construction.

2.2.2.2 Wetlands

The United States Fish and Wildlife (USFWS) Service National Wetlands Inventory (NWI), the Minnesota Department of Natural Resources (DNR) Wetland Inventory, and the MN DNR Public Waters Inventory was utilized to explore the presence of wetlands within the study area. The USFWS NWI and MN DNR NWI identified approximately 75 wetlands within the study area (**Figure 2-9**). The MN DNR Public Waters Inventory did not identify any public water wetlands within the study area. The majority of these wetlands are adjacent to the Red River and the Red Lake River. These wetlands include freshwater emergent, shrub, forested, pond, and riverine wetlands.

During subsequent project development efforts, a field wetland delineation should be conducted before the construction of the proposed project to determine wetland size and type present within the construction limits. The state regulatory authority for Minnesota and North Dakota who administers the state wetland regulations and the Army Corps of Engineers shall provide approval for any wetland delineation and permitting plans that are associated with this project.

2.2.2.3 Water Body Modification, Wildlife, Invasive Plant Species

Water Body Modification

This study assumes a new bridge will span across the Red River south of downtown Grand Forks/East Grand Forks. See **Figure 2-9**. When an alternative is selected and the design of the bridge is finalized, appropriate Army Corps and DNR permits should be obtained to conduct work in the Red River.

Wildlife

Wildlife present in the study corridor consist of common wildlife adapted to urban and agriculture environments, such as white-tailed deer, songbirds, and small mammals (squirrels, rabbits, raccoons). During

construction of the bridge, mobile wildlife present within the project site will likely disperse to adjacent and/or similar habitats and less mobile species may likely experience more adverse effects from construction. However, once construction is completed, the area below the bridge will be restored to previous conditions where appropriate, allowing the wildlife species back into this habitat.

Invasive Plant Species

Invasive plant species have an impact on agriculture, native plant communities, and the natural environment. It is not known if any invasive plants are present within the study area. During construction, efforts should be made to prevent the propagation and spread of invasive plant species. Prior to any construction activity, a noxious weed survey should be conducted to determine the presence and extent of any plants listed on the Minnesota and North Dakota Noxious Weed List. If present, a noxious weed plan should be developed that outlines specific eradication plans for each species present and guidelines for the prevention of spreading of seed and plant materials during construction.

When there is work within the Red River, all equipment should be decontaminated before it is put into the river and when the equipment is taken out of the river. This will prevent aquatic nuisance species from being transported to other waterways and negatively impacting them.

2.2.2.4 Floodplain

The Red River flows south to north within the study area. The Federal Emergency Management Agency (FEMA) has mapped the existing floodplain associated with the river (**Figure 2-9**).

Proposed changes within the floodway area will require close coordination and appropriate approvals obtained with FEMA, the Army Corps, and Grand Forks and East Grand Forks floodplain manager during project development.

Flood Protection Infrastructure

The existing flood protection system on both the Grand Forks and East Grand Forks side is highlighted in **Figure 2-9**. Within the study corridor, Grand Forks flood protection infrastructure includes a flood protection wall and earth levee and East Grand Forks includes a earth levee. In Grand Forks, there is a stop log opening that exists for Elks Drive and on 32nd Avenue S there is an opening primarily for pedestrians/bicyclists and the pump station. On the East Grand Forks side, there are some existing openings that could be located near the proposed bridge alignments. For the proposed 32nd Avenue and Elks Drive new river crossing areas, it will be necessary to identify where the flood control infrastructure is located in relation to the bridge alignment and avoid or mitigate unnecessary adverse impacts to existing flood control infrastructure.

2.2.2.5 State Scenic River

The Red River and Red Lake River are located within the project study area and they are not designated Wild and Scenic Rivers by Minnesota and North Dakota.

2.2.2.6 Threatened and Endangered Species

State Level

The National Heritage Information System (NHIS) identifies each state's rare plant, animal, and native plant communities, and other rare features. The NHIS is managed by the state Parks and Recreation Department in North Dakota and the state Department of Natural Resources (DNR) in Minnesota. Rare species tracked within the NHIS include sightings of State endangered, threatened, or special concern species as well as Federally listed threatened and endangered species. The NHIS data should be requested for the East Grand Forks area to understand what state listed species are within the study corridor.

In North Dakota, there is no state threatened and endangered species list and North Dakota relies on the species list identified in the U.S. Fish and Wildlife (USFWS) Endangered Species Act. The USFWS office in North Dakota has primary oversight over the threatened and endangered species here. The federally listed species below can be relied upon to identify the listed species in Grand Forks.

Federal Level

The Information for Planning and Consultation (IPaC) is a U.S. Fish and Wildlife Service (USFWS) online project planning tool which streamlines the USFWS environmental review process. The online tool was utilized to determine if any Federally listed species, critical habitat, migratory birds, or other natural resources may be impacted by the project.

The following Federally listed species were identified as potentially occurring within the project area. While these species may potentially be affected by the future project, no critical habitat for these species exists within the study area.

- Federally endangered
 - Whooping crane (*Grus americana*)
 - Poweshiek Skipperling (*Oarisma poweshiek*)
- Federally threatened
 - Northern long-eared bat (*Myotis septentrionalis*)
 - Dakota skipper (*Hesperia dacotae*)

Additionally, there are several migratory birds listed below that are of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in the project area. These include:

- Species of Conservation Concern
 - American bittern (*Botaurus lentiginosus*)
 - Black tern (*Chidonias niger*)
 - Black-billed cuckoo (*Coccyzus erythrophthalmus*)
 - Bobolink (*Dolichonyx oryzivorus*)
 - Buff-breasted sandpiper (*Calidris subruficollis*)
 - Franklin's gull (*Leucophaeus pipixcan*)
 - Lesser yellowlegs (*Tringa flavipes*)
 - Long-eared owl (*asio otus*)
 - Marbled godwit (*Limosa fedoa*)
 - Red-headed woodpecker (*Melanerpes erythrocephalus*)

- Semipalmated sandpiper (*Calidris pusilla*)
- Willet (*Tringa semipalmata*)
- Bald and Golden Eagle Protection Act
 - Bald eagle (*Haliaeetus leucocephalus*)

2.2.2.7 Soils

The USDA NRCS Web Soil Survey was used to gather baseline soils data at Elks River and 32nd Avenue S. The soils mapped within the study area consist of upland and hydric soils. The upland soils are concentrated in Grand Forks where the soils have been manipulated to form an urban area. The soils on the East Grand Forks side are primarily hydric soils that are less suitable for road construction and maintenance. Comparing the soils at Elks River and 32nd Avenue S, there are no major differences between the soils that would hinder construction.

An extensive geotechnical field study will need to be conducted to understand the soil conditions present at the chosen bridge alternative before construction begins.

2.2.2.8 Trees

Boulevard trees border the residential streets of Grand Forks and patches of trees border the Red River. The largest area of native trees borders the Red River near Elks Drive. The future bridge roadway design will establish a new right-of-way that will impact any tree species within the proposed right-of-way.

Any proposed tree removal should be conscious of bat roosting season. The U.S. Fish and Wildlife provides guidance for tree removal in order to avoid any impacts to bat species.

2.2.3 Farmland

Agricultural production is a significant industry for East Grand Forks and Polk County. The majority of the East Grand Forks area included in the study area is in agricultural production whereas the Grand Forks portion is primarily developed.

According to the USDA Natural Resources Conservation Service (NRCS), land in agricultural production within the East Grand Forks area is defined as prime farmland, prime farmland if drained, and prime farmland if protected from flooding or not frequently flooded during the growing season. The Grand Forks area was defined as not prime farmland. Potential impacts to prime farmland should be considered during the review of the bridge alternatives.

2.2.4 Visual

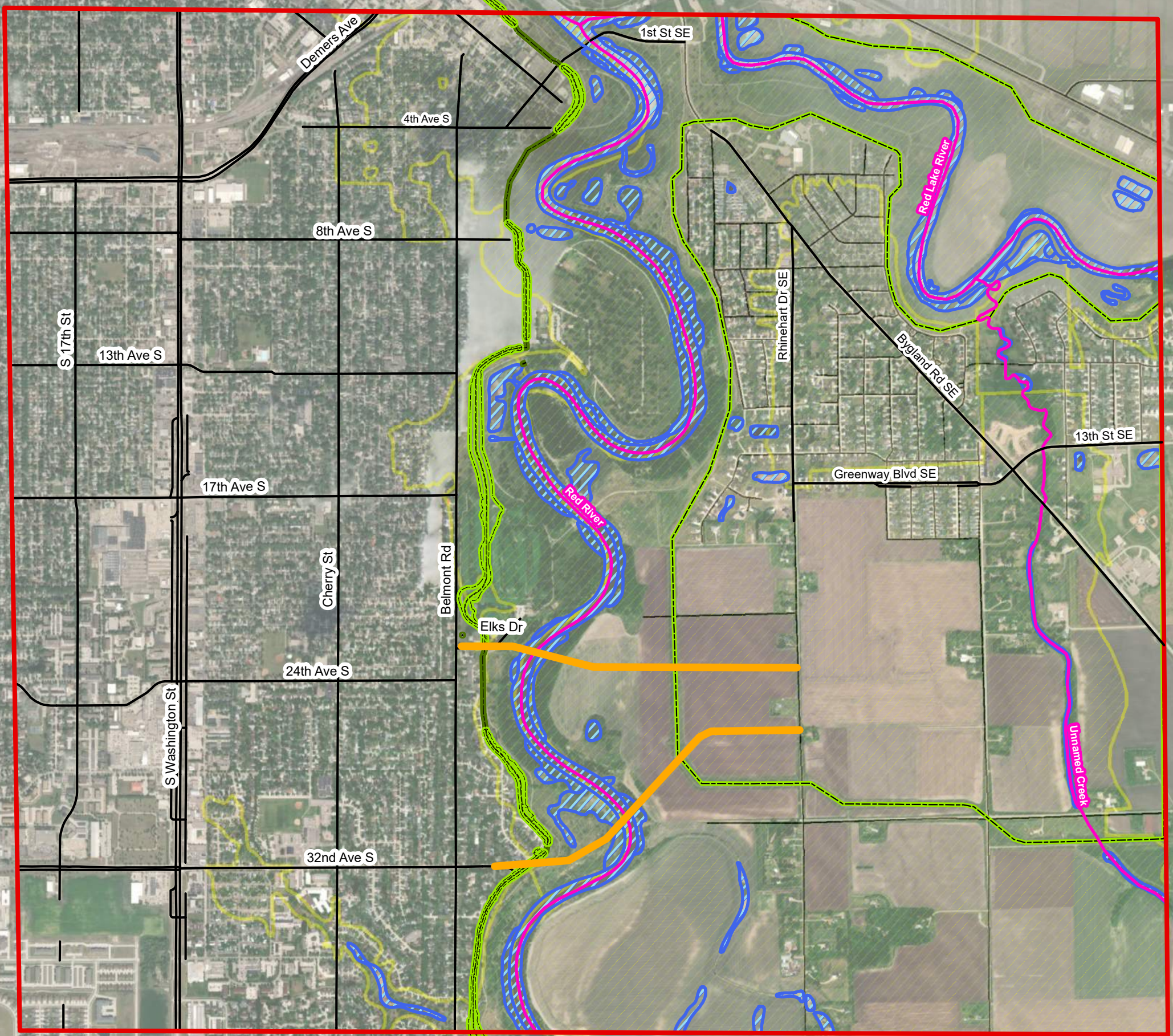
Impacts to the visual quality of the corridor should be considered as alternatives are developed for the corridor. For alternatives that include a new bridge spanning the Red River, visual impacts will be reviewed as part of the NEPA process.

Legend

- Natural Resource Study Area
- Bridge Alternatives
- Watercourse
- Earth Levee
- Flood Protection Wall
- National Wetland Inventory
- 100 YR Floodplain

Miles
0 0.25 0.5

N



2.2.5 Air Quality

The existing factors that impact air quality within the study corridor now are vehicle-related air emissions mostly concentrated within Grand Forks that relate to traffic from the urban residential areas there. Due to the low density residential and agriculture land use in East Grand Forks, the vehicle-related air emissions are lower.

Construction of a new bridge will result in changes to traffic patterns and future traffic growth will result in an increase in traffic which will lead to an increase in carbon monoxide, carbon dioxide, and other vehicle-related air emissions in both Grand Forks and East Grand Forks. For screening purposes, increases in transportation air emissions will be assumed to scale with traffic volumes and will be evaluated in this manner.

During construction, best management practices (BMPs) should be used including the watering of dry, exposed soils to reduce dust in the surrounding area and maintaining construction entrances and exits to limit the tracking of soil onto the local roadways. The construction machinery on the site will be properly maintained to reduce odors such as exhaust from the diesel and gasoline powered machinery. Therefore, impacts from dust and odors during construction will be mitigated during construction.

2.2.6 Noise

The existing factors that impact noise within the study corridor now are local roadway traffic. For the purposes of this analysis, traffic noise will be assumed to scale with traffic volumes and will be evaluated in this manner, with attention to potentially sensitive receptors such as residential areas and schools. This project would be a Type 1 activity and noise analysis would be required if federal funds are used.

Noise will be generated temporarily during construction. The contractors will work in compliance with allowable working hours as established by the City of Grand Forks and the City of East Grand Forks ordinance. Factors affecting the noise level during construction will include the amount of construction that occurs simultaneously, time of operation, and distance between construction equipment and receptors. The nearest sensitive receptors include the adjacent residential parcels in Grand Forks and East Grand Forks. Mitigation of short-term noise impacts should be managed through proper coordination and construction planning.

2.2.7 Hazardous Materials

There is potential for contaminated materials to be encountered during construction activities. The Minnesota Pollution Control Agency's "What's in my Neighborhood" and the U.S. Environmental Protection Agency's (US EPA) Region 8 Enforcement and Compliance History Online (ECHO) for North Dakota are searchable databases of known contaminated sites and environmental permits and registrations.

A Phase I Environmental Site Assessment (ESA) may be warranted to identify potential hazardous waste sites within the project area that may be disturbed during construction. If the results of the Phase I require further investigation, a Phase II environmental Site Assessment may also be needed to further evaluate the extent and composition of the contaminated materials within the project area.

2.3 LAND USE

The study area encompasses a wide variety of existing land uses and density types. Both the City of Grand Forks and the City of East Grand Forks are in the process of evaluating existing land use and developing new plans. These plans are still in progress as of the preparation of this memo and no new maps are available at this time.

This section gives an overview of the land use plans prepared in 2015 and 2016. Updates to the plans will be incorporated into this study (traffic forecasting in particular) as relevant. Existing land use for each city is shown in **Figure 2-10** (Grand Forks) and **Figure 2-11** (East Grand Forks). Planned land use for each city is shown in **Figure 2-12** (Grand Forks) and **Figure 2-13** (East Grand Forks).

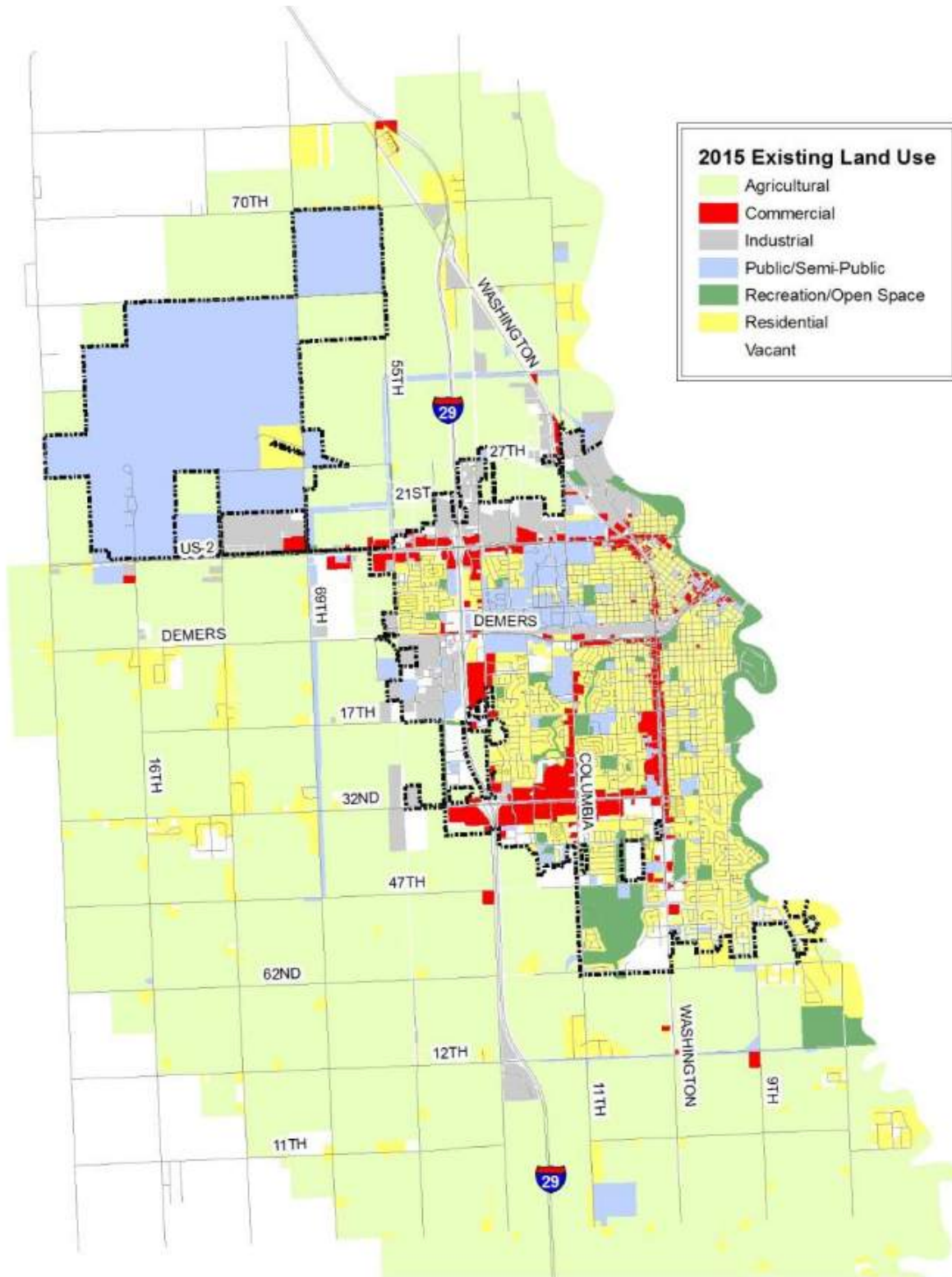


Figure 2-10. Existing Land Use – Grand Forks

Source: 2045 Grand Forks Land Use Plan

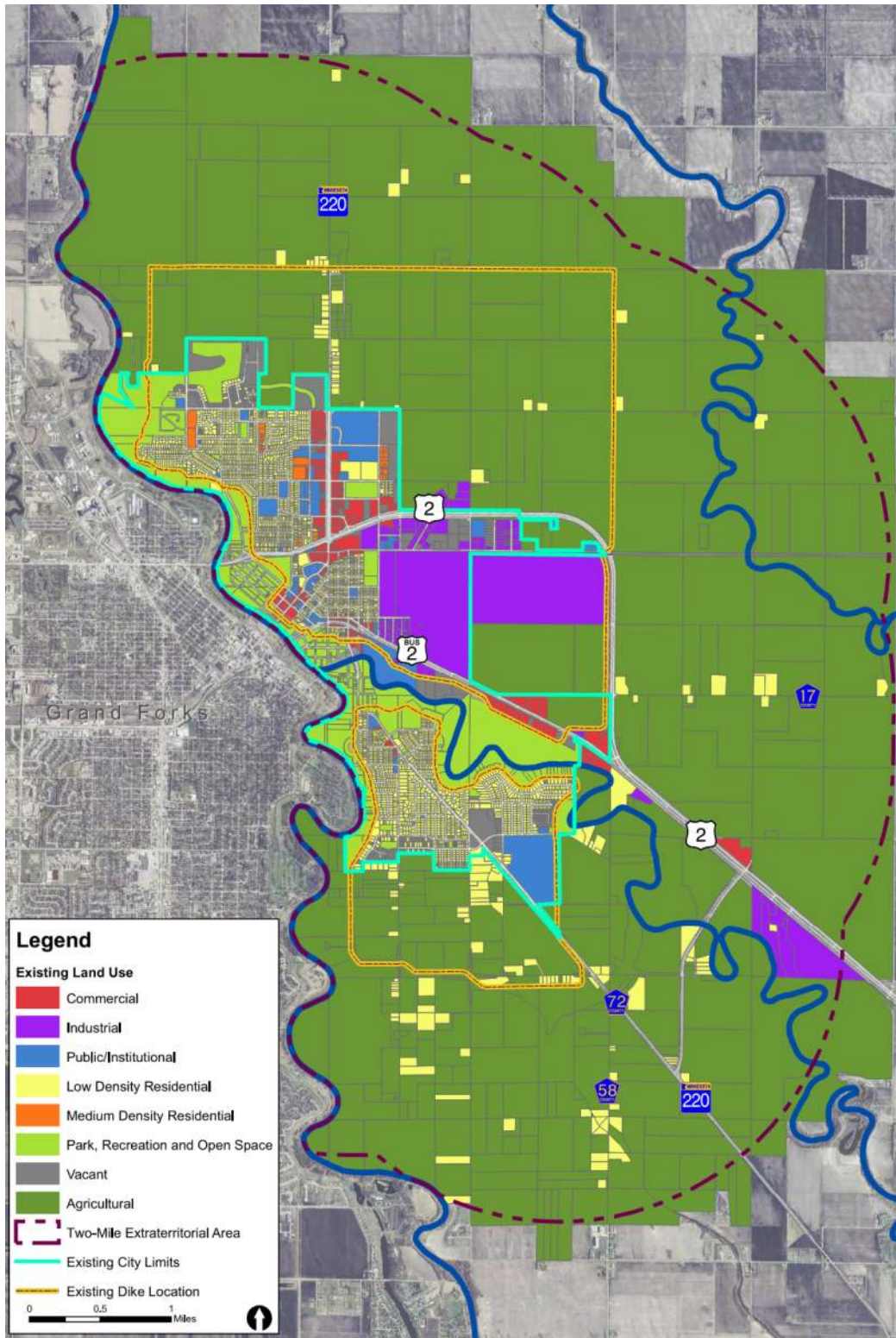


Figure 2-11. Existing Land Use – East Grand Forks

Source: East Grand Forks 2045 Land Use Plan

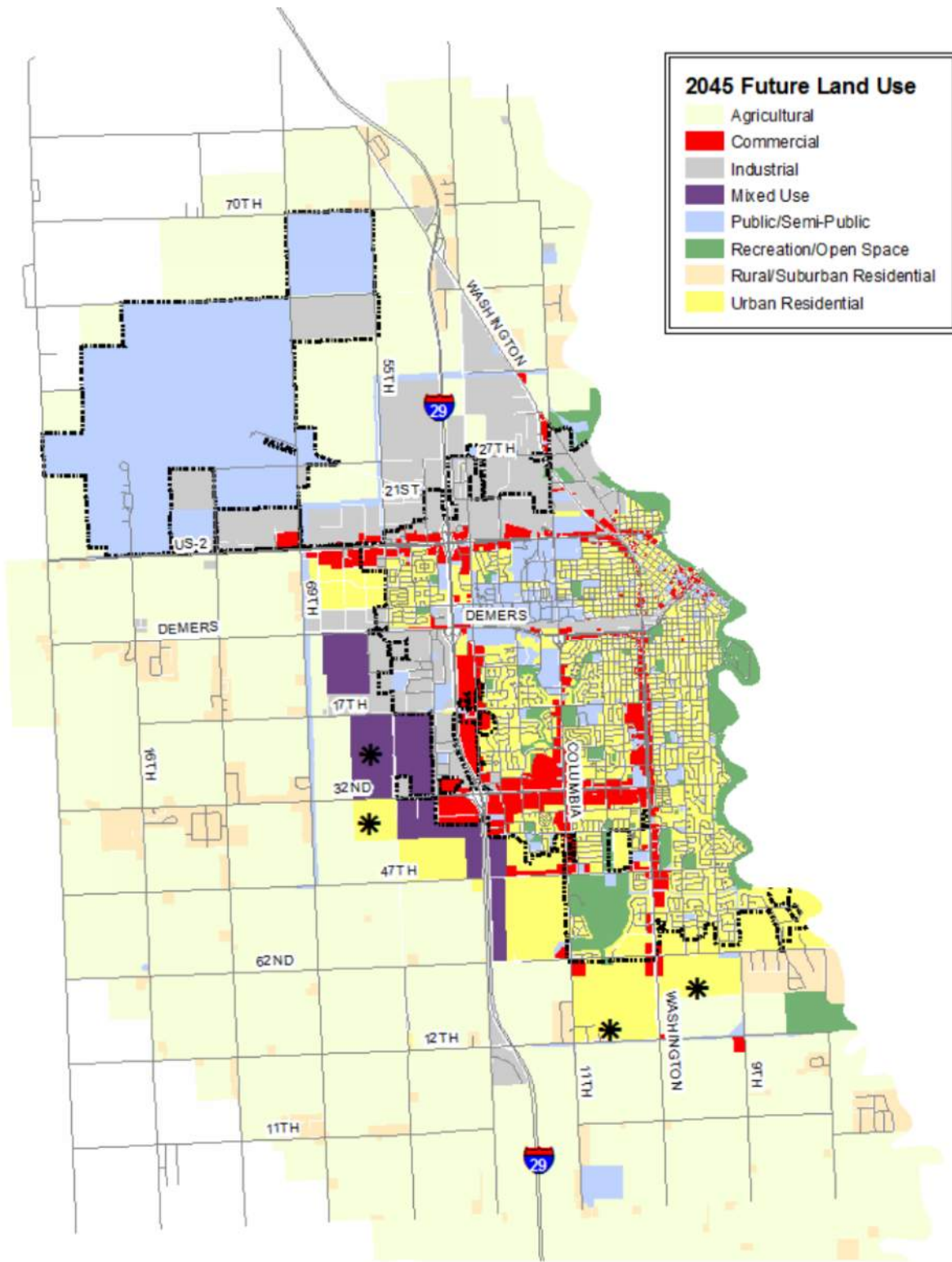


Figure 2-12. Future (2045) Land Use Plan – Grand Forks
Source: 2045 Grand Forks Land Use Plan

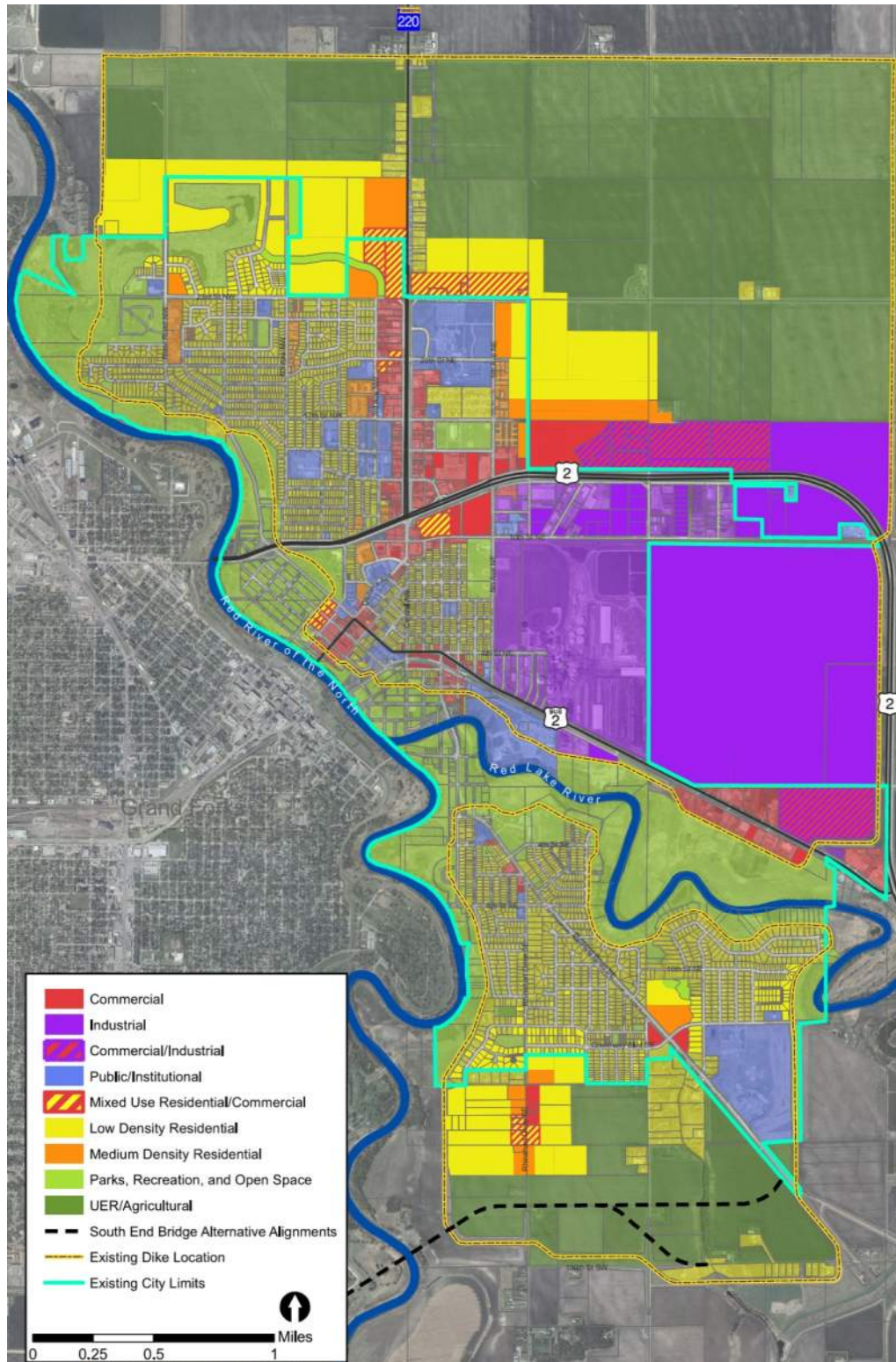


Figure 2-13. Future (2045) Land Use Plan – Grand Forks

Source: East Grand Forks 2045 Land Use Plan

3. Traffic Analysis

A traffic analysis was completed to assess the traffic operations and safety performance of the roadway network on both sides of the Red River in Grand Forks and East Grand Forks to assess existing conditions, forecast 2030 conditions, and forecast 2045 conditions under scenarios with no new bridge (No Build). Scenarios under the same analysis years that include a new river bridge at Elks Dr (Elks Dr Bridge), or at 32nd Ave S (32nd Ave Bridge) are documented in **Section 5.1.2: Future Build Traffic Operations and Mobility**.

3.1 EXISTING AND FORECAST TRAFFIC VOLUMES AND PATTERNS

The data sources, methodology, and resulting existing and forecast traffic volumes along with the regional traffic patterns for trips using the Point Bridge are presented in the following sections.

3.1.1 Existing Traffic Volumes

3.1.1.1 Data Sources

Existing turning movement volumes from prior traffic studies and/or agency counts were used for this analysis at intersections where existing data was available. Turning movement counts for multiple of the study intersections were provided by the Grand Forks-East Grand Forks MPO. Turning movement volumes at the signalized intersections on S Washington St were collected using the Traffic Analysis Tool from the Advanced Traffic Analysis Center (ATAC) within the Upper Great Plains Transportation Institute (UGPTI) located within North Dakota State University (NDSU), which utilizes count data from traffic signal-mounted cameras at signalized intersections. Alliant collected new turning movement counts for intersections and time periods where existing data was not available. Alliant staff collected video data for the new counts locations and was processed by MioVision to develop turning movement volumes for the analysis area. **Table 3-1** shows the turning movement volume data source and count date for each of the study intersections.

Table 3-1. Existing Turning Movement Volume Data Sources

Intersection	City	Source	Data Date
32nd Ave & S Washington St	Grand Forks	NDSU Online Data Tool	Oct 2019
32nd Ave & Cherry St	Grand Forks	New Counts	Feb 2021
32nd Ave & Belmont Rd	Grand Forks	MPO	May 2017
24th Ave & S Washington St	Grand Forks	NDSU Online Data Tool	Oct 2019
24th Ave & Cherry St	Grand Forks	New Counts	Feb 2021
24th Ave & Belmont Rd	Grand Forks	AM-New Counts/PM-MPO	AM-Feb 2021/PM-May 2018
Belmont Rd & Elks Dr	Grand Forks	AM-New Counts/PM-MPO	AM-Feb 2021/PM-May 2018
Demers Ave & S Washington St	Grand Forks	NDSU Online Data Tool	Oct 2019
4th Ave & Cherry St	Grand Forks	MPO	April 2017
4th Ave & Belmont Rd	Grand Forks	MPO	April 2017
Bygland Rd (CR 72) & 1st St	East Grand Forks	New Counts	Feb 2021
Bygland Rd (CR 72) & Rhinehart Dr	East Grand Forks	New Counts	Feb 2021
Rhinehart Dr & Greenway Blvd	East Grand Forks	AM-New Counts/PM-MPO	AM-Feb 2021/PM-May 2018
Rhinehart Dr & 190th St	East Grand Forks	Inferred from Adjacent Int.	N/A
Bygland Rd (CR 72) & Greenway Blvd	East Grand Forks	AM-New Counts/PM-MPO	AM-Feb 2021/PM-April 2017
Bygland Rd (CR 72) & 190th St	East Grand Forks	New Counts	Feb 2021
TH 220 & Harley (CR 72)	East Grand Forks	New Counts	Feb 2021
TH 220 & US 2	East Grand Forks	New Counts	Feb 2021

The intersection of Rhinehart Dr SE & 190th St SW was added to the study area after counts were collected. Daily volumes at this intersection are less than 100 vehicles per day on each approach. Due to the low volumes, peak hour turning movement counts were inferred from the count data at the adjacent intersections where data was available.

3.1.1.2 Existing Volume Development

Adjustment factors were developed to bring all turning movement volumes from the different data sources to a cohesive baseline existing condition. The new turning movement counts collected by Alliant were gathered in February of 2021 during the COVID-19 pandemic. Traffic volumes during the pandemic were generally lower than pre-pandemic levels. Using intersection turning movement volumes from the ATAC Traffic Analysis Tool mentioned above, peak hour turning movement volumes prior to the pandemic (2019) were collected at study intersections on S Washington St. The combined 2019 peak hour volumes were compared to the combined new 2021 peak volumes at the same locations. As shown in **Figure 3-1**, the 2019 volumes were higher in the AM and PM peak periods by 3.5% and 8.7%, respectively. In order to reflect expected “normal” traffic volume conditions, the new 2021 peak hour turning movement counts were scaled up by applying these adjustment factors. For the purposes of this analysis, all existing (2021) conditions traffic volumes reflect 2019 traffic volume levels prior to the COVID-19 pandemic.

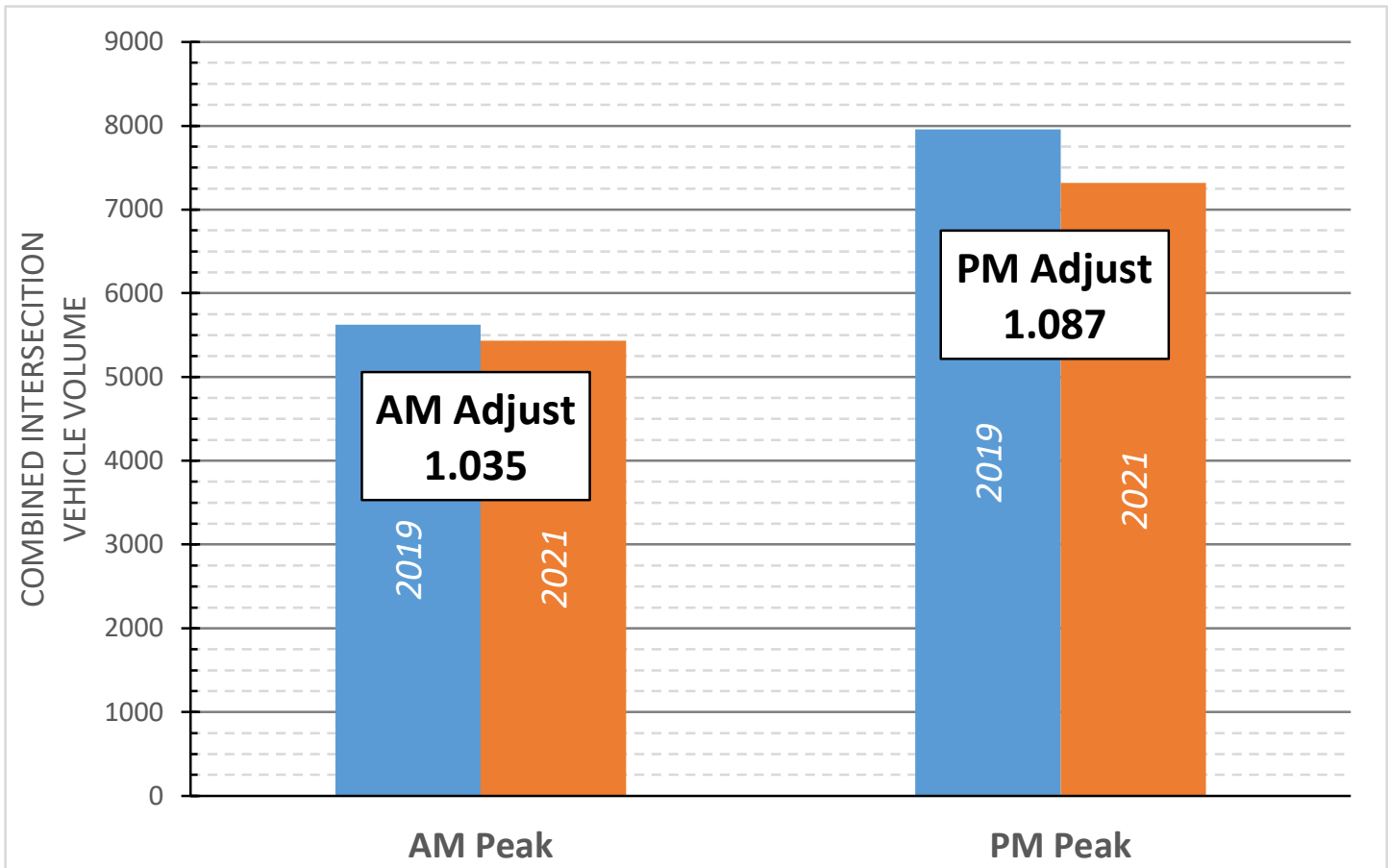


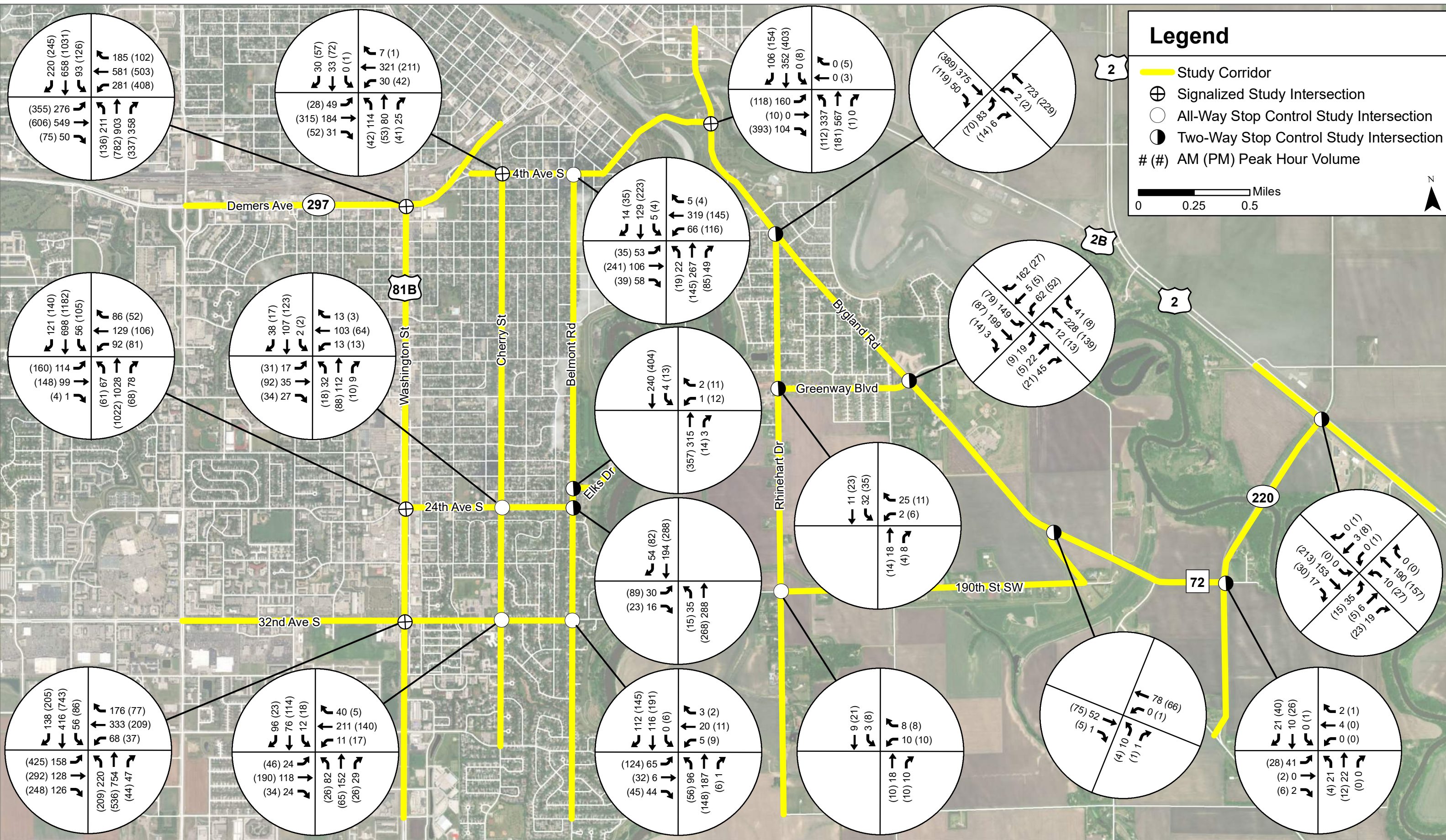
Figure 3-1. COVID-19 Peak Period Volume Adjustment Factors

For intersections that had MPO volume data from 2018 or older, historical AADT data was pulled from the North Dakota Traffic Data and MnDOT Traffic Mapping online applications to grow counts to “normal” existing (2019) volume levels based on historical volume trends. The historical daily traffic volumes collected are shown in **Table 3-2**. The historical volumes were used to develop annual growth rates for each intersection, which were then used to grow the turning movement counts to expected 2019 levels.

Table 3-2. Historical Volume Trend Analysis

Year	Belmont & 32nd	Belmont & 24 th /Elks	Belmont & 4th	Cherry & 4th	Greenway & Rhinehart	Greenway & Bygland
2019	-	-	-	-	2,430	-
2018	11,450	6,200	14,085	16,840	-	-
2017	-	-	-	-	2,430	3,430
2015	11,045	6,760	12,745	16,710	-	-
2013	9,815	6,305	10,660	14,835	2,295	3,340
2010	9,670	6,030	11,040	15,085	-	-
Annual Rate	2.13%	0.35%	3.09%	1.39%	0.96%	0.67%

The adjusted existing turning movement volumes are provided in **Figure 3-2**.



Future Bridge Traffic Impact Study



Figure 3-2
Existing Traffic Volumes

Source: ESRI World Imagery Basemap

3.1.1.3 Existing Traffic Patterns

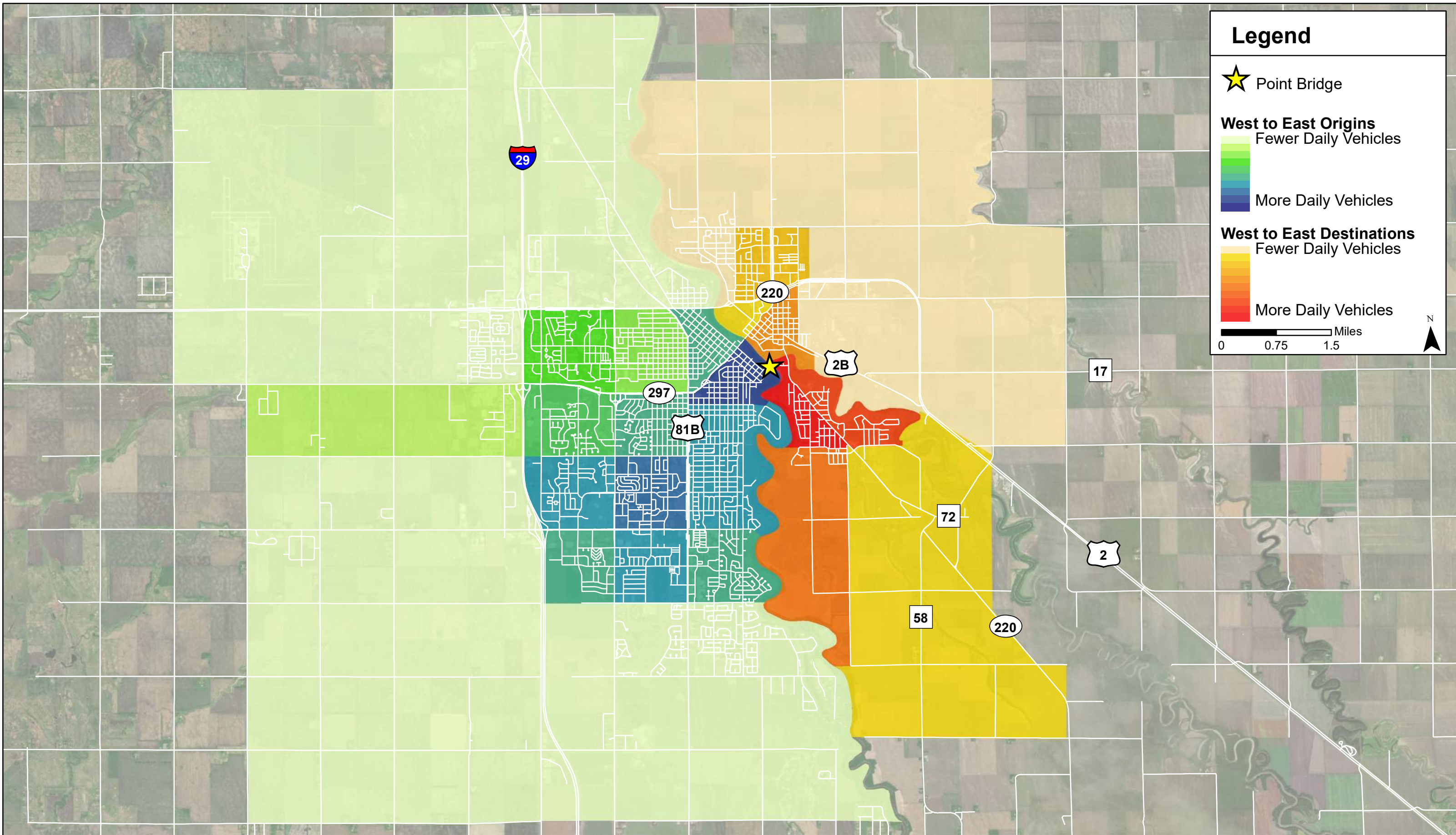
To demonstrate the traffic patterns of travelers crossing the existing bridges between Grand Forks and East Grand Forks, the Advanced Traffic Analysis Center (ATAC) at North Dakota State University ran a StreetLight origin-destination analysis between Grand Forks and East Grand Forks. The analysis determined the average daily vehicle trips that started in each traffic analysis zone (TAZ) on one side of the river, traveled across one of the bridges between the cities, and ended in a TAZ on the opposite side of the river. Of the three bridges near the study area, the data for trips using the Point Bridge was isolated to show the regional traffic patterns that would be influenced by the addition of a new river crossing at Elks Dr or 32nd Ave S.

The results of the analysis are provided in two figures showing origin-destination densities for each direction across the bridge. **Figure 3-3** shows trips starting in Grand Forks and traveling east across the bridge to East Grand Forks, and **Figure 3-4** shows trips starting East Grand Forks traveling west across the bridge to Grand Forks. The darker zones reflect TAZs where more trips begin or end, and the lighter zones reflect TAZs with less trips beginning or ending within them.

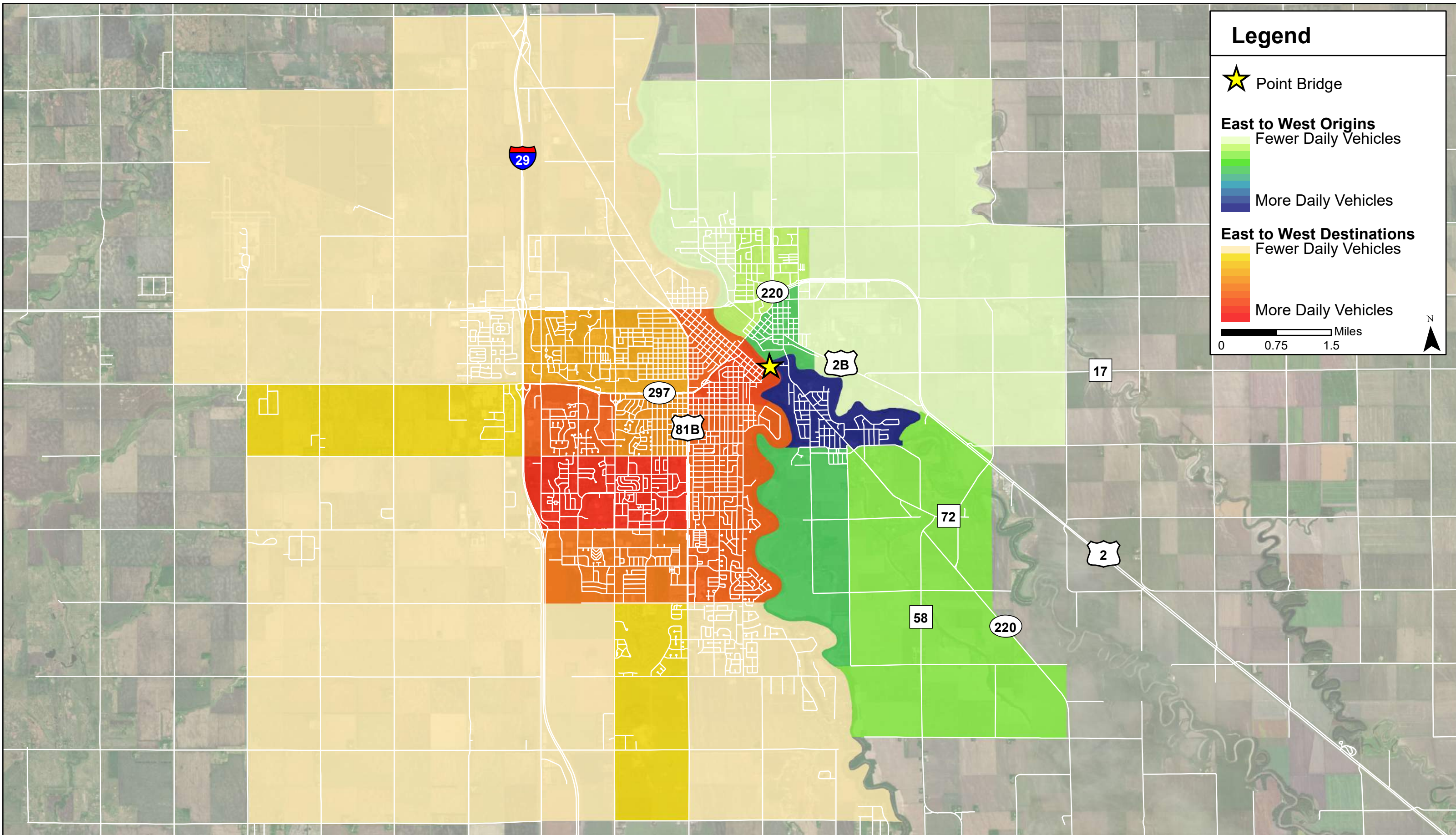
The West to East analysis shows that most trips originated east of I-29 in the southern portion of Grand Forks between Demers Ave (ND 297) and 47th Ave S. The downtown area between Demers Ave and 8th Ave S was the highest trip-generating origin TAZ. The most common destination for these trips were to the neighborhoods south of the Red Lake River, near Bygland Rd SE (old Hwy 220).

The East to West analysis was a near mirror of the West to East analysis, with most trips beginning in the neighborhoods near Bygland Rd SE between 1st St SE and Greenway Blvd SE, and ending south of Demers Ave and east of I-29. The primary destination TAZs were between I-29 and S Washington St to the north of 32nd Ave S and south of 17th Ave S.

These results indicate that a sizeable portion of trips currently using the Point Bridge would be expected to use a new river bridge to the south of the point bridge.



*Figure 3-3
Point Bridge Traffic Patterns
West to East Origins/Destinations*



*Figure 3-4
Point Bridge Traffic Patterns
East to West Origins/Destinations*

3.1.2 Future Traffic Volumes

Future daily traffic volume forecasts for the study roadway segments were developed by ATAC using travel demand modeling for the years 2030 and 2045 for scenarios including no new river bridge (No Build), a new river bridge at Elks Dr (Elks Dr Bridge), and a new river bridge at 32nd Ave S (32nd Ave Bridge). The travel demand model output included AADT volumes for the 2015 base year, 2030 forecast year, and 2045 forecast year along all major street segments in the project area.

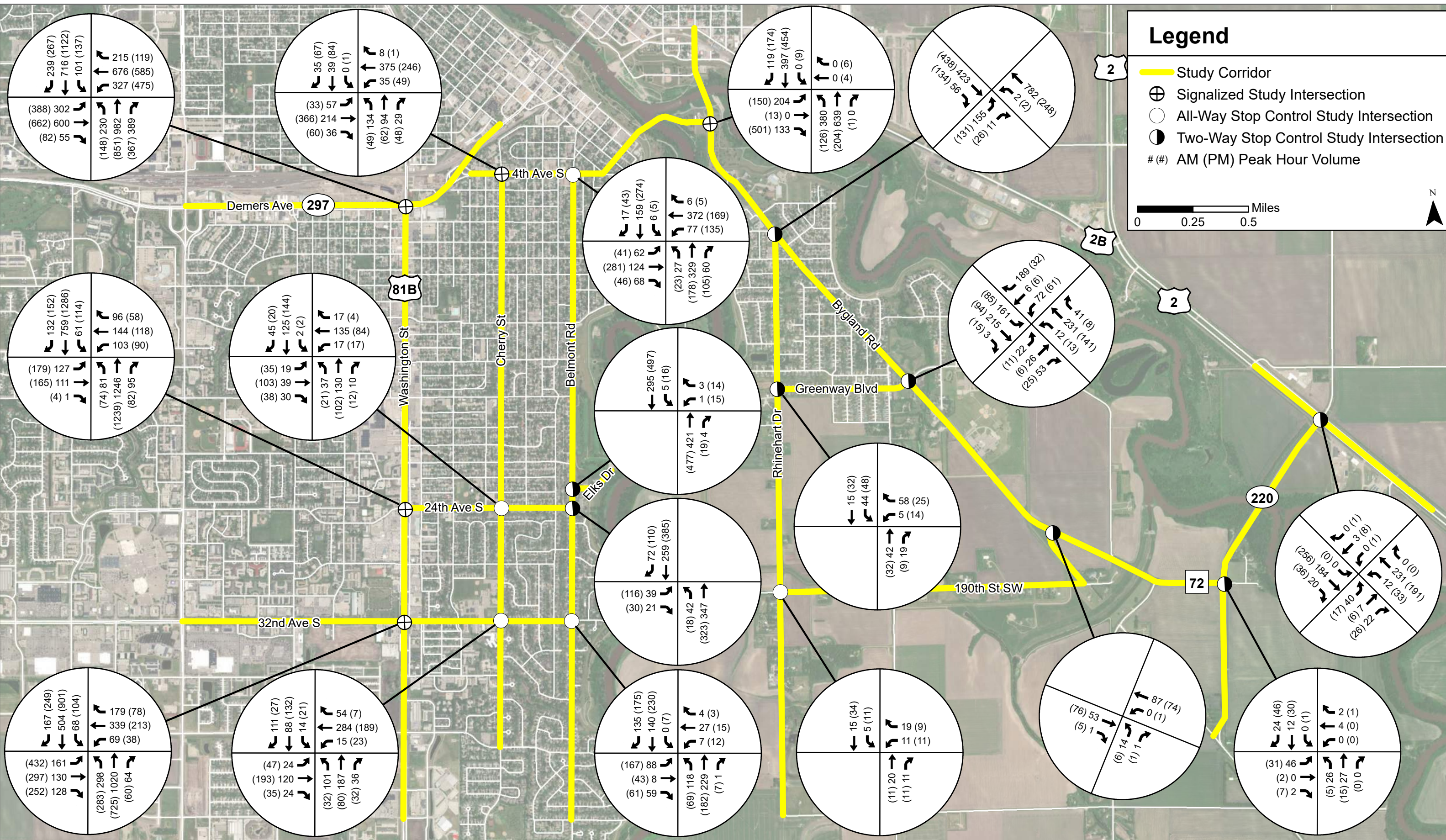
Using the forecast data provided by ATAC, growth rates were developed by comparing the base (2015) modeled segment volumes to the segment volumes for each of the forecast years under the three scenarios. These growth rates were then applied to each intersection approach to scale the existing turning movement volumes to forecast levels in 2030 and 2045 under the three scenarios. Two growth factors were calculated for each segment: one based on model-to-model growth from 2015 to 2030, and one based on model-to-model growth from 2015 to 2045. The growth rates were applied to the 2021 turning movement volumes to develop the forecast turning movement volumes.

In the Elks Dr Bridge and 32nd Ave Bridge scenarios, a new study intersection was added where the bridge would connect to Rhinehart Dr SE in East Grand Forks. Build scenario forecast turning movement volumes for these proposed future intersections and the intersections on Belmont Rd where the new bridge would connect (Elks Dr and 32nd Ave S) were derived from the travel demand model forecast ADTs based on peak hour traffic characteristics for the existing Point Bridge.

The No Build scenario forecast volumes are provided in Figure 3-5 and **Figure 3-6**, the Elks Dr Bridge scenario forecast volumes are provided in Figure 3-7 and Figure 3-8, and the 32nd Ave Bridge scenario forecast volumes are provided in **Figure 3-9** and Figure 3-10.

The changes in traffic volumes from Existing Conditions (2015, see below) to forecast 2030 No Build and forecast 2045 No Build Conditions were illustrated to show the magnitude of the anticipated volume changes on the study area road network with only background traffic growth and no additional river crossing. The average daily traffic (ADT) volume data used was from travel demand modeling provided by the Advanced Traffic Analysis Center (ATAC). The base year of the travel demand modeling was 2015, which are the volumes that are represented for Existing Conditions in the comparison graphics.

A map showing the forecast volume changes from 2015 to 2030 No Build Conditions is provided in **Figure 3-11**, and one showing the forecast volume changes from 2015 to 2045 No Build Conditions is provided in **Figure 3-12**.

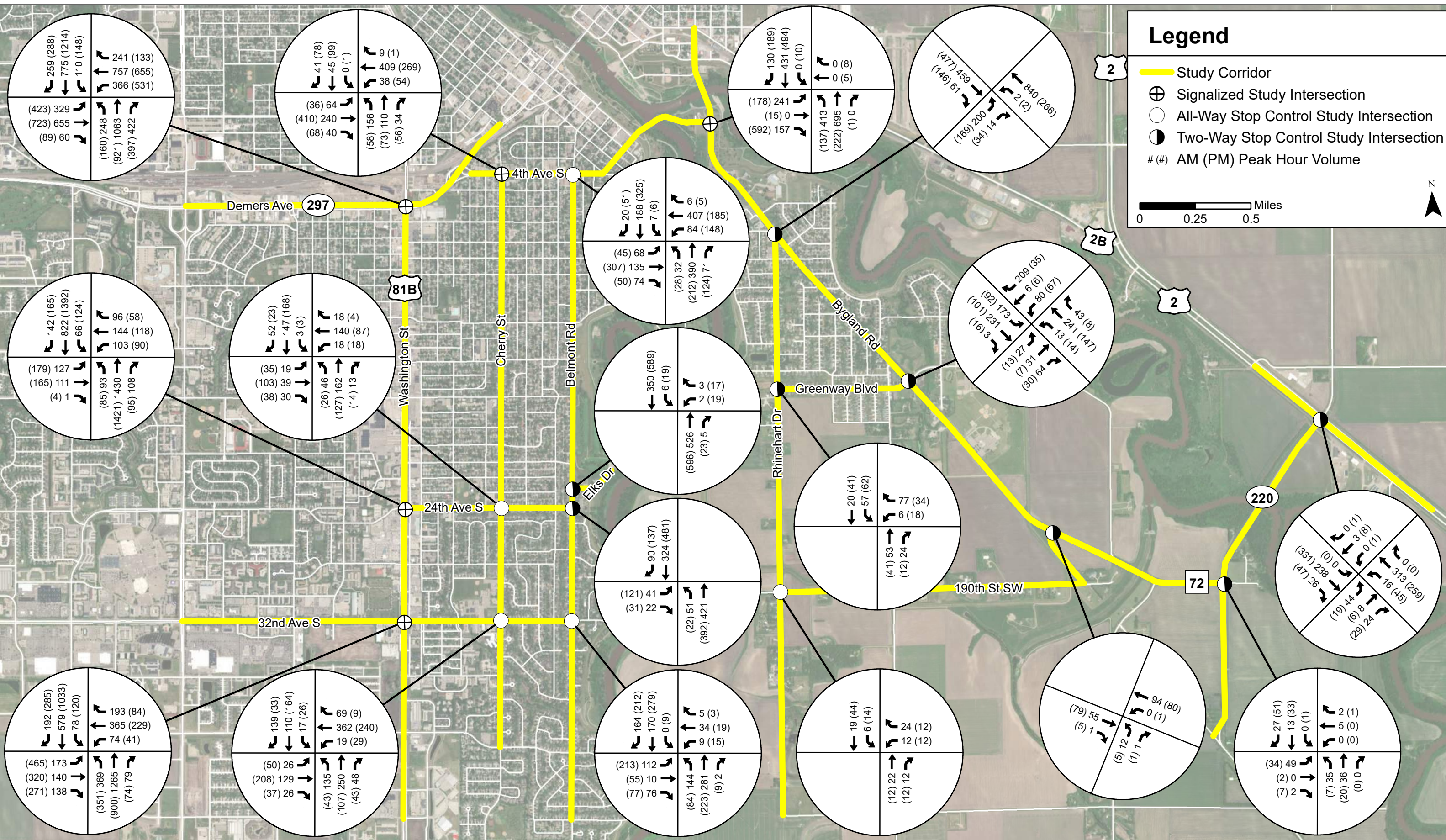


Future Bridge Traffic Impact Study



Figure 3-5
Forecast 2030 No Build Traffic Volumes

Source: ESRI World Imagery Basemap

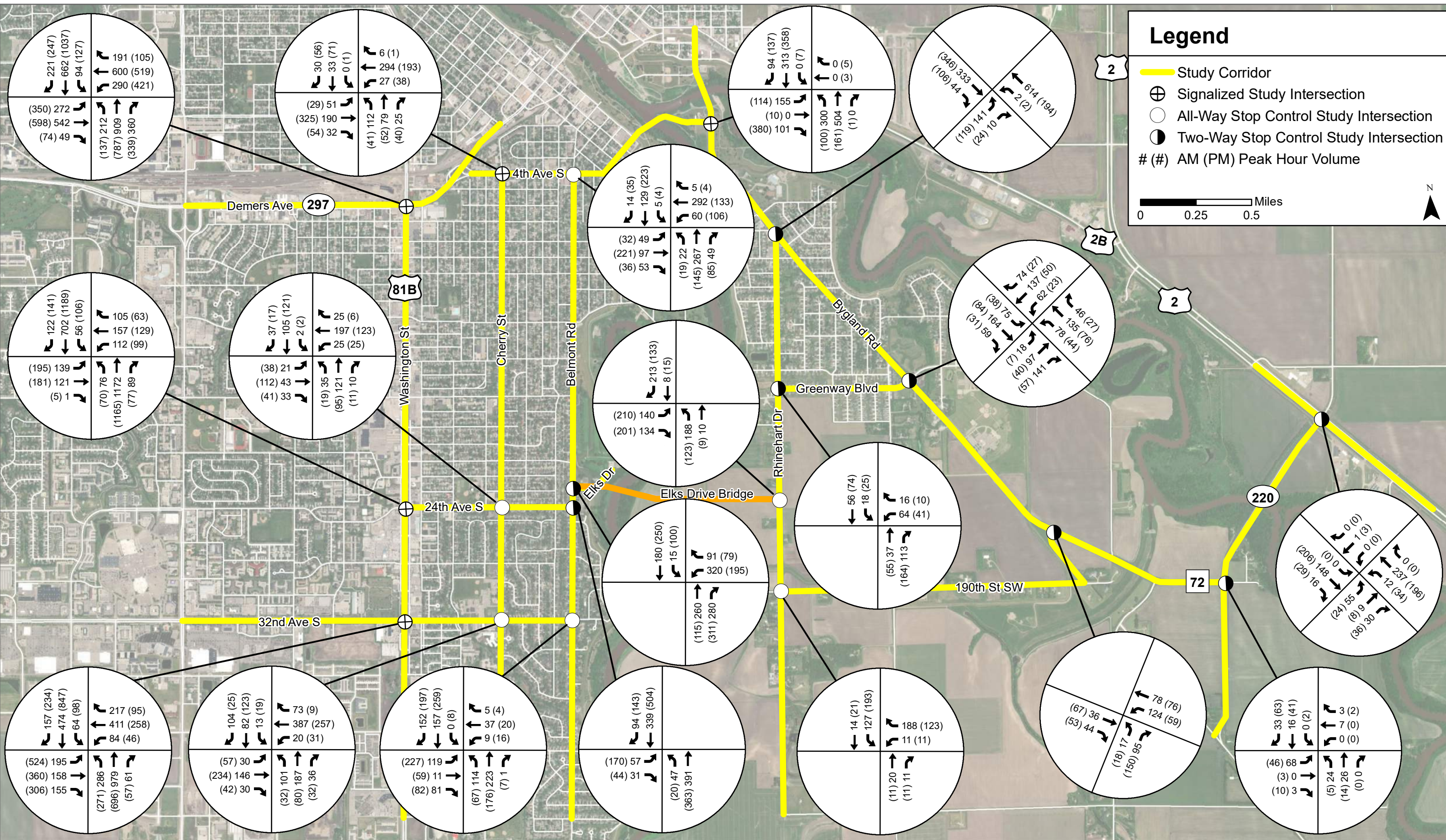


Future Bridge Traffic Impact Study



Figure 3-6
Forecast 2045 No Build Traffic Volumes

Source: ESRI World Imagery Basemap

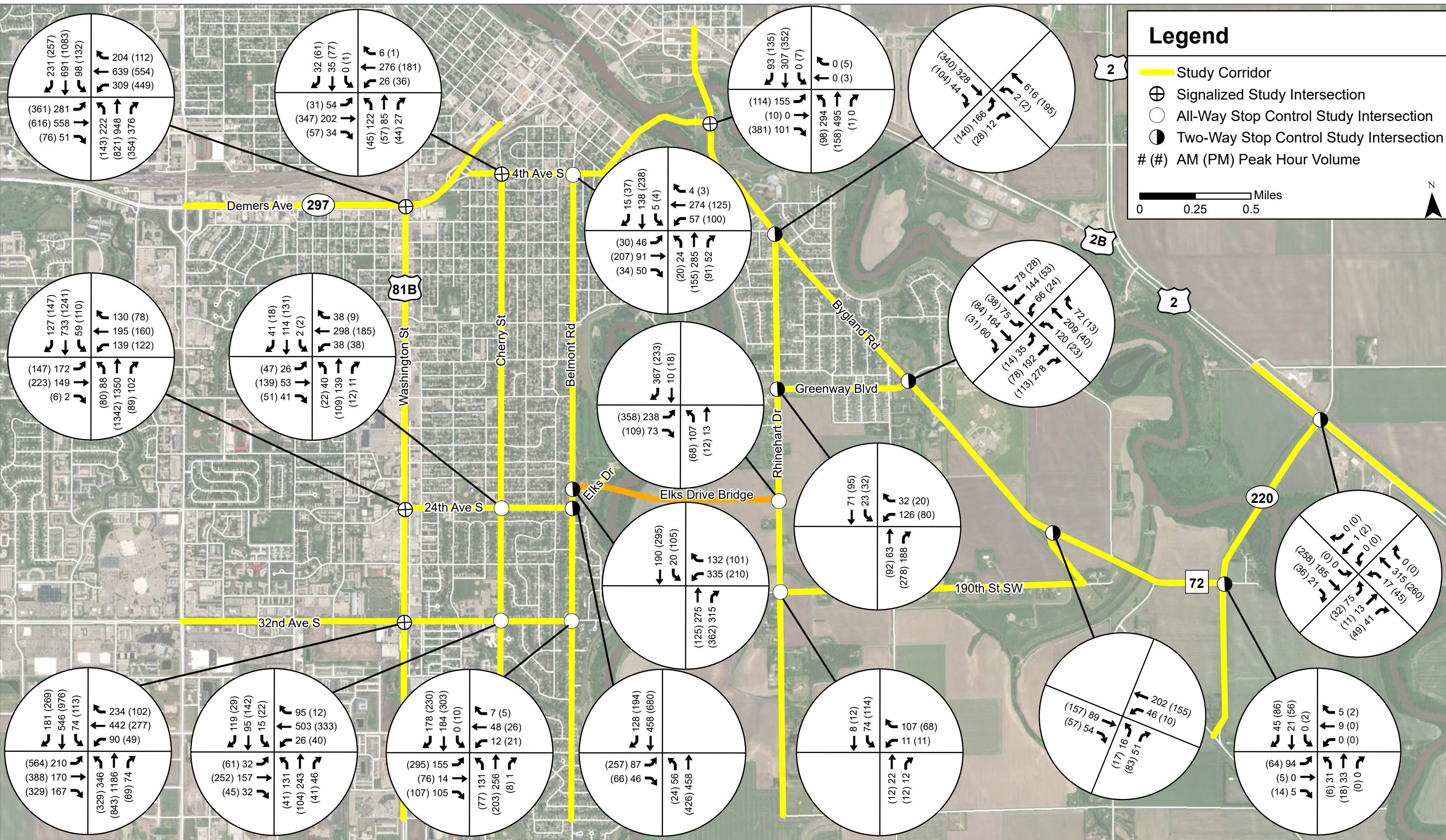


Future Bridge Traffic Impact Study

Figure 3-7
Forecast 2030 Elks Drive Bridge Traffic Volumes



Source: ESRI World Imagery Basemap

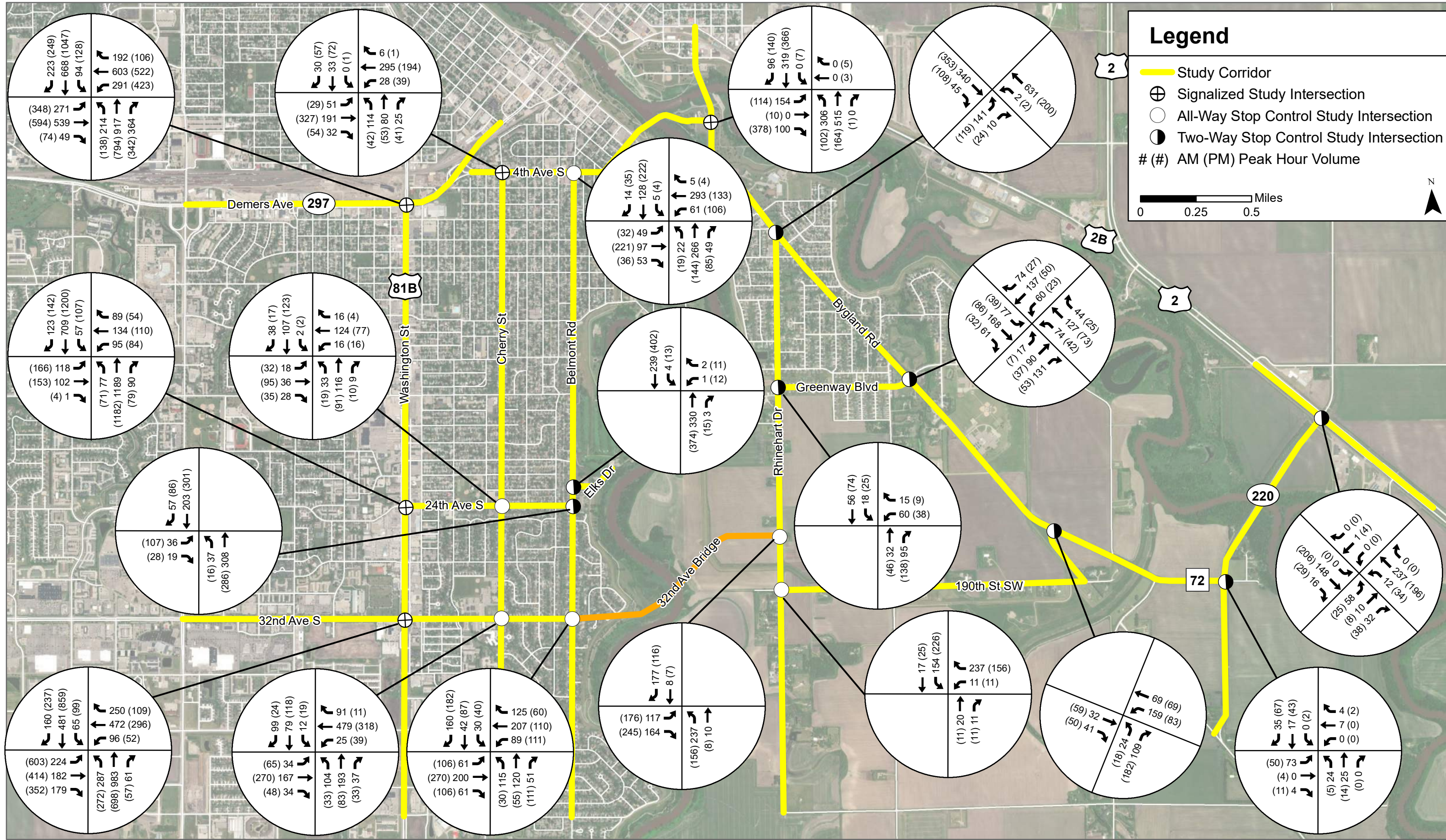


Future Bridge Traffic Impact Study

Figure 3-8
Forecast 2045 Elks Drive Bridge Traffic Volumes



Source: ESRI World Imagery Basemap

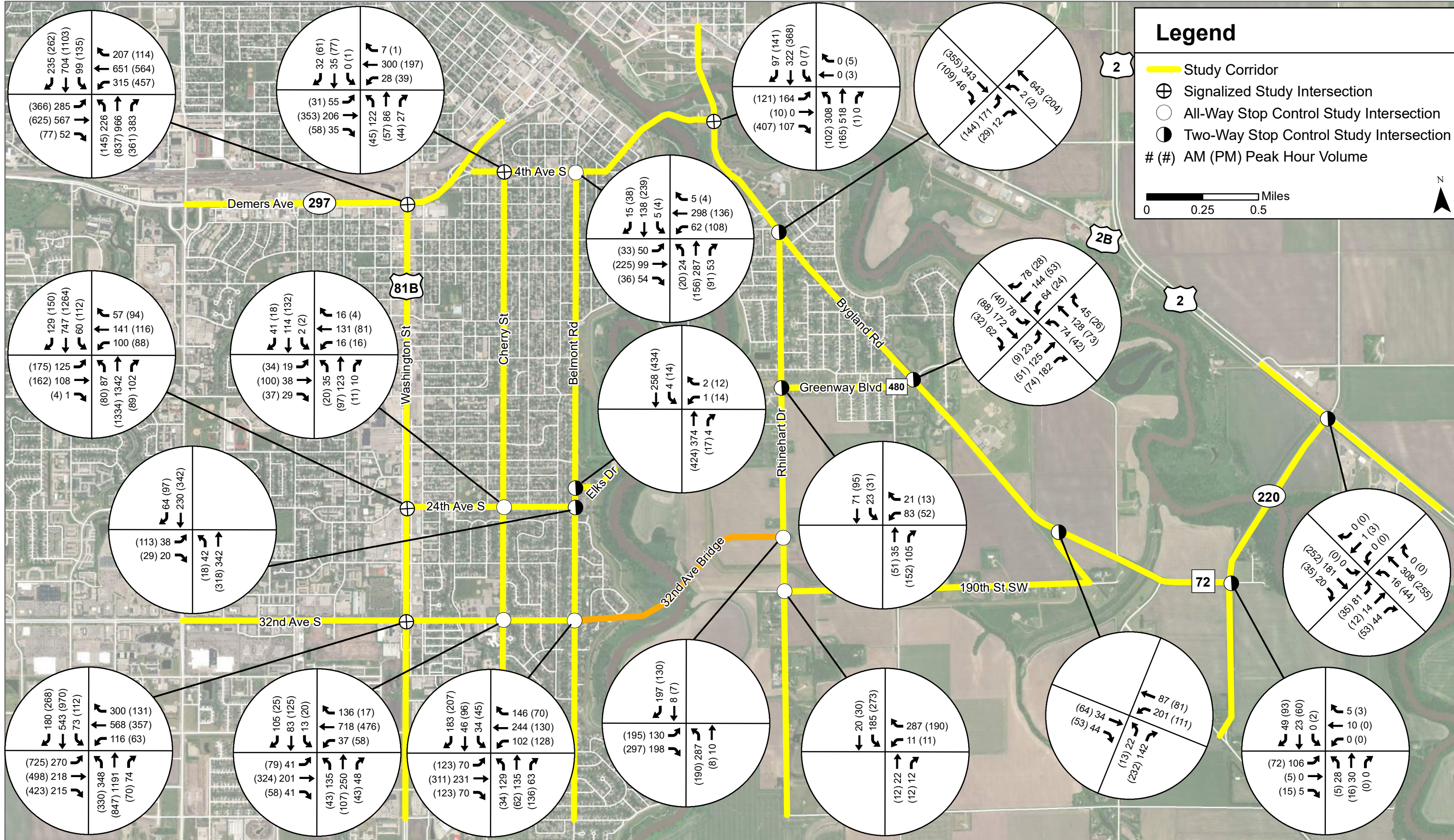


Future Bridge Traffic Impact Study



Figure 3-9
Forecast 2030 32nd Avenue Bridge Traffic Volumes

Source: ESRI World Imagery Basemap

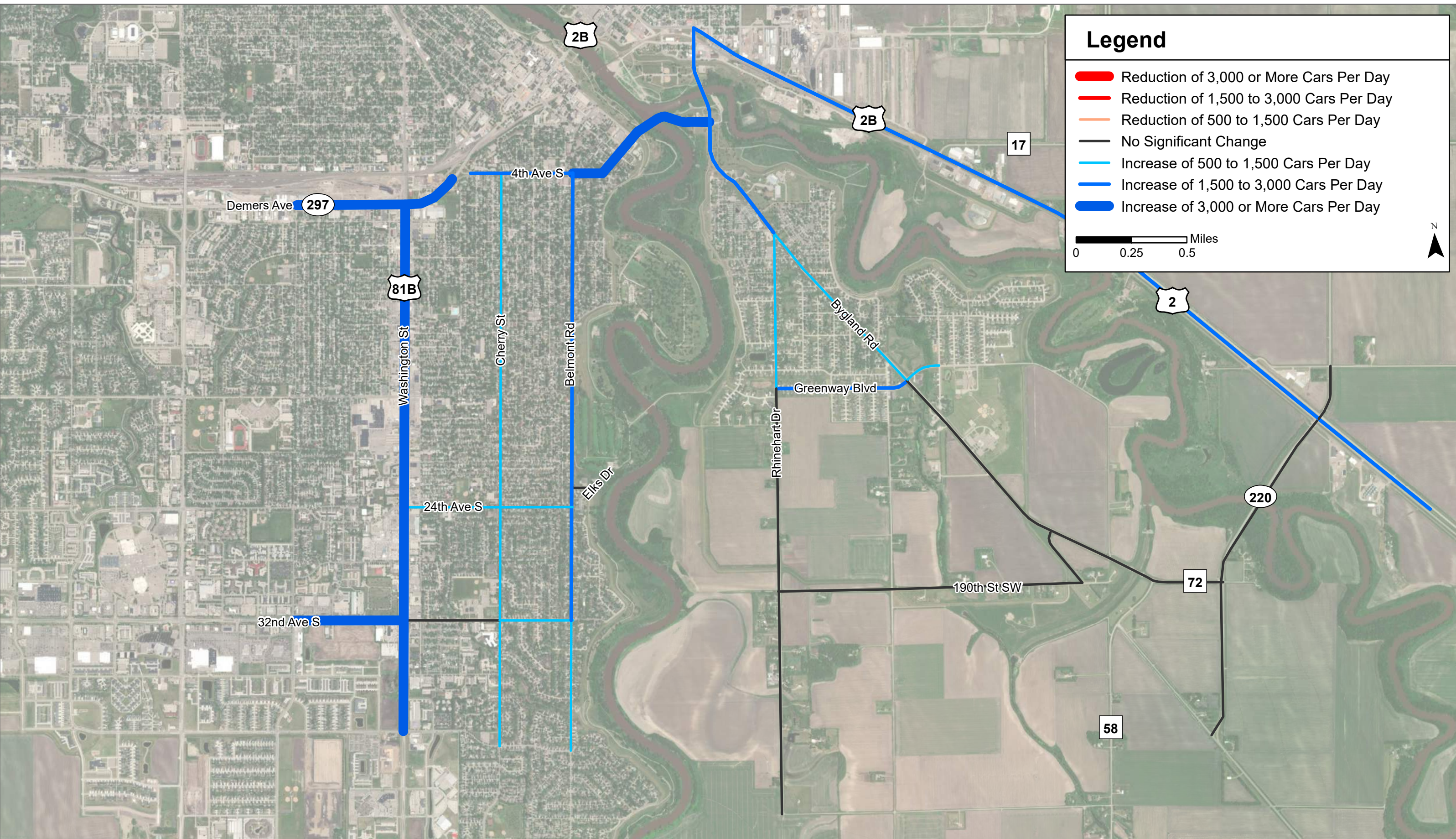


Future Bridge Traffic Impact Study

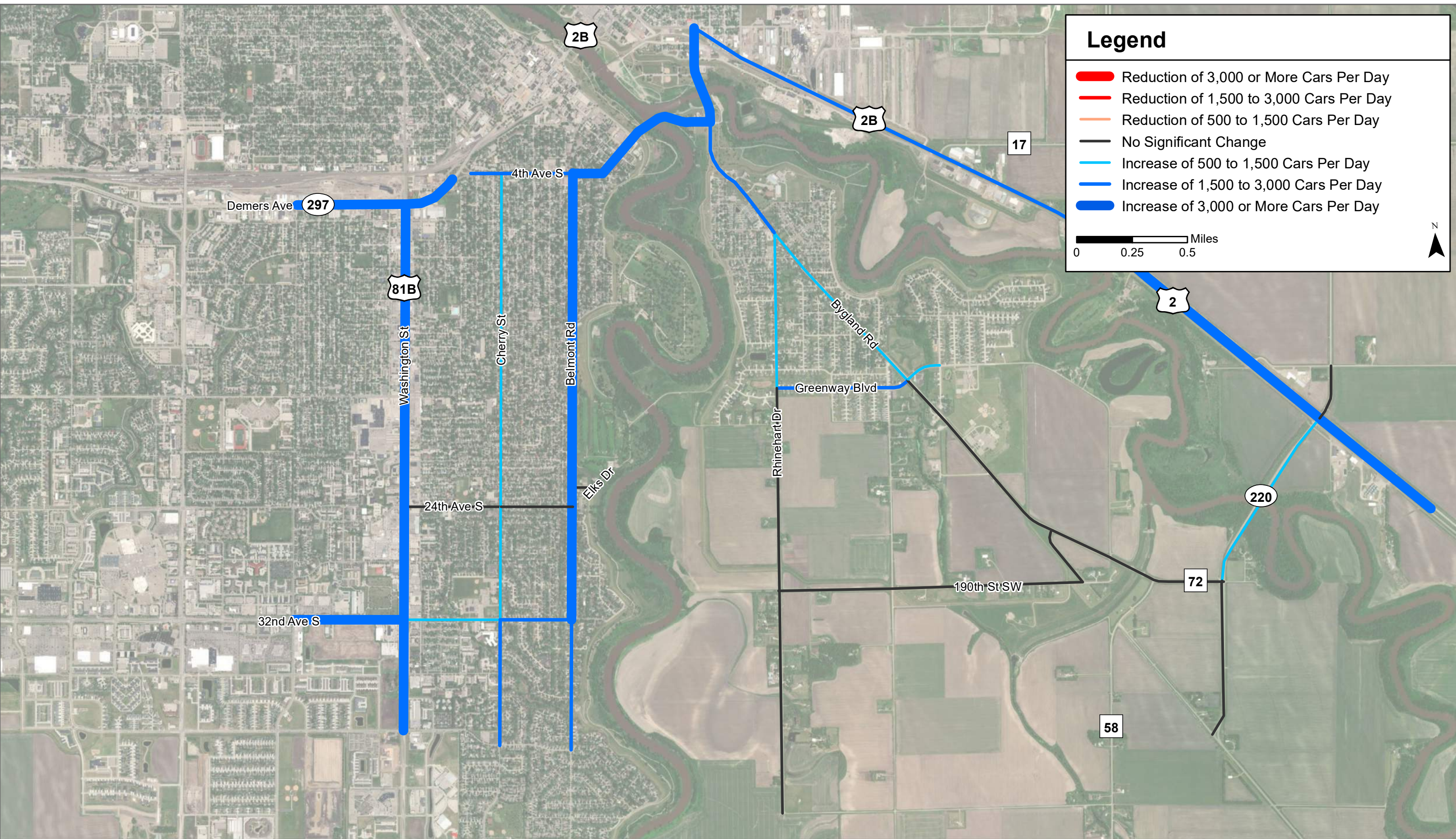
Figure 3-10
Forecast 2045 32nd Avenue Bridge Traffic Volumes



Source: ESRI World Imagery Basemap



*Figure 3-11
2015 to 2030 No Build Traffic Volume Change*



Legend

- █ Reduction of 3,000 or More Cars Per Day
- █ Reduction of 1,500 to 3,000 Cars Per Day
- █ Reduction of 500 to 1,500 Cars Per Day
- █ No Significant Change
- █ Increase of 500 to 1,500 Cars Per Day
- █ Increase of 1,500 to 3,000 Cars Per Day
- █ Increase of 3,000 or More Cars Per Day

0 0.25 0.5 Miles

N

*Figure 3-12
2015 to 2045 No Build Traffic Volume Change*

Source: ESRI World Imagery Basemap

3.2 TRAFFIC SAFETY

A historical crash analysis was completed to identify locations within the study area that have experienced higher than average crashes. Historical crash data from the most recent five years of data available (2016 through 2020) was obtained from the MnDOT Crash Mapping Analysis Tool (MnCMAT2) for East Grand Forks roads and was provided by the Grand Forks-East Grand Forks MPO for Grand Forks roads. The safety analysis will be used along with the results of traffic operations analysis to identify where safety mitigation may be appropriate in addition to mobility mitigation at locations where over-capacity conditions are identified.

In examining the crash data obtained, two key factors were considered: (1) crash rate, (2) fatal and severe crash rate. Statistically significant locations are identified from these factors, and are indicated by comparing crash rates and fatal/severe crash rates to statewide averages for roadways or intersections with similar characteristics.

Crash Rate

History has proven that crashes are a function of exposure. Roadways with higher traffic volumes experience more crashes than similar roadways with lower volumes. Rather than simply documenting the number of crashes that occur at an intersection or over a segment, crash rates must be considered. Crash rates normalize different locations with varying traffic volumes—intersections with high volumes can be compared to intersections with low volumes using the intersection crash rate—providing a useful tool in making comparisons across multiple locations with respect to safety. Intersection crash rates are defined as the number of crashes occurring per million entering vehicles (MEV). Segment crash rates are defined as the number of crashes occurring per million vehicle miles traveled (MVM), which accounts for the volume and length of roadway being analyzed. Observed crash rates at specific locations can also be compared to statewide average or typical values for an intersection or roadway of the same type.

Crash occurrence is somewhat random by nature. Identifying every intersection or segment with a crash rate above the statewide average value in an analysis would produce a large amount of data that may not be statistically relevant with respect to safety deficiencies. The critical crash rate identifies locations that have a crash rate higher than similar facilities by a statistically significant amount. The critical crash rate is calculated by adjusting the system-wide average based on the amount of exposure and a statistical constant indicating level of confidence.¹ The critical crash rate is calculated using a statistical level of confidence of 99.5 percent. For ease of comparison, a critical crash index is utilized, which is the ratio of the observed crash rate to the critical crash rate. All critical crash index values over 1.0 would be considered statistically significant, indicating a historical crash issue.

Fatal and Severe (K/A) Crash Rate

Fatal and severe (K/A) crash rate, the second key factor, quantifies the fatal and incapacitating injury crashes at a location. The purpose for analyzing this statistic is to identify locations that may experience a low crash rate

¹ MnDOT Traffic Safety Fundamentals Handbook, August 2015.

but have a high percentage of fatal or severe injury crashes, which may be the case at high-speed, low-volume rural intersections. Reported crashes are generally categorized into the following severity types:

- Fatal (Type K)
- Incapacitating Injury (Type A)
- Non-Incapacitating Injury (Type B)
- Possible Injury (Type C)
- Property Damage Only (Type PDO)

Due to the lower number of fatal and severe crashes compared to total crashes, the K/A crash rate is calculated per 100 million vehicle miles (100 MVM). Critical K/A rate is based on the same statistical method as critical crash rates but with a lower confidence level of 90 percent as a more conservative cut-off for statistical significance. The critical K/A rate index, which is the ratio of the observed K/A rate to the critical K/A rate, is also utilized for an easier comparison of an intersection or roadway versus the statewide average for similar facility types. All values over 1.0 would be considered statistically significant.

3.2.1 Crash Summaries

The intersection crash analysis for study intersections and locations where school driveways or crossings are present on study roadways are summarized in **Table 3-3**. Cells are highlighted yellow where the crash rate exceeds the statewide average crash rate but is lower than the critical crash rate, and are highlighted red where the crash rate exceeds the critical crash rate. As previously noted, only locations with a crash rate that exceeds the critical crash rate (critical index values greater than 1.0) represent statistically significant crash problems.

Table 3-3. 2016-2020 Intersection Crash Analysis Summary

Intersection	Traffic Control	Total Entering Volume ²	Total Crashes ¹	Crash Rate per MEV	State Average Crash Rate ³	Critical Crash Rate ^{4,5}	Critical Crash Index	K/A Crashes	K/A Rate	State Average K/A Rate	Critical K/A Rate ^{4,5}	Critical K/A Index
32nd Avenue S & S Washington Street	Signalized (XS, HV)	57,601,563	74	1.28	0.70	0.99	1.29	1	1.74	0.76	3.10	0.56
24th Avenue S & S Washington Street	Signalized (LS, HV)	55,721,813	66	1.18	0.70	1.00	1.19	0	0.00	0.76	3.15	0.00
DeMers Avenue & S Washington Street	Signalized (LS, HV)	82,216,250	118	1.44	0.70	0.94	1.52	1	1.22	0.76	2.60	0.47
4th Avenue S & Cherry Street	Signalized (LS, LV)	15,366,500	11	0.72	0.52	1.03	0.70	0	0.00	0.42	5.79	0.00
1st Street SE & 3rd Avenue SE	Signalized (LS, LV)	22,173,750	8	0.36	0.52	0.94	0.39	0	0.00	0.42	4.44	0.00
32nd Avenue S & Cherry Street	All-Way Stop	13,158,250	7	0.53	0.35	0.81	0.66	0	0.00	0.57	7.04	0.00
32nd Avenue S & Belmont Road	All-Way Stop	10,448,125	2	0.19	0.35	0.87	0.22	0	0.00	0.57	8.35	0.00
24th Avenue S & Cherry Street	All-Way Stop	8,080,188	0	0.00	0.35	0.95	0.00	0	0.00	0.57	10.16	0.00
4th Avenue S & Belmont Road	All-Way Stop	17,748,125	13	0.73	0.35	0.74	0.99	0	0.00	0.57	5.68	0.00
24th Avenue S & Belmont Road	Thru/Stop (Urban)	10,762,938	2	0.19	0.18	0.56	0.33	0	0.00	0.33	7.22	0.00
Belmont Road & Elks Road	Thru/Stop (Urban)	9,636,000	2	0.21	0.18	0.58	0.36	0	0.00	0.33	7.89	0.00
Bygland Road SE & Rhinehart Drive SE	Thru/Stop (Urban)	12,181,875	2	0.16	0.18	0.53	0.31	0	0.00	0.33	6.54	0.00
Rhinehart Drive SE & Greenway Boulevard SE	Thru/Stop (Urban)	2,217,375	0	0.00	0.18	1.14	0.00	0	0.00	0.33	27.82	0.00
Rhinehart Drive SE & 190th Street SW	Thru/Stop (Urban)	365,000	0	0.00	0.18	3.36	0.00	0	0.00	0.33	149.51	0.00
Bygland Road SE & Greenway Boulevard SE	Thru/Stop (Urban)	6,259,750	4	0.64	0.18	0.70	0.92	1	15.98	0.33	11.26	1.42
Bygland Road SE & Bygland Road SE/190th Street SW	Thru/Stop (Rural)	3,695,625	0	0.00	0.25	1.06	0.00	0	0.00	1.05	21.41	0.00
TH 220 & Harley Drive	Thru/Stop (Rural)	2,536,750	0	0.00	0.25	1.26	0.00	0	0.00	1.05	29.01	0.00
TH 220 & US 2	Thru/Stop (Rural)	11,060,413	2	0.18	0.25	0.68	0.26	0	0.00	1.05	9.52	0.00
32nd Avenue S & S 10th Street (near Schroeder Middle School)	Thru/Stop (Urban)	13,692,063	5	0.37	0.18	0.51	0.71	0	0.00	0.33	5.97	0.00
Cherry Street & J Nelson Kelly Elementary School North Driveway	Thru/Stop (Urban)	5,657,500	0	0.00	0.18	0.73	0.00	0	0.00	0.33	12.26	0.00

Table 3-3. 2016-2020 Intersection Crash Analysis Summary (Continued)

Intersection	Traffic Control	Total Entering Volume ¹	Total Crashes ²	Crash Rate per MEV	State Average Crash Rate ³	Critical Crash Rate ^{4, 5}	Critical Crash Index	K/A Crashes	K/A Rate	State Average K/A Rate	Critical K/A Rate ^{4, 5}	Critical K/A Index
Cherry Street & Schroeder / J Nelson Kelly Elementary School Driveway	Thru/Stop (Urban)	5,657,500	0	0.00	0.18	0.73	0.00	0	0.00	0.33	12.26	0.00
24th Avenue S & Oak Street (near Viking Elementary School)	Thru/Stop (Urban)	4,991,375	0	0.00	0.18	0.77	0.00	0	0.00	0.33	13.64	0.00
4th Avenue S & Chestnut Street (near Phoenix Elementary School)	Thru/Stop (Urban)	12,172,750	4	0.33	0.18	0.53	0.61	0	0.00	0.33	6.55	0.00
Belmont Road & Phoenix School Driveway	Thru/Stop (Urban)	9,636,000	2	0.21	0.18	0.58	0.36	0	0.00	0.33	7.89	0.00

¹ AADT obtained from MnDOT Traffic Data Map and North Dakota Traffic Data Web App.

² East Grand Forks crash data obtained from MnCMAT2 and Grand Forks crash data was provided by the Grand Forks-East Grand Forks MPO.

³ MnDOT's 2015 Green Sheets were used to determine the state average crash rate.

⁴ The critical rate is a statistically adjusted crash rate to account for random nature of crashes.

⁵ A 99.5% confidence level was assumed for critical crash rate and an 90% confidence level was assumed for critical K/A rate.

The intersection crash analysis shows large volumes of crashes at the three study intersections along S Washington Street, resulting in crash rates that exceed the critical crash rate for each intersection. S Washington Street is a major arterial that provides a north-south connection to a large catchment area, and as such these intersections experience the greatest volumes of any within the study corridor. While the critical crash index indicates an issue with the total volume of crashes occurring at these intersections, the critical K/A index is less than 1.0 at each intersection, indicating that the vast majority of crashes do not result in a severe injury or death to the people involved. Of the K/A crashes, the one at 32nd Avenue S & S Washington Street was an incapacitating injury, and the one at DeMers Avenue & S Washington Street was a fatality. S Washington Street is programmed for reconstruction by 2030; however, this project does not include expansion or capacity improvements to S Washington Street.

The intersection of Bygland Road SE & Greenway Boulevard SE has a K/A rate that exceeds the critical K/A rate, indicating that it has experienced more crashes resulting severe injury or death than other intersections with similar characteristics. The K/A crash at this intersection was an incapacitating injury.

The last five intersections in **Table 3-3** show intersections near schools or at school driveways. There have been no fatal or severe injury crashes at these intersections in the past five years between 2016-2020. The crash rates at 32nd Avenue S & S 10th Street (5 crashes), 4th Avenue S & Chestnut Street (4 crashes), and Belmont Road & Phoenix School Driveway (2 crashes) have crash rates exceeding the statewide average, but do not exceed the critical crash rates, and thus do not represent statistically significant crash issues.

It should be noted that there is a programmed improvement to add a traffic signal at the Bygland Road SE & Greenway Boulevard SE intersection by the 2045 horizon year. Additionally, the intersection of Bygland Road SE & Rhinehart Drive SE is currently programmed to install a single-lane roundabout by the forecast 2030 year; however, this improvement is currently in consideration of being removed from the program. These intersection traffic control changes would influence the safety performance at each of these intersections, and both would be expected to provide improvements to both safety and mobility. North of the study area in East Grand Forks, MnDOT is reconstructing the intersection of US 2 and US 2B to be a Reduced Conflict Intersection (RCI). While

this improvement is not expected to impact a future river crossing, it is identified here in the context of the overall system.

3.2.2 Contributing Factors

An analysis of crash type and contributing factors was conducted for the study intersections with critical indices greater than 1.0. The contributing factors reported for each crash were extracted by category for each intersection with critical index issues. While the majority of the time there are no clear contributing factors reported, contributing factors for the next highest categories can help to show trends in crashes at the intersection. This information along with the breakdown of crashes by type/severity provides additional insight into safety issues at intersections with statistically significant crash issues. **Table 3-4** shows the contributing factor proportions for the four intersections with critical crash or critical K/A crash issues. The breakdowns of crashes by type/severity for these four intersections are provided in **Figure 3-13** through **Figure 3-16**.

The most common contributing factor at the three intersections on S Washington Street was “following too close”, which corresponds with the highest proportion of crashes being rear end crashes. These attributes are common for crashes at signalized intersections, and generally go hand-in-hand. Contributing factor and crash type trends cannot be derived at the Bygland Road SE & Greenway Boulevard SE intersection due to the low number of crashes during the analysis period (4 crashes).

Table 3-4. Contributing Factors at Issue Intersections

Contributing Factor	32nd Avenue S & S Washington St	24th Avenue S & S Washington St	DeMers Avenue & S Washington St
No Clear Factor	61.2%	60.1%	62.0%
Following Too Close	10.9%	12.3%	8.3%
Ran Red Light	6.8%	0.7%	3.7%
Careless/Reckless Driving	5.4%	2.9%	2.1%
Weather	4.8%	7.2%	5.8%
Failure To Keep In Proper Lane	3.4%	1.4%	2.9%
Too Fast For Conditions	3.4%	0.7%	2.5%
Speed	1.4%	0.7%	0.8%
Improper Turn	1.4%	0.7%	2.5%
Wrong Way	-	0.7%	0.8%
Failed To Yield	0.7%	11.6%	7.4%
Defective Equipment	0.7%	-	0.4%
Improper Overtaking	-	-	0.4%
Other	-	0.7%	0.4%

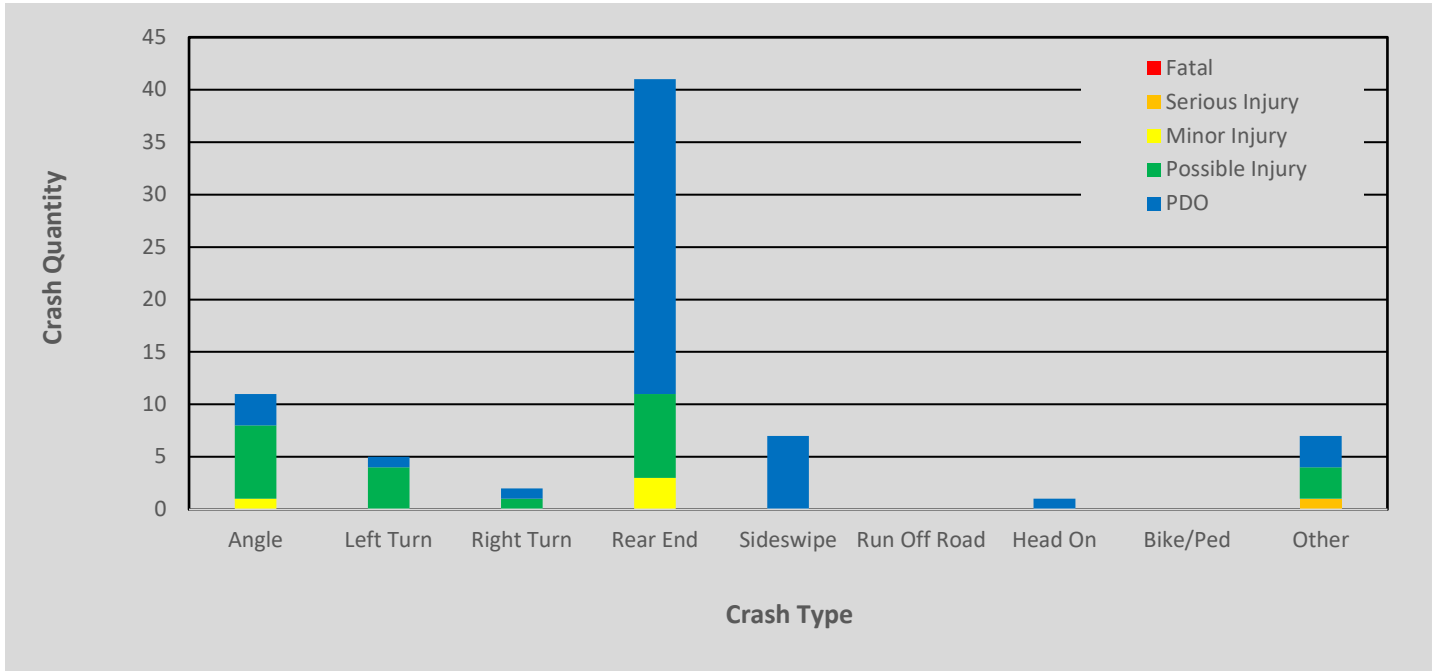


Figure 3-13. 32nd Avenue S & S Washington Street Crash Type/Severity Breakdown

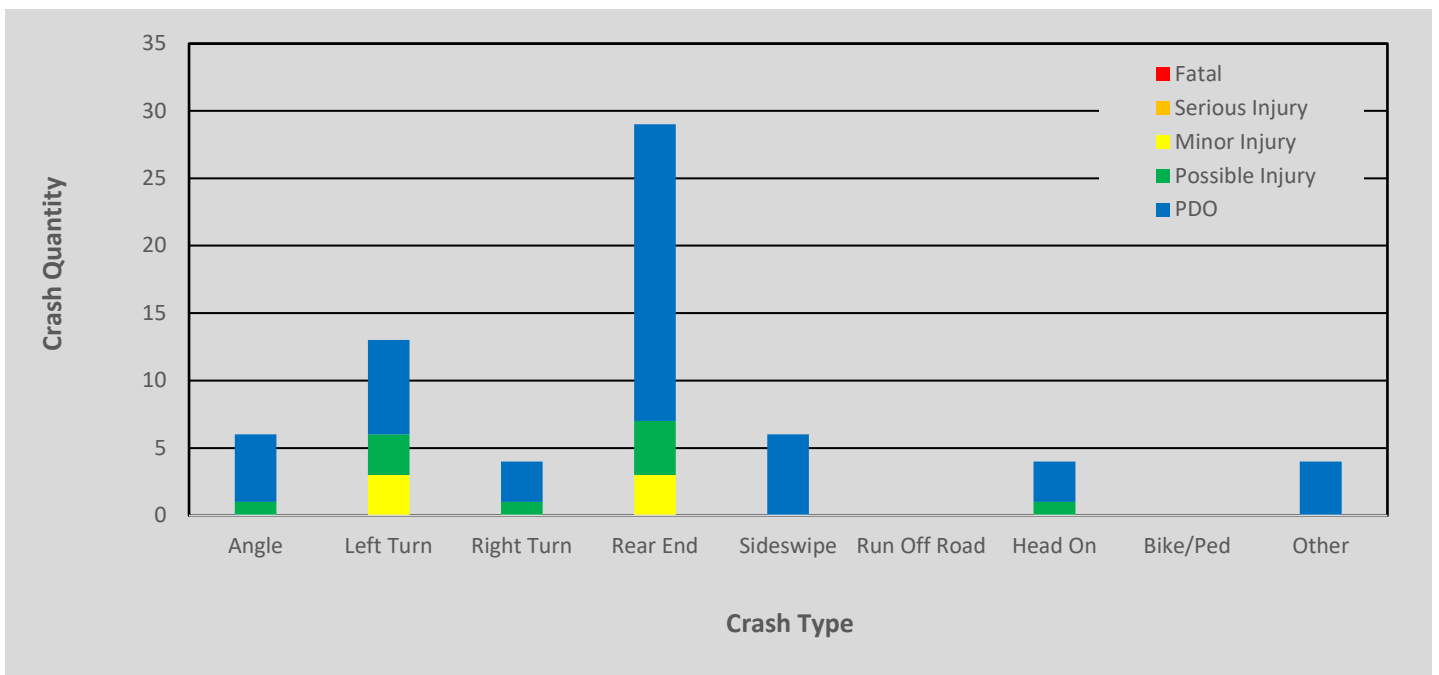


Figure 3-14. 24th Avenue S & S Washington Street Crash Type/Severity Breakdown

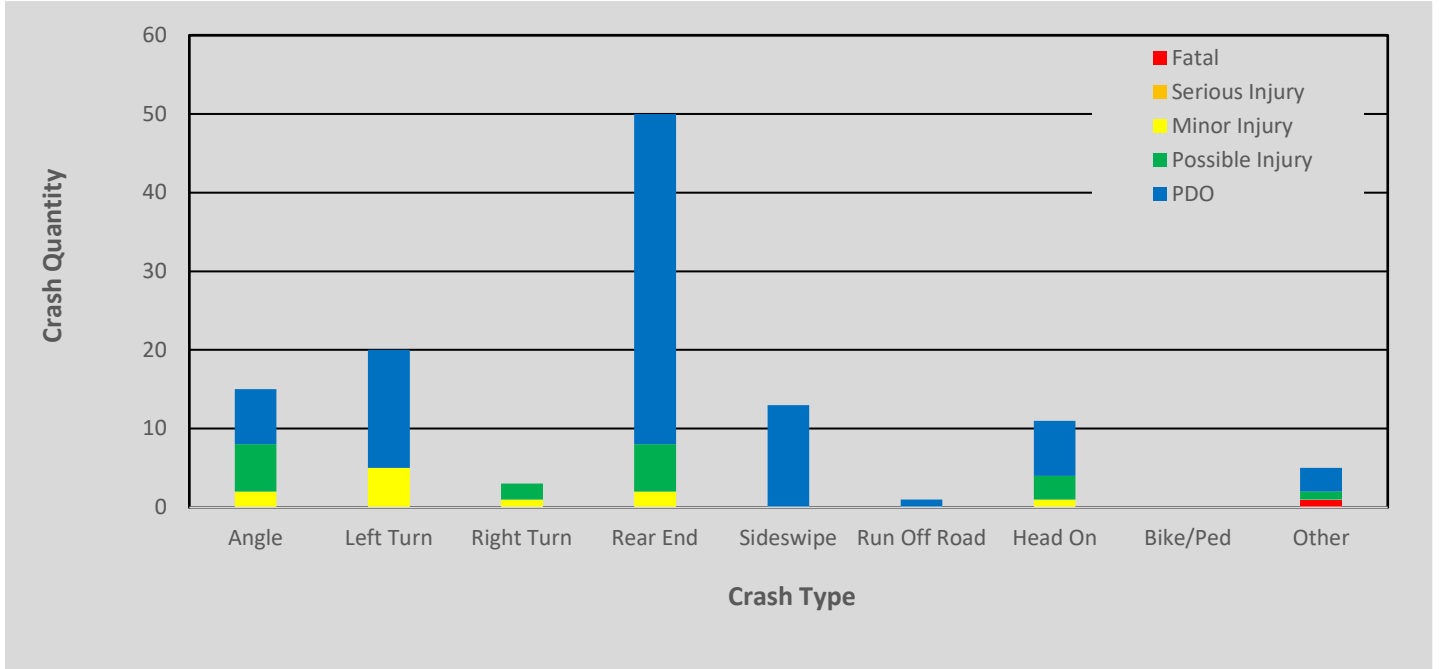


Figure 3-15. DeMers Avenue & S Washington Street Crash Type/Severity Breakdown

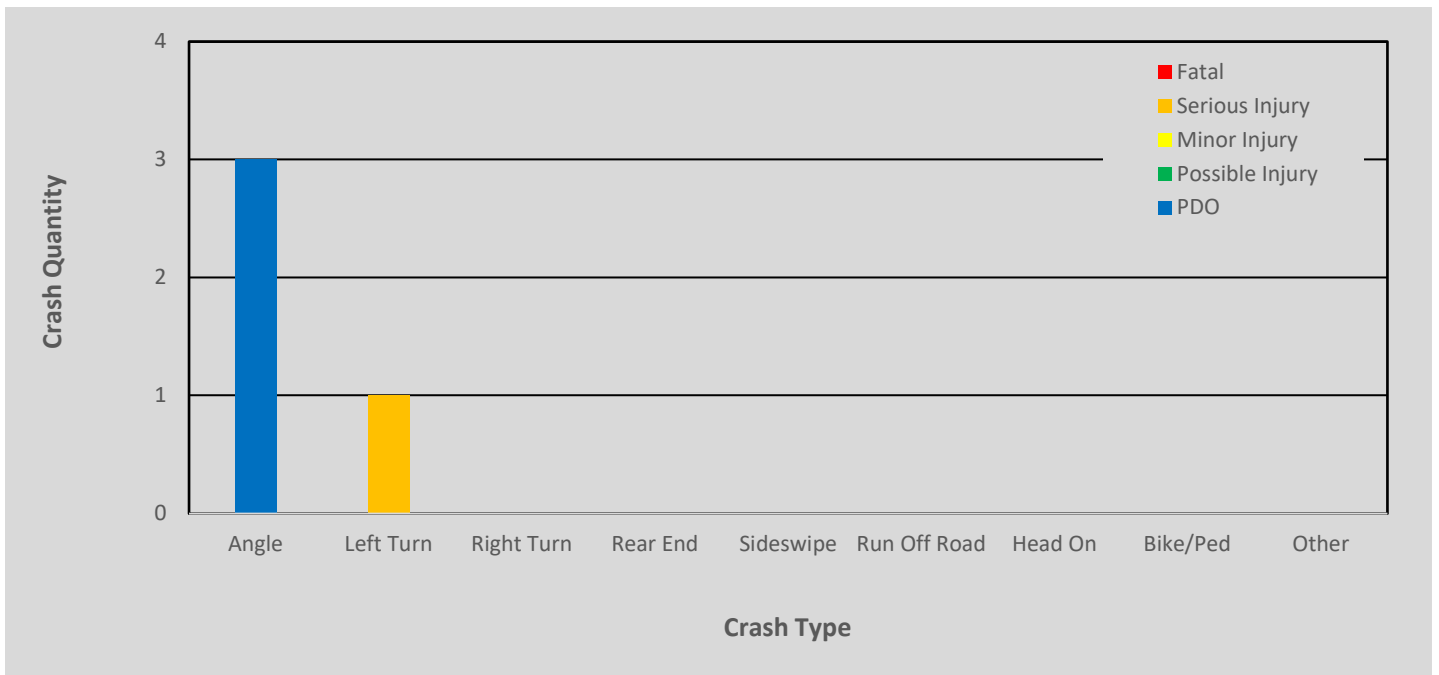


Figure 3-16. Bygland Road SE & Greenway Boulevard SE Crash Type/Severity Breakdown

Table 3-5 summarizes the study roadway segment crash analysis.

Table 3-5. 2016-2020 Segment Crash Analysis Summary

Segment	Segment Extent	Cross-Section	Total VMT ¹	Total Crashes ²	Crash Rate per MVMt	State Average Crash Rate ³	Critical Crash Rate ^{4,5}	Critical Crash Index	K/A Crashes	K/A Rate	State Average K/A Rate	Critical K/A Rate ^{4,5}	Critical K/A Index
32nd Avenue S	S 20th Street to S Washington Street	Urban 4-lane Divided	16,185,925	28	1.73	2.76	3.86	0.45	2	12.36	2.91	11.43	1.08
	S Washington Street to Cherry Street	Urban 2-lane (1500-4999 AADT)	3,884,513	7	1.80	1.32	2.95	0.61	0	0.00	2.87	26.76	0.00
	Cherry Street to Belmont Road	Urban 2-lane (1500-4999 AADT)	2,306,800	2	0.87	1.32	3.48	0.25	0	0.00	2.87	38.85	0.00
24th Avenue S	S Washington Street to Cherry Street	Urban 2-lane (1500-4999 AADT)	3,374,425	17	5.04	1.32	3.08	1.64	0	0.00	2.87	29.51	0.00
	Cherry Street to Belmont Road	Urban 2-lane (<1500 AADT)	730,000	2	2.74	1.46	5.79	0.47	0	0.00	10.19	126.58	0.00
DeMers Avenue	S 20th Street to S Washington Street	Urban 4-lane Divided	17,611,250	17	0.97	2.76	3.81	0.25	0	0.00	2.91	10.96	0.00
DeMers Avenue/ 4th Avenue S	S Washington Street to Cherry Street	Urban 4-lane Divided	15,665,800	30	1.91	2.76	3.87	0.49	3	19.15	2.91	11.63	1.65
4th Avenue S	Cherry Street to Belmont Road	Urban 2-lane (5000-7999 AADT)	3,124,400	11	3.52	1.80	3.92	0.90	0	0.00	2.77	30.83	0.00
4th Avenue S/ 1st Street SE	Belmont Road to 3rd Avenue SE/ Bygland Road SE (Point Bridge)	Urban 2-lane (5000-7999 AADT)	9,723,600	40	4.11	1.80	2.96	1.39	1	10.28	2.77	14.74	0.70
2nd Avenue NE	US 2 (Business) to 1st Street SE	Urban 2-lane (>8000 AADT)	5,672,100	2	0.35	2.24	3.94	0.09	0	0.00	2.56	20.00	0.00
Bygland Road SE/ 3rd Avenue SE	1st Street SE to Rhinehart Drive SE	Urban 2-lane (>8000 AADT)	10,575,875	5	0.47	2.24	3.47	0.14	0	0.00	2.56	13.60	0.00
	Rhinehart Drive SE to Greenway Boulevard SE	Urban 2-lane (5000-7999 AADT)	9,154,200	11	1.20	1.80	3.00	0.40	0	0.00	2.77	15.27	0.00
	Greenway Boulevard SE to Bygland Road SE/ 190th Street SW	Urban 2-lane (1500-4999 AADT)	6,060,825	1	0.16	1.32	2.60	0.06	0	0.00	2.87	19.94	0.00
	Bygland Road SE / 190th Street SW to TH 220	Urban 2-lane (<1500 AADT)	1,481,535	1	0.67	1.46	4.36	0.15	0	0.00	10.19	77.56	0.00
US 2	180th Street SW to TH 220	Rural Expressway	3,952,950	2	0.51	0.66	1.84	0.28	1	25.30	1.60	22.40	1.13
	TH 220 to 410th Street SW	Rural Expressway	6,168,500	1	0.16	0.66	1.58	0.10	0	0.00	1.60	16.23	0.00
S Washington Street	DeMers Avenue to 24th Avenue S	5-lane Undivided	64,532,000	327	5.07	2.59	3.11	1.63	3	4.65	2.89	6.38	0.73
	24th Avenue S to 32nd Avenue S	Urban 4-lane Divided	19,162,500	40	2.09	2.76	3.77	0.55	0	0.00	2.91	10.51	0.00
	32nd Avenue S to 40th Avenue S	Urban 4-lane Divided	12,501,250	11	0.88	2.76	4.01	0.22	0	0.00	2.91	13.09	0.00

Table 3-5. 2016-2020 Segment Crash Analysis Summary (Continued)

Segment	Segment Extent	Cross-Section	Total VMT ¹	Total Crashes ²	Crash Rate per MVM T	State Average Crash Rate ³	Critical Crash Rate ^{4,5}	Critical Crash Index	K/A Crashes	K/A Rate	State Average K/A Rate	Critical K/A Rate ^{4,5}	Critical K/A Index
Cherry Street	4th Avenue S to 24th Avenue S	Urban 2-lane (1500-4999 AADT)	7,391,250	40	5.41	1.32	2.48	2.19	0	0.00	2.87	17.62	0.00
	24th Avenue S to 32nd Avenue S	Urban 2-lane (1500-4999 AADT)	2,600,625	5	1.92	1.32	3.35	0.57	0	0.00	2.87	35.57	0.00
	32nd Avenue S to 40th Avenue S	Urban 2-lane (1500-4999 AADT)	3,120,750	3	0.96	1.32	3.16	0.30	0	0.00	2.87	31.19	0.00
Belmont Road	4th Avenue S to 24th Avenue S	Urban 2-lane (1500-4999 AADT)	13,550,625	26	1.92	1.32	2.16	0.89	0	0.00	2.87	12.46	0.00
	24th Avenue S to 32nd Avenue S	Urban 2-lane (1500-4999 AADT)	4,151,875	4	0.96	1.32	2.89	0.33	0	0.00	2.87	25.57	0.00
	32nd Avenue S to 40th Avenue S	Urban 2-lane (1500-4999 AADT)	3,983,975	3	0.75	1.32	2.93	0.26	0	0.00	2.87	26.30	0.00
Elks Drive	East of Belmont Road	Urban 2-lane (<1500 AADT)	54,750	0	0.00	1.46	23.91	0.00	0	0.00	10.19	1098.32	0.00
Rhinehart Drive SE	Bygland Road SE to Greenway Boulevard SE	Urban 2-lane (1500-4999 AADT)	2,455,538	2	0.81	1.32	3.41	0.24	0	0.00	2.87	37.09	0.00
	Greenway Boulevard SE to 190th Street SW	Rural 2-lane (<1500 AADT)	166,075	0	0.00	0.61	8.58	0.00	0	0.00	3.97	367.71	0.00
Greenway Boulevard SE	Rhinehart Drive SE to Bygland Road SE	Urban 2-lane (<1500 AADT)	525,600	2	3.81	1.46	6.71	0.57	0	0.00	10.19	161.76	0.00
190th Street SW	Rhinehart Drive SE to Bygland Road SE	Rural 2-lane (<1500 AADT)	496,400	0	0.00	0.61	4.48	0.00	0	0.00	3.97	140.94	0.00
TH 220	180th Street SW to US 2	Rural 2-lane (<1500 AADT)	78,840	0	0.00	0.61	14.14	0.00	0	0.00	3.97	729.12	0.00
	US 2 to Harley Drive	Rural 2-lane (<1500 AADT)	1,667,138	0	0.00	0.61	2.48	0.00	0	0.00	3.97	53.74	0.00
	Harley Drive to Bygland Road SE	Rural 2-lane (<1500 AADT)	1,360,538	0	0.00	0.61	2.71	0.00	0	0.00	3.97	62.61	0.00

¹ AADT obtained from MnDOT Traffic Data Map and North Dakota Traffic Data Web App.

² East Grand Forks crash data obtained from MnCMAT2 and Grand Forks crash data was provided by the Grand Forks-East Grand Forks MPO. Crashes at non-study intersections are included in segment analysis.

³ MnDOT's 2015 Green Sheets were used to determine the state average crash rate.

⁴ The critical rate is a statistically adjusted crash rate to account for random nature of crashes.

⁵ A 99.5% confidence level was assumed for critical crash rate and an 90% confidence level was assumed for critical K/A rate.

Similar to the intersection crash analysis table, cells are highlighted yellow where the crash rate exceeds the statewide average crash rate but is lower than the critical crash rate, and are highlighted red where the crash rate exceeds the critical crash rate. Only locations with a crash rate that exceeds the critical crash rate (critical index value greater than 1.0) represent statistically significant crash problems.

The following segments were identified as having a greater volume of crashes than segments with similar characteristics, as indicated by a critical crash index greater than 1.0:

- 24th Avenue S between S Washington Street and Cherry Street
- 4th Avenue S / 1st Street SE between Belmont Road and 3rd Avenue SE / Bygland Road (Point Bridge)
- S Washington Street between DeMers Avenue and 24th Avenue S
- Cherry Street between 4th Avenue S and 24th Avenue S

While there are issues with the high volume of crashes at these locations, the severity of the crashes generally resulted in minor or no injuries to those involved, and none of these locations have a critical K/A index exceeding 1.0.

The following three road segments have a K/A rate that exceeds the critical K/A rate, indicating that they have experienced more crashes resulting severe injury or death than other intersections with similar characteristics:

- 32nd Avenue S between S 20th Street and S Washington Street
- DeMers Avenue / 4th Avenue S between S Washington Street and Cherry Street
- US 2 between 180th Street SW and TH 220

Of the two K/A crashes on 32nd Avenue S, one was a fatality and the other was an incapacitating injury. The segment on DeMers Avenue / 4th Avenue S includes a 4-lane divided section on DeMers Avenue east of S Washington Street and a 3-lane undivided section on 4th Avenue S west of Cherry Street, with entry/exit ramps connecting the two. Of the K/A crashes on DeMers Avenue / 4th Avenue S, two of the three were fatalities and the third was an incapacitating injury. All three of these crashes occurred on the Demers Avenue portion of the segment. The US 2 K/A crash was an incapacitating injury.

3.3 EXISTING AND NO BUILD TRAFFIC OPERATIONS AND MOBILITY

To identify the need for improvements and understand the performance of potential bridge options, a baseline must be first established for comparison. This “No Build” traffic operations analysis assesses the existing and projected future mobility in the study area with only the programmed improvements and no additional bridge. Where vehicle mobility is discussed, it is assumed to apply to transit vehicles as well as cars and trucks.

The programmed improvement to convert the existing two-way stop-controlled intersection at Bygland Road SE & Greenway Boulevard SE to a signalized intersection was included in the 2045 No Build Conditions modeling. The programmed conversion of the Bygland Road SE & Rhinehart Drive SE intersection from its current condition as a side street stop-controlled intersection to a single-lane roundabout was evaluated for both 2030 and 2045 No Build Conditions. Because this project is in consideration of being removed from the program, the intersection was also analyzed under its existing geometry and control configuration. The results for both conditions are provided in the 2030 and 2045 No Build Conditions intersection traffic operations analysis tables.

The traffic operations analysis evaluates capacity at the roadway segment and intersection levels to identify locations that are currently or are projected to reach or exceed capacity. Using Level of Service (LOS) methodology, the quality of traffic flow and mobility was measured for the study area under Existing (2021) Conditions, forecast 2030 No Build Conditions, and forecast 2045 No Build Conditions. The traffic volumes used for the traffic operations analysis are from recent peak hour turning movement counts which were adjusted to reflect current 2021 and forecast 2030 and 2045 traffic volume levels. A discussion of the capacity, including LOS, is included in the following sections.

3.3.1 Level of Service Methodology


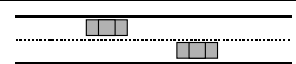




LOS is a concept used to estimate the quality of vehicular traffic flow through intersections and along roadway segments. In general, the capacity of a street is a measure of its ability to accommodate a certain volume of moving vehicles. Typically, street capacity refers to the maximum number of vehicles that can be expected to be accommodated in a given time period under the prevailing roadway characteristics and conditions. The LOS methodology is standardized by the Transportation Research Board (TRB) and is applied uniformly regardless of jurisdictional boundaries. The LOS method for arterial streets assigns an LOS grade based on delay and driver expectations of acceptable delay for the intersection control type.

LOS results are categorized on an A-F scale. LOS A represents high-quality traffic operations where motorists experience little or no delay (i.e., free flow conditions). Conversely, LOS F corresponds to low-quality operations with significant delays and potentially congestion.

The overall intersection LOS grade is based on the weighted average delay of each movement. The delays can vary greatly based on traffic volume, lane geometry, and intersection traffic control (i.e., traffic signal, through-stop, all-way stop). Grades are different at unsignalized and signalized intersections due to drivers' expectations of longer delays at signalized intersections.

Although the measure of effectiveness used in determining LOS for different facility types (e.g., arterial street, rural highway, signalized intersection) may differ, the concept of the LOS grade is the same. The general relationship between capacity and LOS is displayed in **Table 3-6**.

Table 3-6. Level of Service Grade Definitions

LOS	Description	Volume to Capacity Ratio	Signalized Intersection	Unsignalized Intersection
			Intersection Delay (Seconds / Vehicle)	Intersection Delay (Seconds / Vehicle)
A	 Free Flow. Low volumes and little to no delays.	0 - 0.6	0 - 10	0 - 10
B	 Stable Flow. Speeds restricted by travel conditions, minor delays.	0.61 - 0.7	>10 - 20	>10 - 15
C	 Stable Flow. Speeds and maneuverability closely controlled due to higher volumes.	0.71 - 0.8	>20 - 35	>15 - 25
D	 Stable Flow. Speeds considerably affected by change in operating conditions. High density traffic restricts maneuverability, volume near capacity.	0.81 - 0.9	>35 - 55	>25 - 35
E	 Unstable Flow. Low speeds, considerable delay, volume approaching or at capacity.	0.91 - 1.0	>55 - 80	>35 - 50
F	 Forced Flow. Very low speeds, volumes exceed capacity, long delays with stop and go traffic.	> 1.0	> 80	> 50

Sources:

1. Highway Capacity Manual, 6th Edition (Published 2016), Transportation Research Board, Exhibit 18-1 for Signalized Intersections, and Exhibit 19-8 for Unsignalized Intersections, and Chapter 16 for Urban Street Facilities.
2. Transportation Research Board (TRB), Highway Capacity Manual, Special Report 209

3.3.2 Roadway Segment Analysis

The study network consists of varying typical sections and intersection control types. In order to evaluate the mobility of the roadway segments that make up the study network, an assessment was completed to determine whether the capacities of the current facilities are enough to accommodate the existing and projected future traffic volumes. The assessment is a planning-level comparison of the existing and forecast ADT volumes against estimated capacity for each facility type. All information used in the volume-to-capacity (V/C) analysis, including existing and forecast ADTs and roadway capacities, were provided by ATAC. This information included the volume and capacity data from the travel demand modeling of the Grand Forks and East Grand Forks area for the base year (2015), forecast year 2030, and forecast year 2045. The modeling included changes associated with programmed improvements within the study area in the future forecast years.

The segment LOS based on volume-to-capacity ratio for the study road segments under 2015 Existing Conditions, forecast 2030 No Build Conditions, and forecast 2045 No Build Conditions are provided in **Figure 3-17**, **Figure 3-18**, and **Figure 3-19**, respectively.

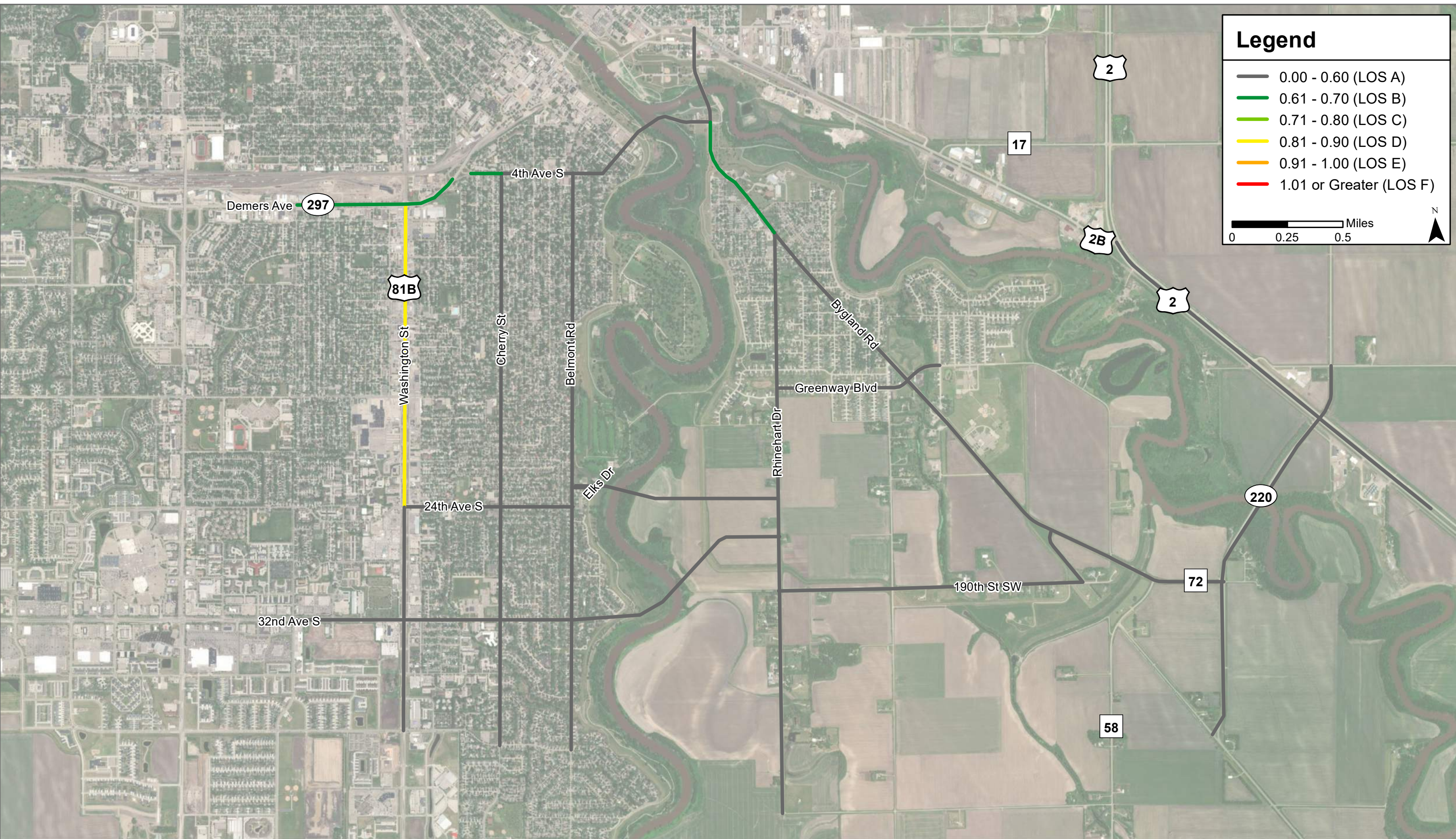


Figure 3-17
2015 Existing Segment Volume/Capacity and Level of Service

Source: ESRI World Imagery Basemap

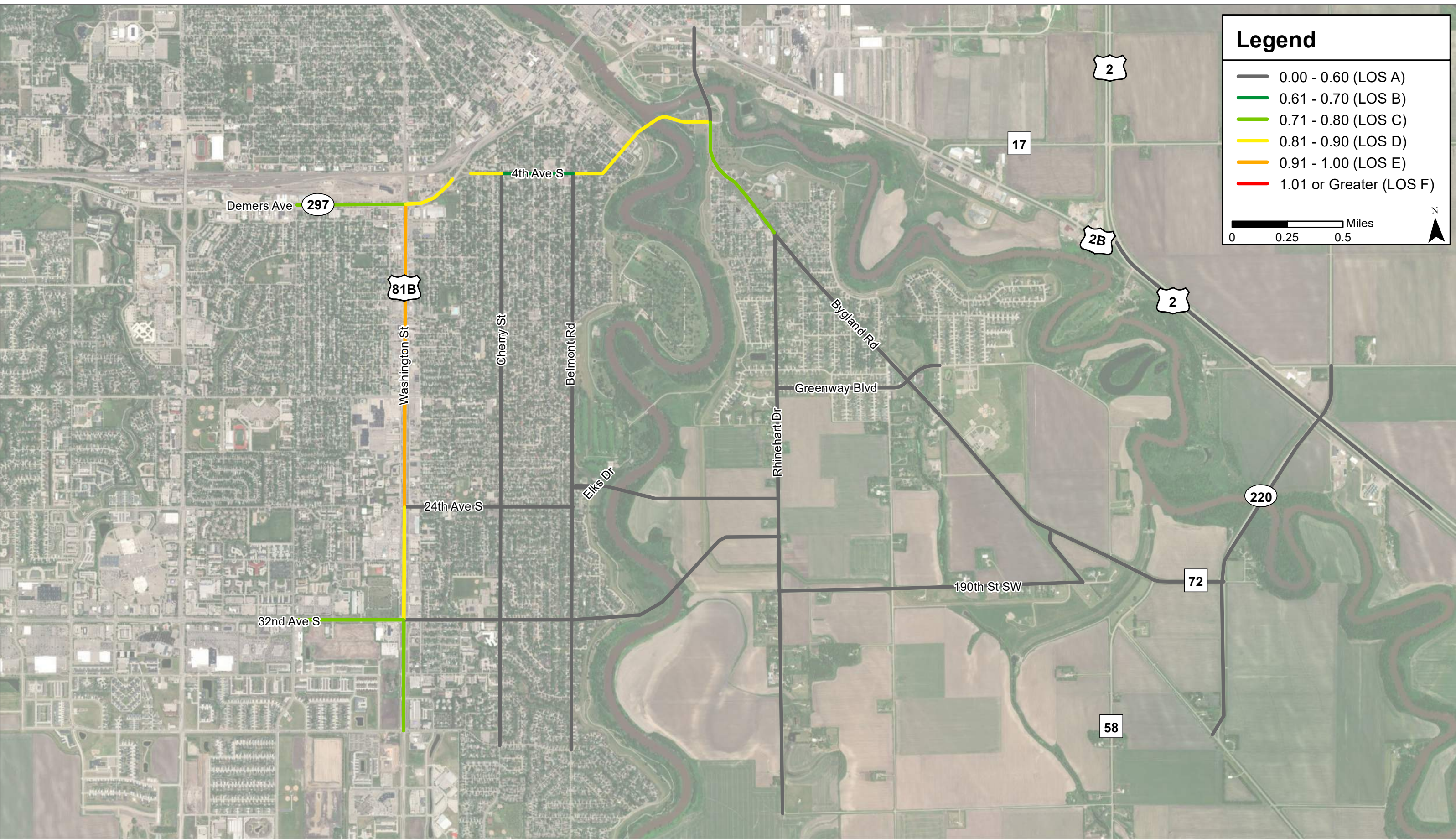
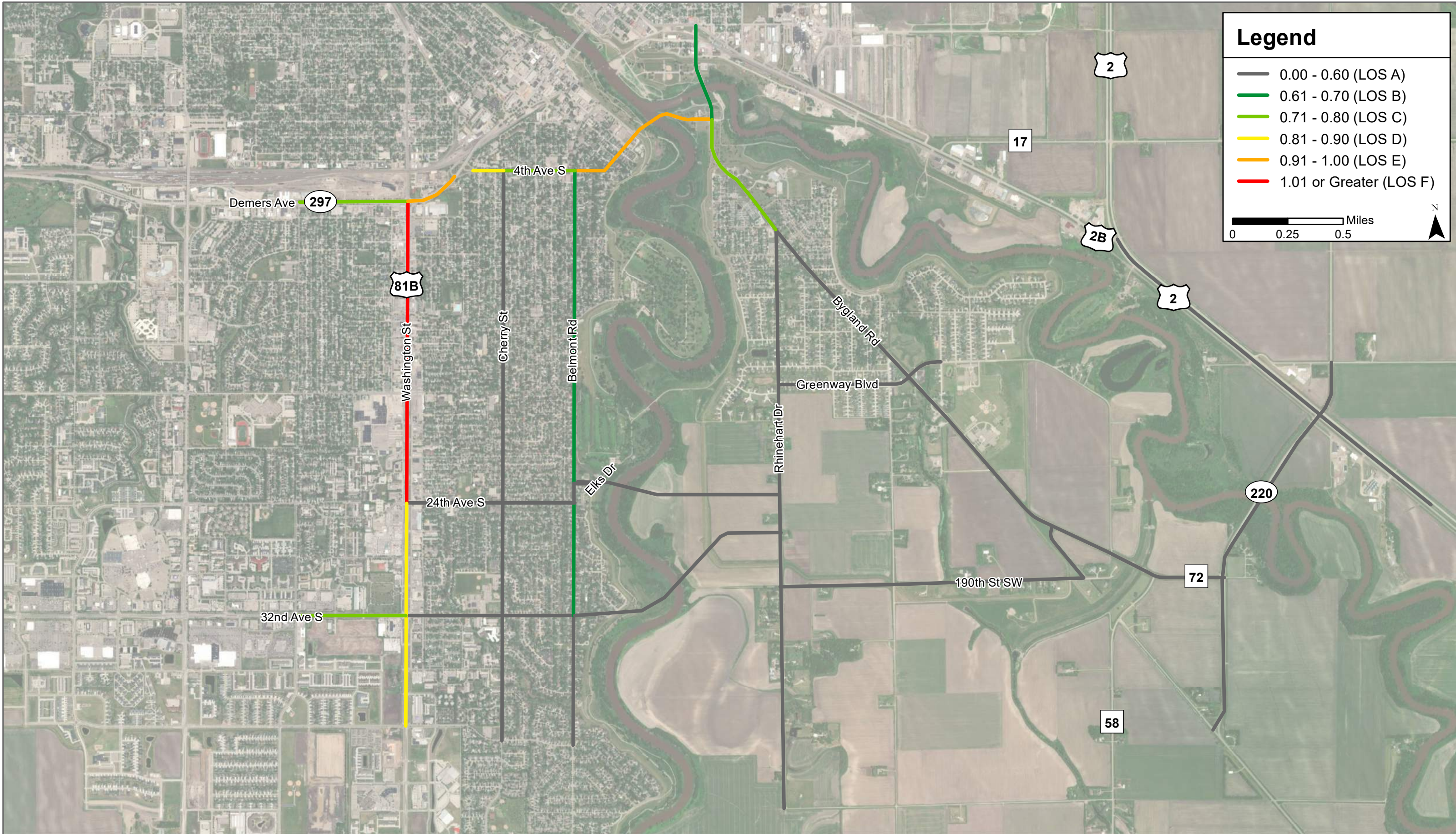


Figure 3-18
2030 No Build Segment Volume/Capacity and Level of Service

Source: ESRI World Imagery Basemap



*Figure 3-19
2045 No Build Segment Volume/Capacity and Level of Service*

Source: ESRI World Imagery Basemap

Based on the existing and forecast ADTs and segment capacities, all roads within the study area currently operate within capacity and are expected to continue to operate within capacity through the 2030 forecast year. The S Washington Street segment between DeMers Avenue / 4th Avenue S and 24th Avenue S is expected to begin to approach capacity in 2030 No Build Conditions, and is forecast to operate at LOS E. By 2045 under No Build Conditions, this segment would be expected to exceed capacity and operate at LOS F, leading to significant congestion and increased safety problems. Additionally, the segments on DeMers Avenue between S Washington Street and 4th Avenue S and on 4th Avenue S / 1st Street SE (Point Bridge) between Belmont Road and 3rd Avenue SE are expected to reach LOS E in the 2045 No Build conditions, approaching their capacity levels.

There are multiple factors that influence segment capacity. These primarily include facility type, number of through lanes, presence of turn lanes, and the presence of and type of median. While intersection capacity plays a critical and often controlling role in the capacity of a roadway network, providing adequate roadway capacity for the anticipated volume levels is critical to providing adequate vehicle mobility.

The following section will discuss the intersection traffic operations analysis.

3.3.3 Intersection Traffic Operations Analysis

The intersection traffic operations analysis for this study uses LOS methodology to assess the quality of each study intersection's performance with respect to vehicular mobility. An overall intersection grade of LOS E indicates an intersection is approaching or is at capacity, and a grade of LOS F indicates an intersection which has exceeded capacity and experiences significant delays. Intersections operating at an unacceptable level (LOS E and F) are identified in the traffic operations analysis.

Trafficware's Synchro 10 software was used to perform the traffic operations analysis at the study intersections using HCM 6th Edition for roundabout results and HCM 2010 for signalized and stop-controlled intersections. The existing signal timings at the signalized study intersections were taken from the Synchro files used for the most recent retiming studies. Signal timings were optimized while maintaining existing cycle lengths for the future year models on S Washington Street.

Unsignalized intersections with high-volume mainlines will frequently perform at an overall LOS A while their side street through and left turn movements perform at a worse LOS. This occurs because mainline traffic does not stop, and thus incurs little to no delay. Overall intersection LOS is the weighted average delay of all movements using the intersection, so the negligible delay experienced by the high mainline volumes skews the weighted average to show minimal delay. Some motorists, especially on the side street, are likely to experience much longer delays. Because of this, the delay and LOS for the worst approach is reported at two-way stop-controlled intersections rather than for the overall intersection.

3.3.3.1 Existing (2021) Conditions

The intersection delay and LOS for the study intersections during the AM and PM peak hours under Existing (2021) Conditions are provided in **Table 3-7**.

Table 3-7. Existing (2021) Conditions Intersection Delay and LOS

Intersection	Control Type	AM Peak Hour		PM Peak Hour	
		Delay (s/veh)	LOS	Delay (s/veh)	LOS
S Washington St & 32nd Ave S	Signal	33.7	C	38.2	D
Cherry St & 32nd Ave S	AWSC	17.9	C	11.3	B
Belmont Rd & 32nd Ave S	AWSC	13.0	B	13.0	B
S Washington St & 24th Ave S	Signal	20.1	C	30.2	C
Cherry St & 24th Ave S	AWSC	9.0	A	9.0	A
Belmont Rd & 24th Ave S	TWSC	14.1	B	15.4	C
Belmont Rd & Elks Drive	TWSC	11.8	B	13.9	B
S Washington St & DeMers Ave	Signal	45.7	D	50.2	D
Cherry St & 4th Ave S	Signal	6.3	A	5.5	A
Belmont Rd & 4th Ave S	AWSC	49.8	E	21.5	C
3rd Ave SE & 1st St SE	Signal	8.4	A	6.7	A
Bygland Rd SE & Rhinehart Dr SE	TWSC	47.3	E	16.5	C
Rhinehart Dr SE & Greenway Blvd SE	TWSC	8.6	A	8.7	A
Bygland Rd SE & Greenway Blvd SE	TWSC	24.6	C	11.9	B
Bygland Rd SE & 190th St SW	TWSC	9.6	A	9.5	A
Bygland Rd SE/Harley Dr & TH 220	TWSC	9.6	A	9.0	A
TH 220 & US 2	TWSC	12.5	B	12.8	B
Rhinehart Dr SE & 190th St SE	AWSC	7.0	A	7.0	A

Note: Delay and LOS for TWSC intersections reflect the worst approach

Under Existing (2021) Conditions, all study intersections operate acceptably at LOS D or better other than the Belmont Road & 4th Avenue S and Bygland Road SE & Rhinehart Drive SE intersections. Belmont Road & 4th Avenue S operates at intersection LOS E in the AM peak hour, which is primarily attributed to the all-way stop-control intersection control type. The side-street stop-controlled intersection of Bygland Road SE & Rhinehart Drive SE operates at LOS E on its worst approach, which is the stop-controlled northbound approach on Rhinehart, in the AM peak hour.

3.3.3.2 2030 No Build Conditions

The intersection delay and LOS for the study intersections during the AM and PM peak hours under 2030 No Build Conditions are provided in **Table 3-8**.

Table 3-8. 2030 No Build Conditions Intersection Delay and LOS

Intersection	Control Type	AM Peak Hour		PM Peak Hour	
		Delay (s/veh)	LOS	Delay (s/veh)	LOS
S Washington St & 32nd Ave S	Signal	29.1	C	43.4	D
Cherry St & 32nd Ave S	AWSC	41.0	E	12.6	B
Belmont Rd & 32nd Ave S	AWSC	20.0	C	20.7	C
S Washington St & 24th Ave S	Signal	20.8	C	30.9	C
Cherry St & 24th Ave S	AWSC	9.7	A	9.6	A
Belmont Rd & 24th Ave S	TWSC	17.7	C	21.7	C
Belmont Rd & Elks Drive	TWSC	13.2	B	17.3	C
S Washington St & DeMers Ave	Signal	58.0	E	41.9	D
Cherry St & 4th Ave S	Signal	7.1	A	5.9	A
Belmont Rd & 4th Ave S	AWSC	121.0	F	69.9	F
3rd Ave SE & 1st St SE	Signal	11.3	B	7.3	A
Bygland Rd SE & Rhinehart Dr SE (Stop Control)	TWSC	211.0	F	23.1	C
Bygland Rd SE & Rhinehart Dr SE (Roundabout)	RAB	14.8	B	7.3	A
Rhinehart Dr SE & Greenway Blvd SE	TWSC	9.0	A	9.1	A
Bygland Rd SE & Greenway Blvd SE	TWSC	34.6	D	12.3	B
Bygland Rd SE & 190th St SW	TWSC	9.7	A	9.6	A
Bygland Rd SE/Harley Dr & TH 220	TWSC	9.9	A	9.1	A
TH 220 & US 2	TWSC	13.6	B	14.0	B
Rhinehart Dr SE & 190th St SE	AWSC	7.0	A	7.1	A

Note: Delay and LOS for TWSC intersections reflect the worst approach

The programmed roundabout at Bygland Road SE & Rhinehart Drive SE would be expected to improve the worst approach at the intersection from LOS E under Existing (2021) Conditions AM peak hour to an overall intersection LOS B or better in both peak hours under 2030 No Build Conditions. If no improvements were made to this intersection and the existing geometry and traffic control were maintained, significant delay would be expected on the Rhinehart Drive SE approach, which would be anticipated to operate at LOS F in the AM peak hour under 2030 No Build Conditions.

Operations at the Belmont Road & 4th Avenue S intersection are expected to degrade from LOS E in the Existing (2021) Condition AM peak hour to LOS F in both peak hours under 2030 No Build Conditions. The segment analysis also shows worsening conditions on 4th Avenue S in the future years from increased volumes using the Point Bridge, and by 2030 the all-way stop-control intersection traffic control does not appear to have sufficient capacity to service the projected traffic volumes acceptably.

Two intersections degrade from LOS D or better to LOS E under 2030 No Build Conditions in the AM peak hour: Cherry Street & 32nd Avenue S and S Washington Street & DeMers Avenue. The all-way stop-control at the Cherry Street & 32nd Avenue S intersection is expected to operate unacceptably in the AM peak hour by 2030 with the anticipated traffic growth. The roadway segments surrounding the intersection showed sufficient

capacity for the forecast 2030 volumes, so the unacceptable level of service can be attributed the all-way stop-control intersection control type.

The signalized intersection of S Washington Street & DeMers Avenue degrades from LOS D in Existing (2021) Conditions to LOS E in 2030 No Build conditions in the AM peak hour. The segment analysis indicated several of the surrounding roads would be expected to approach or reach capacity by 2030.

3.3.3.3 2045 No Build Conditions

The intersection delay and LOS for the study intersections during the AM and PM peak hours under 2045 No Build Conditions are provided in **Table 3-9**.

Table 3-9. 2045 No Build Conditions Intersection Delay and LOS

Intersection	Control Type	AM Peak Hour		PM Peak Hour	
		Delay (s/veh)	LOS	Delay (s/veh)	LOS
S Washington St & 32nd Ave S	Signal	31.7	C	42.2	D
Cherry St & 32nd Ave S	AWSC	119.1	F	16.1	C
Belmont Rd & 32nd Ave S	AWSC	56.0	F	57.4	F
S Washington St & 24th Ave S	Signal	22.1	C	30.9	C
Cherry St & 24th Ave S	AWSC	10.6	B	10.3	B
Belmont Rd & 24th Ave S	TWSC	23.5	C	32.9	D
Belmont Rd & Elks Drive	TWSC	16.6	C	23.0	C
S Washington St & DeMers Ave	Signal	85.1	F	56.1	E
Cherry St & 4th Ave S	Signal	8.6	A	6.5	A
Belmont Rd & 4th Ave S	AWSC	202.1	F	132.4	F
3rd Ave SE & 1st St SE	Signal	18.1	B	7.8	A
Bygland Rd SE & Rhinehart Dr SE (Stop Control)	TWSC	462.9	F	34.2	D
Bygland Rd SE & Rhinehart Dr SE (Roundabout)	RAB	23.1	C	8.2	A
Rhinehart Dr SE & Greenway Blvd SE	TWSC	9.2	A	9.3	A
Bygland Rd SE & Greenway Blvd SE	Signal	9.0	A	5.5	A
Bygland Rd SE & 190th St SW	TWSC	9.8	A	9.6	A
Bygland Rd SE/Harley Dr & TH 220	TWSC	10.4	B	9.2	A
TH 220 & US 2	TWSC	16.1	C	17.0	C
Rhinehart Dr SE & 190th St SE	AWSC	7.0	A	7.2	A

Note: Delay and LOS for TWSC intersections reflect the worst approach

Traffic operations at the Bygland Road SE & Greenway Boulevard SE intersection improve from LOS D and B on the highest delay approaches under 2030 No Build Conditions in the AM and PM peak hours, respectively, to overall intersection LOS A in both peak hours under 2045 No Build Conditions with the programmed installation of a traffic signal at the intersection. By 2045, the single-lane roundabout at Byland Avenue SE & Rhinehart Drive SE included as a programmed improvement by 2030 would be anticipated to continue to operate at an acceptable LOS in both the AM and PM peak hours. However, if no improvements were made to this intersection

and the existing geometry and traffic control were maintained, it would be expected to operate with severely high delays (LOS F) on the Rhinehart Drive SE approach in the AM peak hour under 2045 No Build Conditions.

The intersection of Belmont Road & 4th Avenue S was expected to operate at LOS F under 2030 No Build Conditions, and is expected to continue to operate at LOS F with significantly more delay under 2045 No Build Conditions. The segment analysis shows 4th Avenues S / 1st Street SE over the Point Bridge at LOS E, nearing or reaching capacity by 2045. A combination of insufficient roadway capacity and intersection control type (all-way stop-control) are expected to result in substantial delays and unacceptable operations at this intersection by 2045.

The all-way stop-controlled intersections on 32nd Avenue S at Cherry Street and at Belmont Road are anticipated to operate at LOS F in one or both of the peak hours by the 2045 due to traffic volume growth. The segment analysis does not show the surrounding roadways surrounding these intersections at or near capacity. The excessive delay at these intersections can be attributed to the all-way stop-control intersection control type not providing sufficient capacity for future projected volumes.

The intersection of S Washington Street & DeMers Avenue is anticipated to degrade from LOS E and D under 2030 No Build Conditions to LOS F and E under 2045 No Build Conditions in the AM and PM peak hours, respectively. The segment analysis shows multiple approaches at this intersection reaching or exceeding capacity by 2045, indicating that the existing roadway geometry near and at the intersection would be expected to be insufficient to accommodate the forecast 2045 No Build traffic volume levels.

The Red River Crossing Alternatives Analysis in Appendix C of the Grand Forks-East Grand Forks MPO 2045 Street Highway Plan Update completed in 2018 analyzed many of the same intersections in the PM peak hour through 2045 No Build Conditions. While the results of the studies may vary due to different data sources and data dates, analysis methodologies, and signal timing optimization, both studies identify anticipated unacceptable operations at the S Washington Street & DeMers Avenue, 4th Avenue S & Belmont Road, and 32nd Avenue S & Belmont Road intersections under projected 2045 No Build Conditions. The 2018 study also indicates unacceptable operations (LOS E) at the S Washington Street & 32nd Avenue S intersection in the 2045 No Build PM peak hour, while the results of this analysis indicate acceptable operations at LOS D.

4. Purpose and Need

4.1 INTRODUCTION

A Purpose and Need Statement explains why an agency or agencies are undertaking a project and describes the main objectives of the project. The “need” describes the transportation problems to be addressed by the project. The “purpose” is a broad statement of the intended transportation results. Together, the purpose and need are a way to measure and understand to what extent the alternatives being considered meet the project needs.

Alternatives that do not address the transportation needs of the project and do not meet the purpose of the project are documented as such and are not studied further. This Purpose and Need statement, like other products being developed during this planning study, may be adopted or used during a subsequent environmental review process.

4.2 PURPOSE

The following purpose statement has been prepared for the project.

The purpose of the Grand Forks-East Grand Forks Future Bridge Project is to improve mobility and connectivity between Grand Forks and East Grand Forks by reducing congestion on the Point Bridge and connecting roadways while providing a more direct connection for trips between the two cities.

4.3 NEED

The project needs discussion identifies transportation deficiencies that currently exist or are reasonably expected to occur within the project area. The needs section discusses the transportation problems which led to the initiation of the project (primary needs). In addressing these needs, the agencies involved also look for other transportation problems or opportunities for system improvements within the area that may be addressed concurrently (secondary needs).

4.3.1 Primary Needs

The desire for a new multimodal connection between the Cities of Grand Forks and East Grand Forks across the Red River has been under discussion for many years. A key issue identified in the 2045 Metropolitan Transportation Plan (MTP) is the need for an additional southern Red River crossing. An updated review of existing and proposed transportation conditions has identified the following primary needs related to mobility and congestion and system linkage.

4.3.1.1 Mobility/Congestion

Forecast No Build travel demand in years 2030 and year 2045 shows performance (level of service) and congestion on the Point Bridge and on roadway segments and at intersections leading to the bridge.

- The following roadway segments on or near the Point Bridge are expected to operate at or near capacity by 2045:
 - S Washington St
 - DeMers Ave
 - Point Bridge
- The following intersections, including those on or near the Point Bridge, are expected to operate at or near capacity by 2045:
 - S Washington St & 32nd Ave S
 - Cherry St & 32nd Ave S
 - Belmont Rd & 32nd Ave S
 - S Washington St & DeMers Ave
 - Belmont Rd & 4th Ave S
 - Bygland Rd SE & Rhinehart Dr SE (if not improved previously)

4.3.1.2 Multimodal System Linkage

Travel demand modeling demonstrates the travel constraint created by the limited number and location of bridges across the Red River between Grand Forks and East Grand Forks for both motorized and non-motorized traffic.

- There is a demonstrated travel demand south of the Point Bridge on both sides of the river, resulting in longer trips and/or out-of-direction travel due to vehicles, including transit vehicles, traveling north to cross at the Point Bridge and then south again on both sides of the river.
- There is a lack of non-motorized crossings of the Red River in the southern portion of Grand Forks and East Grand Forks. The southmost pedestrian/bicycle facility across the river connects approximately 17th Avenue in Grand Forks with 11th St SE in East Grand Forks. This crossing is primarily a recreational facility and is long and meandering. There are no other crossings south of this point that support multimodal travel between the two cities.

4.3.2 Secondary Needs

Secondary needs are transportation problems or opportunities for improvements within the study area that may be able to be addressed, if feasible, at the same time the primary needs are addressed, but are not the primary issues prompting the study.

4.3.2.1 Crashes

Review of crash history on study area roadway segments and intersections shows locations that have a crash rate that exceeds the critical crash rate or have a K/A (fatal and severe injury) rate that exceeds the critical K/A rate.

- The following segments have critical crash concerns:
 - 24th Avenue S between S Washington Street and Cherry Street
 - 4th Avenue S / 1st Street SE between Belmont Road and 3rd Avenue SE / Bygland Road (Point Bridge)

- S Washington Street between DeMers Avenue and 24th Avenue S
- Cherry Street between 4th Avenue S and 24th Avenue S
- 32nd Avenue S between S 20th Street and S Washington Street
- DeMers Avenue / 4th Avenue S between S Washington Street and Cherry Street
- US 2 between 180th Street SW and TH 220
- The following intersections have critical crash concerns:
 - 32nd Ave S & S Washington Street
 - 24th Ave S & S Washington Street
 - DeMers Ave & S Washington Street
 - Bygland Rd SE & Greenway Blvd SE

4.3.2.2 Social and Economic Factors

The following social and economic issues are important community drivers for the future bridge study.

- Community Quality of Life: Traffic volumes in some locations are high due to congestion and imbalances on the roadway system. A new river crossing is envisioned to achieve a more balanced distribution of trips on the system overall, in turn supporting improved community quality of life.
- Support for Economic Development: Significant growth is anticipated in the southern areas of Grand Forks and East Grand Forks. Improving the quality of access between the cities, and improving mobility and safety at key intersections, is expected to benefit area businesses and provide for redevelopment and economic growth, consistent with approved land use and transportation plans.

4.4 EARLY AGENCY COORDINATION

Consistent with the PEL process, early agency coordination was conducted. A request for statement of views (SOV) or review and comment regarding the Future Bridge Traffic Impact Study was emailed to the agencies listed below on 8/16/2021 with a request for a response by 9/15/2021. The responses are summarized below. The responses highlighted the need for continued coordination and environmental evaluation as the project continues through the environmental and preliminary design process but did not suggest any issues that would modify the purpose and need developed at this stage of the project.

Agency Reviewer	Date/From	Response
North Dakota Game and Fish Department	9/13/2021 – J. D. Schumacher	<ul style="list-style-type: none"> ● Structures should not act as a barrier to the movement of fish and other aquatic organisms in the stream channel under any flow conditions. Recommended that project be designed to facilitate wildlife crossing through the bridge structure. ● Take appropriate precautions to prevent the introduction or movement of Aquatic Nuisance Species. Provide the department a reasonable opportunity to inspect any

		<p>equipment prior to these items being launched or placed into waters of the state.</p> <ul style="list-style-type: none"> • Requested that work not take place within the Red River, a Classified fishery, between April 15 and July 1. • Take steps to prevent construction debris from entering waterway. Restore streambed and banks to pre-project contours unless otherwise planned. Do in kind mitigation of wetland destruction and degradation. Seed disturbed areas with native grass and forb species where appropriate. • If the project results in the removal of native riparian forest, recommended that any loss of trees and shrubs be replaced with similar species on a 2:1 basis. Upland plantings cannot adequately replace this habitat type, so suggested that the mitigation planting be incorporated into the impacted forest or a similar area of woodland adjacent to the Red River.
North Dakota Geological Survey	8/16/21 – Fred Anderson	<ul style="list-style-type: none"> • Shallow surface geology consists of approximately 74-ft of glaciolacustrine silts and clays of the Sherack and Brenna Formations, underlain by subglacial clay till of the Falconer member of the Forest River Formation. <ul style="list-style-type: none"> ○ Brenna Formation – highly plastic and deformable clay, can make for difficult shallow construction conditions. • There are areas where slumping erodes the riverbanks in the study area. • Landslide and LiDAR maps are available.
North Dakota Parks and Recreation	9/14/21 – Kathy Duttenhefner	<ul style="list-style-type: none"> • The project does not appear to affect properties that NDPRD owns, leases, or manages. • Several Land and Water Conservation Fund projects have been identified near the proposed project’s vicinity. These properties have a designated 6(f) property boundary that carries restrictions on modifications to the property. Based on the map provided, none of the resources appear to be within the footprint of the proposed bridge project. • There are no known rare species or significant ecological communities documented within or immediately adjacent to the project site.
North Dakota Department of Water Resources (previously called	9/9/21 – Steven Best	<ul style="list-style-type: none"> • Floodplains within the project area are designated to be in Zone AE. Permitting is done by a local entity.

the State Water Commission)		<ul style="list-style-type: none"> • Project is within a regulatory floodway, so a floodway review should be requested from the State Engineer before authorizing any development. • Any new bridge or other feature that occurs at least partially below the ordinary high-water mark of the Red River would require a Sovereign Land Permit • If the project requires storage of water, a construction permit may be required. • If surface water or groundwater is diverted, water permit is required.
Army Corps of Engineers – St. Paul District	9/14/21 – Ben Orne (voice mail)	<ul style="list-style-type: none"> • Requested a call back at 651-290-5280. <i>Tim Burkhardt spoke with Ben on 10/5/2021. Ben indicated the project was in too early a stage for the agency to have specific comments.</i>
Minnesota Pollution Control Agency	8/30/21 – Karin Kromar (voice mail)	<ul style="list-style-type: none"> • Not able to comment now but would like to stay in the loop once there is more information. <i>Tim Burkhardt left a message with Karin on 10/5/2021.</i>

No responses have been received from the following agencies:

- MN State Historic Preservation Office – Environmental Review
- MN Office of the State Archeologist
- MN Indian Affairs Council – Cultural Resources
- MN Department of Natural Resources – Environmental Review
- MN Department of Health – Health Review
- MN Department of Agriculture – Ag Marketing & Development
- MN Department of Commerce – Environmental Review
- MN Board of Water & Soil Resources – Water Programs
- ND Department of Environmental Quality
- ND Soil Conservation Committee (NDSU Extension Service)
- US Fish & Wildlife Services
- US Army Corps of Engineers
 - Omaha District
 - ND Regulatory Office
- US Coast Guard
- US Department of Agriculture - NRCS
- US Environmental Protection Agency
 - Region 5
 - Region 8
- US Geological Survey – Water Resources Division

5. Alternatives Development and Evaluation

Based on prior studies (the 2018 Metropolitan Transportation Plan and the 2020 Hydraulic Analysis of South End Red River Bridge study), the alternatives to be analyzed in this study were as follows:

- No Build (no new bridge)
- Elks Drive Bridge Corridor
- 32nd Avenue Bridge Corridor

Each of the alternatives would include mitigation needed based on the intersection traffic operations and traffic control warrants analysis discussed in **Section 5.1: Mobility and Congestion**.

In both the Elks Drive and 32nd Avenue bridge options, precise corridor alignments or landing locations were not identified in this study. However, for either location, a new bridge would be expected to have the following characteristics:

- 2 travel lanes for vehicles
- Signed for no trucks
- Bicycle/pedestrian trail on bridge
- Greenway trail routed under bridge (similar to other bridges)
- High point about 3 feet above street level in Grand Forks
- Flood wall closure system would be maintained (assumed to be a street opening similar to Elks Drive today)

Figure 5-1 shows a visualization of what the bridge could look like. The photo was taken at Elks Drive, but the look would be similar at Elks Drive or at 32nd Avenue on the North Dakota side.



Figure 5-1. Potential Future Bridge Visualization

The alternatives were evaluated based on whether they are compatible with the project purpose and how well they meet the project needs. The need categories evaluated were Mobility and Congestion, Multimodal System Linkage, and Community and Economic Factors. Although Safety is an identified need, it was not evaluated specifically due to the amount of analysis needed to forecast results; however, it is assumed that all three options (including No Build) would include safety improvements, especially around schools. Environmental impacts and benefit/cost were also evaluated. The full evaluation matrix is included in **Appendix B**, with a summary of the process and results below.

5.1 MOBILITY AND CONGESTION

A traffic analysis was completed to assess the traffic operations and safety performance of the roadway network on both sides of the Red River in Grand Forks and East Grand Forks to assess existing conditions, forecast 2030 conditions, and forecast 2045 conditions under scenarios with no new bridge (No Build).

5.1.1 Forecast Traffic Volumes and Patterns

The changes in traffic volumes from the forecast 2030 and 2045 No Build scenarios to 2030 and forecast 2045 Build Conditions were illustrated to show the magnitude of the anticipated volume changes on the study area road network with each river crossing alternative compared to if no new river crossing was constructed. The average daily traffic (ADT) volume data for all scenarios was provided by the Advanced Traffic Analysis Center (ATAC) from travel demand modeling in the Grand Forks / East Grand Forks region completed for the Grand Forks-East Grand Forks Metropolitan Planning Organization (MPO).

Maps showing the forecast volume changes between the No Build vs. Elks Drive Bridge Conditions for 2030 and 2045 are provided in **Figure 5-2** and **Figure 5-3**, respectively. Maps showing the forecast volume changes between the No Build vs. 32nd Ave Bridge Conditions for 2030 and 2045 are provided in **Figure 5-4** and **Figure 5-5**, respectively.

Legend

- Reduction of 3,000 or More Cars Per Day
- Reduction of 1,500 to 3,000 Cars Per Day
- Reduction of 500 to 1,500 Cars Per Day
- Reduction of up to 500 Cars Per Day
- Increase of up to 500 Cars Per Day
- Increase of 500 to 1,500 Cars Per Day
- Increase of 1,500 to 3,000 Cars Per Day
- Increase of 3,000 or More Cars Per Day

Annual Average Daily Traffic (AADT):
 x,xxx 2030 No Build
 +/-x,xxx Increase/Decrease
 x,xxx 2030 Build

0 0.25 0.5 Miles

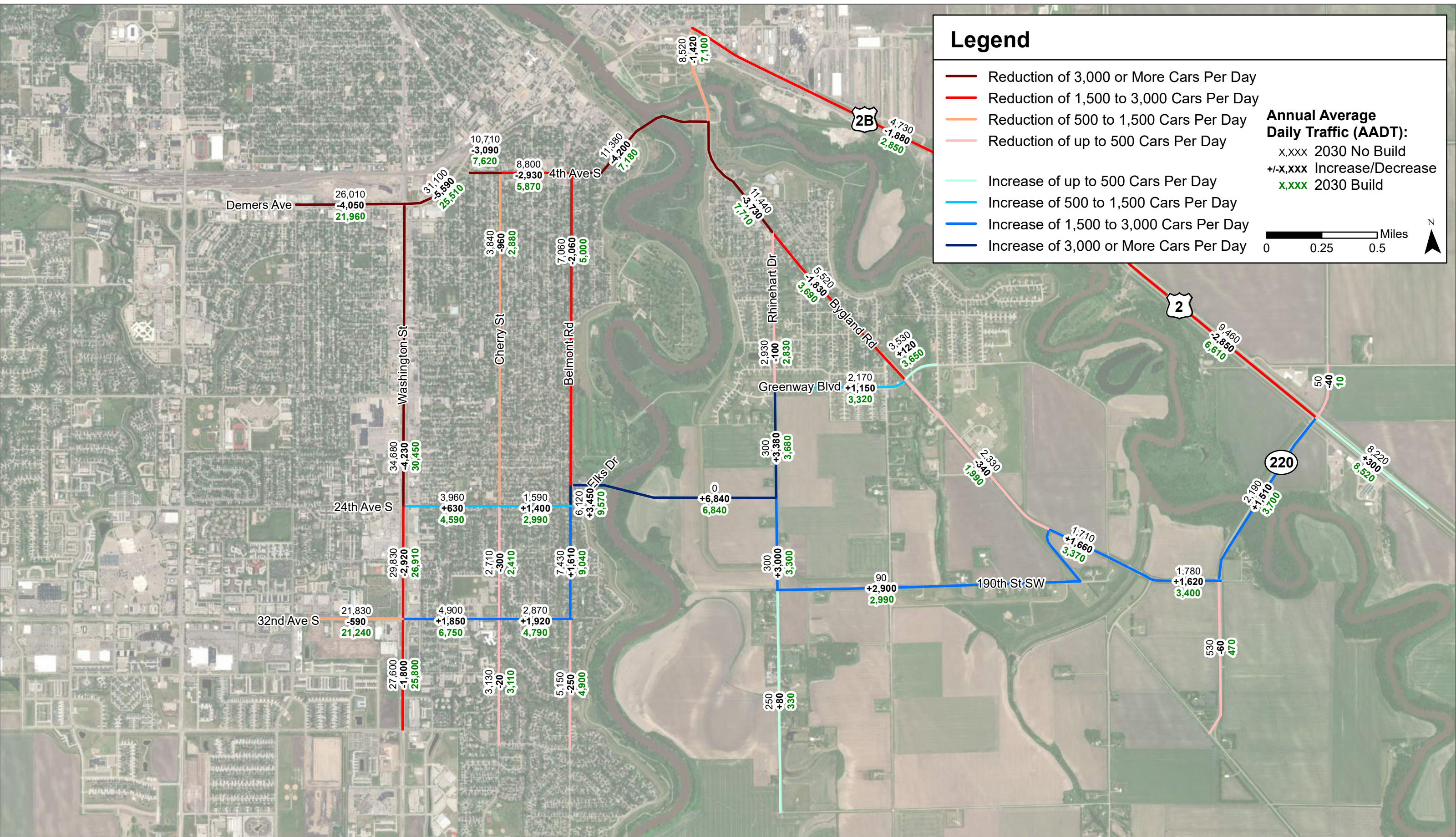


Figure 5-2
Changes in Forecast Traffic Volumes between 2030 No Build and 2030 Elks Drive Bridge Conditions

Legend

- Reduction of 3,000 or More Cars Per Day
- Reduction of 1,500 to 3,000 Cars Per Day
- Reduction of 500 to 1,500 Cars Per Day
- Reduction of up to 500 Cars Per Day
- Increase of up to 500 Cars Per Day
- Increase of 500 to 1,500 Cars Per Day
- Increase of 1,500 to 3,000 Cars Per Day
- Increase of 3,000 or More Cars Per Day

Annual Average Daily Traffic (AADT):
 x,xxx 2045 No Build
 +/-x,xxx Increase/Decrease
 x,xxx 2045 Build

0 0.25 0.5 Miles

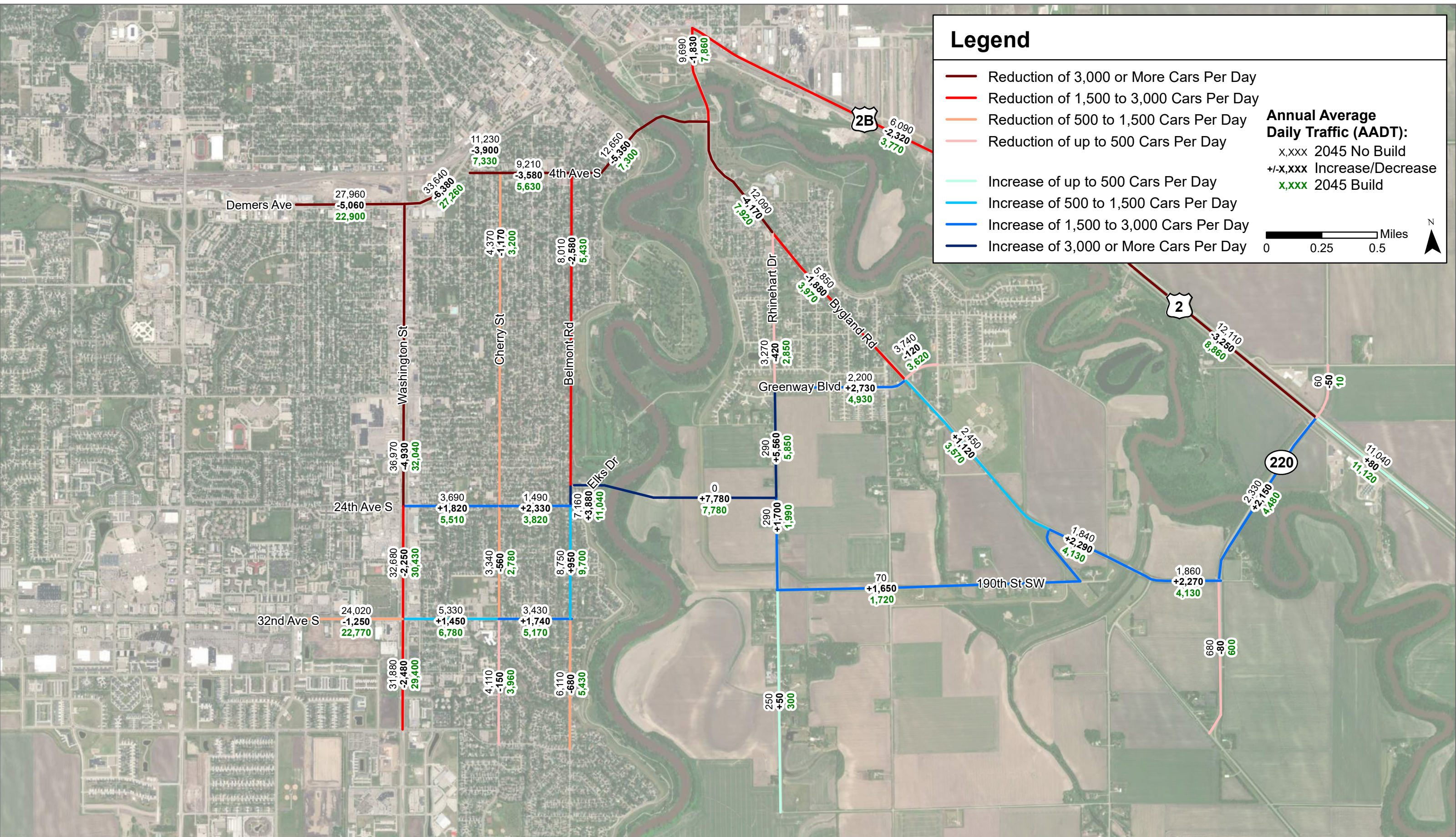


Figure 5-3
Changes in Forecast Traffic Volumes between 2045 No Build and 2045 Elks Drive Bridge Conditions

Source: ESRI World Imagery Basemap

Legend

- Red line: Reduction of 3,000 or More Cars Per Day
- Orange line: Reduction of 1,500 to 3,000 Cars Per Day
- Light orange line: Reduction of 500 to 1,500 Cars Per Day
- Pink line: Reduction of up to 500 Cars Per Day
- Light green line: Increase of up to 500 Cars Per Day
- Blue line: Increase of 500 to 1,500 Cars Per Day
- Dark blue line: Increase of 1,500 to 3,000 Cars Per Day
- Dark blue line: Increase of 3,000 or More Cars Per Day

Annual Average Daily Traffic (AADT):
 x,xxx 2030 No Build
 +/-x,xxx Increase/Decrease
 x,xxx 2030 Build

0 0.25 0.5 Miles

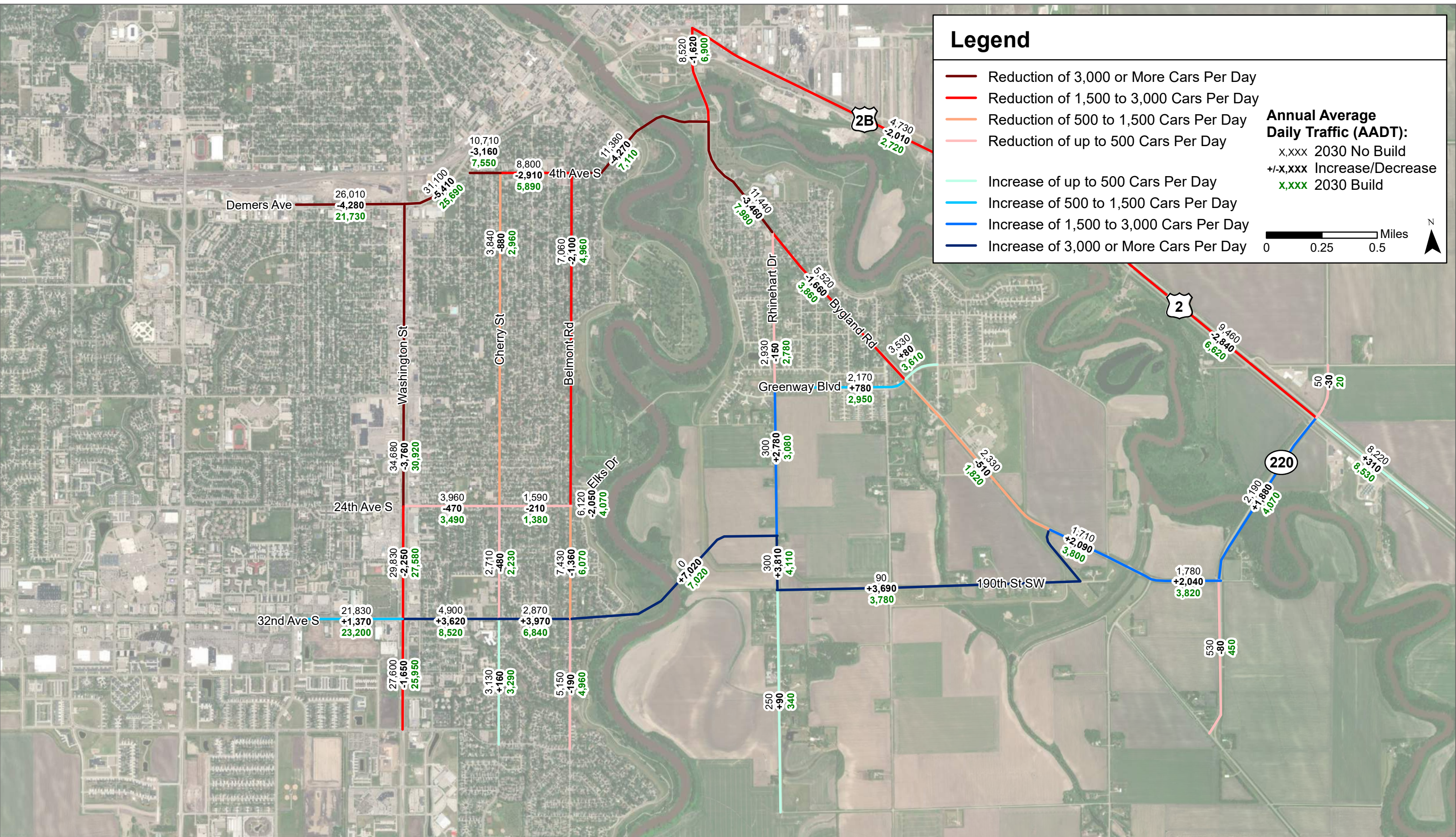


Figure 5-4
Changes in Forecast Traffic Volumes between 2030 No Build and 2030 32nd Ave Bridge Conditions

Legend

- Reduction of 3,000 or More Cars Per Day
- Reduction of 1,500 to 3,000 Cars Per Day
- Reduction of 500 to 1,500 Cars Per Day
- Reduction of up to 500 Cars Per Day
- Increase of up to 500 Cars Per Day
- Increase of 500 to 1,500 Cars Per Day
- Increase of 1,500 to 3,000 Cars Per Day
- Increase of 3,000 or More Cars Per Day

Annual Average Daily Traffic (AADT):
 x,xxx 2045 No Build
 +/-x,xxx Increase/Decrease
 x,xxx 2045 Build

0 0.25 0.5 Miles

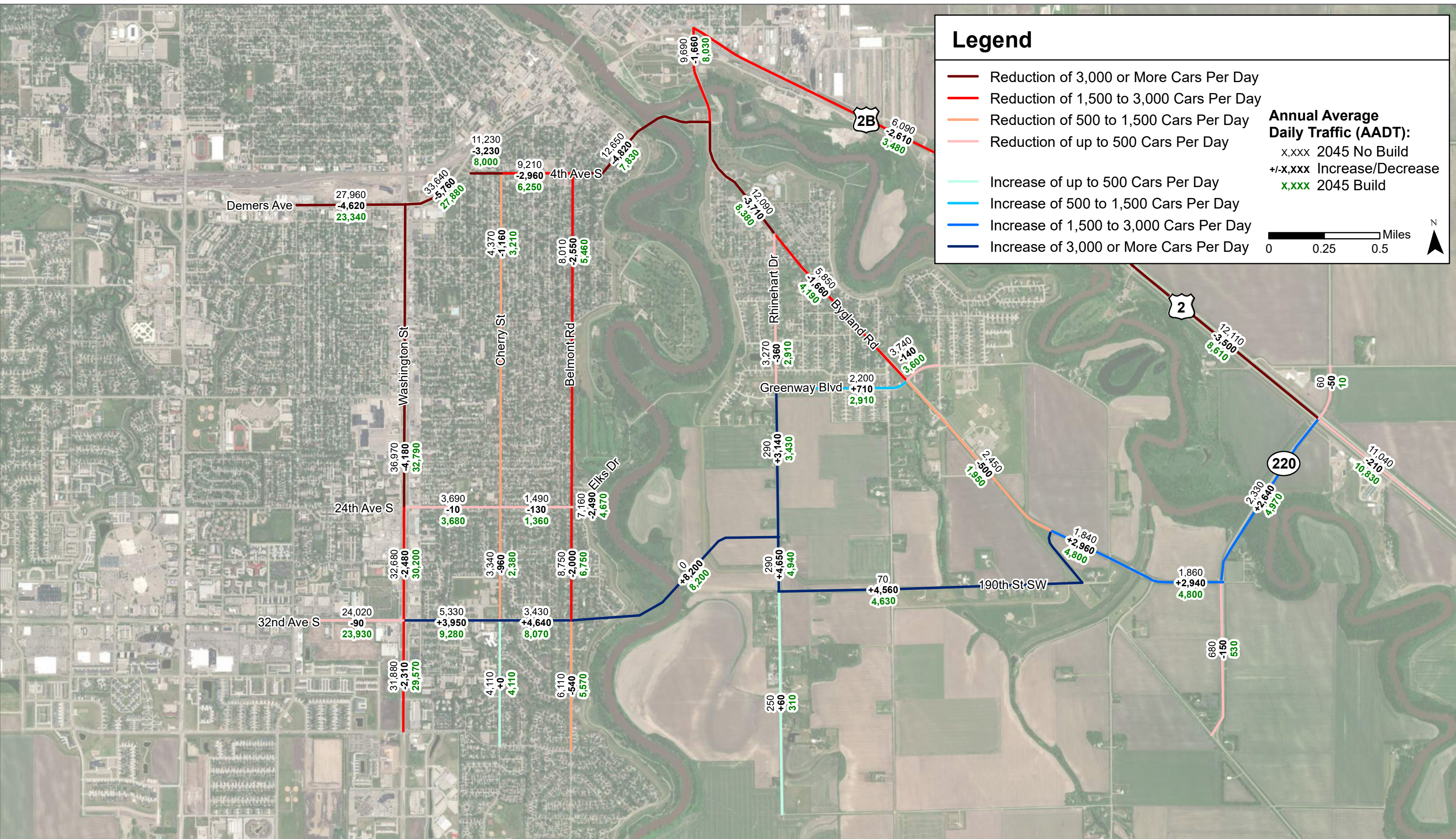


Figure 5-5
Changes in Forecast Traffic Volumes between 2045 No Build and 2045 32nd Ave Bridge Conditions

As shown in the figures, the two bridge options would be expected to significantly reduce traffic in the northern half of the study area, with the most significant reductions occurring along S Washington Street, DeMers Avenue/4th Avenue S, Belmont Road, Minnesota Avenue/1st Street SE across the Point Bridge, Bygland Road SE north of Greenway Boulevard SE, and on US 2. These reductions are important because the roadway segments on S Washington Street, DeMers Avenue/4th Avenue S, and Minnesota Avenue/1st Street SE across the Point Bridge were forecast to approach or exceed capacity by 2045 under No Build conditions (without an additional bridge).

The most significant increases in traffic associated with the bridge options would be expected to occur in the southern half of the study roadway network along Greenway Boulevard SE, Rhinehart Drive SE south of Greenway Boulevard SE, Bygland Road SE south of Greenway Boulevard, 190th Street SW, TH 220, and along 24th Avenue S and 32nd Avenue S. The Elks Drive bridge option spreads the volume increases between the parallel east-west roads of Greenway Boulevard SE and 190th Street SW on the East Grand Forks side of the bridge, and between 24th Avenue S and 32nd Avenue S on the Grand Forks side. The 32nd Avenue S bridge option has more concentrated volume growth along 32nd Avenue S and 190th Street SW. Both bridge options would primarily serve passenger vehicle traffic and not truck traffic.

5.1.2 Future Build Traffic Operations and Mobility

A traffic operations analysis was conducted to identify the need for improvements and understand anticipated traffic operations with the potential bridge options. This Build Conditions traffic operations analysis assesses the projected future mobility in the study area with a new bridge at either Elks Drive or 32nd Avenue S.

The programmed improvement to convert the existing two-way stop controlled (TWSC) intersection at Bygland Road SE & Greenway Boulevard SE to a signalized intersection was included in the 2045 Build Conditions modeling. The programmed conversion of the Bygland Road SE & Rhinehart Drive SE intersection from its current condition as a side-street stop controlled intersection to a single-lane roundabout (RAB) was evaluated for both 2030 and 2045 Build Conditions. Because this project is in consideration of being removed from the program, the intersection was also analyzed under its existing geometry and intersection control configuration. The results for both conditions are provided in the 2030 and 2045 Build Conditions intersection traffic operations analysis tables.

The baseline conditions for the Build alternatives assumed no changes from the 2030 and 2045 No Build conditions other than the addition of the proposed bridges with minimal traffic control and geometric changes at the intersections where the proposed bridges would terminate. The assumed baseline conditions for the new intersections where the proposed bridges would connect to Rhinehart Drive SE included stop control on the new eastbound approach with a left turn lane and a right turn storage lane (same under both options). The intersection on Belmont Road where the Elks Drive Bridge would connect was also assumed to include a left turn lane and a right turn storage lane on the bridge approach, and maintained the current side-street stop control on Elks Drive. The bridge connection for the 32nd Ave Bridge option was assumed to maintain the all-way stop control (AWSC) currently in place at the 32nd Avenue S and Belmont Road intersection and included a single shared left/through/right lane on the westbound bridge approach. The lane geometry and traffic control on all approaches at the new bridge connection intersections other than the new bridge approaches were kept the same as existing conditions.

5.1.2.1 Roadway Segment Analysis

Using the same methodology as outlined in **Section 3.3: Existing and No Build Traffic Operations and Mobility**, a roadway segment analysis was completed for the study area under each of the alternative bridge conditions. The roadway segment analysis is a planning-level comparison of the forecast ADT volumes against the estimated capacity for each facility type. All information used in the volume-to-capacity (V/C) analysis, including forecast ADTs and roadway capacities, were provided by ATAC. This information included the volume and capacity data from the travel demand modeling of the Grand Forks and East Grand Forks area for the 2030 and 2045 forecast year Build Conditions for each bridge alternative.

The segment LOS based on V/C ratio for the study road segments under forecast 2030 Elks Drive Bridge Conditions, 2045 Elks Drive Bridge Conditions, 2030 32nd Ave Bridge Conditions, and 2045 32nd Ave Bridge Conditions are provided in **Figure 5-6** through **Figure 5-9**.

Legend

- 0.00 - 0.60 (LOS A)
- 0.61 - 0.70 (LOS B)
- 0.71 - 0.80 (LOS C)
- 0.81 - 0.90 (LOS D)
- 0.91 - 1.00 (LOS E)
- 1.01 or Greater (LOS F)

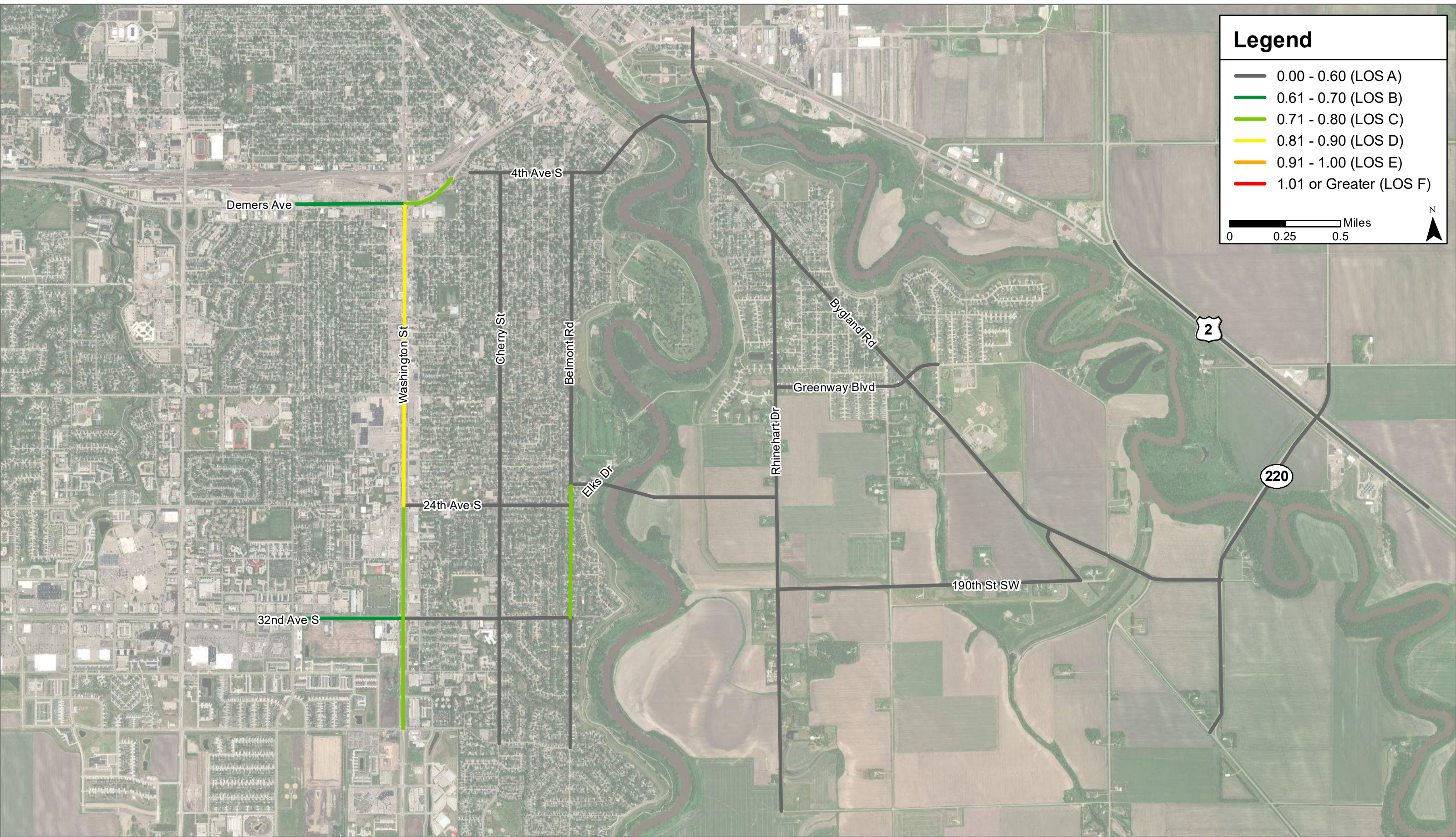
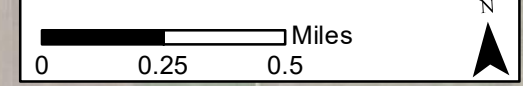
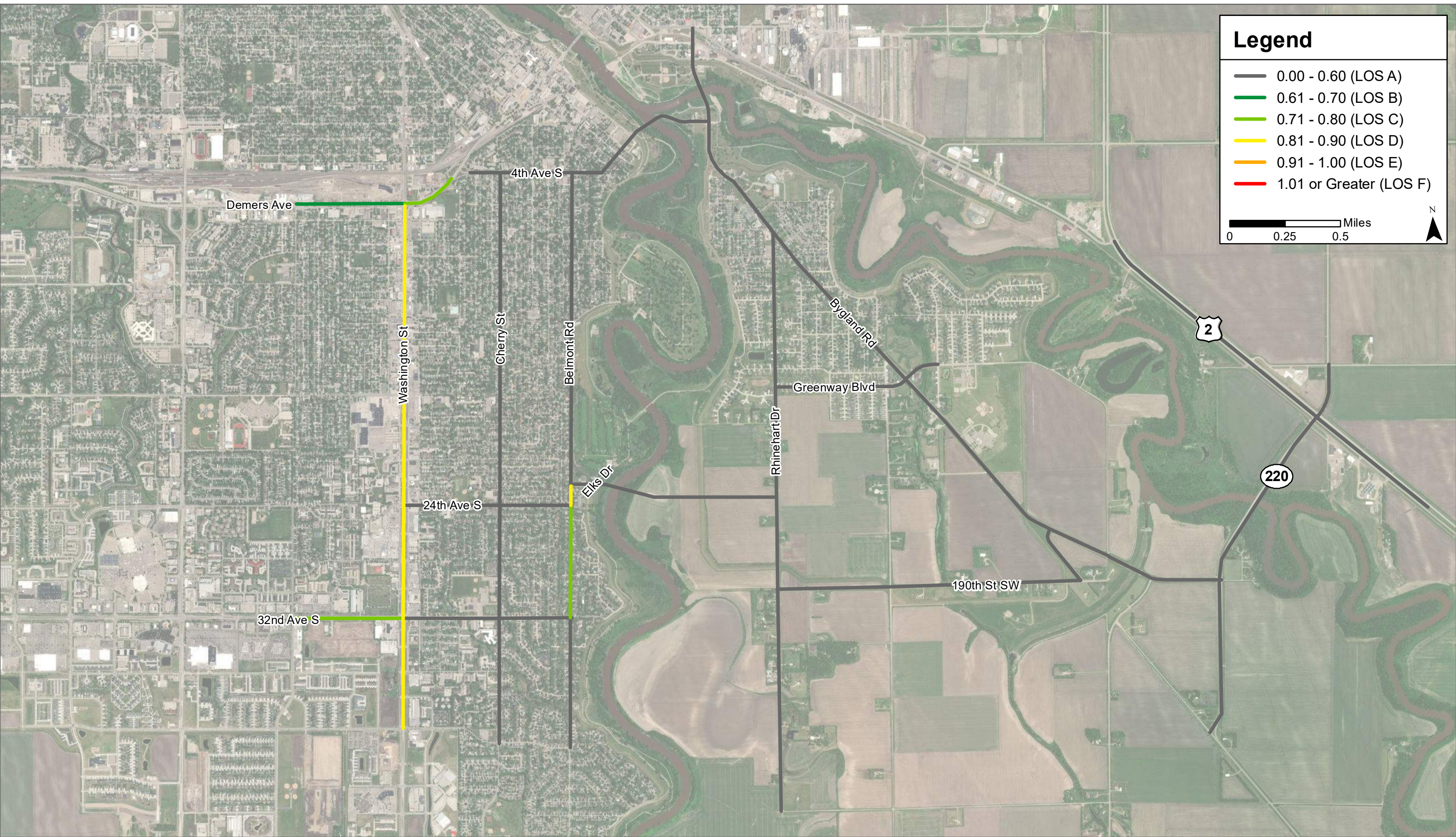
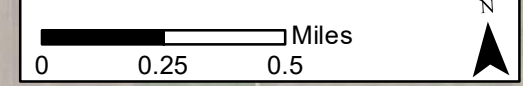


Figure 5-6
2030 Elks Drive Bridge Segment Volume/Capacity and Level of Service

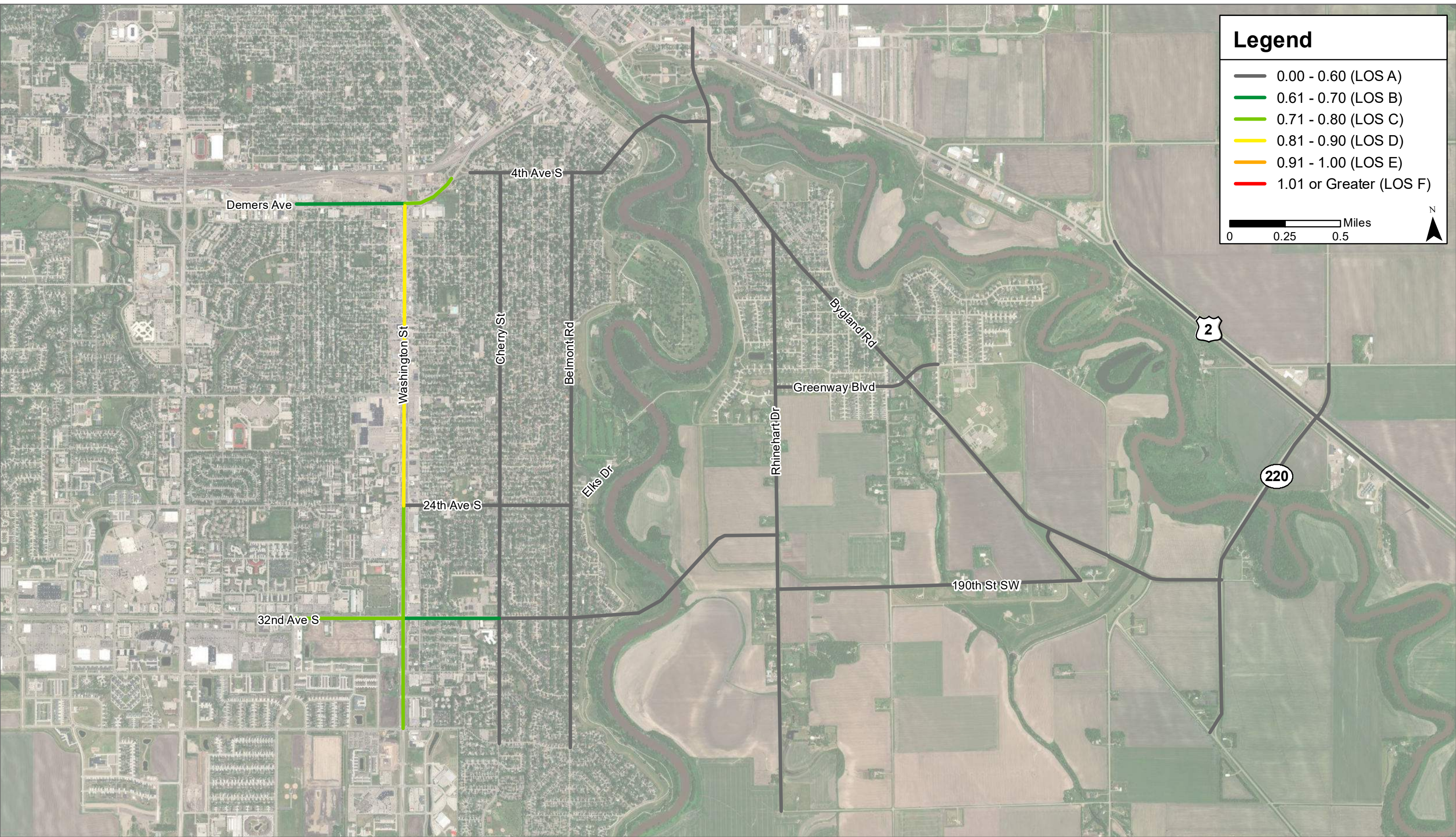
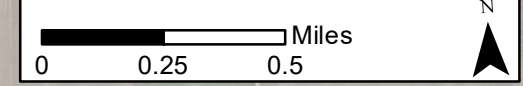
Legend

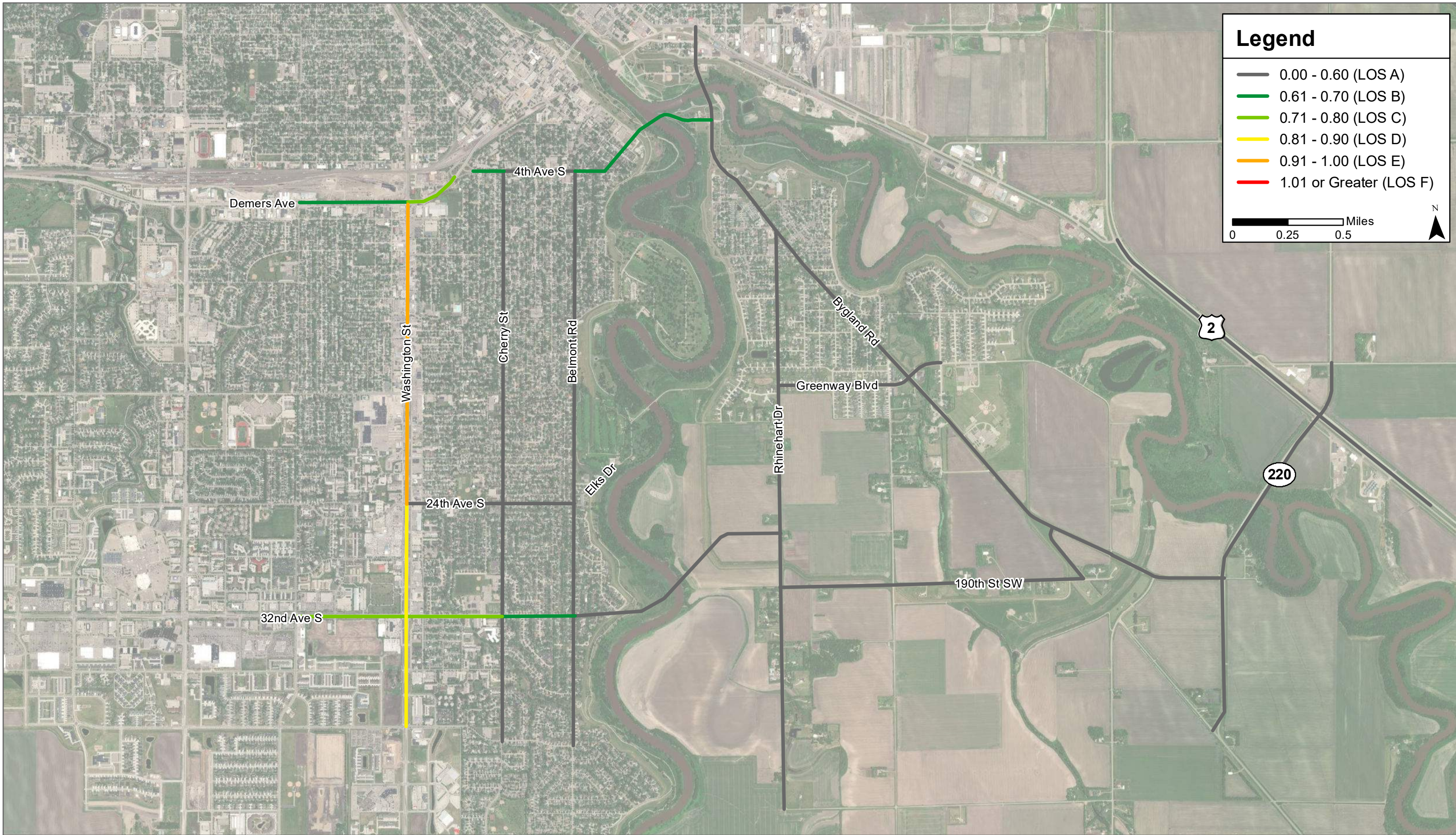
- 0.00 - 0.60 (LOS A)
- 0.61 - 0.70 (LOS B)
- 0.71 - 0.80 (LOS C)
- 0.81 - 0.90 (LOS D)
- 0.91 - 1.00 (LOS E)
- 1.01 or Greater (LOS F)



Legend

- 0.00 - 0.60 (LOS A)
- 0.61 - 0.70 (LOS B)
- 0.71 - 0.80 (LOS C)
- 0.81 - 0.90 (LOS D)
- 0.91 - 1.00 (LOS E)
- 1.01 or Greater (LOS F)





Based on the forecast ADTs and segment capacities, all roads within the study area would be expected to operate within capacity through the 2030 forecast year under both bridge alternatives. All roads would be expected to operate within capacity in 2045 under the Elks Drive Bridge alternative; however, the S Washington Street segment between DeMers Avenue / 4th Avenue S and 24th Avenue S would be expected to begin to approach capacity under 2045 32nd Ave Bridge Conditions, when it would be expected to operate at LOS E.

There are multiple factors that influence segment capacity. Some of these include facility type, number of through lanes, presence of turn lanes, and the presence of and type of median. While intersection capacity plays a critical and often controlling role in the capacity of a roadway network, providing adequate roadway capacity for the anticipated volume levels is critical to providing adequate vehicle mobility.

5.1.2.2 Intersection Traffic Operations Analysis

The Build Conditions intersection traffic operations analysis was conducted using the same methodology as was used for the Existing and No Build Conditions analysis. Refer to **Section 3.3: Existing and No Build Traffic Operations and Mobility** for details on the analysis methodology.

5.1.2.2.1 2030 Elks Drive Bridge Conditions

The intersection delay and LOS for the study intersections during the AM and PM peak hours under 2030 Elks Drive Bridge Conditions are provided in **Table 5-1**.

Table 5-1. 2030 Elks Drive Bridge Conditions Intersection Delay and LOS

Intersection	Control Type	AM Peak Hour		PM Peak Hour	
		Delay (s/veh)	LOS	Delay (s/veh)	LOS
S Washington St & 32nd Ave S	Signal	33.2	C	46.6	D
Cherry St & 32nd Ave S	AWSC	96.9	F	15.1	C
Belmont Rd & 32nd Ave S	AWSC	28.3	D	43.9	E
S Washington St & 24th Ave S	Signal	21.8	C	31.7	C
Cherry St & 24th Ave S	AWSC	10.4	B	9.8	A
Belmont Rd & 24th Ave S	TWSC	25.8	D	52.4	F
Belmont Rd & Elks Drive	TWSC	105.8	F	27.5	D
S Washington St & DeMers Ave	Signal	40.5	D	38.2	D
Cherry St & 4th Ave S	Signal	6.2	A	5.5	A
Belmont Rd & 4th Ave S	AWSC	38.2	E	18.2	C
3rd Ave SE & 1st St SE	Signal	7.8	A	6.4	A
Bygland Rd SE & Rhinehart Dr SE (Stop Control)	TWSC	63.3	F	20.0	C
Bygland Rd SE & Rhinehart Dr SE (Roundabout)	RAB	9.4	A	6.2	A
Rhinehart Dr SE & Greenway Blvd SE	TWSC	10.2	B	10.4	B
Elks Dr Bridge & Rhinehart Dr SE	TWSC	14.0	B	12.7	B
Bygland Rd SE & Greenway Blvd SE	TWSC	78.8	F	11.8	B
Bygland Rd SE & 190th St SW	TWSC	10.4	B	10.4	B
Bygland Rd SE/Harley Dr & TH 220	TWSC	10.2	B	9.4	A
TH 220 & US 2	TWSC	13.1	B	13.9	B
Rhinehart Dr SE & 190th St SE	AWSC	8.2	A	8.6	A

Note: Delay and LOS for TWSC intersections reflect the worst approach

Given the expectation of traffic shifting from the Point Bridge to the new bridge at Elks Drive, operations at Belmont Road & 4th Avenue S are expected to improve in the Elks Drive Bridge scenario. In 2030 No Build Conditions this intersection was expected to operate at LOS F in both peak hours, but with the traffic diversion to the proposed Elks Drive bridge, the current all-way stop design would be expected to operate at LOS E in the AM peak hour and LOS C in PM peak hour.

Multiple intersections along Belmont Road see degradation in operations compared to the No Build alternative in this scenario. The side-street stop controlled intersections at 24th Avenue S and Elks Drive would be expected to operate unacceptably on the stop controlled approaches, with 24th Avenue S failing (LOS F) in the PM peak hour and Elks Drive failing (LOS F) in the AM peak hour due to the additional traffic using the bridge.

The new intersection on Rhinehart Drive SE with the proposed Elks Drive Bridge would be expected to operate efficiently (LOS B on the stopped approach) with the assumed turn lane and side-street stop control on the eastbound bridge approach. The low northbound and southbound through volumes on Rhinehart Drive SE at this intersection would result in minimal conflicts with the turning movements going to and from the bridge.

The all-way stop controlled intersections on 32nd Avenue S at Belmont Road and Cherry Street would also be expected to reach or exceed capacity with the Elks Drive Bridge. This indicates that the anticipated traffic pattern changes would require improvements in traffic control or additional turn lanes at these intersections.

On the East Grand Forks side of the bridge, AM peak hour operations at the Bygland Road SE and Greenway Boulevard SE intersection would be expected to operate at LOS F in the 2030 Elks Bridge scenario due to increased volume using Greenway Boulevard SE to access the bridge. Operations at Bygland Road SE & Rhinehart Drive SE would be expected to improve with the Elks Drive Bridge, as both the stop control option and roundabout option improve from No Build Conditions in the AM peak hour. However, if no improvements were made to this intersection and the existing geometry and traffic control were maintained, significant delay would be expected on the Rhinehart Drive SE approach, which would be anticipated to operate at LOS F in the AM peak hour under 2030 Elks Drive Bridge Conditions.

5.1.2.2.2 2045 Elks Drive Bridge Conditions

The intersection delay and LOS for the study intersections during the AM and PM peak hours under 2045 Elks Drive Bridge Conditions are provided in **Table 5-2**.

Table 5-2. 2045 Elks Drive Bridge Conditions Intersection Delay and LOS

Intersection	Control Type	AM Peak Hour		PM Peak Hour	
		Delay (s/veh)	LOS	Delay (s/veh)	LOS
S Washington St & 32nd Ave S	Signal	36.6	D	48.2	D
Cherry St & 32nd Ave S	AWSC	222.4	F	23.2	C
Belmont Rd & 32nd Ave S	AWSC	78.8	F	110.3	F
S Washington St & 24th Ave S	Signal	28.5	C	36.4	D
Cherry St & 24th Ave S	AWSC	14.1	B	11.6	B
Belmont Rd & 24th Ave S	TWSC	89.2	F	405.7	F
Belmont Rd & Elks Drive	TWSC	154.6	F	41.3	E
S Washington St & DeMers Ave	Signal	47.7	D	37.2	D
Cherry St & 4th Ave S	Signal	6.5	A	5.7	A
Belmont Rd & 4th Ave S	AWSC	38.3	E	18.6	C
3rd Ave SE & 1st St SE	Signal	7.8	A	6.4	A
Bygland Rd SE & Rhinehart Dr SE (Stop Control)	TWSC	88.9	F	21.8	C
Bygland Rd SE & Rhinehart Dr SE (Roundabout)	RAB	9.6	A	6.1	A
Rhinehart Dr SE & Greenway Blvd SE	TWSC	12.1	B	12.2	B
Elks Dr Bridge & Rhinehart Dr SE	TWSC	17.1	C	16.7	C
Bygland Rd SE & Greenway Blvd SE	Signal	14.1	B	6.4	A
Bygland Rd SE & 190th St SW	TWSC	10.8	B	10.9	B
Bygland Rd SE/Harley Dr & TH 220	TWSC	11.1	B	9.8	A
TH 220 & US 2	TWSC	15.1	C	16.2	C
Rhinehart Dr SE & 190th St SE	AWSC	7.4	A	7.7	A

Note: Delay and LOS for TWSC intersections reflect the worst approach

Anticipated traffic operations in the Elks Drive Bridge alternative operate similarly in the 2045 condition as they did in the 2030 condition, though with increased delay due to additional traffic growth. No additional intersections are expected to experience unacceptable operations in 2045 beyond those that did in 2030 with the Elks Drive Bridge. However, where only one peak hour was expected to operate at LOS E or F in the 2030 conditions, both peak hours would be expected to operate unacceptably on Belmont Road at the intersections with Elks Drive, 24th Avenue S, and 32nd Avenue S under 2045 conditions.

The Bygland Road SE and Greenway Boulevard SE intersection is programmed to be signalized by the 2045 forecast year, which would be expected to improve operations at the intersection from unacceptable levels (LOS F in the AM peak hour) with the Elks Drive Bridge in 2030 to LOS B or better in 2045.

5.1.2.2.3 2030 32nd Ave Bridge Conditions

The intersection delay and LOS for the study intersections during the AM and PM peak hours under 2030 32nd Avenue Bridge Conditions are provided in **Table 5-3**.

Table 5-3. 2030 32nd Avenue Bridge Conditions Intersection Delay and LOS

Intersection	Control Type	AM Peak Hour		PM Peak Hour	
		Delay (s/veh)	LOS	Delay (s/veh)	LOS
S Washington St & 32nd Ave S	Signal	37.6	D	48.5	D
Cherry St & 32nd Ave S	AWSC	175.6	F	19.9	C
Belmont Rd & 32nd Ave S	AWSC	173.3	F	78.8	F
S Washington St & 24th Ave S	Signal	19.7	B	29.4	C
Cherry St & 24th Ave S	AWSC	9.3	A	9.2	A
Belmont Rd & 24th Ave S	TWSC	14.9	B	16.9	C
Belmont Rd & Elks Drive	TWSC	12.0	B	14.2	B
S Washington St & DeMers Ave	Signal	41.1	D	38.1	D
Cherry St & 4th Ave S	Signal	6.3	A	5.5	A
Belmont Rd & 4th Ave S	AWSC	38.4	E	18.1	C
3rd Ave SE & 1st St SE	Signal	7.9	A	6.4	A
Bygland Rd SE & Rhinehart Dr SE (Stop Control)	TWSC	70.6	F	20.5	C
Bygland Rd SE & Rhinehart Dr SE (Roundabout)	RAB	9.1	A	6.1	A
Rhinehart Dr SE & Greenway Blvd SE	TWSC	10.0	B	10.1	B
32nd Ave Bridge & Rhinehart Dr SE	TWSC	14.2	B	12.5	B
Bygland Rd SE & Greenway Blvd SE	TWSC	67.8	F	11.8	B
Bygland Rd SE & 190th St SW	TWSC	11.4	B	10.7	B
Bygland Rd SE/Harley Dr & TH 220	TWSC	10.3	B	9.4	A
TH 220 & US 2	TWSC	13.1	B	13.9	B
Rhinehart Dr SE & 190th St SE	AWSC	8.7	A	9.1	A

Note: Delay and LOS for TWSC intersections reflect the worst approach

Similar to the Elks Bridge Scenario, the expectation of traffic shifting from the Point Bridge to a new bridge at 32nd Avenue S would be expected to result in improved operations at Belmont Road and 4th Avenue S compared to 2030 No Build Conditions. The current all-way stop control at this intersection would be expected to operate at LOS E in the AM peak hour and LOS C in PM peak hour with the proposed 32nd Avenue Bridge, versus LOS F in both peak hours under 2030 No Build Conditions.

Traffic at the unsignalized study intersections on 32nd Avenue S would be expected to operate unacceptably in this scenario. The Cherry Street and 32nd Avenue S intersection would be expected to fail (LOS F) in the AM peak period, as would the Belmont Road and 32nd Avenue S intersection in both the AM and PM peak hours. Compared to the LOS C operations at these intersections in under 2030 No Build Conditions, these intersections would be expected to operate worse due to the expected shift in traffic from 4th Avenue S / DeMers Avenue to 32nd Avenue S.

Similar to the Elks Drive Bridge scenario, the intersection at Bygland Road SE and Greenway Boulevard SE would be expected to operate at LOS F in the AM peak period in 2030 with the 32nd Avenue Bridge maintaining the current two-way stop control condition on Greenway Boulevard SE. Similarly, the Bygland Road SE and Rhinehart

Drive SE intersection would be expected to operate at LOS F on the stop controlled Rhinehart Drive SE approach under the 32nd Avenue Bridge alternative in 2030 if no improvements were made to the intersection.

5.1.2.2.4 2045 32nd Ave Bridge Conditions

The intersection delay and LOS for the study intersections during the AM and PM peak hours under 2045 32nd Avenue Bridge Conditions are provided in **Table 5-4**.

Table 5-4. 2045 32nd Avenue Bridge Conditions Intersection Delay and LOS

Intersection	Control Type	AM Peak Hour		PM Peak Hour	
		Delay (s/veh)	LOS	Delay (s/veh)	LOS
S Washington St & 32nd Ave S	Signal	63.2	E	53.6	D
Cherry St & 32nd Ave S	AWSC	448.8	F	72.0	F
Belmont Rd & 32nd Ave S	AWSC	275.1	F	177.5	F
S Washington St & 24th Ave S	Signal	20.4	C	29.7	C
Cherry St & 24th Ave S	AWSC	9.5	A	9.4	A
Belmont Rd & 24th Ave S	TWSC	16.7	C	19.5	C
Belmont Rd & Elks Drive	TWSC	12.7	B	15.5	C
S Washington St & DeMers Ave	Signal	51.4	D	38.3	D
Cherry St & 4th Ave S	Signal	6.6	A	5.7	A
Belmont Rd & 4th Ave S	AWSC	53.4	F	21.2	C
3rd Ave SE & 1st St SE	Signal	8.0	A	6.6	A
Bygland Rd SE & Rhinehart Dr SE (Stop Control)	TWSC	118.7	F	23.7	C
Bygland Rd SE & Rhinehart Dr SE (Roundabout)	RAB	10.3	B	6.3	A
Rhinehart Dr SE & Greenway Blvd SE	TWSC	10.5	B	10.7	B
32nd Ave Bridge & Rhinehart Dr SE	TWSC	17.4	C	14.2	B
Bygland Rd SE & Greenway Blvd SE	Signal	9.0	A	6.0	A
Bygland Rd SE & 190th St SW	TWSC	12.3	B	11.3	B
Bygland Rd SE/Harley Dr & TH 220	TWSC	11.2	B	9.8	A
TH 220 & US 2	TWSC	14.8	B	16.0	C
Rhinehart Dr SE & 190th St SE	AWSC	9.4	A	10.0	A

Note: Delay and LOS for TWSC intersections reflect the worst approach

Traffic operations under the 32nd Avenue Bridge alternative in 2045 would be expected to function similarly to the 2030 scenario, with general increases in vehicle delays throughout the network. All intersections that were expected to reach or exceed capacity in 2030 with the 32nd Avenue Bridge would continue to fail. The PM peak hour would be expected to degrade to LOS F at the Cherry Street and 32nd Avenue S intersection by 2045, and the Belmont Road and 4th Avenue S intersection would be expected to degrade from LOS E to LOS F in the AM peak hour between 2030 and 2045. The S Washington Street and 32nd Avenue S intersection would be expected to approach capacity in the AM peak hour under the 2045 32nd Avenue Bridge alternative.

The Bygland Road SE and Greenway Boulevard SE intersection was programmed to be signalized by the 2045 forecast year, which would be expected to improve operations at the intersection from unacceptable levels (LOS F in the AM peak hour) with the 32nd Avenue Bridge in 2030 to LOS A during both peak hours in 2045.

The Red River Crossing Alternatives Analysis in Appendix C of the Grand Forks-East Grand Forks MPO 2045 Street Highway Plan Update completed in 2018 analyzed many of the same intersections in the PM peak hour through 2045 Build Conditions. While the results of the studies may vary due to different data sources and data dates, analysis methodologies, and signal timing optimization, both studies identify anticipated unacceptable operations during the PM peak hour under 2045 Elks Drive Bridge Conditions at the intersections on Belmont Road at Elks Drive, 24th Avenue S, and 32nd Avenue S. The 2018 study also indicated expected LOS E operations at the S Washington Street and 32nd Avenue S intersection, whereas this study indicates that the intersection could operate at LOS D with signal timing optimization with the forecast volumes. Additionally, the 2018 study identified the Bygland Road SE and Greenway Boulevard SE intersection as failing in the 2045 Elks Drive Bridge PM peak hour scenario, which was improved in this study with the programmed signalization of the intersection by the forecast 2045 horizon year.

Under the forecast 2045 32nd Avenue Bridge PM peak hour conditions, both the 2018 study and this study identified expected unacceptable operations at the Belmont Road and 32nd Avenue S intersection. Cherry Street was not included in the prior analysis, but was also shown to have expected failing operations in this study. The intersections on S Washington Street at DeMers Avenue and 32nd Avenue S were shown to operate unacceptably in the 2018 study during the PM peak hour; however, the analysis for this study indicates that both the intersections would be expected to operate at LOS D with signal timing optimization in the PM peak hour with the forecast 32nd Avenue Bridge traffic volumes.

5.1.3 Traffic Control Warrants Analysis

After determining expected intersection delays and level of service in the Existing, No Build, Elks Drive Bridge, and 32nd Avenue Bridge scenarios, a traffic control warrants analysis was conducted to determine possible alternatives for traffic control at locations that exhibited intersection LOS E or F operations in either peak hour in each scenario. All-way stop control warrants and traffic signal warrants were analyzed for existing conditions, 2030 conditions, and 2045 conditions using the existing and forecast traffic volumes for the study intersections. The intersections on S Washington Street where operations are expected to reach LOS E or F were not evaluated for warrants because they are already fully signalized, high-capacity intersections, and would be assumed to remain signalized into the future.

The FHWA Manual on Uniform Traffic Control Devices (MUTCD) outlines thresholds for traffic volumes and delay conditions, among other criteria, that must be met for all-way stop control and traffic signal control to be warranted at a given intersection. Additionally, if an intersection is located next to a school and has significant schoolchildren crossings, all-way stop control may be considered. To meet the warrants for a signalized intersection, any one of the warrants must be met. The volume-based signal warrants (1-3) were evaluated for this analysis. If signal warrants are met for an intersection, all-way stop control is also warranted for the intersection. In order to satisfy all-way stop control warrants where signal warrants are not met, both a minimum volume criterion and delay criterion must be met.

There are no definitive warrants for converting an intersection to a roundabout. Roundabouts were considered as a potential mitigation measure at all intersections where all-way stop control warrant or traffic signal warrants were satisfied. Additionally, roundabouts were considered as a potential mitigation measure at locations where no warrants were met where they may provide a benefit to intersection or segment traffic operations or safety.

Table 5-5 through Table 5-12 summarize the signal and all-way stop control warrants for Existing, 2030, and 2045 conditions.

Table 5-5. Existing Signal and All-Way Stop Warrant Analysis Summary

Scenario	Intersection	Warrants Met	Signal Warrants			All-Way Stop Control Warrants			
			Warrant 1 - 8-Hour Vehicle Volumes	Warrant 2 - 4-Hour Vehicle Volumes	Warrant 3 - Peak Hour	Criteria A - Signal Justified	Criteria C - Minimum Volumes	Criteria C - Minor Approach Max Delay	School Pedestrian Crossing ⁽¹⁾
Existing	4th Ave & Belmont Rd	AWSC	NOT MET	NOT MET	NOT MET	NOT MET	NOT MET	MET	MET
	32nd Ave & Belmont Rd	-	NOT MET	NOT MET	NOT MET	NOT MET	NOT MET	NOT MET	NOT MET

Notes:
(1) Multiway stop control may be considered at locations where pedestrian crossings for a school are present, per the "Optional" consideration items in the Manual on Uniform Traffic Control Devices (MUTCD)

Table 5-6. 2030 Signal and All-Way Stop Warrant Analysis Summary

Scenario	Intersection	Warrants Met	Signal Warrants			All-Way Stop Control Warrants			
			Warrant 1 - 8-Hour Vehicle Volumes	Warrant 2 - 4-Hour Vehicle Volumes	Warrant 3 - Peak Hour	Criteria A - Signal Justified	Criteria C - Minimum Volumes	Criteria C - Minor Approach Max Delay	School Pedestrian Crossing ⁽²⁾
No Build	4th Ave & Belmont Rd	AWSC	NOT MET	NOT MET	NOT MET	NOT MET	MET	MET	MET
	32nd Ave & Cherry St	AWSC	NOT MET	NOT MET	NOT MET	NOT MET	NOT MET	MET	MET
	Bygland Rd & Rhinehart Dr	Signal, AWSC	MET	MET	MET	MET	NOT MET	NOT MET	NOT MET
Elks Bridge	4th Ave & Belmont Rd	AWSC	NOT MET	NOT MET	NOT MET	NOT MET	NOT MET	MET	MET
	24th Ave & Belmont Rd	Signal, AWSC	NOT MET	MET	MET	MET	NOT MET	MET	NOT MET
	32nd Ave & Belmont Rd	Signal, AWSC	NOT MET	MET	MET	MET	MET	MET	NOT MET
	32nd Ave & Cherry St	AWSC	NOT MET	NOT MET	NOT MET	NOT MET	NOT MET	MET	MET
	Elks Dr & Belmont Rd	Signal, AWSC	NOT MET	NOT MET	MET	MET	NOT MET	MET	NOT MET
	Bygland Rd & Rhinehart Dr	Signal, AWSC	NOT MET	MET	MET	MET	NOT MET	MET	NOT MET
	Bygland Rd & Greenway Blvd ⁽¹⁾	Signal, AWSC	NOT MET	NOT MET	MET	MET	NOT MET	MET	NOT MET
32nd Bridge	4th Ave & Belmont Rd	AWSC	NOT MET	NOT MET	NOT MET	NOT MET	NOT MET	MET	MET
	32nd Ave & Belmont Rd	Signal, AWSC	NOT MET	NOT MET	MET	MET	NOT MET	MET	NOT MET
	32nd Ave & Cherry St	AWSC	NOT MET	NOT MET	NOT MET	NOT MET	NOT MET	MET	MET
	Bygland Rd & Rhinehart Dr	Signal, AWSC	NOT MET	MET	MET	MET	NOT MET	MET	NOT MET
	Bygland Rd & Greenway Blvd ⁽¹⁾	Signal, AWSC	NOT MET	NOT MET	MET	MET	NOT MET	MET	NOT MET

Notes:
(1) Intersection programmed to be signalized by the 2045 horizon year
(2) Multiway stop control may be considered at locations where pedestrian crossings for a school are present, per the "Optional" consideration items in the Manual on Uniform Traffic Control Devices (MUTCD).

Table 5-7. 2045 Signal and All-Way Stop Warrant Analysis Summary

Scenario	Intersection	Warrants Met	Signal Warrants			All-Way Stop Control Warrants			
			Warrant 1 - 8-Hour Vehicle Volumes	Warrant 2 - 4-Hour Vehicle Volumes	Warrant 3 - Peak Hour	Criteria A - Signal Justified	Criteria C - Minimum Volumes	Criteria C - Minor Approach Max Delay	School Pedestrian Crossing ⁽¹⁾
No Build	4th Ave & Belmont Rd	Signal, AWSC	NOT MET	NOT MET	MET	MET	MET	MET	MET
	32nd Ave & Belmont Rd	Signal, AWSC	NOT MET	MET	MET	MET	NOT MET	MET	NOT MET
	32nd Ave & Cherry St	AWSC	NOT MET	NOT MET	NOT MET	NOT MET	MET	MET	MET
	Bygland Rd & Rhinehart Dr	Signal, AWSC	MET	MET	MET	MET	NOT MET	NOT MET	NOT MET
Elks Bridge	4th Ave & Belmont Rd	AWSC	NOT MET	NOT MET	NOT MET	NOT MET	NOT MET	MET	MET
	24th Ave & Belmont Rd	Signal, AWSC	MET	MET	MET	MET	NOT MET	MET	NOT MET
	32nd Ave & Belmont Rd	Signal, AWSC	NOT MET	MET	MET	MET	MET	MET	NOT MET
	32nd Ave & Cherry St	Signal, AWSC	NOT MET	MET	MET	MET	MET	MET	MET
	Elks Dr & Belmont Rd	Signal, AWSC	NOT MET	MET	MET	MET	NOT MET	MET	NOT MET
	Bygland Rd & Rhinehart Dr	Signal, AWSC	NOT MET	MET	MET	MET	NOT MET	MET	NOT MET
32nd Bridge	4th Ave & Belmont Rd	AWSC	NOT MET	NOT MET	NOT MET	NOT MET	NOT MET	MET	MET
	32nd Ave & Belmont Rd	Signal, AWSC	NOT MET	MET	MET	MET	MET	MET	NOT MET
	32nd Ave & Cherry St	Signal, AWSC	NOT MET	MET	MET	MET	NOT MET	MET	MET
	Bygland Rd & Rhinehart Dr	Signal, AWSC	NOT MET	MET	MET	MET	NOT MET	MET	NOT MET

Notes: (1) Multiway stop control may be considered at locations where pedestrian crossings for a school are present, per the "Optional" consideration items in the Manual on Uniform Traffic Control Devices (MUTCD)

5.1.4 Intersection Mitigation

After the intersection traffic operations and traffic control warrants were evaluated, intersections that presented insufficient traffic operations (LOS E or F) were evaluated for potential mitigation options. A summary of the forecast 2045 intersection operations for each intersection under each alternative scenario is provided in **Table 5-8**, with intersections requiring mitigation highlighted in orange or pink.

Table 5-8. 2045 Intersection LOS Summary

Intersection	Traffic Control	2045 No Build (AM/PM)	2045 Elks Bridge (AM/PM)	2045 32nd Ave Bridge (AM/PM)
S Washington St & 32nd Ave S	Signal	C/D	D/D	E/D
Cherry St & 32nd Ave S	AWSC	F/C	F/C	F/F
Belmont Rd & 32nd Ave S	AWSC	F/F	F/F	F/F
S Washington St & 24th Ave S	Signal	C/C	C/D	C/C
Cherry St & 24th Ave S	AWSC	B/B	B/B	A/A
Belmont Rd & 24th Ave S	TWSC	C/D	F/F	C/C
Belmont Rd & Elks Drive	TWSC	C/C	F/E	B/C
S Washington St & DeMers Ave	Signal	F/E	D/D	D/D
Cherry St & 4th Ave S	Signal	A/A	A/A	A/A
Belmont Rd & 4th Ave S	AWSC	F/F	E/C	F/C
3rd Ave SE & 1st St SE	Signal	B/A	A/A	A/A
Bygland Rd SE & Rhinehart Dr SE (Stop Control)	TWSC	F/D	F/C	F/C
Bygland Rd SE & Rhinehart Dr SE (Roundabout)	RAB	C/A	A/A	B/A
Rhinehart Dr SE & Greenway Blvd SE	TWSC	A/A	B/B	B/B
Bygland Rd SE & Greenway Blvd SE	Signal	A/A	B/A	A/A
Bygland Rd SE & 190th St SW	TWSC	A/A	B/B	B/B
Bygland Rd SE/Harley Dr & TH 220	TWSC	B/A	B/A	B/A
TH 220 & US 2	TWSC	C/C	C/C	B/C
Rhinehart Dr SE & 190th St SE	AWSC	A/A	A/A	A/A
Elks Dr Bridge & Rhinehart Dr SE	TWSC	-	C/C	-
32nd Ave Bridge & Rhinehart Dr SE	TWSC	-	-	C/B

Notes:

- Bygland Rd SE & Greenway Blvd SE intersection is planned to be signalized by 2045
- LOS for worst approach is shown at TWSC intersections
- Only intersections operating at an expected LOS E or LOS F (highlighted) were evaluated for mitigation

Possible traffic control alternatives were identified at each intersection based on which traffic control warrants would be met. Any mitigation must be adequate to acceptably process projected traffic volumes through the 2045 horizon year, so the intersection mitigation analysis was completed using the 2045 volume conditions for the No Build and Build alternatives. The intersection mitigation analysis is summarized in **Table 5-9**. The summary table presents the unmitigated LOS, warrants met, special considerations for schools or crash history, and identifies options for mitigation that are warranted and would be expected to provide acceptable traffic operations.

Table 5-9. Intersection Mitigation Summary

Scenario	Intersection	Existing Traffic Control	2030 Unmitigated LOS	2045 Unmitigated LOS	Traffic Control Warrants Met	School Adjacent	Identified Crash Issues	Acceptable Mitigation Control Options ⁽²⁾
No Build	4th Ave & Belmont Rd	AWSC	F/F	F/F	Signal, AWSC	X		Signal/RAB (mini)
	32nd Ave & Belmont Rd	AWSC	C/C	F/F	Signal, AWSC			AWSC/Signal/RAB
	32nd Ave & Cherry St	AWSC	E/B	F/C	AWSC	X		RAB
	DeMers Ave & Washington St	Signal	E/D	F/E	Signal, AWSC		X	Signal
	Bygland Rd & Rhinehart Dr ⁽¹⁾	TWSC	F/C	F/D	Signal, AWSC			Signal/RAB
Elks Drive Bridge Build	4th Ave & Belmont Rd	AWSC	E/C	E/C	AWSC	X		AWSC/RAB (mini)
	24th Ave & Belmont Rd ⁽¹⁾	TWSC	D/F	F/F	Signal, AWSC			Signal/RAB
	32nd Ave & Belmont Rd	AWSC	D/E	F/F	Signal, AWSC			AWSC/Signal/RAB
	32nd Ave & Cherry St	AWSC	F/C	F/C	Signal, AWSC	X		Signal/RAB
	Belmont Rd & Elks Dr ⁽¹⁾	TWSC	F/D	F/E	Signal, AWSC			Signal/RAB
	Bygland Rd & Rhinehart Dr ⁽¹⁾	TWSC	F/C	F/C	Signal, AWSC			Signal/RAB
32nd Ave Bridge Build	4th Ave & Belmont Rd	AWSC	E/C	F/C	AWSC	X		AWSC/RAB (mini)
	32nd Ave & Belmont Rd	AWSC	F/F	F/F	Signal, AWSC			Signal/RAB
	32nd Ave & Cherry St	AWSC	F/C	F/F	Signal, AWSC	X		Signal
	32nd Ave & Washington St	Signal	D/D	E/D	Signal, AWSC		X	Signal
	Bygland Rd & Rhinehart Dr ⁽¹⁾	TWSC	F/C	F/C	Signal, AWSC			Signal/RAB

Notes:

(1) Results for worst approach are reported for two-way stop-controlled intersections

(2) Mitigation options that were warranted and would be expected to result in acceptable intersection level of service

For the purposes of developing a cost estimate for each bridge option, a single mitigation option is assumed for each location requiring mitigation. For the purposes of the cost estimate, the lowest-cost option that the traffic modeling showed would provide acceptable traffic operations was selected. When determining the mitigated control option assumed for cost estimating, the following hierarchy of changes was followed:

1. Add turn lanes without changes in traffic control
2. Convert to all-way stop control with minimum required turn lane additions (if existing TWSC)
3. Convert to signalized control with minimum required turn lane additions
4. Convert to a single-lane roundabout

Locations near schools with pedestrian crossings and intersections where the safety analysis identified a safety issue were identified and considered when evaluating mitigation options. At these locations, mitigation options with additional lanes (which would increase crossing distances) and stop controlled operations (as opposed to higher levels of traffic control) were deprioritized over signal or roundabout options that would provide improved pedestrian crossing conditions by providing controlled crossings, shorter crossing distances, reduced

vehicle speeds, and/or median pedestrian refuge areas. Crash issues, right-of-way availability, and previous study recommendations were also factored into design feasibility and potential effectiveness. For consistency of approach, the “assumed mitigation for cost estimate” reflects the lowest-cost option that would be expected to provide acceptable operations and address pedestrian/safety issues where identified. This would be the first option on the established hierarchy that would provide acceptable intersection operations. The mitigation options assumed for cost estimating are summarized in **Table 5-10**.

Table 5-10. Summary of Intersection Mitigation Assumed for Cost Estimate

Scenario	Intersection	Existing Traffic Control	Assumed Mitigation Option for Cost Estimate				Notes and Considerations
			Assumed Traffic Control for Cost Estimate	2045 LOS with Assumed Mitigation	Mitigation Description	Consider Additional Pedestrian Accommodations	
No Build	4th Ave & Belmont Rd	AWSC	Signal	B/B	Signalized intersection with no additional turn lanes	X	Intersection was previously signalized until 2015. May consider adding turn lanes if signalized based on prior signalized operations observations. Limited ROW, potential impacts should be considered.
	32nd Ave & Belmont Rd	AWSC	AWSC	C/C	Maintain AWSC and add SB right and NB left turn lanes (see concept sketch in Appendix)		May impact ROW
	32nd Ave & Cherry St	AWSC	RAB	B/A	Single-lane RAB	X	May impact ROW
	DeMers Ave & Washington St	Signal	Signal	F/E	No lane additions feasible—consider CFI		Additional lanes likely infeasible, CFI design recommended in prior study showed operational improvements ⁽¹⁾
	Bygland Rd & Rhinehart Dr	TWSC	RAB	C/A	Single-lane RAB		Based on detailed 2015 Bygland Road Study results and 2016 Intersection Control Evaluation
Elks Drive Bridge Build	4th Ave & Belmont Rd	AWSC	Mini-RAB	A/A	Single-lane mini-RAB	X	AWSC may be considered based on vehicle/pedestrian conflicts. Limited ROW, potential impacts should be considered.
	24th Ave & Belmont Rd	TWSC	Signal	A/B	Signalized intersection with no additional turn lanes		
	32nd Ave & Belmont Rd	AWSC	AWSC	C/D	Maintain AWSC and add SB right, NB left, and EB left turn lanes (see concept sketch in Appendix)		May impact ROW
	32nd Ave & Cherry St	AWSC	Signal	B/A	Signalized intersection with restriped NB approach to include a left turn storage lane and thru/right lane (see concept sketch in Appendix)	X	
	Belmont Rd & Elks Dr	TWSC	Signal	B/A	Signalized intersection with WB left turn lane and right turn storage lane (see concept sketch in Appendix)		
	Bygland Rd & Rhinehart Dr	TWSC	RAB	A/A	Single-lane RAB		Based on detailed 2015 Bygland Road Study results and 2016 Intersection Control Evaluation
32nd Ave Bridge Build	4th Ave & Belmont Rd	AWSC	Mini-RAB	A/A	Single-lane mini-RAB	X	AWSC may be considered based on vehicle/pedestrian conflicts, though left and right turn lanes would be needed on all approaches which would increase crossing distance. Limited ROW, potential impacts should be considered.
	32nd Ave & Belmont Rd	AWSC	Signal	C/C	Signalized intersection with additional NB left turn lane		May impact ROW
	32nd Ave & Cherry St	AWSC	Signal	D/A	Signalized intersection with restriped NB approach to include a left turn storage lane and thru/right lane, new EB and WB left turn lanes (see concept sketch in Appendix)	X	Single-lane RAB would be expected to operate at LOS F in AM peak hour. Additional turn lanes may impact ROW.
	32nd Ave & Washington St	Signal	Signal	D/D	Existing signalized control with new SB and WB left turn lanes (see concept sketch in Appendix)		Additional WB left turn lane may not be feasible due to limited ROW
	Bygland Rd & Rhinehart Dr	TWSC	RAB	B/A	Single-lane RAB		Based on detailed 2015 Bygland Road Study results and 2016 Intersection Control Evaluation

Notes:

(1) Additional lanes are likely infeasible due to right-of-way constraints. Prior studies showed potential operational improvements with a Continuous Flow Intersection (CFI) design (Washington St. Corridor Study, 2012).

The S Washington Street and DeMers Avenue intersection does not require mitigation for either the Elks Drive or 32nd Avenue bridge scenarios. As shown in **Table 5-10**, however, it does require mitigation under the 2045 No Build scenario but was not able to be feasibly mitigated with conventional improvements such as signal timing/phasing changes, additional through lanes, or additional turn lanes. The Washington Street Reconstruction Traffic Operations Report completed in 2020 recommended adding one through lane in the northbound and southbound directions on S Washington Street. While these improvements would mitigate traffic operations at the intersection, they may not be feasible due to the limited available right-of-way and large costs and impacts associated with acquiring it to expand the road. A decision was made at that time to not modify the existing intersection geometry. The Washington Street Corridor Study completed in 2012 showed operational benefits to reconstructing the intersection as a Continuous Flow Intersection (CFI) at this location. The CFI design was also included as an alternative in the Metropolitan Transportation Plan (MTP). The North Dakota Department of Transportation, in conjunction with local agencies, is planning to conduct a Road Safety Review (RSR) for the S Washington Street and DeMers Avenue intersection that will evaluate safety conditions further and will provide recommendations based on its findings.

Of the intersections that would need mitigation by 2045 listed in **Table 5-10**, four of them would be expected to operate with an intersection LOS D or worse in one or both peak hours with the mitigation assumed for cost estimating. These intersections include S Washington Street & DeMers Avenue under 2045 No Build Conditions, the 32nd Avenue S & Belmont Road intersection under 2045 Elks Drive Bridge Conditions, and the 32nd Avenue S & Cherry Street and 32nd Avenue S & S Washington Street intersections under 2045 32nd Avenue Bridge Conditions.

At the request of the City of Grand Forks, these intersections were analyzed with the mitigation assumed for cost estimating using the forecast 2030 traffic volumes to evaluate if they would be expected to operate at LOS C or better upon the opening of a new bridge if one were to be constructed by or before 2030. The analysis indicated that the 32nd Avenue S & Belmont Road intersection (Elks Drive Bridge Conditions) and the 32nd Avenue S & Cherry Street intersection (32nd Avenue Bridge Conditions) would be expected to operate at LOS C or better in 2030. The two intersections on S Washington Street would be expected to operate at LOS D or worse with 2030 volumes.

The 4th Avenue S and Belmont Road intersection does not meet signal warrants under the 2045 Elks Drive Bridge or 2045 32nd Avenue Bridge options, but all way stop control would be warranted due to the pedestrian crossings associated with Phoenix Elementary School. A single-lane mini-roundabout would be expected to mitigate the delay issues and operate at LOS A in both peak hours for both bridge alternatives. This option would also provide traffic calming by forcing vehicles to slow down to traverse the roundabout, which would be beneficial due to the proximity to the elementary school. A mini-roundabout would provide improved pedestrian crossing conditions by providing a single lane in each direction and providing a median refuge at the crosswalks, allowing pedestrians to cross one direction of traffic at a time. As shown in **Table 5-9**, the degree of mitigation needed at 4th and Belmont is substantially less with either the 32nd Avenue or Elks Drive options than with the 2045 No Build option.

Locations with high pedestrian traffic near schools should consider additional pedestrian accommodations such as curb extensions (to reduce crossing distance), signalized pedestrian crossings, and/or adding median pedestrian refuges to improve crossing conditions. These may be considered at any location where pedestrian

demand substantiates a need for safer crossing conditions, but particularly should be considered at the intersections adjacent to schools. This includes the intersections at 4th Avenue S and Belmont Road and at 32nd Avenue S and Cherry Street. This level of intersection design is not being conducted as part of this system-level planning study. It is assumed that more detailed design of options would be conducted as next steps beyond this planning study.

Intersection mitigation concept sketches and school/pedestrian safety strategies are provided in **Appendix C**.

5.2 MULTIMODAL SYSTEM LINKAGE

A new bridge would be expected to reduce out-of-direction travel on the regional transportation system due to increased system linkage. To evaluate the amount of travel reduction on the regional urban system, Vehicle Miles Traveled (VMT) and Vehicle Hours Traveled (VHT) were compared for the 3 alternatives in the year 2045. The results are shown in **Table 5-11**, and were obtained from the Red River Crossing Analysis Report².

Table 5-11. Daily VMT and VHT on the Regional Urban System

Metric	No Build	Elks Drive	32 nd Avenue
VMT (daily)	1,054,784 miles	14,600 less than No Build	24,721 less than No Build
VHT (daily)	59,702 hours	522 less than No Build	831 less than No Build

To better understand what the impacts would be in the study area, forecast VMT and VHT for just the study corridors in 2045 were also evaluated. The results are shown in **Table 5-12**, and were obtained from the Advanced Traffic Analysis Center (ATAC) at North Dakota State University.

Table 5-12. Daily VMT and VHT on Study Corridors

Metric	No Build	Elks Drive	32 nd Avenue
VMT (daily)	205,490 miles	314 less than No Build	3,448 less than No Build
VHT (daily)	3,430 hours	66 less than No Build	112 less than No Build

For pedestrians and bicyclists, a qualitative analysis was completed. Currently, there are 4 river crossings that can be used by pedestrians and bicyclists, and this is not expected to change under No Build conditions. A new bridge would add a 5th connection, with the Elks Drive option having less spread (closer to the existing pedestrian bridge, with less system-wide benefit) and the 32nd Avenue option having more spread (farther from the existing pedestrian bridge with greater system-wide benefit).

² Red River Crossing Analysis Technical Report (Grand Forks-East Grand Forks Metropolitan Planning Organization, September 2018) Available at <https://theforksmppo.org/common/pages/DisplayFile.aspx?itemId=16339495>.

5.3 COMMUNITY AND ECONOMIC FACTORS

5.3.1 Total Travel on Study Corridors

With increased multimodal system linkage comes a more balanced transportation system. A new bridge would be expected to reduce traffic on some roads (a positive impact) and increase traffic on other roads (a negative impact). To evaluate these tradeoffs, the level of positive or negative impact was measured using the percent change in VMT on each segment. A decrease in more than 25% is considered a more positive impact, and an increase in more than 25% is considered a more negative impact. The results are shown in **Table 5-13**.

Table 5-13. Total Travel on Study Corridors

Evaluation Criteria	Measure	Alternatives					
		No Build		Elks Drive		32nd Ave	
		Measurement	Rating	Measurement	Rating	Measurement	Rating
Total miles of travel on study corridors (distance)	Vehicles x Miles of Travel (VMT; from ATAC Travel Demand Model)	205,490	N	314 less	+	3,448 less	++
S Washington St (Principal Arterial)	Demers to 24th	44,101	N	42,356 (-4%)	+	43,159 (-2%)	+
S Washington St (Principal Arterial)	24th to 32nd	15,337	N	15,717 (+2%)	-	15,431 (+1%)	-
S Washington St (Principal Arterial)	32nd to 40th	13,624	N	14,093 (+3%)	-	14,238 (+5%)	-
Belmont Rd (Minor Arterial)	4th to Elks Dr	9,717	N	7,019 (-28%)	++	6,802 (-30%)	++
Belmont Rd (Minor Arterial)	Elks to 24th	553	N	981 (+77%)	--	415 (-25%)	+
Belmont Rd (Minor Arterial)	24th to 32nd	3,701	N	3,812 (+3%)	-	2,285 (-38%)	++
Belmont Rd (Minor Arterial)	32nd to 40th	2,996	N	2,400 (-20%)	+	2,483 (-17%)	+
32nd Ave S (Principal Arterial)	20th to Washington	12,118	N	14,045 (+16%)	-	14,322 (+18%)	-
32nd Ave S (Minor Arterial)	Washington to Cherry	2,423	N	3,149 (+30%)	--	4,225 (+74%)	--
32nd Ave S (Minor Arterial)	Cherry to Belmont	1,316	N	1,761 (+34%)	--	2,698 (+105%)	--
24th Ave S (Major Collector)	Washington to Cherry	1,635	N	2,570 (+57%)	--	1,790 (+9%)	-
24th Ave S (Major Collector)	Cherry to Belmont	189	N	1,221 (+546%)	--	441 (+133%)	--
4th Ave S (Minor Arterial)	Demers to Cherry	973	N	755 (-22%)	+	822 (-16%)	+
4th Ave S (Minor Arterial)	Cherry to Belmont	2,687	N	1,791 (-33%)	++	1,989 (-26%)	++
4th Ave S (Minor Arterial)	4th & Belmont to 1st & 3rd	8,070	N	4,789 (-41%)	++	5,210 (-35%)	++
Cherry St (Major Collector)	4th to 24th	4,634	N	3,546 (-23%)	+	3,619 (-22%)	+
Cherry St (Major Collector)	24th to 32nd	1,419	N	1,392 (-2%)	+	1,233 (-13%)	+
Cherry St (Major Collector)	32nd to 40th	2,044	N	1,904 (-7%)	+	1,931 (-6%)	+
2nd Ave NE (Minor Arterial)	2nd & US 2 to 3rd & 1st	4,075	N	3,359 (-18%)	+	3,395 (-17%)	+
3rd Ave SE (Minor Arterial)	3rd & 1st to Bygland & Rhinehart	7,412	N	5,075 (-32%)	++	5,358 (-28%)	++
Bygland Rd SE (Minor Arterial)	Rhinehart to Greenway	5,056	N	3,681 (-27%)	++	3,845 (-24%)	+
Bygland Rd SE (Minor Arterial)	Greenway to Bygland	1,896	N	2,812 (+48%)	--	1,507 (-21%)	+
Bygland Rd SE (Minor Arterial)	190th to Bygland	495	N	1,180 (+138%)	--	1,369 (+177%)	--
Bygland Rd SE/Harley Dr (Minor Arterial)	Bygland & Bygland to TH 220 & Harley Dr	1,089	N	2,130 (+96%)	--	2,454 (+125%)	--
Rhinehart Dr SE (Major Collector)	Bygland to Greenway	2,663	N	2,078 (-22%)	+	2,126 (-20%)	+
Rhinehart Dr SE (Minor Collector/Local Road)	Greenway to Elks Bridge	116	N	874 (+653%)	--	512 (+341%)	--
Rhinehart Dr SE (Local Road)	Elks Bridge to 32nd Bridge	141	N	1,807 (+1182%)	--	1,761 (+1149%)	--
Rhinehart Dr SE (Local Road)	32nd Bridge to 190th	58	N	425 (+633%)	--	732 (+1162%)	--
Rhinehart Dr SE (Local Road)	South of 190th	115	N	144 (+25%)	--	149 (+30%)	--
Greenway Blvd SE (Major Collector)	Rhinehart to Bygland	965	N	2,332 (+142%)	--	1,146 (+19%)	-
Greenway Blvd SE (Minor Collector)	East of Bygland	912	N	535 (-41%)	++	531 (-42%)	++
TH 220 (Minor Arterial)	South of Harley	457	N	416 (-9%)	+	367 (-20%)	+
TH 220 (Minor Arterial)	Harley to US 2	2,103	N	3,878 (+84%)	--	4,298 (+104%)	--
TH 220 (Major Collector)	North of US 2	14	N	3 (-79%)	++	3 (-79%)	++
Demers Ave (Principal Arterial)	20th to Washington	13,040	N	11,682 (-10%)	+	11,906 (-9%)	+
Demers Ave (Principal Arterial)	Washington to 4th	6,883	N	5,900 (-14%)	+	6,036 (-12%)	+
190th St SW (Local Road)	East of Rhinehart	88	N	2,308 (+2523%)	--	5,861 (+6560%)	--
US 2 (Principal Arterial)	West of 220	15,187	N	11,066 (-27%)	++	10,725 (-29%)	++
US 2 (Principal Arterial)	East of 220	571	N	570 (-0%)	+	555 (-3%)	+
US 2B (Minor Arterial)	2nd to US 2	12,422	N	7,082 (-43%)	++	6,668 (-46%)	++

5.3.2 Traffic Change on the Study Corridors Adjacent to Schools

Impacts to roadways adjacent to schools are especially important to the community. To understand how traffic near study area schools would change with the bridge options, the level of positive or negative impact was measured using the percent change in average annual daily travel (AADT) on each block adjacent to a school. A decrease in more than 25% is considered a more positive impact, and an increase in more than 25% is considered a more negative impact. The results are shown in **Table 5-14**.

Table 5-14. Traffic Change Near Schools

Evaluation Criteria	Measure	Alternatives					
		No Build		Elks Drive		32nd Ave	
		Measurement	Rating	Measurement	Rating	Measurement	Rating
Traffic change on study corridors adjacent to schools	Based on traffic exposure at all schools in study area (see measures below)	55,170	N	53,684 (-3%)	+	54,896 (-0%)	N
Phoenix Elementary School	2045 AADT on adjacent road (4th Ave S, Belmont Rd)	17,220	N	11,060 (-36%)	++	11,710 (-32%)	++
Lewis & Clark Elementary School	2045 AADT on adjacent road (13th Ave S)	5,546	N	5,448 (-2%)	+	5,420 (-2%)	+
Holy Family-St. Mary's Private School	2045 AADT on adjacent road (17th Ave S)	5,184	N	5,356 (+3%)	-	5,216 (+1%)	-
Viking Elementary School	2045 AADT on adjacent road (24th Ave S)	3,690	N	5,510 (+49%)	--	3,680 (-0%)	+
Kelly Elementary School	2045 AADT on adjacent road (Cherry St, 32nd Ave S)	8,670	N	9,560 (+10%)	-	11,660 (+34%)	--
Schroeder Middle School	2045 AADT on adjacent road (Cherry St, 32nd Ave S)	8,670	N	9,560 (+10%)	-	11,660 (+34%)	--
South Point Elementary School	2045 AADT on adjacent road (13th St SE)	3,740	N	3,620 (-3%)	+	3,600 (-4%)	+
Central Middle School	2045 AADT on adjacent road (Bygland Rd)	2,450	N	3,570 (+46%)	--	1,950 (-20%)	+
Consistency with approved transportation plans	Is the alternative consistent with LRTP and city plans?	No	-	No	N	Yes	+
Support for economic development	Degree of improved regional accessibility provided (qualitative)	No Change	N	Improve	+	Improve	+
Impact to the Greenway (a protected Section 4(f) resource)	Level of impact	None	N	Smaller footprint	-	Larger footprint	-

5.3.3 Consistency with Approved Transportation Plans

Each alternative was evaluated based on its consistency with the Long-Range Transportation Plan (LRTP) and City plans. The key piece of criteria is that plans all call for a new bridge at 32nd Ave., which has been previously identified in local and regional transportation plans as a preferred corridor. The results are as follows:

- No Build: Not consistent with plans (negative)
- Elks Drive: Somewhat consistent with plans (neutral)
- 32nd Avenue: Consistent with plans (positive)

5.3.4 Support for Economic Development

Both bridge alternatives would be expected to improve regional accessibility and therefore have a positive impact on economic development. The No Build option would have no impact (neutral).

5.3.5 Impact to the Greenway

The Greenway is a federally protected Section 4(f) resource. The No Build option would have no impact on the greenway and is considered neutral. Both bridge options would represent a new crossing of the Greenway and therefore considered to have a negative impact, with the Elks Drive alternative having a smaller footprint (slightly smaller impact) than the 32nd Avenue alternative. However, it is noted that the new bridge also would provide increased accessibility to the Greenway from the adjacent neighborhoods compared to today.

With respect to meeting Section 4(f) regulatory requirements, however, as part of the original Greenway planning, potential future bridge corridors at 17th Avenue, Elks Drive, and 32nd Avenue were identified with the understanding that recreational development and use of these corridors would be avoided so as to allow a future bridge to be constructed without interfering with the Greenway (see The Greenway Master Development and Restoration Plan, July 2000, Greenways Incorporated). Because the future corridors were identified in the master planning for reuse as part of the flood protection system's environmental documents, the Section 4(f) restriction is relaxed.

5.4 ENVIRONMENTAL IMPACTS

Flood protection system, soil stability, community resources, natural resources, farmland, visual, air quality, and noise impacts were evaluated at a high level to identify any fatal flaws, understanding that a detailed environmental analysis would be completed as a part of the subsequent NEPA process. This analysis was conducted as a comparative analysis against the No Build alternative, which was considered the baseline condition. The following summarizes the analysis for the two new bridge options:

- Flood protection system (Grand Forks side only as East Grand Forks bridge landing would not penetrate flood protection system)
 - Elks Drive: no change – assumed to use current opening (neutral)
 - 32nd Avenue: potential impact – assumed to require relocated opening (negative)
- Soil stability
 - Elks Drive: might be less stable, based on prior study (negative)
 - 32nd Avenue: might be more stable, based on prior study (neutral)
- Impacts to community resources, including environmental justice, historic and cultural resources, parks, open space, and recreational areas. Based on the understanding that a new bridge approach at Elks Drive would be constructed within the footprint of the existing Elks Drive roadway, no impacts to the Lincoln Golf Course or the Grand Forks Historical Society (the two other identified Section 4(f) resources), are anticipated. The only potential Section 4(f) impact would be the Greenway (discussed above).
 - Elks Drive: no change (neutral)
 - 32nd Avenue: no change (neutral)
- Impacts to natural resources including water bodies, wetlands, wildlife, floodplain, threatened and endangered species, non-invasive plants, soils, and trees
 - Elks Drive: some impact (negative)
 - 32nd Avenue: some impact (negative)
- Farmland

- Elks Drive: some impact (negative)
- 32nd Avenue: some impact (negative)
- Visual
 - Elks Drive: some intrusion (negative)
 - 32nd Avenue: some intrusion (negative)
- Air Quality
 - Elks Drive: improved (positive)
 - 32nd Avenue: improved (positive)
- Noise. Both crossing options received a “positive” rating based on the understanding that either option would decrease traffic on study corridors somewhat overall by dispersing traffic to a greater degree on the overall system. It should be noted, however, that both corridors also include the introduction of a new road and potential traffic noise on the East Grand Forks side where there is no road today.
 - Elks Drive: somewhat less (positive)
 - 32nd Avenue: somewhat less (positive)

5.5 BENEFIT-COST

An estimated benefit-cost analysis was completed using a range of potential values based on the analysis completed to date. The cost of a bridge (medium height for both Elks Drive and 32nd Avenue) was obtained from the 2020 Hydraulics Analysis of South End Red River Bridge study.³

The intersection mitigation costs included a range of values, as cost estimates were prepared at the planning level only.

The transportation benefits were estimated using prior estimates (adjusted for inflation) from the 2045 Metropolitan Transportation Plan⁴. The benefits estimates are primarily based on savings on annual VHT and VMT. An estimated benefit-cost ratio is provided based on the total estimated costs and benefits and shown in **Table 5-15**.

Table 5-15. Benefit-Cost Analysis

	No Build	Elks Drive	32 nd Avenue
Bridge Cost (\$ millions)	N/A	\$30.0	\$36.4
Intersection Mitigation Cost (\$ millions)	\$17.2 - \$25.8	\$2.4 - \$3.6	\$3.1 - \$4.7
Total Planning Level Cost Estimate (\$ millions)	\$17.2 - \$25.8	\$32.4 - \$33.6	\$39.5 - \$41.4

³ Hydraulic Analysis of South End Red River Bridge (City of Grand Forks and City of East Grand Forks, September 2020) Available at <https://www.grandforksgov.com/government/city-departments/engineering/south-end-bridge-hydraulic-study-report>.

⁴ 2045 Metropolitan Transportation Plan, Street/Highway Plan Update (Grand Forks-East Grand Forks Metropolitan Planning Organization, December 2018) Available at <https://theforksmo.org/common/pages/DisplayFile.aspx?itemId=16339532>.

Transportation Benefits	N/A	\$30.3	\$48.5
Benefit-Cost Ratio	N/A	Less than 1	Greater than 1

5.6 KEY DIFFERENTIATORS

Table 5-16 shows the higher order criteria where the two alternatives had different scores. The criteria that are not shown had the same score for both Elks Drive and 32nd Avenue options.

Table 5-16. Evaluation Summary Key Differentiators

Evaluation Criteria		Alternatives Rating				
		No New Bridge	Elks Drive	32 nd Avenue		
Purpose and Need	Multimodal System Linkage					
	Total miles of travel on the system (distance)	N	+	++		
	Total hours of travel on the system (time)	N	+	++		
	Total miles of travel on study corridors (distance)	N	+	++		
	Total hours of travel on study corridors (time)	N	+	++		
	Ped/bike connectivity	-	+	++		
	Community and Economic Factors					
	Total miles of travel on study corridors (distance)	N	+	++		
	Traffic change on study corridors adjacent to schools	N	+	N		
Consistency with approved transportation plans	-	N	+			
Env. Impacts	Environmental Impacts					
	Potential impact on flood protection system	N	N	-		
	Soil stability	N	-	N		
Cost	Benefit/Cost					
	Bridge Cost (\$millions)	N/A	\$30.0	\$36.4		
	Intersection Mitigation Cost (\$ millions)	\$17.2 - \$25.8	\$2.4 - \$3.6	\$3.1 - \$4.7		
	Total Planning Level Cost Estimate (\$ millions)	\$17.2 - \$25.8	\$32.4 - \$33.6	\$39.5 - \$41.4		
	Transportation Benefits (\$ millions)	N/A	\$30.3	\$48.5		
	Benefit-Cost Ratio	N/A	<1	>1		
Rating		++	+	N	-	--

6. Next Steps

This report presents the evaluation results and background, without specific recommendations for advancement of any of the three alternatives (No Build, New Bridge at Elks Drive, or New Bridge at 32nd Avenue). Based on the evaluation presented, the City of Grand Forks and the City of East Grand Forks may decide when or how to advance the study in coordination with state and other local agencies. If there is local interest in advancing a project, the next step would be a formal environmental process with National Environmental Policy Act (NEPA) documentation and preliminary engineering design.

Appendix A

PUBLIC PARTICIPATION

FOR FUTURE BRIDGE TRAFFIC IMPACT STUDY
GRAND FORKS-EAST GRAND FORKS



Appendix A

The following are included in Appendix A, in order:

- Open House #1 Presentation
- Open House #1 Survey Results
- Open House #2 Display Boards
- Open House #2 Presentation
- Open House #2 Survey Results (Online)
- Open House #2 Survey Results (In Person)



Future Bridge Traffic Impact Study

Online Public Open House

JULY 26, 2021 (6:30-7:30 PM)



The background of the slide is a light blue map showing a network of roads and a winding river. A white silhouette of a bridge with vertical supports is positioned at the bottom center, partially overlapping a dark red horizontal bar. The text is overlaid on the map.

Future Bridge Traffic Impact Study

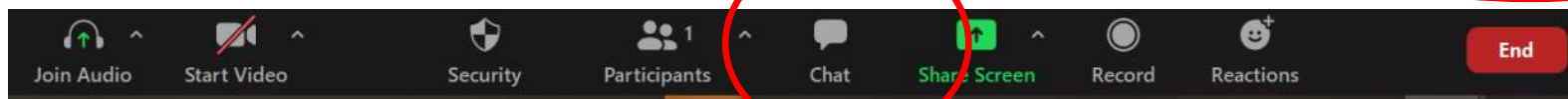
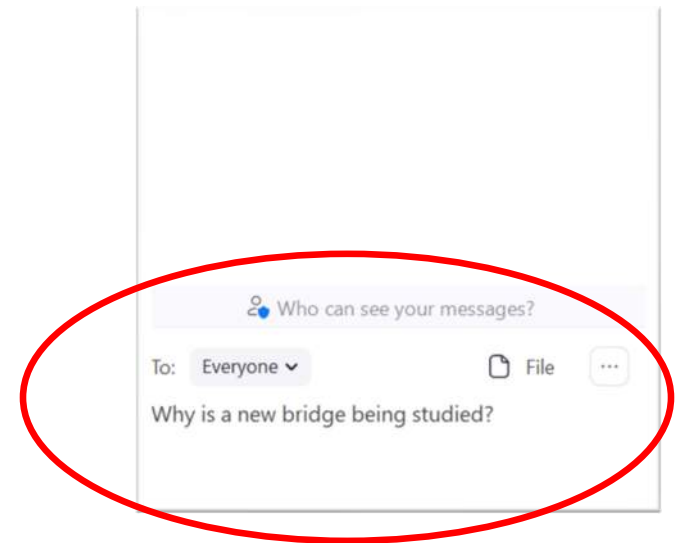
Welcome!

Agenda

TIME	TOPIC
6:30	Welcome (Earl Haugen/Grand Forks-East Grand Forks MPO)
6:35	Bridge Study Presentation (Staff/Alliant Engineering) <ul style="list-style-type: none">• Study Overview• Traffic and Safety Analysis• Project Purpose and Need• Next Steps• Final Discussion, Questions and Answers
7:30	Adjourn

Questions During the Open House?

- Due to group size, participants are muted
- Use Zoom chat feature to comment
- Facilitators will provide responses at break points and at end
- Not able to respond to Facebook chat



- Take online survey www.forks2forksbridge.com/info

A light blue map showing a river winding through a grid of roads. A dark teal banner is overlaid on the left side of the map.

Future Bridge Traffic Impact Study

Study Overview



Study Overview

- Why this study?
 - Congestion across existing bridges
 - Traffic patterns
- Why now?
 - 2018 Metro Transportation Plan
 - Build 2 Additional Bridges
 - Intra-City and Inter-Regional
 - 2020 Hydraulics Study
 - Studied 3 locations for Intra-City
 - 2 feasible: Elks or 32nd Ave. S.
 - How high? Sorlie -> Point -> NEW -> Kennedy
- Study goals
 - Engage public and stakeholders
 - Understand traffic and related needs
 - Develop and evaluate alternatives
 - Identify next steps



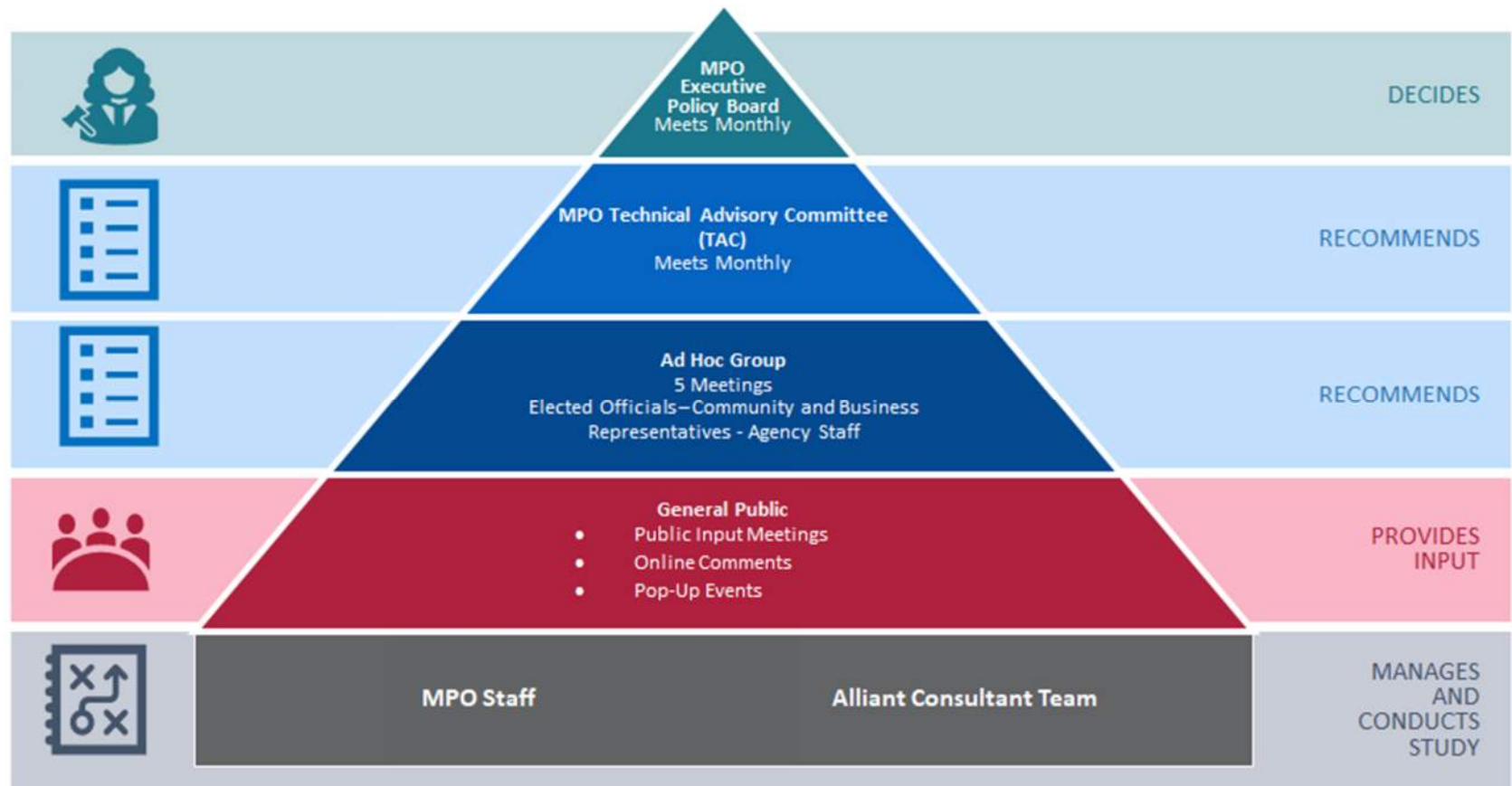
Study Overview

- Schedule



Study Overview

- Who is involved?



Study Overview

- Ad Hoc Group

- Formed specifically for this study
- Balanced representation
- Includes
 - Elected Officials
 - Community Members
 - Business Reps

Seat	Name
Elected Officials	
Grand Forks City Council – Ward 5	Kyle Kvamme
East Grand Forks City Council – At Large	Brian Larson
Community and Business	
32 nd Avenue Neighborhood (GF)	Eric Hansen
Elks Drive/24 th Ave Neighborhood (GF)	Tanya Kuntz
Near Southside Neighborhood (GF)	Andrew Budke
Rhinehart Neighborhood (EGF)	Zach Bopp
Bygland Neighborhood (EGF)	Craig Wald
Rhinehart Township	John Zavoral
Grand Forks School District Buildings & Grounds	Chris Arnold
Chamber of Commerce (GF Rep)	Josh Brown
Chamber of Commerce (EGF Rep)	Dave Zavoral

The background is a light blue map showing a river system with several bridges. A prominent bridge structure is highlighted in a darker blue. The map includes street names and various geographical features.

Future Bridge Traffic Impact Study

Study Overview

Questions?



Future Bridge Traffic Impact Study

Traffic and Safety Analysis

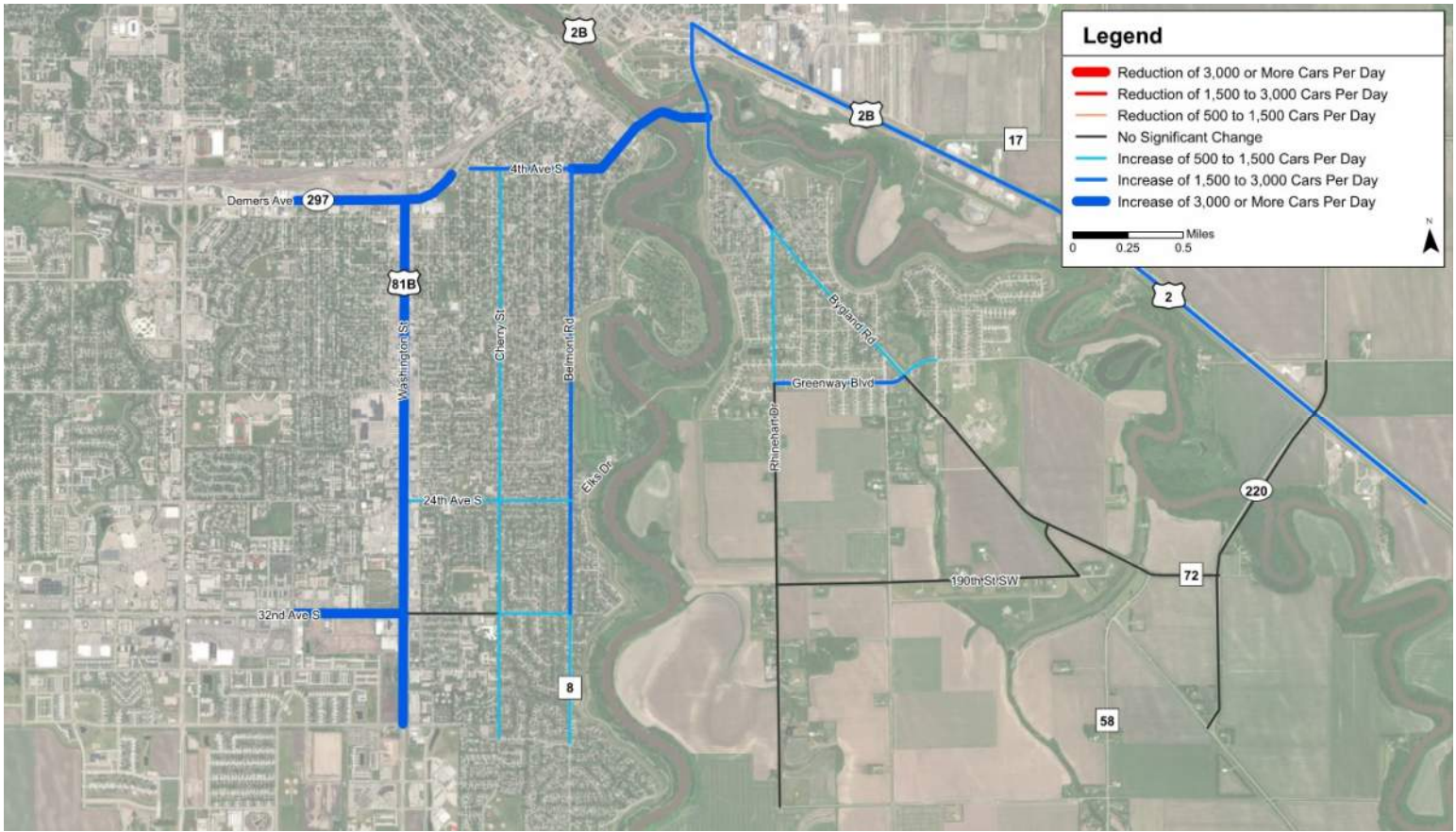


Existing and Future No Build Traffic Operations and Safety

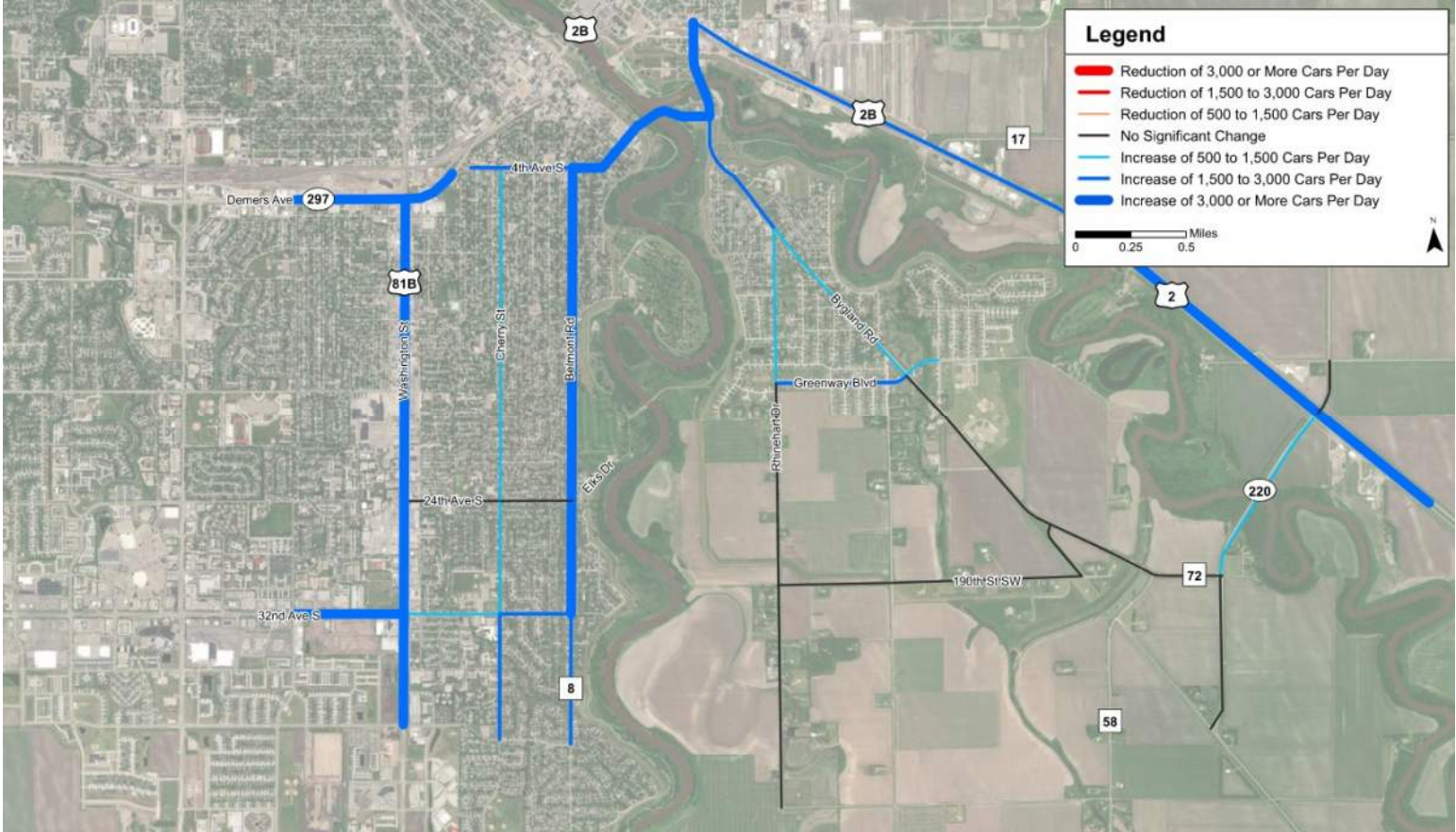
Topics include:

- Forecast volume changes to 2030 and 2045
- 2016-2020 Safety Analysis
- Traffic Mobility and Operations Analysis
 - Scenario Years
 - Existing (2021) Conditions
 - 2030 No Build Conditions
 - 2045 No Build Conditions
 - Roadway segment performance
 - Intersection performance

2015 to 2030 Volume Changes



2015 to 2045 Volume Changes





Crashes - Intersections

- The safety analysis identified critical crash concerns at the following intersections:
 - 32nd Avenue S & Washington Street S (Critical Crash Index)
 - 24th Avenue S & Washington Street S (Critical Crash Index)
 - DeMers Ave & Washington Street S (Critical Crash Index)
 - Bygland Road SE & Greenway Boulevard SE (Critical K/A Index)



Crashes- Roadway Segments

- The following roadway segments have critical crash concerns:

Critical Crash Index

- 4th Avenue S/Minnesota Avenue/1st Street SE over the Point Bridge
- 24th Avenue S – Washington Street S to Cherry Street
- Washington Street S – DeMers Avenue to 24th Avenue S
- Cherry Street – 4th Avenue S to 24th Avenue S

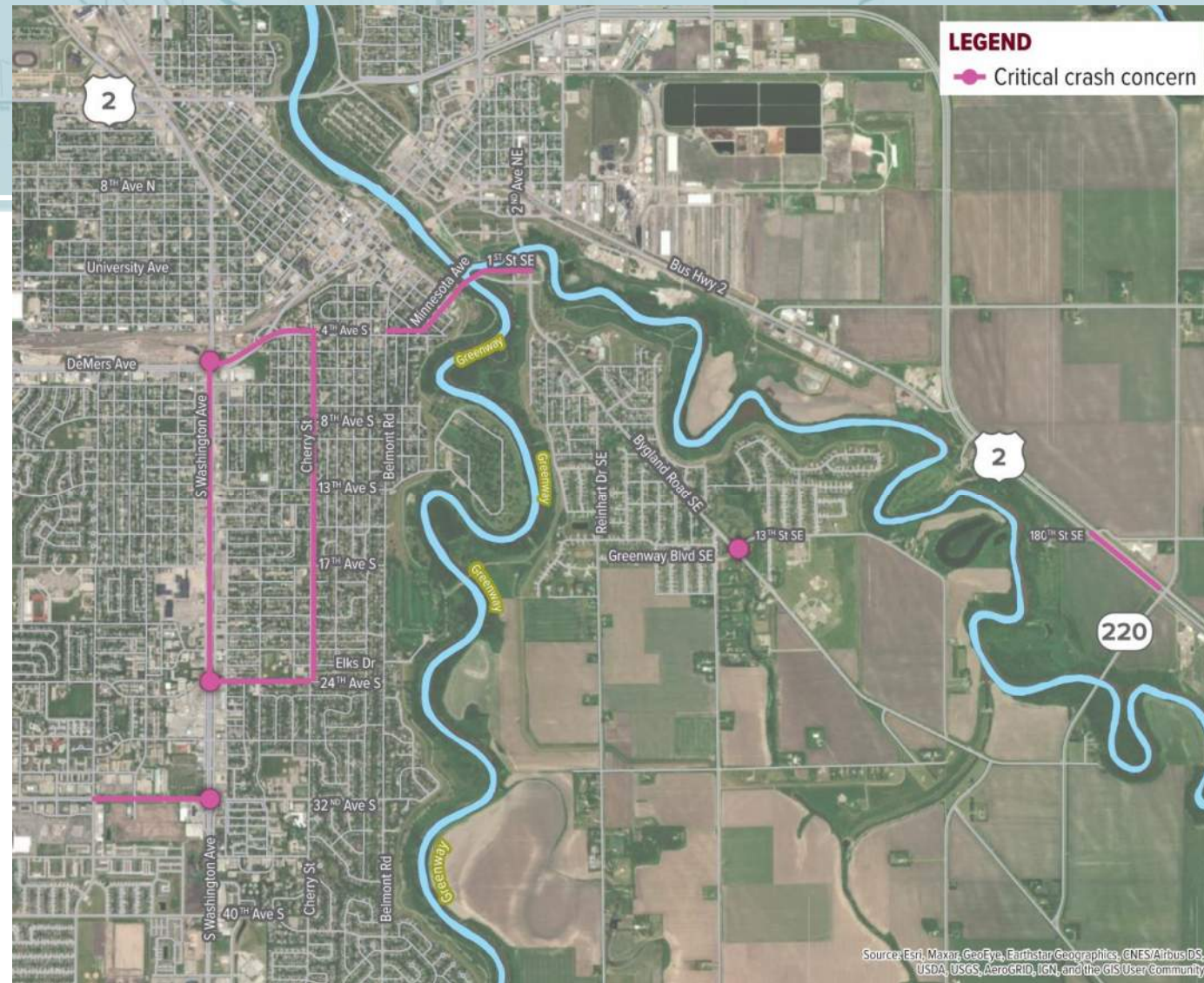
Critical Fatal/Severe (K/A) Crash Index

- 32nd Avenue S – 20th Street S to Washington Street S
- DeMers Avenue/4th Avenue S – Washington Street S to Cherry Street
- US 2 – 180th Street SW to TH 220

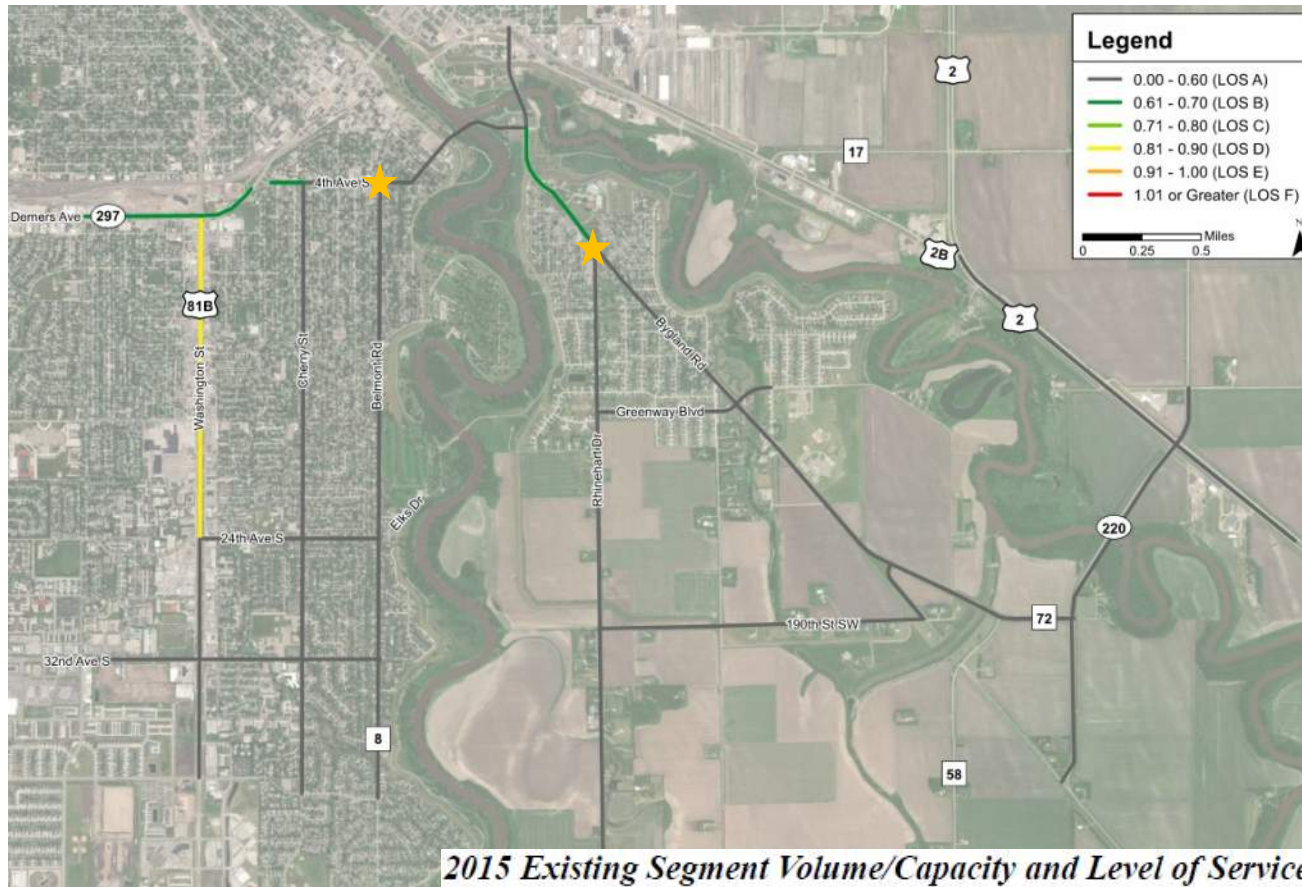
Summary

Crashes

- Intersections
- Road segments



Traffic Congestion – Existing

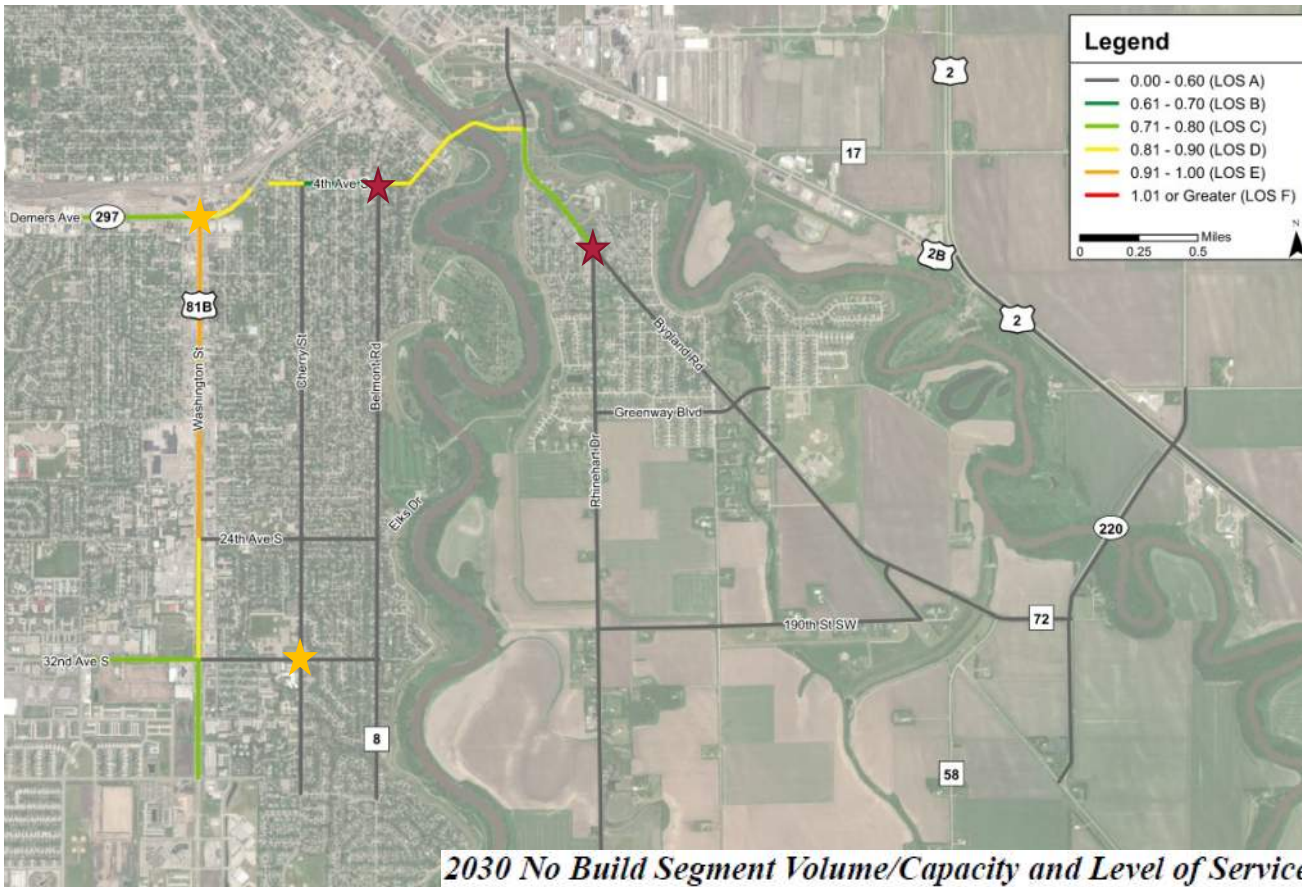


2015 Existing Segment Volume/Capacity and Level of Service

Intersection	Control Type	AM Peak Hour	PM Peak Hour
		LOS	LOS
Washington St S & 32nd Ave S	Signal	C	D
Cherry St & 32nd Ave S	AWSC	C	B
Belmont Road & 32nd Ave S	AWSC	B	B
Washington St S & 24th Ave S	Signal	C	C
Cherry St & 24th Ave S	AWSC	A	A
Belmont Rd & 24th Ave S	TWSC	B	C
Belmont Rd & Elks Drive	TWSC	B	B
Washington St S & DeMers Ave	Signal	D	D
Cherry St & 4th Ave S	Signal	A	A
Belmont Rd & 4th Ave S	AWSC	E	C
3rd Ave SE & 1st St SE	Signal	A	A
Bygland Rd SE & Rhinehart Dr SE	TWSC	E	C
Rhinehart Dr SE & Greenway Blvd SE	TWSC	A	A
Bygland Rd SE & Greenway Blvd SE	TWSC	C	B
Bygland Rd SE & 190th St SW	TWSC	A	A
Bygland Rd SE/Harley Dr & TH 220	TWSC	A	A
TH 220 & US 2	TWSC	B	B
Rhinehart Dr SE & 190th St SE	AWSC	A	A

Note: Delay and LOS for TWSC intersections reflect the worst approach

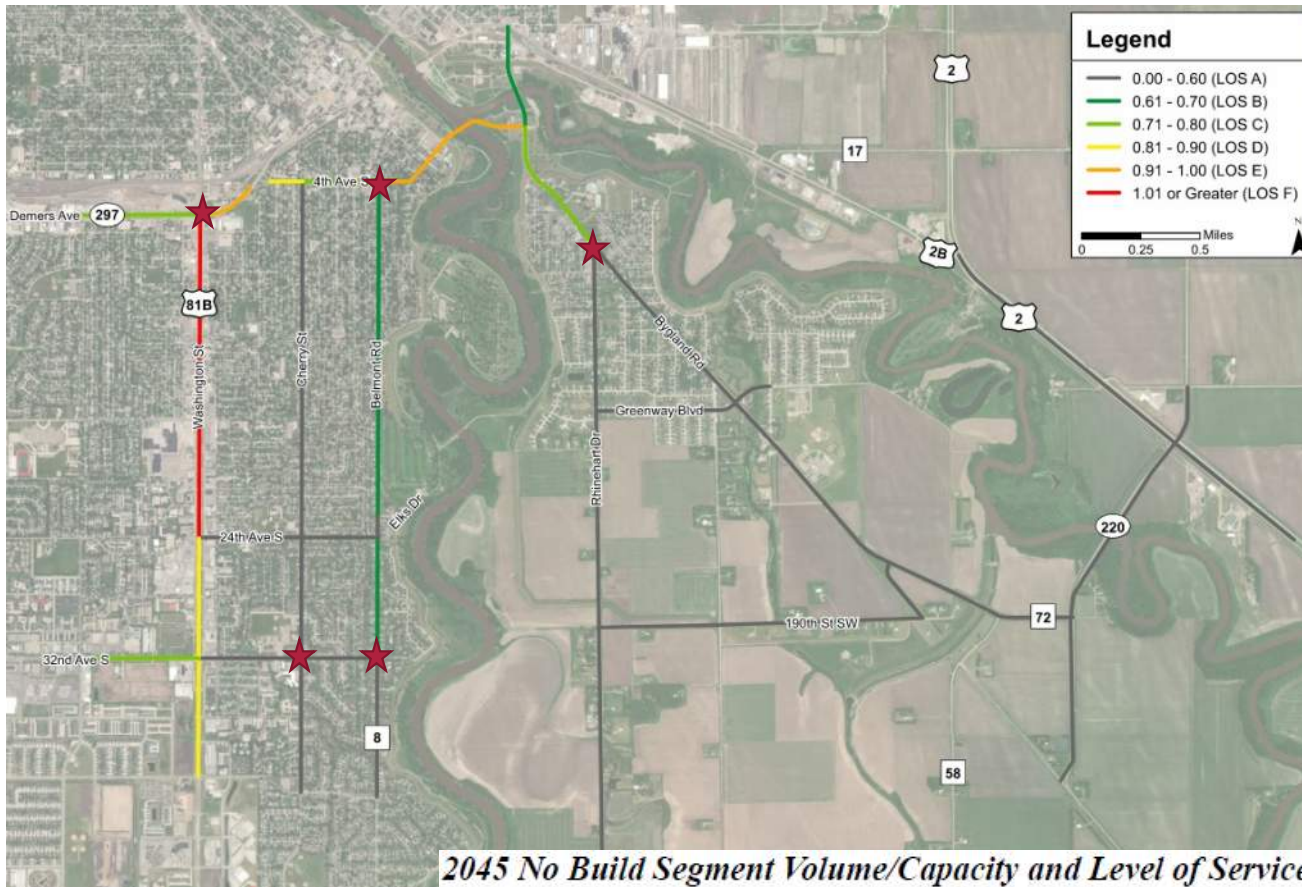
Traffic Congestion – 2030 No Build



Intersection	Control Type	AM Peak Hour	PM Peak Hour
		LOS	LOS
S Washington St & 32nd Ave S	Signal	C	D
Cherry St & 32nd Ave S	AWSC	E	B
Belmont Rd & 32nd Ave S	AWSC	C	C
S Washington St & 24th Ave S	Signal	C	C
Cherry St & 24th Ave S	AWSC	A	A
Belmont Rd & 24th Ave S	TWSC	C	C
Belmont Rd & Elks Drive	TWSC	B	C
S Washington St & DeMers Ave	Signal	E	D
Cherry St & 4th Ave S	Signal	A	A
Belmont Rd & 4th Ave S	AWSC	F	F
3rd Ave SE & 1st St SE	Signal	B	A
Bygland Rd SE & Rhinehart Dr SE (Stop Control)	TWSC	F	C
Bygland Rd SE & Rhinehart Dr SE (Roundabout)	RAB	B	A
Rhinehart Dr SE & Greenway Blvd SE	TWSC	A	A
Bygland Rd SE & Greenway Blvd SE	TWSC	D	B
Bygland Rd SE & 190th St SW	TWSC	A	A
Bygland Rd SE/Harley Dr & TH 220	TWSC	A	A
TH 220 & US 2	TWSC	B	B
Rhinehart Dr SE & 190th St SE	AWSC	A	A

Note: Delay and LOS for TWSC intersections reflect the worst approach

Traffic Congestion – 2045 No Build



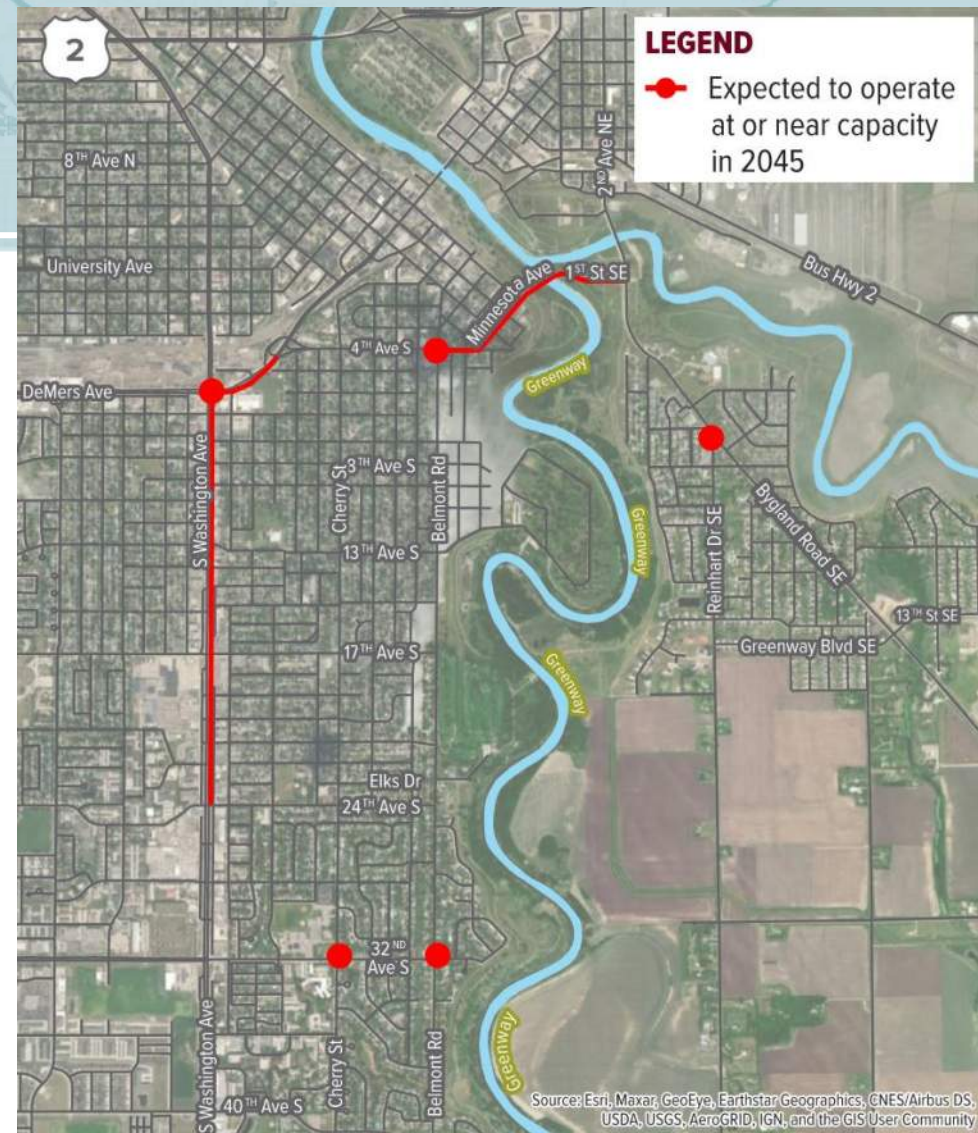
Intersection	Control Type	AM Peak Hour	PM Peak Hour
		LOS	LOS
S Washington St & 32nd Ave S	Signal	C	D
Cherry St & 32nd Ave S	AWSC	F	C
Belmont Rd & 32nd Ave S	AWSC	F	F
S Washington St & 24th Ave S	Signal	C	C
Cherry St & 24th Ave S	AWSC	B	B
Belmont Rd & 24th Ave S	TWSC	C	D
Belmont Rd & Elks Drive	TWSC	C	C
S Washington St & DeMers Ave	Signal	F	E
Cherry St & 4th Ave S	Signal	A	A
Belmont Rd & 4th Ave S	AWSC	F	F
3rd Ave SE & 1st St SE	Signal	B	A
Bygland Rd SE & Rhinehart Dr SE (Stop Control)	TWSC	F	D
Bygland Rd SE & Rhinehart Dr SE (Roundabout)	RAB	C	A
Rhinehart Dr SE & Greenway Blvd SE	TWSC	A	A
Bygland Rd SE & Greenway Blvd SE	Signal	A	A
Bygland Rd SE & 190th St SW	TWSC	A	A
Bygland Rd SE/Harley Dr & TH 220	TWSC	B	A
TH 220 & US 2	TWSC	C	C
Rhinehart Dr SE & 190th St SE	AWSC	A	A

Note: Delay and LOS for TWSC intersections reflect the worst approach

Summary

2045 Congestion

- Without a new bridge
 - Intersections
 - Road segments



Future Bridge Traffic Impact Study

Traffic and Safety Analysis Questions?



Future Bridge Traffic Impact Study

Project Purpose and Need



What is “Purpose and Need”?

- Explains why a public agency (the MPO) is undertaking a project and describes the main objectives
- “Need” = transportation **problems** to be addressed by the project
- “Purpose” = the intended transportation **results**

The Purpose and Need is used to measure how well the proposed alternatives meet the project needs



Draft Purpose and Need

- Draft purpose statement:

*The purpose of the Grand Forks-East Grand Forks Future Bridge Project is to **improve mobility and connectivity** between Grand Forks and East Grand Forks by **reducing congestion** on the Point Bridge and connecting roadways and by providing a **more direct connection** for trips between the two cities.*

Draft Purpose and Need

Primary Needs

- Transportation problems which led to the initiation of the project

Secondary Needs

- *Other* transportation problems or opportunities that may be addressed at the same time as the project



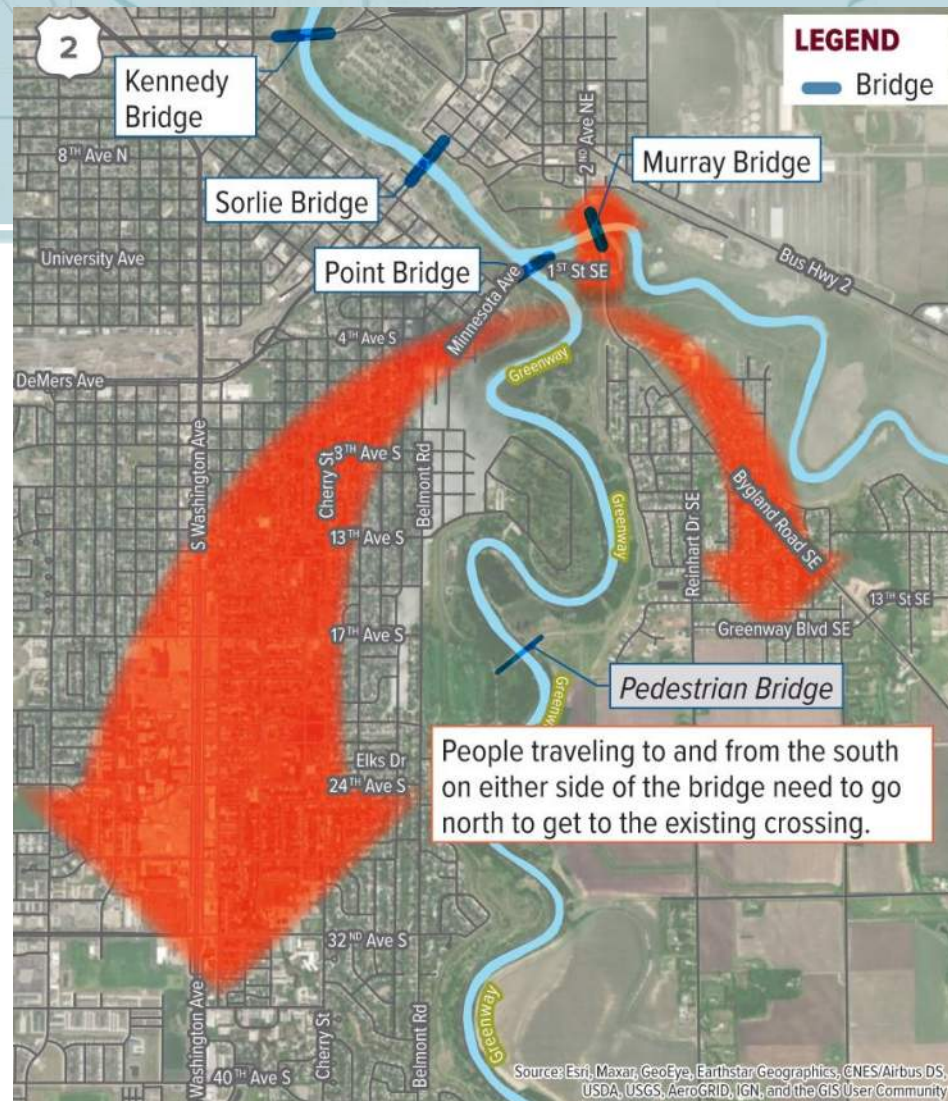
Draft Purpose and Need

Primary Needs

- Congestion on and Near the Point Bridge
 - Looking for: reduced congestion on the Point Bridge and selected roadways
- Multimodal System Linkage
 - Looking for: reduced vehicle miles and/or hours traveled on the system
 - Looking for: improved bike/ped connectivity across the river

System Linkage

- No river crossings in southern part of the cities
- Results in longer trips, more time
 - Also for pedestrians and bicyclists





Draft Purpose and Need

Secondary Needs

- Crashes
 - Looking for: reduced crash potential on study area road segments and intersections
 - Includes some road segments and intersections that are adjacent to schools
- Social and Economic Factors
 - Quality of life related to disproportionately high traffic volumes
 - Looking for: improved balance on system; volumes consistent with functional classification
 - Supporting development, consistent with approved land use and transportation plans
 - Looking for: improved regional mobility and access



Evaluation Factors

Advantages/Disadvantages

- Traffic Performance
- Potential for Crash Reduction
- Social and Economic Factors
- Natural Environment
- Cost
- Other?

The background features a light blue map of a river system with various roads and structures. A white bridge structure is overlaid on the map, spanning across the river. The bridge has a semi-circular arch and several vertical supports. The map shows a grid of roads and a winding river. A dark teal horizontal bar is at the top, and a dark red horizontal bar is at the bottom. The bridge structure is white and spans across the river.

Future Bridge Traffic Impact Study

Project Purpose and Need Questions?

The background of the slide is a light blue map showing a network of roads and a winding river. A white graphic of a bridge with vertical supports is positioned at the bottom center, partially overlapping a dark red horizontal bar. The text is overlaid on the map.

Future Bridge Traffic Impact Study

Next Steps



Next Steps

Project Team: Evaluate Three Alternatives

- No Build (no new bridge)
- Elks Drive Corridor
- 32nd Avenue Corridor

You: Get Involved! www.forks2forksbridge.com/info

- Take Online Survey (July 26-Aug 15)
- Sign up for mailing list (see web site)
- Watch Ad Hoc Group meetings
- Participate in September Open House

The background of the slide is a light blue map showing a river system with several bridges. A prominent bridge structure is highlighted in a darker blue, showing its approach roads and spans. The map includes street names and other geographical features.

Future Bridge Traffic Impact Study

Final Questions and Discussion



www.forks2forksbridge.com/info

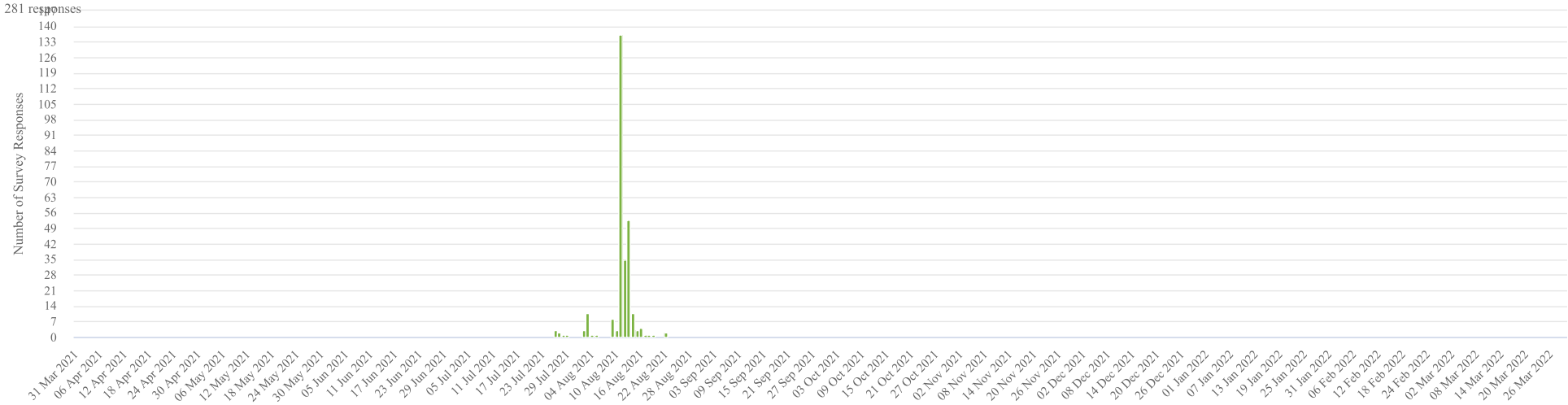
Thank You!



281 responses

Export

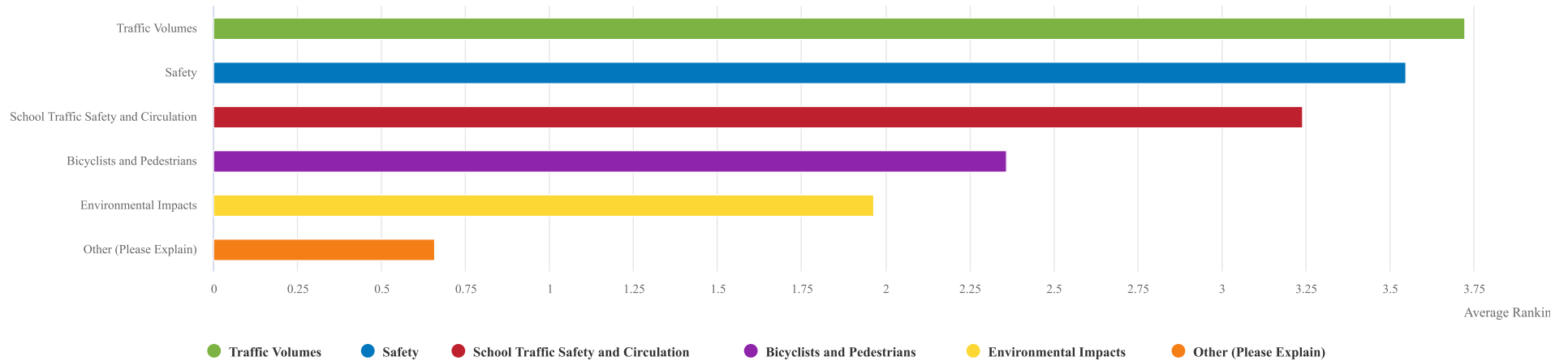
Number of Survey Responses by Day



Q1. 1) Please rank each of these items in order of importance to you



253 answers



Q2. If you ranked "Other" please explain here:

40 answers

[Word Cloud](#) [Response List](#)

[Responses](#) [Download CSV](#)

32nd Avenue South is built to handle large volumes of traffic. MUCH better than MN Avenue and Belmont Road. SOOOOOO tired of people only caring about the students at Kelly.

A bridge anywhere between 4th and 47th is going to KILL those existing neighborhoods property values. Merrifield road should be the bridge or nothing. The poor EGF residents may have to drive a little farther to get their fast shopping fix. Well Boo Hoo! NO BRIDGE!

Access to Minnesota.

Best connection between communities is important

Bridges from Grand Forks and East Grand Forks

Convenience

Convenience of location (moving from my home to destination)

Education for neighborhoods where the bridge is being proposed and why it needs to be there.

going they old neighborhoods that were not planned for such a situation. safety.

Having a young child who will go to Kelly and Schoeder walk across the road by themselves with todays age of drivers (texting and driving) is concerning along with the traffic volume. There is alot of speeding the the school zones currently. With additional traffic it will get worse. What is the plan to have these children safe

I am most worried about destroying a very peaceful community all to help mostly people living in East Grand Forks. Grand Forks has a population of almost 60k compared to EGF at 9k. Why should we have to sacrifice our neighborhood to help the majority of EGF to travel over to GF.

I live at 3207 Walnut St, Grand Forks. It is already hard for me to make a safe left hand turn from Walnut St onto 32nd Ave South, going to the west. How will you address the unintended consequences for all of us on the South side of 32nd: Chestnut, Walnut, Cherry Cherry Lynn, 10th Street and 12th Street?

I live on 32nd. 32nd is already a really busy street. I have a hard time getting out of my drive way as it is. I have no ally for me to park in. If there is a bridge on 32nd I will have to sell my home

I live on the south side of grand forks and have family in east Grand forks. It takes thirty minutes to get to their house because I have to travel to the north end in order to cross the river. I'm burning more fuel than I need to and I'm contributing to traffic volumes on the north end when I shouldn't need to be over there.

Impact on neighborhoods where bridge will be built

Impact on south end Grand Forks residents. This study shows the need for south end GF to south end EGF transportation, but how often do south end GF people need to go to the south end of EGF? A bridge on 32nd would create safety impacts on neighborhoods that have zero need for crossing into EGF.

Improved east side access to 32nd Ave S

Instead of a 4th bridge across the river, the higher priority should be a bridge over the railroad tracks that parallel Demers and block 42nd Street. THAT has a high traffic impact, especially now that trains STAY on the track so long blocking the intersection.

Land development (opportunities on both sides of river: Increase density on Grand Forks & facilitate land development on East Grand Forks

Maintaining the sanctity of our GF neighborhoods

my own commute time

Need to be able to still access the new bridge when the Point bridge and Sorlie bridge are closed when flooding in the Spring.

Negative impacts to existing neighborhoods

Neighborhood impact. According to your documents, traffic will increase significantly by 2045. That will impact south GF neighborhoods negatively. In addition, we have no control over what EGF decides to build on their side of the river. They could build a wal mart across the river from residential.

Neighborhood impact - increased traffic, noise, safety concerns. Will this be used by beet trucks? Other trucks? The increased noise alone will lead to loss of sleep, productivity, and property value.

Neighborhood impact of future bridge

Neighborhood quality of life - this will ruin our neighborhood and the greenway!

Other options for spring closures due to flooding

Preserving residential neighborhoods as quiet, no traffic areas.

Property value access to my house on a busy street. We won't have a house in a residential area any longer. Our house will be facing a major traffic corridor and crazy traffic flow.

property values

Property values

Reducing travel time. I live on south of EGF and work on south of GF.

Residential Property Impact

test

The damage to the livability of either the Elks or 32nd St locations will be destroyed by bridges. It will be detrimental to property prices and traffic pollution will force people out, leaving another unkempt neighborhood. GF is not looking to preserve, rather, create more dying historical neighborhoods.

The numerous 'high value' homeowners at each intersection need not be considered, no special privileges should be given.

this is a test I ranked traffic at the top and want to understand point value (they're in order)

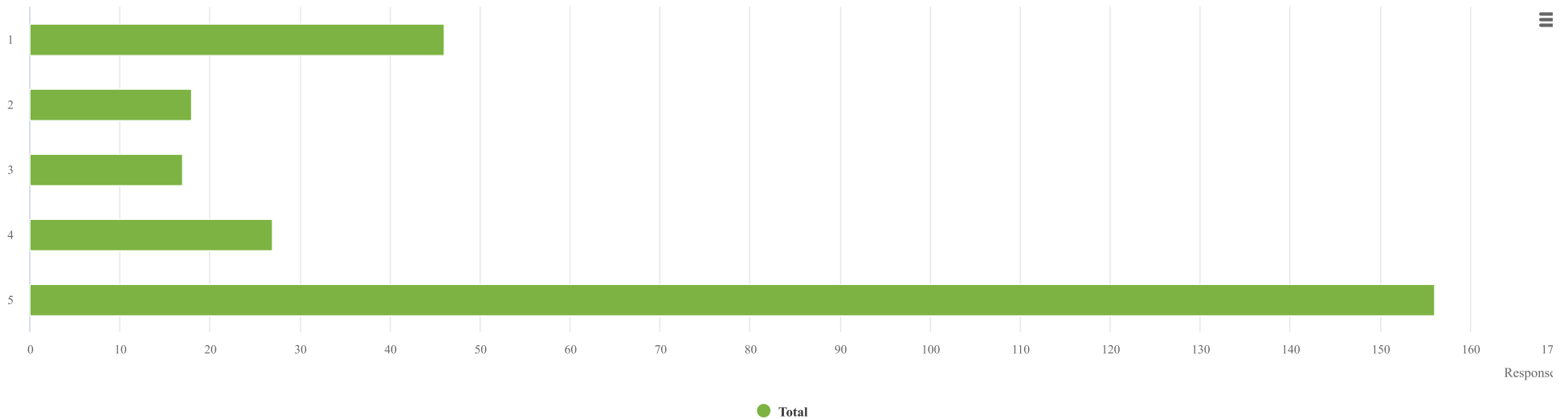
This is fifteen times as complex as it needs to be. Let me simplify: 1. Any "south end" bridge is better than no south end bridge. 2. We needed this twenty minutes after Columbia Mall opened for business. Stop screwing around and build it. 3. Elks Drive location is nuts.

32nd Ave is the best possible location. There's existing connection to I-29, and most of the existing roadway is already high-traffic. Build the bridge 4-lanes wide, or at minimum, easily expandable to 4-lanes with associated improvements in the roadways on 32nd and whatever is connecting on the EGF side. 4. RAISE THE SPEED LIMITS. 5. Ignore all whining and snivelling by The Bicycle Mafia who care so little about their own infrastructure that they pay NOTHING extra to support it; and in fact demand handouts and charity, and the destruction of motor vehicle traffic flow, all paid for by others via the Motor Vehicle Fuel Tax. 6. Build it high enough that it doesn't close during floods. We already know that Kennedy isn't high enough to avoid closure during flooding; the new bridge(s) should be taller and wider so traffic isn't cut off or re-routed through Fargo.

YES ADD ANOTHER BRIDGE

Q3. 2) On a scale of 1-5 how much do you agree with the purpose of this project and the need for a bridge (the draft purpose statement is above)?

264 answers



Q4. Tell us why:

181 answers

Responses

A bridge at Elks would bring a high volume of traffic into residential areas. Any bridge built should be further south.

A bridge could help EGF grow on south end which would bring possibilities of better gas stations, grocery stores, commercial properties, etc.

A connection would be beneficial for people who work across state borders but definitely not at the expense of safety close to two schools on the GF side. 32nd Ave is already a danger during school traffic hours. We don't need to add to that congestion and cause further safety issues.

A fourth bridge has almost zero importance.

Allowing traffic to move freely south of the city is important.

Am traffic is bad on the point, causes unsafe travel to and from school, work. Bridge closures make matters even worse. Safety, pollution, would all be addressed with an added bridge.

An alternate option at 32nd Ave is a must.

A new south end bridge is long over due. What about a second bridge at 62nd or Merrifield Road?

Another bridge is absolutely necessary; a crossing at 47th Ave is the most logical even with the required flood mitigations. The region needs to build to the future.

Another bridge is needed for safety. 32nd Ave would be the best and safest option.

As a citizen of East Grand Forks who lives on the Point, getting to 32nd or the south end of Grand Forks is nearly a 20 minute trip one way due to traffic congestion around the Point Bridge, Minnesota Avenue, the Demers/Washington intersection, and a generally inefficient path required to go from the Point to south Grand Forks. A bridge at 32nd would help redistribute traffic and make it much easier and quicker for myself and others in my area to travel from the East Grans Forks point to the southern parts of Grand Forks.

As a commuter, I daily see the congestion on the point, Sorlie, and Kennedy bridges. A fourth bridge is important to connect two developing areas of our communities and to overall reduce the traffic load on the other bridges.

As a resident on the south end of Grand Forks with family in Minnesota, it is inconvenient and adds time to our drive to travel north through congested streets to get to the nearest bridge, or to go south of town to the next nearest bridge crossing. Travel to amenities in EGF would be greatly improved by the addition of a bridge on the south end of town.

As Grand Forks continues to expand, accessibility is vital. Building these bridges can help with all of the items listed above: Safety- decrease the amount of traffic trying to cross at set locations and allow traffic to flow on both ends of town. Bicyclists and Pedestrians will have more accessibility and this may increase the amount of individuals who use these means of transportation due to adding these additional bridges. School- when looking at the map, there are a lot of areas by schools that do not have bridges to connect (which is causing all the traffic), by building bridges in this area, traffic will be diverted to these connections, rather than going past busy schools to get to the connections. Traffic volumes- as stated in all the above, it will spread out the traffic. Environmental- I do think that this is important, but as I mentioned above, Grand Forks and EGF are continuing to grow and we do need to accommodate for that while also trying to be as environmentally friendly as possible.

A south end bridge is needed. Both towns are growing in that direction.

As we grow south we need to get over the river without causing stress on the other bridges

Because you are FINALLY talking about a bridge.

Bonitas there in the future. But, we cannot decimate neighborhoods in order to accommodate convenience.

Both bridges are needed, not one or the other. 32nd Avenue S is too busy already. Grand Forks cannot keep that roadway open without major construction for more than 1 year in a row. One bridge at 32nd would greatly exacerbate the problem. Possibly the additional bridge at Elks drive would help. However, large concrete sound barriers would be needed to protect the Myra Museum property as they need peace and quiet for their outdoor events and weddings. Maybe EGF Heritage Days property could be moved to this area on the MN side -the current area for that is too industrialized.

Both cities are expanding south, increasing access to those areas makes sense.

Bringing additional traffic to the Belmont road area is not a good idea. It is already an extremely busy road

Congestion especially during flooding in spring

Congestion, flood issues

Congestion on the Point Bridge has spread to 4th Ave. South and Belmont Road leading to major safety concerns for students and staff of Phoenix Elementary.

Connects the south end more effectively. Decreased travel time

Development is occurring near and south of 32nd Ave S. The addition of a new intra-city bridge will not only promote continued development in the area of 32nd Ave, but will also promote development on the Minnesota side of the river. Further, adding this bridge allows for easier access to and from Minnesota and East Grand Forks for shopping/work/activities while decreasing congestion in areas where pedestrians are more common (e.g., downtown, Belmont, etc.).

Don't feel this is necessary at all

Don't think we really need another bridge in town.

Don't travel to EGF south end enough to see the need for one. 32nd has to pretty of a greenway to take that away

Easier access to and from the main business corridor with more businesses moving to South Washington

East side access to commercial district on 32nd is critical.

Egf isn't large enough for us to need another bridge.

For anyone on the southern edge of EGF, it's a necessity to be able to commute to work without having to plan around if one of three bridges are open. Flood season in particular is the biggest issue. Routing to the Thompson bridge isn't the right solution.

GF doesn't have traffic issues. Commutes are just a few minutes long. It's ridiculous to call GF bridge crossings congested.

GF is expanding south, not north, and has been for a while. If we want the cities to share resources and feel connected, it just makes sense.

GF really has no reason for another bridge, EGF does, so they can build one.

Grand Forks is growing south. The bridge needs to go at Merrifield. This bridge should have gone up years ago. Now you need to put it where it will impact the fewest amount of homes, regardless of the economic value of the homes.

Grand Forks residents will not benefit from a new bridge. The main reason for travel from GF to EGF (besides agriculture) is to visit downtown businesses. The demers Bridge already satisfies this need. A south end Bridge will also hurt GF property values for residents in the affected neighborhood. EGF has more reason for a local South end Bridge (commute times, shopping, land values, etc.). Let them pay for it.

Growth of the town is leading this direction. At some point it will need to be done anyway.

Having a south end bridge will drastically reduce the traffic on Bygland, allowing more freedom for crossing at peak times.

Heavy traffic can be dangerous for drivers, pedestrians, and bicyclists.

Honestly, we need to be better connected throughout the cities. As the south side of Grand Forks grows, we need to be able to make another way across.

i agree on a south bridge on 47th as planned years ago. closer in town benefits egf not gf. doesn't make sense that we care that egf thinks is to far out?

I agree with the purpose and the need for it. I do not agree with the locations. There are plenty of other ways for people commuting from MN to reach Grand Forks without the direction that most of those commuters choose to go.

I agree with the purpose to the overall project, just not at Elks or 32nd! It should be further south.

I am one of many citizens from the EGF/GF immediate areas who have a daily commute need. Also, many commercial users, and members of the surrounding communities travel through this area every day, or multiple times every week, and also need another option to ease the congestion of traffic flow.

I am one of those who travel from 58th Ave S to locations on Rhinehart. Congestion on Belmont is getting too high.

I am relatively new to the Greater Grand Forks area. My in-laws live on the South end of EGF and we currently live with them while we shop for a home in Grand Forks. I am shocked and frustrated by the fact that I have to drive so far out of my way to get to the nearest store or restaurant from the South end of EGF. Some of my concerns include: 1) the amount of gas I waste to drive to downtown GF, which is technically so close, but inaccessible 2) the wasted time because of this excess drive 3) the amount of traffic congesting Washington Ave because of the lack of bridge from EGF to GF 4) access to emergency services are limited during "closed" hours in EGF so one must drive or wait much longer to get access to these services Even though I am moving to Grand Forks soon, I will likely remain quite frustrated when the time comes to visit my family on "the Point". I was accessibility to them and I want them to have accessibility to the resources of Grand Forks as they age.

I believe that the bridge should be built by Merrifield! There is already too much traffic on Belmont.

I believe we should instead focus on Merrifield rather than take an existing problem and shift it to a different neighborhood.

I can see a need for a bridge for sure. I cant see why you would consider destroying neighborhoods to do so however. I looked for two years to find a neighborhood where i felt the streets were safe enough i thought my small kids could actually play outside or walk to the neighbors house. We literally just moved into a home on W Elmwood St. which we had to over pay for a house that was outdated to just live in a decent neighborhood in a city that literally has a housing crisis. Now i find out you want to possibly build a major thoroughfare right through our neighborhood. Just with the adjacent neighbors i have the number of small kids is incredible and this would pose a huge risk in their safety. Not to mention the amount of increased traffic that would go by the school. The amount of traffic during school can already be very congested i cant imagine adding more traffic to that. There has been a need for helping get farm equipment over for years why wouldn't you solve this problem at the same time and build a bridge further south. Look to the future and the future expansion is happening towards the south that already has room for future roadway expansion. On top of this my other favorite part of the 32nd ave neighborhood is the greenway space we have next to our house. Its peaceful and enjoyed by so many people every night. I walk my dog by the river every evening and i almost forget I'm in the city and was surprised how many animals are actually in the area. A bridge will totally destroy and peace and tranquility we have here.

I disagree completely. To achieve this result, you need to add significant traffic to established neighborhoods in GF.

I do not support a bridge at either Elks or 32nd. I would support a bridge further south.

I don't agree with alleviating one problem (Point Bridge congestion) by creating another problem (proposed Elks or 32nd Ave bridge locations). The residents of Grand Forks in these areas are not benefitting from a bridge linking them to East Grand Forks. The bridge locations that have been proposed are strictly beneficial for EGF residents. So for those Grand Forks neighborhoods, it's lose/lose - expect more traffic, a few property buyouts, larger roadways/roundabout, changing Greenway access, congestion around our schools, etc. And for what? So EGF residents can get the 32nd Ave shopping district more efficiently? I believe there can be a solution in which Grand Forks' existing neighborhoods are considered and valued. I believe there are options for a bridge location that make more sense. Yes, they may be more expensive than some other options - but let's not be shortsighted here and settle for the easiest/cheapest options. Let's look at building communities that work well for those that live in them. Not trading one problem by creating another.

I don't need to be on the north side but I'm forced over there to cross the red river.

I don't think is necessary right now to build into East Grand Forks where nothing is. Regardless, people are going to have to drive North to get to most of the shops and restaurants in EGF.

I don't think that the residents of Grand Forks are flocking to EGF or asking for this bridge. The people of EGF want it and if they do, they should be willing to travel a bit out of their way to get to it. It makes NO sense to disrupt the safety of two schools for this to happen.

I experience the north-south backtracking between the two communities quite often.

If 1 is disagree, I say 1 and I disagree 100%. We can learn from earlier neighborhood bridges. They cause too much congestion. A south bridge should be at Merrifield.

I feel this bridge location is being chose because it's best for EGF.

If no bridge is built, the entire community of Grand Forks will suffer. Traffic will become more and more congested on the north end, which will make them less safe. It will take longer to get to your destination and user satisfaction of the roadway system in Grand Forks will diminish greatly.

I like it

I live in south grand forks. It is needed to have a crossing on the southern end. It is frustrating to have to drive so far north to cross into MN.

I live near 32nd Ave and my kids attend Kelly and Schroeder. It is already very busy with traffic and this would make it much worse.

I live near 40th Ave, driving north through the city to the point bridge to cross the river takes so much time and traffic that I prefer to drive south and cross at county road 7. Build the bridge at 32nd Ave.

I live off 62nd on Kings View Dr. it's a long way to get to EGF.

I live on Reeves and the traffic is awful

I live on the south end and it would be nice to be able to get to EGF from this end of town.

I live on the south end and need to frequently visit Crookston (and beyond) and it absolutely asinine to have to drive past the Thompson exit to the KT connection or drive through all the traffic and residential areas to access the point bridge. This should have been COMPLETED years ago when the south end started developing.

I live on the south end. If grandkids stay overnight and I need to bring them to the middle school in East grand forks I must travel all the way to the point bridge then south to the middle school the north back to point then south to 47th.

I live on the south end of EGF and would love for a quicker drive to work in GF. I would also appreciate more bridge options when the river gets high.

I live on the south end of gf and would love a quicker way to MN

I'm assuming 5 is high. We have needed a south bridge for many years. Personally I already avoid the other 3 bridges whenever possible because of congestion.

I'm neutral on the topic. I disagree with the proposed locations. The locations are developed residential neighborhoods on the Grand Forks side that aren't built for traffic that is going to be happening if the bridge comes in along with lowering the property value due to the location of the bridge and traffic coming with it. We can come up with a solution for connecting the cities but the cities should be built along with bridge not the bridge built within developed neighborhoods. This would cause disruption in their life and to the neighborhoods that they choose to life/raise a family/ and pay taxes in. While lowering the value of their property.

Is one the highest? Because I vote for whatever is highest we need another bridge ASAP.

It is a huge inconvenience having to go north to cross then back south again

It is ridiculus the amount of traffic the current bridges suffer when just one of the others is out of service for repair or maintenance. Gateway is awful during high flood seasons when it becomes the only bridge available. How I see it now we have 3 bridges 1. Kennedy (north end people and major through traffic) 2. Downtown (commercial/business connection) 3. Point (all south end pedestrian traffic). The problem is there is 1 bridge designed for 30,000+ people. I know Mr. Rydell won't want the increase in traffic next to his place but 32nd is already a major road so it will make the most sense to add the new bridge there.

It is so important to add another bridge in the south side to ease congestion and help south traffic.

It just makes sence.Faster safer route to connect EGF &GF

I try not to go to Minnesota for anything

It's absurd that there isn't a bridge further south to connect the 2 cities. This should have happened in 1998

It's beyond time for a bridge on 32nd. Makes the most sense for GF

It's completely obvious, looking at the map, that we need another bridge to reduce traffic congestion.

It seems to me the bridge is more beneficial to the City of EGF and it's residents as opposed to City of GF and it's residents. My feeling is we need a bridge at Merrifield first, and then do a study on the traffic patterns after that is operational.

It's past time to add a South-End Bridge. No one will be happy when one is placed, because the community didn't take action decades ago. However, we cannot let that prevent the community from addressing this urgent need. A 32nd Ave Bridge would have the most impact while encouraging growth of East Grand Forks.

It would be a huge improvement for people in east side and southern rural east side as well as many grand forks residents who head east to Minnesota lakes every weekend in the summer

It would be great to have a more southern route to cross as well ash city is expanding that direction.

It would cut down on accidents and make biking safer across the bridges by reducing congestion.

I want to reduce vehicle miles traveled as much as possible.

I would be more interested to learn about costs to taxpayers. It seems that East Grand Forks residents would be benefitting far more than Grand Forks residents. I am concerned about increasing traffic on 32nd from either Elks Dr or the 32nd option, due to the two schools on that road that my son will someday attend.

Many people only cross over between GF and EGF a handful of times each year, so bridge traffic and congestion does not present a great concern. However, many people, including myself, are extremely concerned about increased traffic in residential areas and near schools and how the new bridge traffic would impact those neighborhoods and the safety of the children living in those areas.

Mobility has long been hindered as both communities expand to the south. Mitigation is drastically needed in order to improve traffic flow for southern residents.

More bridges means more efficient trips and less congestion on established bridges

More than overdue.

Mostly benefits EGF

My previous message got deleted. So basically a bridge on 32nd is crazy talk. 1. 32nd was not designed for a bridge traffic. 2. established neighborhoods. 3. driveways on 32nd. 4. 32nd is too narrow and too much traffic. 5. Disappointed that we are accommodating to EGF to come over to GF. They are more than welcome to come to GF and pay ND taxes. 6. 47th is more suited for a bridge activity. No direct neighborhoods will be effected. Street is already wide enough. EGF is building south, so when the bridge is built and usable, EGF will already be building houses around the 47th GF area. Besides 32nd is like 2 minutes from 47th by car, it's not a big deal to drive more towards that way. I feel we should find another way to rebuild a current bridge in the downtown area. We are wanting more traffic towards our downtown and more activity, so why are we building traffic to be redirected away from downtown? Let's think outside the box, keep current bridges, but find another way where traffic will flow better but still have them in that area of downtown. To link the 2 cities together is a great idea and we have already done that with the walk bridges. How much do we need to merge together since we are 2 completely different states, rules, regulations, etc. 100% redirect traffic so it goes towards DeMers and then Washington. We need more traffic downtown and also more activity on Washington st. There is already way too many things on 32nd. Let's give Washington and DeMers some activity.

Need another bridge ASAP and on the south end of town

Need to provide better connections between the south end of the two cities.

Need to take traffic out of downtown Grand Forks

Neither of these locations is in a good position to have the increased traffic flow that would come with this bridge. The affected neighborhoods in GF would be fundamentally changed and the benefit to GF is hard to quantify/appreciate.

Never had much of a problem with congestion between EGF and GFKs unless there was some kind of road work being done Demers or Gateway or maybe beet season.

Our community isn't large enough geographically to warrant more river crossings.

Our community will continue to be stagnant if we don't figure this out

Our two cities complement each other quite well. It is vital that we reduce congestion and plan for the future with this bridge project. There is significant economic benefit for both communities.

People who live in EGF chose to live there. Why should we have our children's lives put in danger by adding a bridge near a school to make their lives easier? That is a terrible idea. If you want a bridge plan for it on Merrifield RD.

Placement of a bridge in the south end of GF appears to be trying to solve a problem for the people who built or moved to the south end of EGF. Those people knew where bridges were located when they moved to the south end of EGF. This needs study appears to try to solve problems for residents of EGF while creating problems for GF neighborhoods.

Please for the safety of the children that go to Kelly and Schroeder schools do not place a bridge on 32nd!

Provide an out of town south location in non established neighbor hood. Grand forks does not benefit. And there is a conflict of interest with land owner on the Minnesota side with a 32nd bridge.

Recently moving from grand forks to east grand forks, it has become apparent that one is needed on 32nd. It takes roughly 20 plus minutes for us to get to places like target. Not to mention the increase of traffics along Lincoln drive that is not meant to be anything besides residential so the tight fit around cars is impossible.

Relieve congestion

Seems fair enough for a purpose statement.

Southend residents need to travel on either Belmont, S. Washington, or S. Columbia, creating a serious bottleneck. Further, the significant traffic on Belmont near Phoenix Elementary creates a dangerous situation for children during the school drop-off/pick-up times.

Adding a bridge on the south side of town, whether it be on Elks Dr. or 32nd, would make Columbia, Washington, and Belmont safer due to the lower traffic volumes. It should be important that engineers ensure that the new bridge isn't a bottleneck itself, meaning that the bridge and the road it's on should be able to handle the probably significant amount of traffic during the morning and afternoon/evening rush-hours.

test

The 2 locations selected go by two schools in Grand Forks causing more traffic & potential for accidents with our young children.

The amount of traffic between Belmont-32nd is absolutely insane. Not only do I live off of Belmont, but my children go to school at Phoenix; and I really do think that a 32nd Ave bridge would help the amount of traffic going through those neighborhoods, making it safer.

The areas where it is suggested to do so will ruin grand forks neighborhoods. This seems like a great idea for EGF and a terrible one for Grand Forks residents. The bridge, if any, needs to be much further south.

The bridge is important as we need another route, don't want too far south because then EGF is just too farm field. Picked 3 being you didn't make it clear if 1 or 5 is the best ranking

The bridge needs to be placed where it helps both communities. It takes a lot of time and energy to get it right. 32nd seems like the right spot for traffic flow, but I'm a citizen, not an expert. Merry field bridge needs to be built, get the beet trucks out of downtown, and on a commercial bridge.

The cities do need another bridge. I just think you should be looking farther south, like 67th or Merrifield, where it will impact fewer existing neighborhoods. Grand Forks keeps growing southward. Eventually Merrifield will be in the middle of town and there will be services there that folks from EGF will want to utilize. What would be the prime user, anyway? Work commuters? Trucking? Grocery-getters?

The city is building out further south, so it makes sense to build a bridge further that way to reduce traffic volumes further north.

The city is growing and having a bridge on the south end will greatly improve safety and traffic.

The concept of connectivity should be explored/explained further.

The congestion in the " point" area of EGF is unsafe. It's difficult to get onto Bygland road from Rhinehart.

The contrived "need" for the project does not justify impacts on existing neighborhoods.

The current bridges route a lot of traffic through the downtown region and it could be better spread out. It is unreasonable to drive so far north when there could be a more southern crossing.

The direct connection will primarily be utilized for East grand Forks residence traveling into Grand Forks given the lack of infrastructure, residents, business and industry in the southern part of East grand Forks where the bridge would connect to. I do hope that the newly constructed bridge would facilitate expansion in this direction of East Grand Forks.

The ensuing traffic from building a bridge on a road that runs through neighborhoods with elementary and middle schools will end up a safety issue. No property owner, many of them families, bought a house in the Elks Drive or 32nd Ave neighborhood to have to put up with high volumes of traffic.

The future growth of the cities is hampered by the lack of bridges.

The majority of our residents are greatly limited on access, having to travel twice the distance necessary. Going from Altru Professional Center to the middle school should not be 5+ miles.

The Minnesota-Fourth Corridor has been hamstrung by selfish neighborhood groups who won't give up hundred-year-old, busted-up stamped concrete. Min-4 desperately needs a 40 mph speed limit and four lanes of traffic flow from the intersection east of the Point Bridge to the Grand Forks Mountain. Fifty years of experience has proven that no one in power in Grand Forks will do what's needed. GF and EGF can't even agree on the name of the bridge--in Grand Forks it's the "Point Bridge", but in EGF the sign says "Minnesota Ave. Bridge". Both cities are building to the south. A south-end bridge was essential forty years ago. Foot-dragging and lack of leadership has brought us to this crisis. BUILD THE DAMN BRIDGE, make it suitable for motor vehicle traffic for years to come (4-lanes or readily expandable to 4 lanes) and PRIORITIZE MOTOR VEHICLE TRAFFIC, or every person on the MPO should be fired for incompetence and professional neglect. Motor-vehicle traffic is 99% of all transportation, therefore 99% of time, money, effort, and enthusiasm should be devoted to FAST, SMOOTH, SAFE motor vehicle traffic.

The need to improve traffic to the already stressed, north end bridges is high. The schools to the affected areas now are impacted greatly. Redistributing the traffic will help alleviate the burden on the neighborhoods currently affected.

The point bridge connection is so busy especially in the morning during the school year. Also access to 32nd ave businesses are a key reason why I am in support.

There are already 3 bridges connecting Grand Forks to East Grand Forks. Adding a bridge that is so far South of both towns is absolutely pointless and would only cause safety issues in the Grand Forks neighborhoods where the bridge would be built. This bridge would also cause safety concerns to the greenway. Also, the new bridge would only add hassle when spring flooding occurs.

There are quite a few people that live on one side and work on the other. When I live on the S end of Grand Forks but work in East Grand Forks and it's flooding in the Spring, it makes my commute quite a bit longer especially with the additional traffic. The Point bridge is my usual route but it's one of the first bridges to close so then it reroutes me all the way around. When I am able to go over the Point bridge, the intersection on the East Grand Forks side at 1st St SE/Bygland Rd can get quite congested some mornings. Maybe not always coming from GF to EGF but quite often from EGF to GF. My sister lives on the S end of East Grand Forks and for her to go even to the Point bridge and back out to 32nd Ave for shopping, it takes at least an hour and that's just driving -- she hasn't even stepped foot in a store yet! It would almost be quicker for her to go to Crookston and we don't want people leaving our communities to go shopping when they can stay right here.

There are two many clauses in the statement, so it's unclear.

There are two schools along 32nd close to Belmont. The traffic will bring unsafe conditions to an already congested area at school start and let out. My children, living on W ELMWOOD WALK to school and have to cross Belmont and 32. This is not safe or the proper place for a bridge all in the name of E GFORKS Ease.

The red River is a pain to cross. A bridge on the south side would help and reduce traffic for other roadways as well

The reduction of traffic on the point bridge is a worthy goal but it cannot be done at the expense of another neighborhood.

There is so much traffic and many accident when half the town of grand forks has to travel north just to travel to south east grand forks, especially before and after work hours. This would allow for alternative routes And safer streets.

There is without a doubt a need for another bridge, that said the 2 sites chosen are not capable of handling the amount of traffic that this new bridge would see let alone the fact that people have drive ways that would be impacted by said traffic.

There needs to be a bridge at 32nd Ave. I live by the Point bridge and regularly get passed by drivers on residential streets who are in a rush and are zipping around my car going the speed limit. Grand Forks will conty to expand farther south every year so it makes the most sense to put the bridge as far south as possible.

There needs to be an additional crossing on the south end of town. As both cities continue to grow south, it becomes increasingly difficult and time consuming to travel to existing crossings to get to the other side of the river.

There needs to be another bridge. 32nd makes the most sense. Don't put it by a golf course and busy walking area.

There needs to be better and more efficient access between the two cities. Not only to reduce congestion at the point bridge, but also to increase accessibility to south end businesses for those residents in EGF.

The south bridge is long overdue

The southern growth of both Grand Forks and EGF have been present for many years, with future growth also likely to move in that direction. The lack of a more southern option is already creating significant traffic congestion and safety issues during certain times of the day. I also think the maps showing "out-of -direction travel" are particularly compelling when you look at a map and where the southern most bridge is located (Point).

the traffic is high in my neighborhood Reeves Drive from Minnesota- frequent speeding is observed despite speed bumps and other mitigation measures

Think it is needed to save energy and to allow for better traffic flow.

This bridge does not benefit Grand Forks residents in any way - there is really nothing on the south end of East Grand Forks for GF residents to go, so no need for this bridge.

This bridge is long overdue. Traffic on Belmont is ridiculous and that roadway is just not wide enough to handle the traffic. The people truly effected by this bridge would be those who live on Belmont. There would be less to no thru traffic after a bridge is built. Traffic on 32nd would remain the same, it would not increase. People from North side of town aren't gonna just go to the south to use a new bridge. Everyone's concerns about increased traffic is silly.

This does not help the people of Grand Forks it is only to help the people of EGF. If it goes forward they should fork the bill.

This is long overdue. Doing it now will prevent larger issues in future.

This proposed bridge clearly benefits EGF and clearly hurts GF. The MPO is convinced that a 32nd Ave bridge is the answer, and is patiently playing the long game to shove this down the throats of GF regardless of the complete disagreement from the citizens of GF.

This study an options offered do not include any evaluation of how a 42nd Ave bridge would help alleviate the traffic flows between the cities. Frankly, 32nd was not designed to be a "Corridor" street with many driveways backing onto it, and a close proximity school with dropoff/pickup happening directly on 32nd Ave. 42nd Ave has 1 driveway abutting it which could be rerouted to Chestnut quite easily. - Much better setbacks off of the street. And the School on it is fully setback with no parents parking directly on it for school pickup/drop off.

- The ship has sailed. - They made the mistakes when the houses and setbacks were set on 32nd Avenue. - Put the connection on 42nd where it belongs. - EGF development will follow the connection.

This topic has been debated for over 40 years. The decision was made years ago to put the bridge at 47th Ave S. Due to the changing political environment, the bridge proposal has moved north which would disrupt many more residential properties which were not given a heads up like the developments on 47th Ave S.

To ease congestion on other 2 bridges and avoid traveling through downtown.

Too much traffic and too long of a drive to get from the south end to EGF and vice versa.

Too much traffic is condensed in a two mile area near downtown for border crossings. This would cut down commuter time for south enders and make life safer for people who live down town.

Too much traffic trying to get to HWY 2 from anywhere in Grand Forks to EGF. If the far south end can now have access that would decrease the traffic on the main roads

Traffic around schools, specifically Phoenix Elementary, is what concerns me the most. Because people are forced north to cross to either side of the river it increases commute times and very likely results in speeding and other dangerous driving habits. Connecting the communities in a more efficient way would minimize commute times for people moving between the south ends of both cities.

Traffic on Belmont is constant. The bridge would (hopefully) cut that amount in half.

Traveling from the southend of Grand Forks to the southend of EGF is cumbersome.

Very important, they need a bridge on the southern side

We can't destroy existing neighborhoods in GF to add additional shopping access for EGF. It's ludricris!

We do not generate that much traffic. However, I live on Reeves and there is definately a speeding problem by my house and when I really pay attention it is usually, but not always a Minnesota license plate. GRRRRRRR

We don't need to buy egf a bridge

We live on the south side of East Grand Forks and travel to the 32nd street area of Grand Forks every day. This would be a great time saver for our family.

We need a bridge for cars only at 32nd

We need a further south end bridge 10 years ago. Time to stop whining and get it done. There are multiple choice options from 32nd and further south. Current homeowners and residential neighborhoods are going to have to drop their elitist attitudes and realize that as the cities grow, so will the infrastructure and some changes are going to need to be made.

We need another access to and from EGF, especially for those people living on the south end of town.

We need another bridge, just not at either of these sites.

We need a way to divert southend traffic away from downtown. Long overdue.

We need more roads and bridges for less traffic

We need to have a better connection between the two states that is equitable and safe for two-way commerce between

Which one is the highest priority 1 or 5. I think a new bridge is critical for the viability of EGF and GF.

While I do feel EGF needs this more than GF a bridge on 32nd would reduce a lot of traffic off Belmont and other high traffic roadways off MN Ave bridge

While I live in the North End of EGF and will likely use the new bridge only on rare occasions I believe that is very important for the safety and future development of both communities (but admittedly probably more important for EGF). Both GF and EGF are steadily growing to the South and the traffic issues in EGF will only get worse if a new bridge is not added.

With how far south GF and EGF have grown it's only logical to build a bridge and allow for better access between the 2 cities.

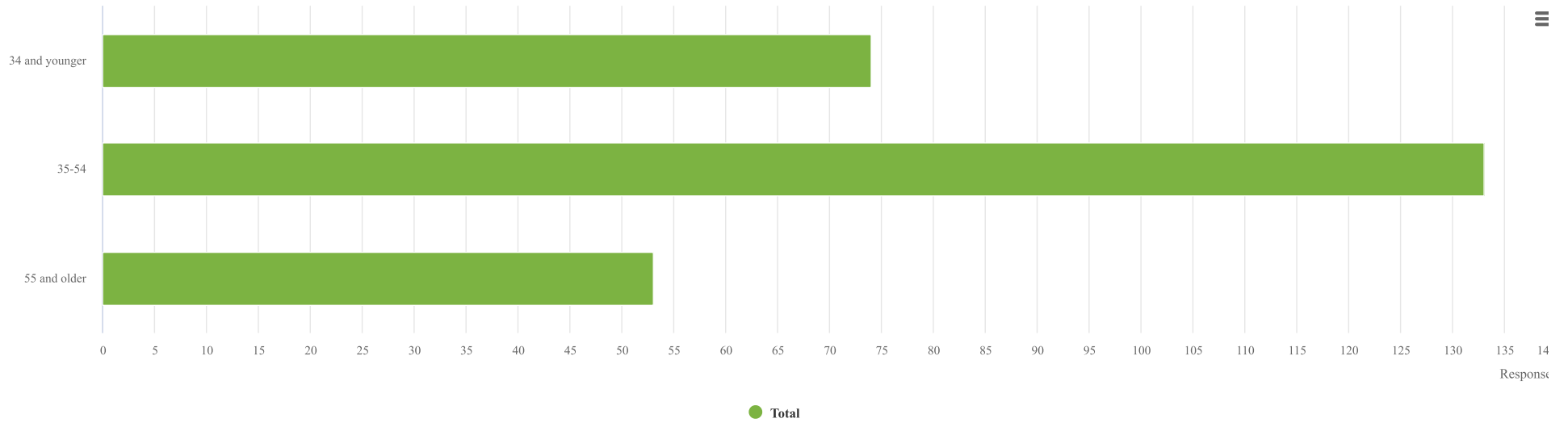
Would be more for this project if the intersection of Bygland rd se. and greenway blvd se was switched to possible stoplight for more pedestrian safety especially being the main intersection to the schools on the south end with added safety for our children walking or riding bikes to schools 9 months out of the year. Seems like that intersection has already been flagged as a critical crash point, and I am worried about all of the youths whose response times may not be fast enough to react on their way to/from school each day.

Would help with traffic downtown and allow for a crossing on the south end of town.

Your analysis did not include the construction of a Merrifield Road bridge. Grand Forks is moving to the south. Your future analysis needs to include an option that includes the Merrifield Road bridge.

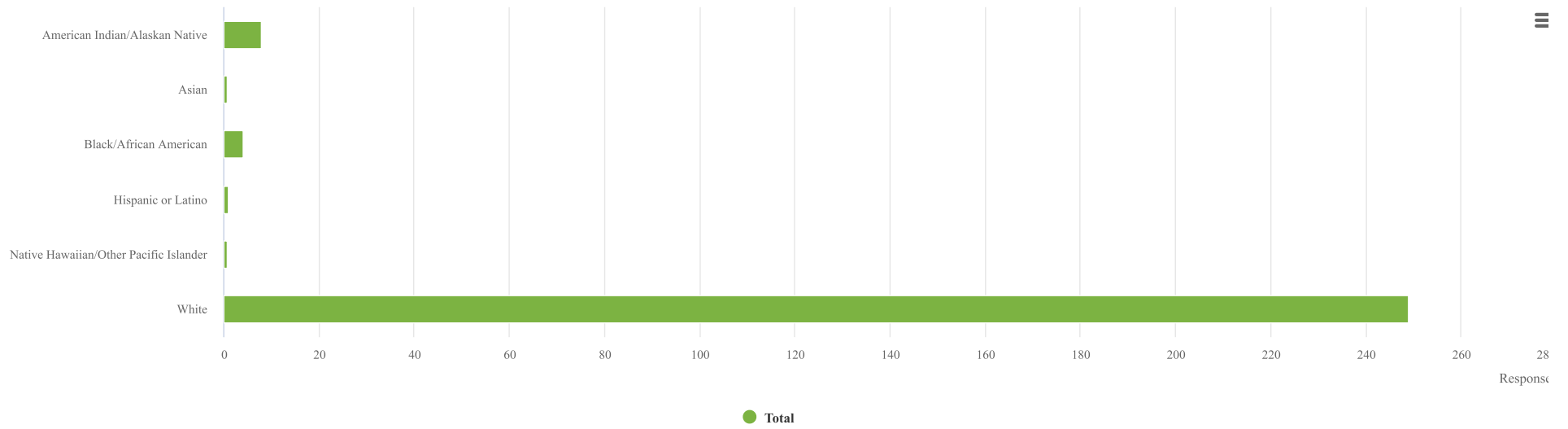
Q5. Age:

260 answers



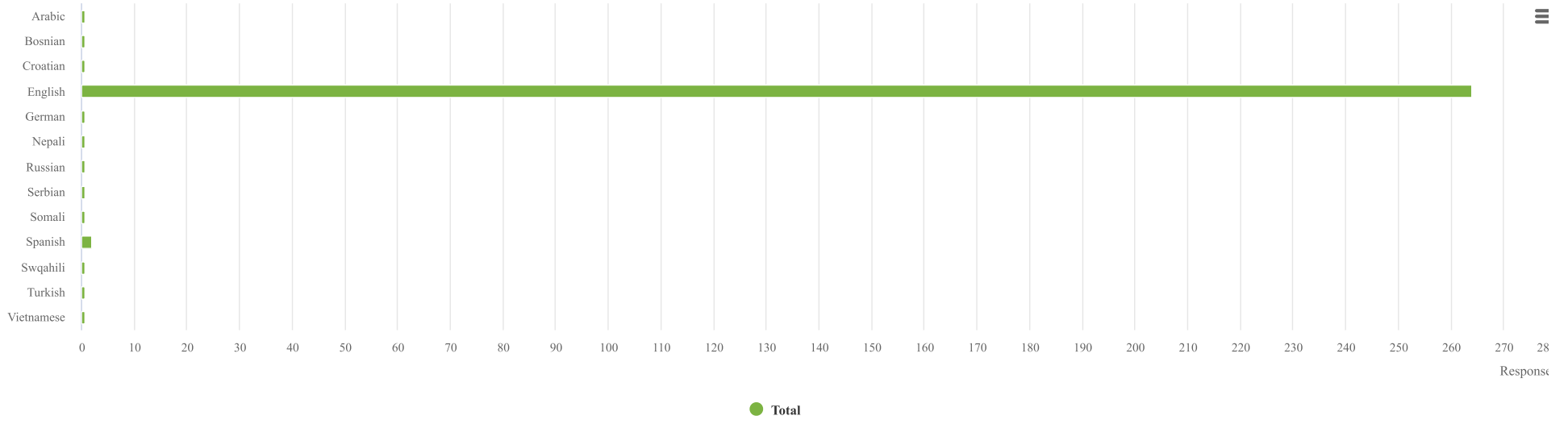
Q6. Race:

262 answers



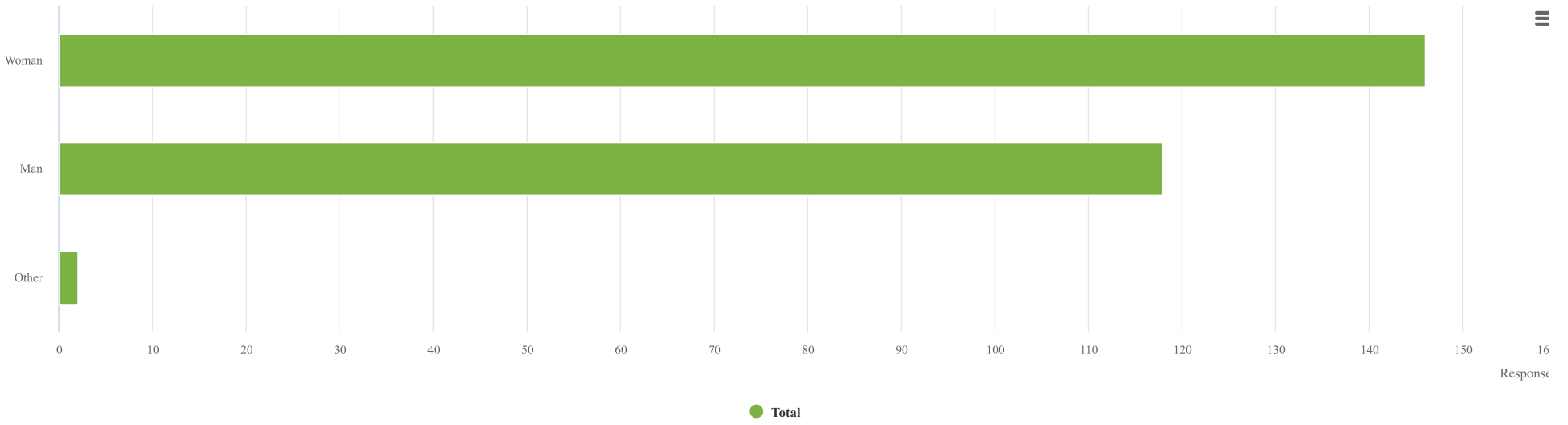
Q7. Language most frequently spoken in your home:

266 answers



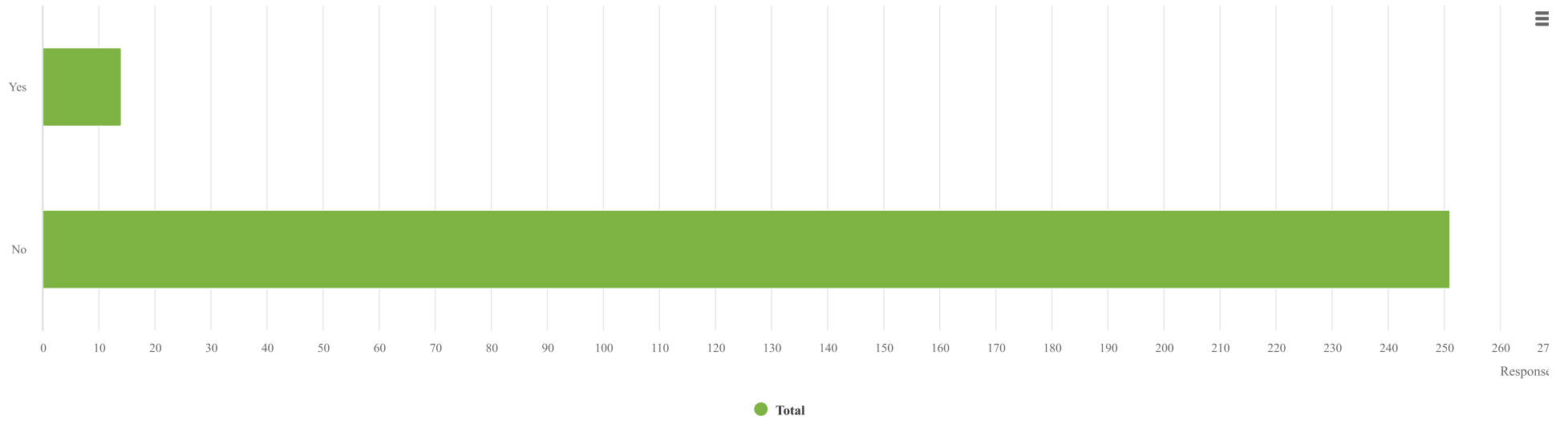
Q8. Gender:

266 answers



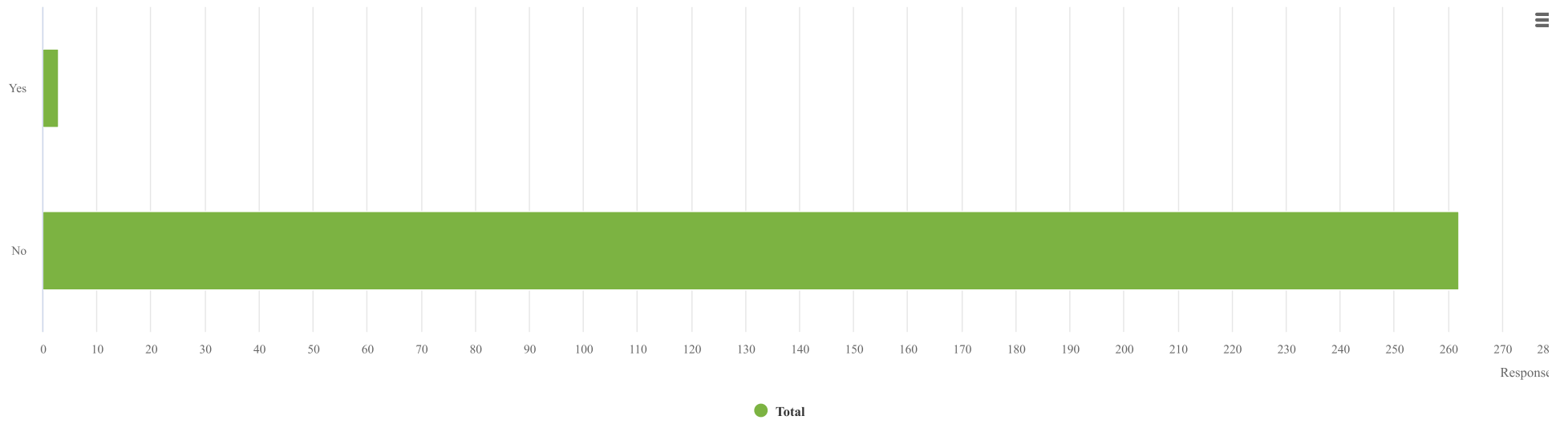
Q9. Disability:

265 answers



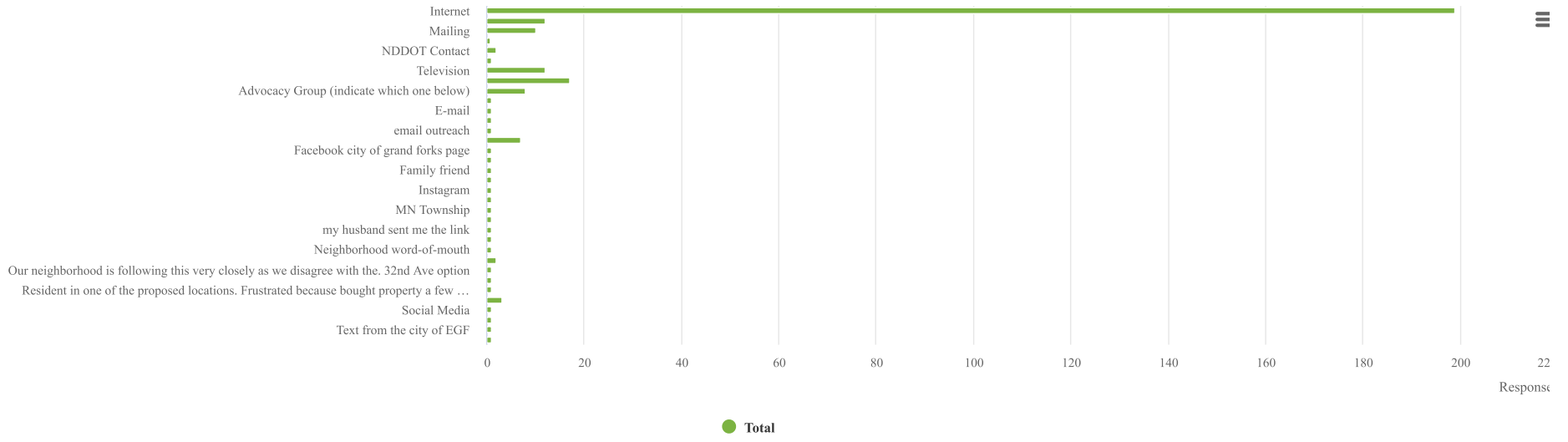
Q10. Do you receive public assistance?

265 answers



Q11. Indicate how you heard about the event:

259 answers



Q12. If you selected "Other" or "Advocacy Group" please indicate here:

18 answers

[Word Cloud](#) [Response List](#)

Responses [Download CSV](#)

Ad Hoc Group Member

chamber

DDA

email about city news/greenway issues

Facebook

Facebook neighborhood group

I found out about this meeting and the survey the day before the survey closed. I don't believe this was advertised very well to the public, particularly those of us that live close to the impact areas.

Instagram

I received an email from the school about the project.

My representative on the Ad Hoc Committee

Neighborhood word-of-mouth

Neighbors

Safe Kids

Sincerely: What sort of question is this: Do you receive public assistance? Do not see the purpose or benefit.

Social media

Spouse

Spouse

test

Welcome!

Public Meeting

**Grand Forks/
East Grand Forks
Future Bridge Traffic
Impact Study**

Project Overview

Background

Prior studies and plans have identified the need for a new local river crossing between Grand Forks and East Grand Forks to reduce congestion on the Point Bridge and the surrounding roadway network.

- **2018 Metropolitan Transportation Plan**

- ▶ This plan identified needs for two new bridges: an intracity bridge for travel between Grand Forks and East Grand Forks and an intraregional bridge for regional trips. The current study addresses the need for a local bridge.

- **2020 Hydraulic Analysis of South End Red River Bridge study**

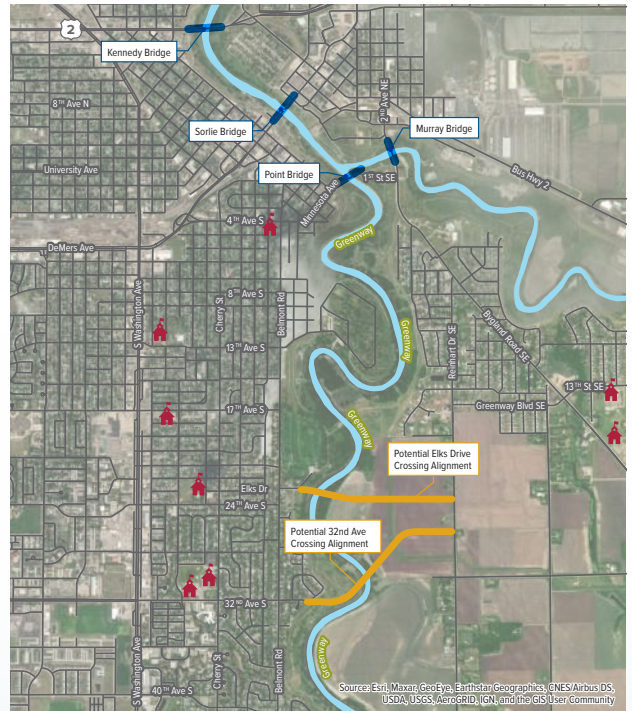
This study identified two crossing locations for further analysis:

- ▶ Elks Drive
- ▶ 32nd Avenue

The 2020 Hydraulics Analysis demonstrates that a crossing at 47th Avenue is infeasible because of the need for complicated flood mitigation.

The current study has evaluated river crossing alternatives in these corridors and related improvements on the local street system as needed. The proposed elevation for both alternatives is medium elevation, meaning that during a flood event it would close before the Kennedy Bridge but after the Point and Sorlie Bridges.

The products of this study may be adopted during a subsequent environmental review process.



Project Purpose

The purpose of the Grand Forks-East Grand Forks Future Bridge Project is to improve mobility and connectivity between Grand Forks and East Grand Forks by reducing congestion on the Point Bridge and connecting roadways and by providing a more direct connection for trips between the two cities.

Next Steps

- **Project Team:**

- ▶ Finalize evaluation results
- ▶ Prepare report

- **You: Get involved!**

Visit www.forks2forksbridge.com/info

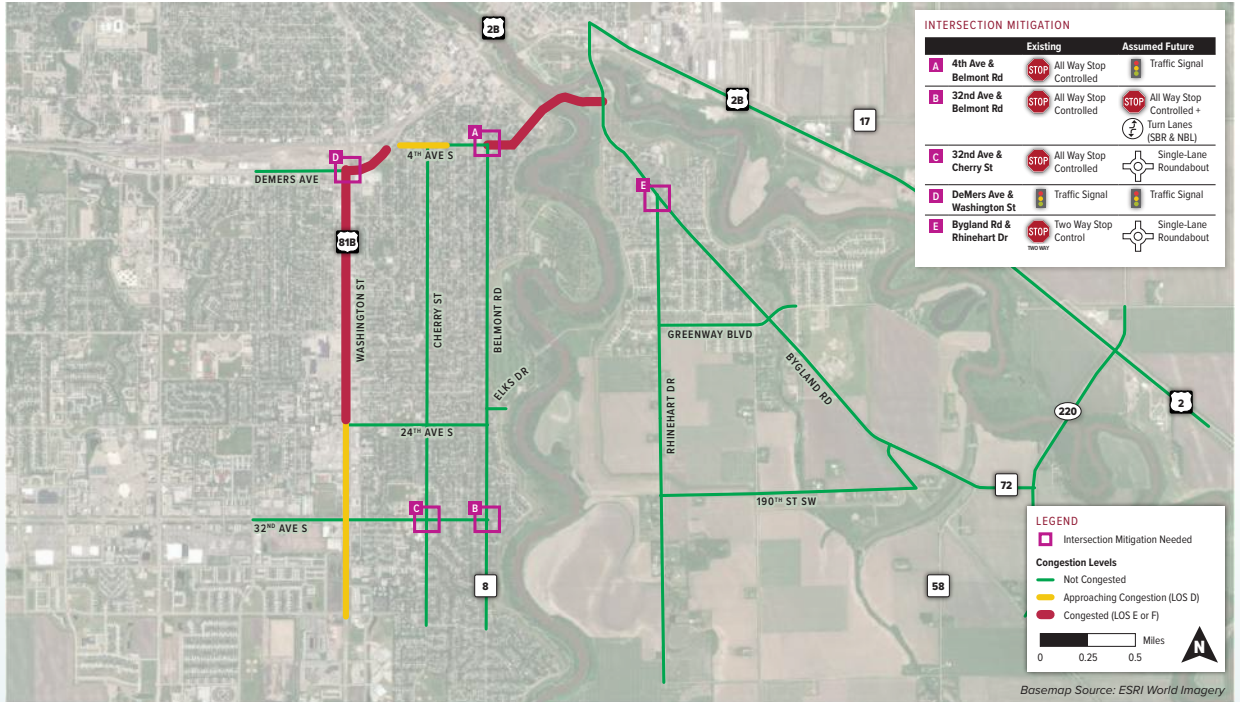
- ▶ Take Online Survey (Dec. 16, 2021 – Jan. 6, 2022)
- ▶ Watch Ad Hoc Group meetings



No New Bridge (Year 2045)

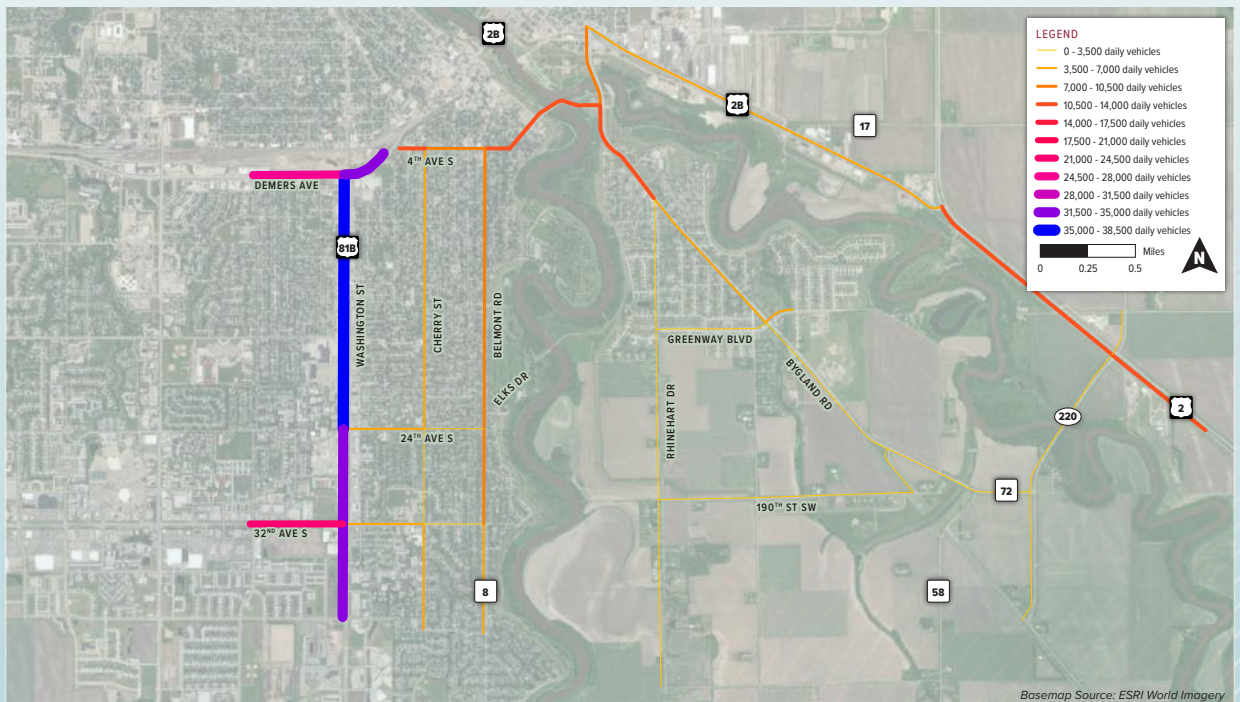
Congestion

- Without a new bridge, today's congestion will get worse, in particular on Washington Street, Demers Avenue and on and near the Point Bridge.
- Without a new bridge, improvements will be needed at 5 intersections to reduce congestion
 - This includes a major improvement on N. Washington Street



Traffic Volumes

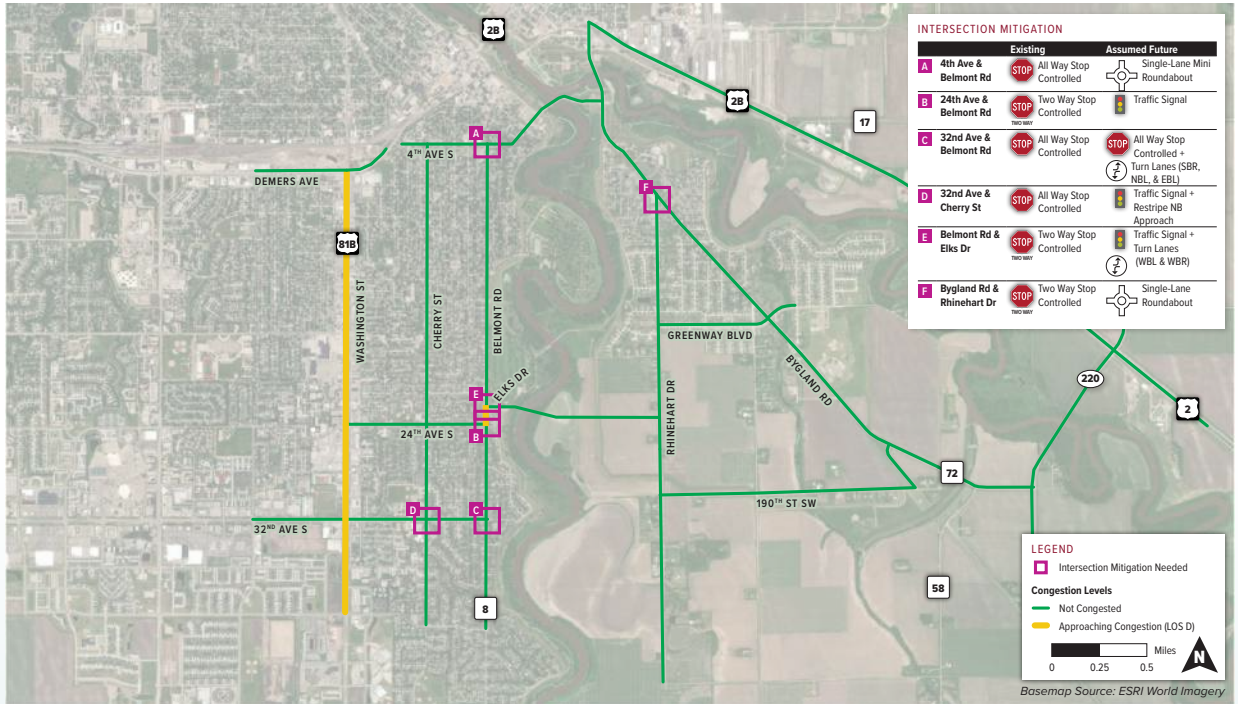
- With or without a new bridge, traffic volumes will continue to grow
- Without a new bridge, growth will be disproportionately in the northern parts of the city (out of balance)



Elks Drive Crossing (Year 2045)

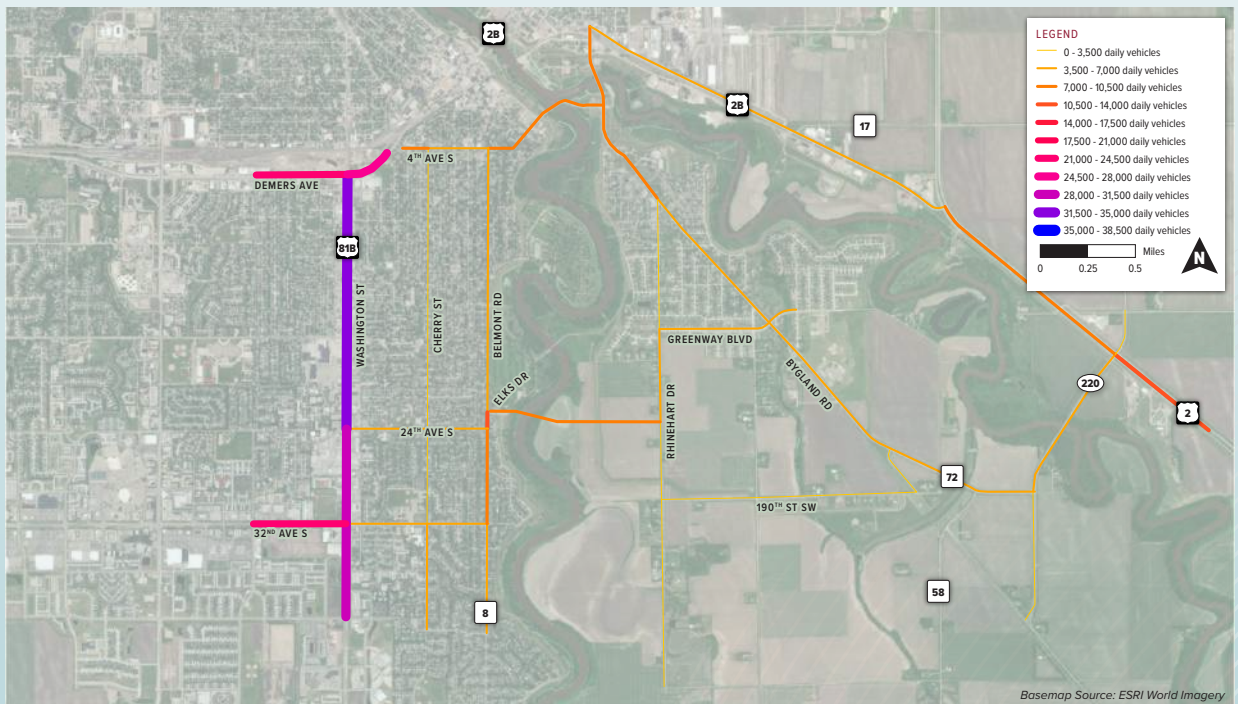
Congestion

- With a new bridge at Elks Drive, congestion will be reduced on Washington Street, Demers Avenue and on the Point Bridge
- Improvements will be needed at 6 intersections to reduce congestion



Traffic Volumes

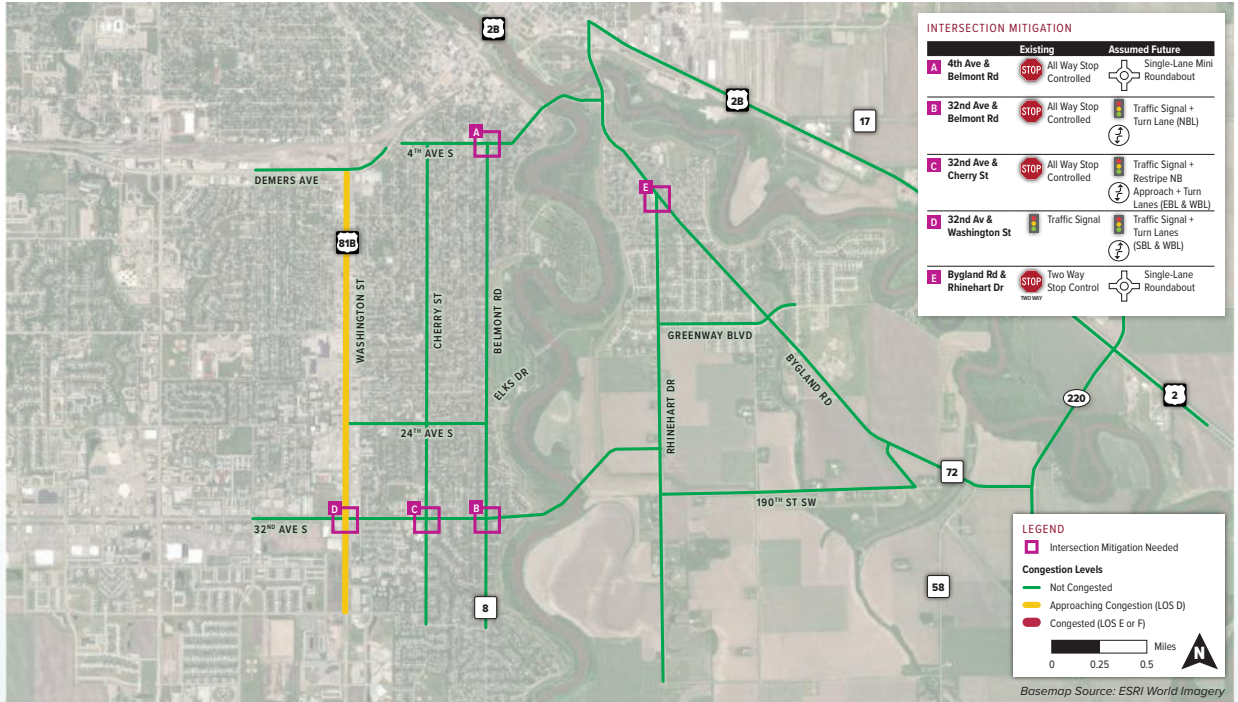
- With a new bridge at Elks Drive, traffic will be better balanced on the system
 - ▶ Traffic will be more evenly spread (more equitable)
 - ▶ Streets that have too much traffic today will see some relief



32nd Avenue Crossing (Year 2045)

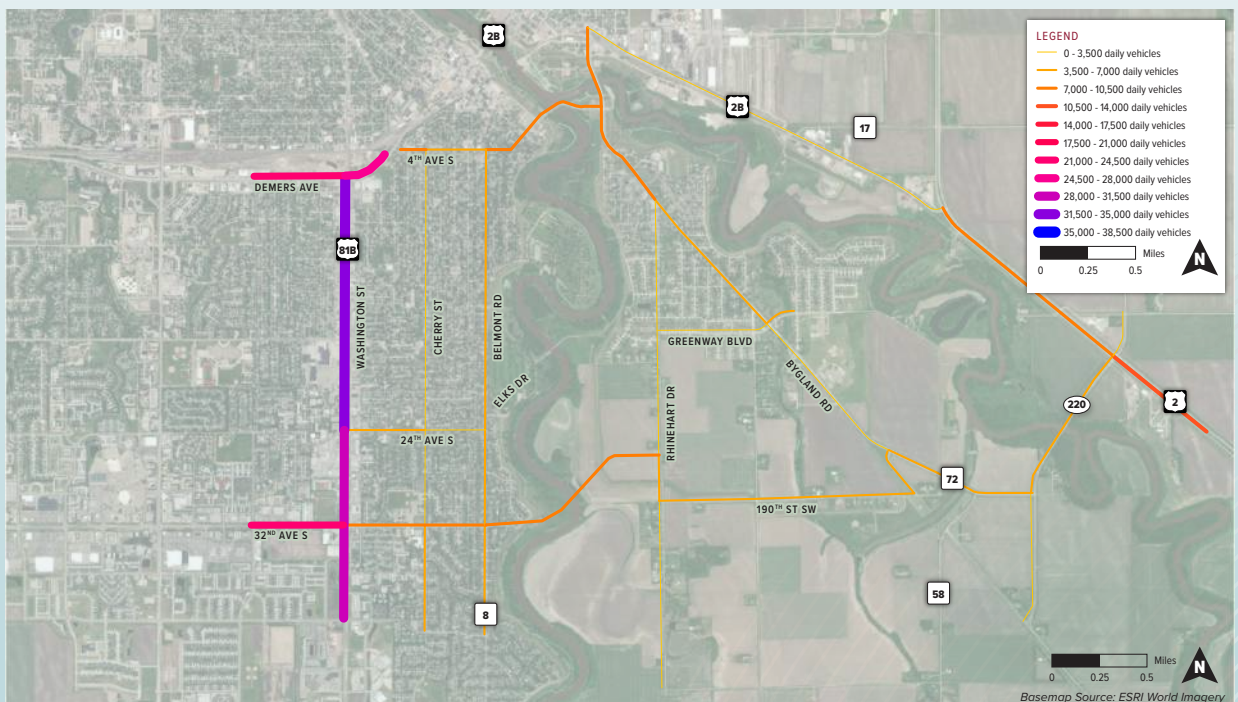
Congestion

- With a new bridge at 32nd Avenue, congestion will be reduced on Washington Street, Demers Avenue and on the Point Bridge
- Improvements will be needed at 5 intersections to reduce congestion



Traffic Volumes

- With a new bridge at 32nd Avenue, traffic will be better balanced on the system
 - ▶ Traffic will be more evenly spread (more equitable)
 - ▶ Streets that have too much traffic today will see some relief



School Traffic Safety

Today

- Safe access to schools for children and families is a priority
- School survey results by Safe Kids Grand Forks show current concerns about traffic volumes, speeds, and safety
 - ▶ These issues can be addressed today

Future Bridge

- There are 6 schools in Grand Forks and 2 in East Grand Forks in study area
- A new bridge in either location would better balance traffic near these schools
- Safety and traffic calming features near schools would be included with bridge design

Draft Evaluation Results							
Evaluation Criteria	Measure	Alternatives					
		No New Bridge		Elks Drive		32nd Ave	
		Measurement	Rating	Measurement	Rating	Measurement	Rating
Traffic change on study corridors adjacent to schools	Based on traffic exposure at all schools in study area (see measures below)	55,170		-3%		-0%	
Phoenix Elementary School	2045 AADT on adjacent road (4th Ave S)	8,010	C	-32%	A	-32%	A
	2045 AADT on adjacent road (Belmont Rd)	9,210	B	-39%	A	-32%	A
Lewis & Clark Elementary School	2045 AADT on adjacent road (13th Ave S)	5,546	A	-2%	A	-2%	A
Holy Family-St. Mary's Private School	2045 AADT on adjacent road (17th Ave S)	5,184	A	+3%	A	+1%	A
Viking Elementary School	2045 AADT on adjacent road (24th Ave S)	3,690	A	+49%	A	-0%	A
Kelly Elementary School	2045 AADT on adjacent road (Cherry St)	3,340	A	-17%	A	-29%	A
	2045 AADT on adjacent road (32nd Ave S)	5,330	A	+27%	A	+74%	C
Schroeder Middle School	2045 AADT on adjacent road (Cherry St)	3,340	A	-17%	A	-29%	A
	2045 AADT on adjacent road (32nd Ave S)	5,330	A	+27%	A	+74%	C
South Point Elementary School	2045 AADT on adjacent road (13th St SE)	3,740	A	-3%	A	-4%	A
Central Middle School	2045 AADT on adjacent road (Bygland Rd)	2,450	A	+46%	A	-20%	A

Level of Service

A
 B
 C
 D
 E or F

Pedestrian Safety and Traffic Calming Strategies

These are examples of improvements that could be installed near schools to calm traffic and improve pedestrian safety.

- **High-Visibility Crosswalk Markings:**

A marked crosswalk alerts approaching motorists as to where pedestrians may be crossing the street.



- **Median Refuge Island:**

Median refuge islands are raised areas in the center portion of a roadway that can serve as a place of refuge for pedestrians to wait for motorists to stop or for an adequate gap in traffic before crossing the second half of the street.



- **In-Lane Pedestrian Sign:**

An in-lane pedestrian sign can alert drivers of the crosswalk placement.



- **Curb Extensions:**

Curb extensions narrow the roadway and reduce crossing distance/vehicle exposure for pedestrians.



- **Rectangular Rapid Flashing Beacon (RRFB):**

A rectangular rapid flashing beacon (RRFB) has two rapidly and alternatively flashing yellow indications attached to supplement a pedestrian warning sign at a crosswalk.



- **Mini Roundabout:**

A mini roundabout can be used as a traffic calming device to improve pedestrian safety.



Source: Star Tribune

Envisioning a New Bridge

Features

A new bridge at Elks Drive or 32nd Avenue would have the following features.



2 travel lanes for vehicles



Signed for
"No trucks"



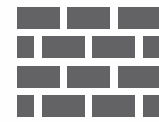
Includes bicycle/
pedestrian trail on bridge



The Greenway trail would
be routed under the
bridge (similar to other
bridges)



The high point of the
bridge would be about
3 feet above street level in
Grand Forks



The flood wall closure
system would be
maintained

Visualization

- This rendering shows how a new bridge could look.
- The photo was taken at Elks Drive but the look would be similar at Elks Drive or at 32nd Avenue



Key Takeaways

- Both options address the identified needs
- Both options provide a more equitable distribution of traffic
- 32nd Avenue has a greater cumulative benefit for hours and miles traveled and a positive benefit-cost ratio
- School safety would be designed in to either option
- This study is not recommending one option over the other

Evaluation Summary: Key Differentiators

This simplified table shows the higher order criteria where the two alternatives had different scores. The criteria that are not shown had the same score for both Elks Drive and 32nd Avenue options.

Evaluation Criteria		Alternatives		
		No New Bridge Rating	Elks Drive Rating	32nd Ave Rating
Purpose and Need	Multimodal System Linkage			
	Total miles of travel on the system (distance)	N	+	++
	Total hours of travel on the system (time)	N	+	++
	Total miles of travel on study corridors (distance)	N	+	++
	Total hours of travel on study corridors (time)	N	+	++
	Ped/bike connectivity	-	+	++
	Community and Economic Factors			
	Total miles of travel on study corridors (distance)	N	+	++
	Traffic change on study corridors adjacent to schools	N	+	N
	Consistency with approved transportation plans	-	N	+
Env. Impacts	Environmental Impacts			
	Potential impact on flood protection system	N	N	-
	Soil stability	N	-	N
Cost	Benefit/Cost			
	Bridge Cost (\$ millions)	N/A	\$30.0M	\$36.4M
	Intersection Mitigation Cost (\$ millions)	\$17.2M - \$25.8M	\$2.4M - \$3.6M	\$3.1M - \$4.7M
	Total Planning Level Cost Estimate (\$ millions)	\$17.2M - \$25.8M	\$32.4M - \$33.6M	\$39.5M - \$41.4M
	Transportation Benefits (\$ millions)	N/A	\$30.3M	\$48.5M
	Benefit-Cost Ratio	N/A	Less than 1	Greater than 1

Rating ++ + N - --

Future Bridge Traffic Impact Study

Public Open House #2

DECEMBER 2021



Welcome to Public Open House #2

Purpose

- Review and input on alternatives evaluation results

In Person

- Thursday, Dec 16, 4:30-6:30 pm
- East Grand Forks City Hall (Rotunda)

On Line

- Dec 16 – Jan 6 (3 weeks)
- Presentation materials and survey





Evaluation of Alternatives



Alternatives Evaluation (cont'd)

Criteria

- Meets project purpose?
- Meets identified needs?
 - Mobility and Congestion
 - Multimodal System Linkage
 - Crashes [not evaluated at planning level]
 - Community and Economic Factors
 - Environmental Impacts
- Cost



Alternatives Evaluation (cont'd)

Criteria: Purpose and Need

- Mobility and Congestion
 - Point Bridge Congestion
 - Study Segment Congestion
 - Study Intersection Congestion
- Multimodal System Linkage
 - System travel distance and time
 - Study corridor travel distance and time
 - Bike/ped connectivity
- Community and Economic Factors
 - Traffic volume on study corridors
 - Traffic volume on study corridors adjacent to schools
- Consistency with transportation plans
 - Support for economic development
 - Impact on Greenway
- Environmental Impacts
 - Flood protection system
 - Soil stability
 - Community resources
 - Natural resources
 - Farmland
 - Visual
 - Air
 - Noise
- Cost
 - Bridge cost (from 2020 study)
 - Intersection improvements (mitigation)

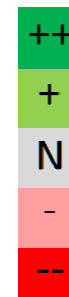


Alternatives Evaluation (cont'd)

Measures

- Planning level
 - Quantitative when possible (traffic)
 - Qualitative otherwise
 - Comparative or absolute
- Avoid double counting
- Not adding/totaling scores
 - Not weighted
- Pairwise comparison/key differentiators

Ratings (5-point scales)



Alternatives Evaluation (cont'd)

Interpreting the Results

- Focus on understanding what we've got
 - Are we solving the problem (compare to No Build?)
 - Does one option solve it better (Elks vs 32nd)?

Public Review

- Ad Hoc Group Meeting
- Open House

Then What?

- Final review by Technical Advisory Committee
- Study Report
 - Document the results but not recommend a “preferred alternative”
 - Lay groundwork for next steps – funding, preliminary design



Evaluation Results

Project Purpose + Mobility and Congestion

Evaluation Criteria	Measure	Alternatives					
		No Build		Elks Drive		32nd Ave	
		Measurement	Rating	Measurement	Rating	Measurement	Rating
Project Purpose							
Compatible with project purpose	Yes or No	No	-	Yes	+	Yes	+
Mobility and Congestion							
Point Bridge Congestion	2045 LOS (V/C)	E (0.99)	-	A (0.57)	++	B (0.61)	++
Study Corridor Congestion	System average V/C = [sum of each segment's (V/C*AADT*length)]/[sum of each segment's AADT*length]	C (0.74)	+	B (0.62)	++	B (0.63)	++
Study Intersections - Congestion Mitigation Needed	Number of intersections requiring mitigation	5	-	6	-	5	-
Study Intersections - Congestion After Mitigation	Number of intersections LOS E or worse after feasible mitigation	0	+	0	+	0	+

Yellow highlight = summary line (see details)

LOS Ratings Key

LOS A/B	++
LOS C	+
LOS D	N
LOS E	-
LOS F	--



Evaluation Criteria	Measure	No Build		Elks Drive		32nd Ave	
		Measurement	Rating	Measurement	Rating	Measurement	Rating
Study Corridor Congestion	System average V/C = [sum of each segment's (V/C*AADT*length)]/[su	C (0.74)	+	B (0.62)	++	B (0.63)	++
S Washington St	Demers to 24th	F (1.03)	-	D (0.89)	N	E (0.92)	-
S Washington St	24th to 32nd	D (0.89)	N	D (0.83)	N	D (0.83)	N
S Washington St	32nd to 40th	D (0.89)	N	D (0.82)	N	D (0.83)	N
Belmont Rd	4th to Elks Dr	B (0.63)	++	A (0.43)	++	A (0.43)	++
Belmont Rd	Elks to 24th	A (0.56)	++	D (0.87)	N	A (0.37)	++
Belmont Rd	24th to 32nd	B (0.69)	++	C (0.76)	+	A (0.53)	++
Belmont Rd	32nd to 40th	A (0.48)	++	A (0.43)	++	A (0.44)	++
32nd Ave S	20th to Washington	C (0.77)	+	C (0.73)	+	C (0.77)	+
32nd Ave S	Washington to Cherry	A (0.42)	++	A (0.53)	++	C (0.73)	+
32nd Ave S	Cherry to Belmont	A (0.27)	++	A (0.41)	++	B (0.63)	++
24th Ave S	Washington to Cherry	A (0.35)	++	A (0.53)	++	A (0.35)	++
24th Ave S	Cherry to Belmont	A (0.14)	++	A (0.36)	++	A (0.13)	++
4th Ave S	Demers to Cherry	D (0.88)	N	A (0.58)	++	B (0.63)	++
4th Ave S	Cherry to Belmont	C (0.72)	+	A (0.44)	++	A (0.49)	++
4th Ave S	4th & Belmont to 1st & 3rd	E (0.99)	-	A (0.57)	++	B (0.61)	++
Cherry St	4th to 24th	A (0.42)	++	A (0.31)	++	A (0.31)	++
Cherry St	24th to 32nd	A (0.32)	++	A (0.27)	++	A (0.23)	++
Cherry St	32nd to 40th	A (0.39)	++	A (0.38)	++	A (0.39)	++
2nd Ave NE	2nd & US 2 to 3rd & 1st	B (0.62)	++	A (0.50)	++	A (0.52)	++
3rd Ave SE	3rd & 1st to Bygland & Rhinehart	C (0.78)	+	A (0.51)	++	A (0.54)	++
Bygland Rd SE	Rhinehart to Greenway	A (0.38)	++	A (0.25)	++	A (0.27)	++
Bygland Rd SE	Greenway to Bygland	A (0.17)	++	A (0.24)	++	A (0.13)	++
Bygland Rd SE	190th to Bygland	A (0.14)	++	A (0.31)	++	A (0.35)	++
Bygland Rd SE/Harley Dr	Bygland & Bygland to TH 220 & Harley Dr	A (0.14)	++	A (0.30)	++	A (0.35)	++
Rhinehart Dr SE	Bygland to Greenway	A (0.26)	++	A (0.22)	++	A (0.23)	++
Rhinehart Dr SE	Greenway to Elks Bridge	A (0.03)	++	A (0.53)	++	A (0.31)	++
Rhinehart Dr SE	Elks Bridge to 32nd Bridge	A (0.03)	++	A (0.18)	++	A (0.31)	++
Rhinehart Dr SE	32nd Bridge to 190th	A (0.03)	++	A (0.18)	++	A (0.44)	++
Rhinehart Dr SE	South of 190th	A (0.02)	++	A (0.03)	++	A (0.03)	++
Greenway Blvd SE	Rhinehart to Bygland	A (0.21)	++	A (0.47)	++	A (0.28)	++
Greenway Blvd SE	East of Bygland	A (0.36)	++	A (0.35)	++	A (0.34)	++
TH 220	South of Harley	A (0.05)	++	A (0.04)	++	A (0.04)	++
TH 220	Harley to US 2	A (0.17)	++	A (0.33)	++	A (0.37)	++
TH 220	North of US 2	A (0.00)	++	A (0.00)	++	A (0.00)	++
Demers Ave	20th to Washington	C (0.78)	+	B (0.64)	++	B (0.65)	++
Demers Ave	Washington to 4th	E (0.96)	-	C (0.78)	+	C (0.80)	+
190th St SW	East of Rhinehart	A (0.01)	++	A (0.15)	++	A (0.42)	++
US 2	West of 220	A (0.37)	++	A (0.27)	++	A (0.26)	++
US 2	East of 220	A (0.28)	++	A (0.28)	++	A (0.27)	++

Traffic Volumes Ratings Key

Decrease >25%	++
Decrease <25%	+
No change	N
Increase <25%	-
Increase >25%	-



Evaluation Results

Multimodal System Linkage

Evaluation Criteria	Measure	Alternatives					
		No Build		Elks Drive		32nd Ave	
		Measurement	Rating	Measurement	Rating	Measurement	Rating
Multimodal System Linkage							
Total miles of travel on the system (distance)	Urban VMT (Tables 38 and 39 from Appendix C - Red River Crossing Ana	1,054,784	N	14,600 less	+	24,721 less	++
Total hours of travel on the system (time)	VHT (Tables 38 and 39 from Appendix C - Red River Crossing Analysis)	59,702	N	522 less	+	831 less	++
Total miles of ravel on study corridors (distance)	Values from ATAC Travel Demand Model	205,490	N	314 less	+	3,448 less	++
Total hours of travel on study corridors (time)	Values from ATAC Travel Demand Model	3,430	N	66 less	+	112 less	++
Ped/bike connectivity	Number and distribution of ped/bike connections across river	4	-	5/less spread	+	5/more spread	++



Evaluation Results

Community and Economic Factors

Evaluation Criteria	Measure	Alternatives					
		No Build		Elks Drive		32nd Ave	
		Measurement	Rating	Measurement	Rating	Measurement	Rating
Community and Economic Factors							
Total miles of travel on study corridors (distance)	Vehicles x Miles of Travel (VMT; from ATAC Travel Demand Model)	205,490	N	314 less	+	3,448 less	++
Traffic change on study corridors adjacent to schools	Based on traffic exposure at all schools in study area (see measures below)	55,170	N	53,684 (-3%)	+	54,896 (-0%)	N
Consistency with approved transportation plans	Is the alternative consistent with LRTP and city plans?	No	-	No	N	Yes	+
Support for economic development	Degree of improved regional accessibility provided (qualitative)	No Change	N	Improve	+	Improve	+
Impact to the Greenway (a protected Section 4(f) resource)	Level of impact	None	N	Smaller footprint	-	Larger footprint	-



Evaluation Criteria	Measure	Alternatives					
		No Build		Elks Drive		32nd Ave	
		Measurement	Rating	Measurement	Rating	Measurement	Rating
Total miles of travel on study corridors (distance)	Vehicles x Miles of Travel (VMT; from ATAC Travel Demand Model)	205,490	N	314 less	+	3,448 less	++
<i>S Washington St (Principal Arterial)</i>	<i>Demers to 24th</i>	44,101	N	42,356 (-4%)	+	43,159 (-2%)	+
<i>S Washington St (Principal Arterial)</i>	<i>24th to 32nd</i>	15,337	N	15,717 (+2%)	-	15,431 (+1%)	-
<i>S Washington St (Principal Arterial)</i>	<i>32nd to 40th</i>	13,624	N	14,093 (+3%)	-	14,238 (+5%)	-
<i>Belmont Rd (Minor Arterial)</i>	<i>4th to Elks Dr</i>	9,717	N	7,019 (-28%)	++	6,802 (-30%)	++
<i>Belmont Rd (Minor Arterial)</i>	<i>Elks to 24th</i>	553	N	981 (+77%)	--	415 (-25%)	+
<i>Belmont Rd (Minor Arterial)</i>	<i>24th to 32nd</i>	3,701	N	3,812 (+3%)	-	2,285 (-38%)	++
<i>Belmont Rd (Minor Arterial)</i>	<i>32nd to 40th</i>	2,996	N	2,400 (-20%)	+	2,483 (-17%)	+
<i>32nd Ave S (Principal Arterial)</i>	<i>20th to Washington</i>	12,118	N	14,045 (+16%)	-	14,322 (+18%)	-
<i>32nd Ave S (Minor Arterial)</i>	<i>Washington to Cherry</i>	2,423	N	3,149 (+30%)	--	4,225 (+74%)	--
<i>32nd Ave S (Minor Arterial)</i>	<i>Cherry to Belmont</i>	1,316	N	1,761 (+34%)	--	2,698 (+105%)	--
<i>24th Ave S (Major Collector)</i>	<i>Washington to Cherry</i>	1,635	N	2,570 (+57%)	--	1,790 (+9%)	-
<i>24th Ave S (Major Collector)</i>	<i>Cherry to Belmont</i>	189	N	1,221 (+546%)	--	441 (+133%)	--
<i>4th Ave S (Minor Arterial)</i>	<i>Demers to Cherry</i>	973	N	755 (-22%)	+	822 (-16%)	+
<i>4th Ave S (Minor Arterial)</i>	<i>Cherry to Belmont</i>	2,687	N	1,791 (-33%)	++	1,989 (-26%)	++
<i>4th Ave S (Minor Arterial)</i>	<i>4th & Belmont to 1st & 3rd</i>	8,070	N	4,789 (-41%)	++	5,210 (-35%)	++
<i>Cherry St (Major Collector)</i>	<i>4th to 24th</i>	4,634	N	3,546 (-23%)	+	3,619 (-22%)	+
<i>Cherry St (Major Collector)</i>	<i>24th to 32nd</i>	1,419	N	1,392 (-2%)	+	1,233 (-13%)	+
<i>Cherry St (Major Collector)</i>	<i>32nd to 40th</i>	2,044	N	1,904 (-7%)	+	1,931 (-6%)	+
<i>2nd Ave NE (Minor Arterial)</i>	<i>2nd & US 2 to 3rd & 1st</i>	4,075	N	3,359 (-18%)	+	3,395 (-17%)	+
<i>3rd Ave SE (Minor Arterial)</i>	<i>3rd & 1st to Bygland & Rhinehart</i>	7,412	N	5,075 (-32%)	++	5,358 (-28%)	++
<i>Bygland Rd SE (Minor Arterial)</i>	<i>Rhinehart to Greenway</i>	5,056	N	3,681 (-27%)	++	3,845 (-24%)	+
<i>Bygland Rd SE (Minor Arterial)</i>	<i>Greenway to Bygland</i>	1,896	N	2,812 (+48%)	--	1,507 (-21%)	+
<i>Bygland Rd SE (Minor Arterial)</i>	<i>190th to Bygland</i>	495	N	1,180 (+138%)	--	1,369 (+177%)	--
<i>Bygland Rd SE/Harley Dr (Minor Arterial)</i>	<i>Bygland & Bygland to TH 220 & Harley Dr</i>	1,089	N	2,130 (+96%)	--	2,454 (+125%)	--
<i>Rhinehart Dr SE (Major Collector)</i>	<i>Bygland to Greenway</i>	2,663	N	2,078 (-22%)	+	2,126 (-20%)	+
<i>Rhinehart Dr SE (Minor Collector/Local Road)</i>	<i>Greenway to Elks Bridge</i>	116	N	874 (+653%)	--	512 (+341%)	--
<i>Rhinehart Dr SE (Local Road)</i>	<i>Elks Bridge to 32nd Bridge</i>	141	N	1,807 (+1182%)	--	1,761 (+1149%)	--
<i>Rhinehart Dr SE (Local Road)</i>	<i>32nd Bridge to 190th</i>	58	N	425 (+633%)	--	732 (+1162%)	--
<i>Rhinehart Dr SE (Local Road)</i>	<i>South of 190th</i>	115	N	144 (+25%)	--	149 (+30%)	--
<i>Greenway Blvd SE (Major Collector)</i>	<i>Rhinehart to Bygland</i>	965	N	2,332 (+142%)	--	1,146 (+19%)	-
<i>Greenway Blvd SE (Minor Collector)</i>	<i>East of Bygland</i>	912	N	535 (-41%)	++	531 (-4%)	++
<i>TH 220 (Minor Arterial)</i>	<i>South of Harley</i>	457	N	416 (-9%)	+	367 (-20%)	+
<i>TH 220 (Minor Arterial)</i>	<i>Harley to US 2</i>	2,103	N	3,878 (+84%)	--	4,298 (+104%)	--
<i>TH 220 (Major Collector)</i>	<i>North of US 2</i>	14	N	3 (-79%)	++	3 (-79%)	++
<i>Demers Ave (Principal Arterial)</i>	<i>20th to Washington</i>	13,040	N	11,682 (-10%)	+	11,906 (-9%)	+
<i>Demers Ave (Principal Arterial)</i>	<i>Washington to 4th</i>	6,883	N	5,900 (-14%)	+	6,036 (-12%)	+
<i>190th St SW (Local Road)</i>	<i>East of Rhinehart</i>	88	N	2,308 (+2523%)	--	5,861 (+6560%)	--
<i>US 2 (Principal Arterial)</i>	<i>West of 220</i>	15,187	N	11,066 (-27%)	++	10,725 (-29%)	++
<i>US 2 (Principal Arterial)</i>	<i>East of 220</i>	571	N	570 (-0%)	+	555 (-3%)	+
<i>US 2B (Minor Arterial)</i>	<i>2nd to US 2</i>	12,422	N	7,082 (-43%)	++	6,668 (-46%)	++

Traffic Volumes Ratings Key

Decrease >25%	++
Decrease <25%	+
No change	N
Increase <25%	-
Increase >25%	--



Evaluation Criteria	Measure	Alternatives					
		No Build		Elks Drive		32nd Ave	
		Measurement	Rating	Measurement	Rating	Measurement	Rating
Traffic change on study corridors adjacent to schools	Based on traffic exposure at all schools in study area (see measures below)	55,170	N	53,684 (-3%)	+	54,896 (-0%)	N
<i>Phoenix Elementary School</i>	<i>2045 AADT on adjacent road (4th Ave S, Belmont Rd)</i>	17,220	N	11,060 (-36%)	++	11,710 (-32%)	++
<i>Lewis & Clark Elementary School</i>	<i>2045 AADT on adjacent road (13th Ave S)</i>	5,546	N	5,448 (-2%)	+	5,420 (-2%)	+
<i>Holy Family-St. Mary's Private School</i>	<i>2045 AADT on adjacent road (17th Ave S)</i>	5,184	N	5,356 (+3%)	-	5,216 (+1%)	-
<i>Viking Elementary School</i>	<i>2045 AADT on adjacent road (24th Ave S)</i>	3,690	N	5,510 (+49%)	--	3,680 (-0%)	+
<i>Kelly Elementary School</i>	<i>2045 AADT on adjacent road (Cherry St, 32nd Ave S)</i>	8,670	N	9,560 (+10%)	-	11,660 (+34%)	--
<i>Schroeder Middle School</i>	<i>2045 AADT on adjacent road (Cherry St, 32nd Ave S)</i>	8,670	N	9,560 (+10%)	-	11,660 (+34%)	--
<i>South Point Elementary School</i>	<i>2045 AADT on adjacent road (13th St SE)</i>	3,740	N	3,620 (-3%)	+	3,600 (-4%)	+
<i>Central Middle School</i>	<i>2045 AADT on adjacent road (Bygland Rd)</i>	2,450	N	3,570 (+46%)	--	1,950 (-20%)	+

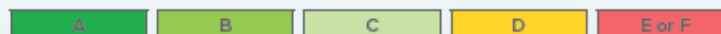
Decrease >25%	++
Decrease <25%	+
No change	N
Increase <25%	-
Increase >25%	--



Traffic Change Near Schools (LOS Standard)

Draft Evaluation Results							
Evaluation Criteria	Measure	Alternatives					
		No New Bridge		Elks Drive		32nd Ave	
		Measurement	Rating	Measurement	Rating	Measurement	Rating
Traffic change on study corridors adjacent to schools	Based on traffic exposure at all schools in study area (see measures below)	55,170		-3%		-0%	
Phoenix Elementary School	2045 AADT on adjacent road (4th Ave S)	8,010	C	-32%	D	-32%	D
	2045 AADT on adjacent road (Belmont Rd)	9,210	B	-39%	D	-32%	D
Lewis & Clark Elementary School	2045 AADT on adjacent road (13th Ave S)	5,546	D	-2%	D	-2%	D
Holy Family-St. Mary's Private School	2045 AADT on adjacent road (17th Ave S)	5,184	D	+3%	D	+1%	D
Viking Elementary School	2045 AADT on adjacent road (24th Ave S)	3,690	D	+49%	D	-0%	D
Kelly Elementary School	2045 AADT on adjacent road (Cherry St)	3,340	D	-17%	D	-29%	D
	2045 AADT on adjacent road (32nd Ave S)	5,330	D	+27%	D	+74%	C
Schroeder Middle School	2045 AADT on adjacent road (Cherry St)	3,340	D	-17%	D	-29%	D
	2045 AADT on adjacent road (32nd Ave S)	5,330	D	+27%	D	+74%	C
South Point Elementary School	2045 AADT on adjacent road (13th St SE)	3,740	D	-3%	D	-4%	D
Central Middle School	2045 AADT on adjacent road (Bygland Rd)	2,450	D	+46%	D	-20%	D

Level of Service



School Traffic Safety

Today

- Safe access to schools for children and families is a priority
- School survey results show current concerns about traffic volumes, speeds, and safety
 - These issues can be addressed today
 - Do not depend on a new bridge

Future Bridge

- There are 6 schools in Grand Forks and 2 in East Grand Forks in study area
- A new bridge in either location would better balance traffic near these schools
- Safety and traffic calming features at school intersections would be included with bridge design



Evaluation Results

Environmental Impact

Evaluation Criteria	Measure	Alternatives					
		No Build		Elks Drive		32nd Ave	
		Measurement	Rating	Measurement	Rating	Measurement	Rating
Environmental Impacts							
Potential impact on flood protection system	Qualitative/planning level assessment	No change	N	No change	N	Potential impact	-
Soil stability	Qualitative/planning level assessment	No change	N	Maybe less stable	-	Maybe more stable	N
Impacts to community resources¹	Qualitative/planning level assessment	No change	N	No change	N	No change	N
Impacts to natural resources²	Qualitative/planning level assessment	No change	N	Some impact	-	Some impact	-
Farmland impacts	Qualitative/planning level assessment	No change	N	Some impact	-	Some impact	-
Visual impacts	Qualitative/planning level assessment	No change	N	Some intrusion	-	Some intrusion	-
Air quality impacts	Assumed to correlate with congestion levels and total system travel dist	No change	N	Improved	+	Improved	+
Noise impacts	Assumed to correlate with traffic volumes on study segments	No change	N	Somewhat less	+	Somewhat less	+



Evaluation Results

Cost Estimates

Assumptions for intersection mitigation planning level cost estimates:

- Estimates include engineering costs
- Includes storm sewer but not other utilities
- Reported with +/- 20% due to preliminary nature
- Consistent with least-cost mitigation methodology; actual designs may vary
- Washington/Demers (No Build) – assumes \$18M CFI estimate from prior study (current ND study may update)
- 32nd/Washington (32nd Ave) – uses \$1.5M rough estimate (no design)

Evaluation Criteria	Measure	Alternatives								
		No Build		Elks Drive		32nd Ave				
		Measurement	Rating	Measurement	Rating	Measurement	Rating			
Cost										
Bridge Cost (\$ millions)	Source: 2020 Hydraulics Analysis of South End Red River Bridge	N/A		\$30.0M		\$36.4M				
Intersection Mitigation Cost (\$ millions)	Planning-level Cost Estimate (least-cost mitigation) - plus or minus 20%	\$17.2M - \$25.8M		\$2.4M - \$3.6M		\$3.1M - \$4.7M				
Total Planning Level Cost Estimate (\$ millions)	Total of bridge and intersection mitigation costs	\$17.2M - \$25.8M		\$32.4M - \$33.6M		\$39.5M - \$41.4M				

No Build costs are primarily on Grand Forks side (no bridge, just intersections). Elks Drive and 32nd Ave more evenly split between both cities/states.

Intersection Mitigation Assumed in Cost Estimates

No Build	4th Ave & Belmont Rd <i>Add Signal Upgrade ped ramps</i>	32nd Ave & Belmont Rd <i>Add SB Right and NB Left (restripe only)</i>	32nd Ave & Cherry St <i>Single Lane Roundabout</i>	Demers Ave & Washington St <i>Continuous Flow Intersection (CFI)</i>	Bygland Rd & Rhinehart Dr <i>Single Lane Roundabout</i>	
Elks Drive	4th Ave & Belmont Rd <i>Mini-Roundabout</i>	24th Ave & Belmont Rd <i>Signal</i>	32nd Ave & Belmont <i>Add SB Right, NB Left (restripe only), EB left turn lanes</i>	32nd Ave & Cherry St <i>Signal, add NB Left (restripe only)</i>	Belmont Rd & Elks Dr <i>Signal</i>	Bygland Rd & Rhinehart Dr <i>Single Lane Roundabout</i>
32 nd Ave	4th Ave & Belmont Rd <i>Mini-Roundabout</i>	32nd Ave & Belmont <i>Signal. Add NB Left (restripe only)</i>	32nd Ave & Cherry St <i>Signal. Add EB and WB left turn lanes. Add NB left turn lane (restripe only).</i>	32nd Ave & Washington St <i>Keep signal. Add WB and SB left turn lanes</i>	Bygland Rd & Rhinehart Dr <i>Single Lane Roundabout</i>	



Evaluation Results

Benefit Cost Considerations

Component	Definition/Source	Elks Drive Corridor	32 nd Avenue Corridor
Transportation Benefits	<ul style="list-style-type: none">Travel time, operations, crash cost, air quality from 2017 Red River Crossing Technical Analysis (MPO)	\$30.3M*	\$48.5M*
Construction Costs (bridge + intersection mitigation)	<ul style="list-style-type: none">Bridge: 2020 South End Red River Bridge Hydraulics Analysis (City of Grand Forks)Intersections: 2021 Future Bridge Traffic Impact Study (MPO) *	\$32.4 – \$33.6M	\$39.5 - \$41.4M
Relative Benefit-Cost Ratio	<ul style="list-style-type: none">Estimated – for relative comparison only	< 1	> 1

*Cost estimates from 2017 report of \$27.5M and \$44.0M for Elks Dr. and 32nd Ave., respectively, were adjusted upward (using CPI) to bring them to current dollars.



Evaluation Results

Consider

- Can these two options address the needs (Yes/No)?
- Then, compare the two corridors

Evaluation Criteria	Alternatives		
	No Build	Elks Drive	32nd Ave
	Rating	Rating	Rating
Project Purpose			
Compatible with project purpose	-	+	+
Mobility and Congestion			
Point Bridge Congestion	-	++	++
Study Corridor Congestion	+	++	++
Study Intersections - Congestion Mitigation Needed	-	-	-
Study Intersections - Congestion After Mitigation	+	+	+
Multimodal System Linkage			
Total miles of travel on the system (distance)	N	+	++
Total hours of travel on the system (time)	N	+	++
Total miles of travel on study corridors (distance)	N	+	++
Total hours of travel on study corridors (time)	N	+	++
Ped/bike connectivity	-	+	++
Community and Economic Factors			
Total miles of travel on study corridors (distance)	N	+	++
Traffic change on study corridors adjacent to schools	N	+	N
Consistency with approved transportation plans	-	N	+
Support for economic development	N	+	+
Impact to the Greenway (a protected Section 4(f) res	N	-	-
Environmental Impacts			
Potential impact on flood protection system	N	N	-
Soil stability	N	-	N
Impacts to community resources ¹	N	N	N
Impacts to natural resources ²	N	-	-
Farmland impacts	N	-	-
Visual impacts	N	-	-
Air quality impacts	N	+	+
Noise impacts	N	+	+



Evaluation Results

Consider

- Look at the overall categories (needs) and hide all the rows that have the same rating

Evaluation Criteria		Alternatives	
		Elks Drive	32nd Ave
		Rating	Rating
Purpose and Need	Multimodal System Linkage		
	Total miles of travel on the system (distance)	+	++
	Total hours of travel on the system (time)	+	++
	Total miles of travel on study corridors (distance)	+	++
	Total hours of travel on study corridors (time)	+	++
	Ped/bike connectivity	+	++
	Community and Economic Factors		
	Total miles of travel on study corridors (distance)	+	++
	Traffic change on study corridors adjacent to schools	+	N
Consistency with approved transportation plans	N	+	
Environment	Environmental Impacts		
	Potential impact on flood protection system	N	-
	Soil stability	-	N



Evaluation Results

Consider

- Three categories that get a lot of attention
 - Congestion
 - Traffic changes
 - Schools
- First, look at ALL the rows...

Traffic change on study corridors adjacent to schools	+	N
Phoenix Elementary School	++	++
Lewis & Clark Elementary School	+	+
Holy Family-St. Mary's Private School	-	-
Viking Elementary School	-	+
Kelly Elementary School	-	-
Schroeder Middle School	-	-
South Point Elementary School	+	+
Central Middle School	-	+

Study Corridor Congestion	++	++
S Washington St	N	-
S Washington St	N	N
S Washington St	N	N
Belmont Rd	++	++
Belmont Rd	N	++
Belmont Rd	+	++
Belmont Rd	++	++
32nd Ave S	+	+
32nd Ave S	++	+
32nd Ave S	++	++
24th Ave S	++	++
24th Ave S	++	++
4th Ave S	++	++
4th Ave S	++	++
4th Ave S	++	++
Cherry St	++	++
Cherry St	++	++
Cherry St	++	++
2nd Ave NE	++	++
3rd Ave SE	++	++
Byglund Rd SE	++	++
Byglund Rd SE	++	++
Byglund Rd SE	++	++
Byglund Rd SE/Harley Dr	++	++
Rhinehart Dr SE	++	++
Rhinehart Dr SE	++	++
Rhinehart Dr SE	++	++
Rhinehart Dr SE	++	++
Rhinehart Dr SE	++	++
Greenway Blvd SE	++	++
Greenway Blvd SE	++	++
TH 220	++	++
TH 220	++	++
TH 220	++	++
Demers Ave	++	++
Demers Ave	+	+
190th St SW	++	++
US 2	++	++
US 2	++	++

Total miles of travel on study corridors (distance)	+	++
S Washington St (Principal Arterial)	+	+
S Washington St (Principal Arterial)	-	-
S Washington St (Principal Arterial)	-	-
Belmont Rd (Minor Arterial)	++	++
Belmont Rd (Minor Arterial)	-	+
Belmont Rd (Minor Arterial)	-	++
Belmont Rd (Minor Arterial)	+	+
32nd Ave S (Principal Arterial)	-	-
32nd Ave S (Minor Arterial)	-	-
32nd Ave S (Minor Arterial)	-	-
24th Ave S (Major Collector)	-	-
24th Ave S (Major Collector)	-	-
4th Ave S (Minor Arterial)	+	+
4th Ave S (Minor Arterial)	++	++
4th Ave S (Minor Arterial)	++	++
Cherry St (Major Collector)	+	+
Cherry St (Major Collector)	+	+
Cherry St (Major Collector)	+	+
2nd Ave NE (Minor Arterial)	+	+
3rd Ave SE (Minor Arterial)	++	++
Byglund Rd SE (Minor Arterial)	++	+
Byglund Rd SE (Minor Arterial)	-	+
Byglund Rd SE (Minor Arterial)	-	-
Byglund Rd SE/Harley Dr (Minor Arterial)	-	-
Rhinehart Dr SE (Major Collector)	+	+
Rhinehart Dr SE (Minor Collector/Local Road)	-	-
Rhinehart Dr SE (Local Road)	-	-
Rhinehart Dr SE (Local Road)	-	-
Rhinehart Dr SE (Local Road)	-	-
Greenway Blvd SE (Major Collector)	-	-
Greenway Blvd SE (Minor Collector)	++	++
TH 220 (Minor Arterial)	+	+
TH 220 (Minor Arterial)	-	-
TH 220 (Major Collector)	++	++
Demers Ave (Principal Arterial)	+	+
Demers Ave (Principal Arterial)	+	+
190th St SW (Local Road)	-	-
US 2 (Principal Arterial)	++	++
US 2 (Principal Arterial)	+	+
US 2B (Minor Arterial)	++	++



Evaluation Results

Summary

- Then - hide all the rows that have the same rating

Evaluation Criteria	Measure	Alternatives		
		No Build	Elks Drive	32nd Ave
		Rating	Rating	Rating
Study Corridor Congestion	System average V/C = [sum of each segment's (V	+	++	++
<i>S Washington St</i>	<i>Demers to 24th</i>	--	N	-
<i>Belmont Rd</i>	<i>Elks to 24th</i>	++	N	++
<i>Belmont Rd</i>	<i>24th to 32nd</i>	++	+	++
<i>32nd Ave S</i>	<i>Washington to Cherry</i>	++	++	+
Total miles of travel on study corridors (dis	Vehicles x Miles of Travel (VMT; from ATAC Trave	N	+	++
<i>Belmont Rd (Minor Arterial)</i>	<i>Elks to 24th</i>	N	--	+
<i>Belmont Rd (Minor Arterial)</i>	<i>24th to 32nd</i>	N	-	++
<i>24th Ave S (Major Collector)</i>	<i>Washington to Cherry</i>	N	--	-
<i>Bygland Rd SE (Minor Arterial)</i>	<i>Rhinehart to Greenway</i>	N	++	+
<i>Bygland Rd SE (Minor Arterial)</i>	<i>Greenway to Bygland</i>	N	--	+
<i>Greenway Blvd SE (Major Collector)</i>	<i>Rhinehart to Bygland</i>	N	--	-
Traffic change on study corridors adjacent	Based on traffic exposure at all schools in study a	N	+	N
<i>Viking Elementary School</i>	<i>2045 AADT on adjacent road (24th Ave S)</i>	N	--	+
<i>Kelly Elementary School</i>	<i>2045 AADT on adjacent road (Cherry St, 32nd Ave S)</i>	N	-	--
<i>Schroeder Middle School</i>	<i>2045 AADT on adjacent road (Cherry St, 32nd Ave S)</i>	N	-	--
<i>Central Middle School</i>	<i>2045 AADT on adjacent road (Bygland Rd)</i>	N	--	+

Evaluation Summary

Key Takeaways

- Both options address the needs
- Both options provide more equitable distribution of traffic
- 32nd Avenue has greater cumulative benefit for hours and miles traveled and a positive benefit-cost ratio
- School safety would be designed in to either option
- This study is not recommending one option over the other

Evaluation Criteria	Alternatives		
	No New Bridge Rating	Elks Drive Rating	32nd Ave Rating
Multimodal System Linkage			
Total miles of travel on the system (distance)	N	-	-
Total hours of travel on the system (time)	N	-	-
Total miles of travel on study corridors (distance)	N	-	-
Total hours of travel on study corridors (time)	N	-	-
Ped/bike connectivity	-	-	-
Community and Economic Factors			
Total miles of travel on study corridors (distance)	N	-	-
Traffic change on study corridors adjacent to schools	N	-	N
Consistency with approved transportation plans	-	N	-
Env. Impacts			
Environmental Impacts			
Potential impact on flood protection system	N	N	-
Soil stability	N	-	N
Benefit/Cost			
Bridge Cost (\$ millions)	N/A	\$30.0M	\$36.4M
Intersection Mitigation Cost (\$ millions)	\$17.2M - \$25.8M	\$2.4M - \$3.6M	\$3.1M - \$4.7M
Total Planning Level Cost Estimate (\$ millions)	\$17.2M - \$25.8M	\$32.4M - \$33.6M	\$39.5M - \$41.4M
Transportation Benefits (\$ millions)	N/A	\$30.3M	\$48.5M
Benefit-Cost Ratio	N/A	Less than 1	Greater than 1

Rating: ■ ■ N - --



Envisioning a New Bridge



Future Bridge Illustration

The background features a light blue map-like illustration of a bridge and its surroundings. On the right side, a white arch bridge is partially visible. The map shows various streets, a river, and some building footprints.

General Concept Only

- Too early to illustrate some details:
 - Bridge landing locations
 - Intersection configurations

Key Features

- 2 travel lanes
- Signed for no trucks
- Includes bike/ped trail on bridge
- Greenway trail will be routed under (similar to other bridges)
- Minimal rise from street system (est. 3 feet)
- Maintain flood wall closure system



**DRAFT Visualization - Future Red River Bridge
(Elks Drive or 32nd Avenue)**

- 2 travel lanes
- Signed for no trucks

- Includes bike/ped trail on bridge
- Greenway trail will be routed under (similar to other bridges)
- Minimal rise from street system (est. 3 feet)
- Maintain flood wall closure system



www.forks2forksbridge.com/info

NEXT STEPS

- Share your feedback online through January 6, 2022
- Watch for final report on project website in late January

Tim Burkhardt

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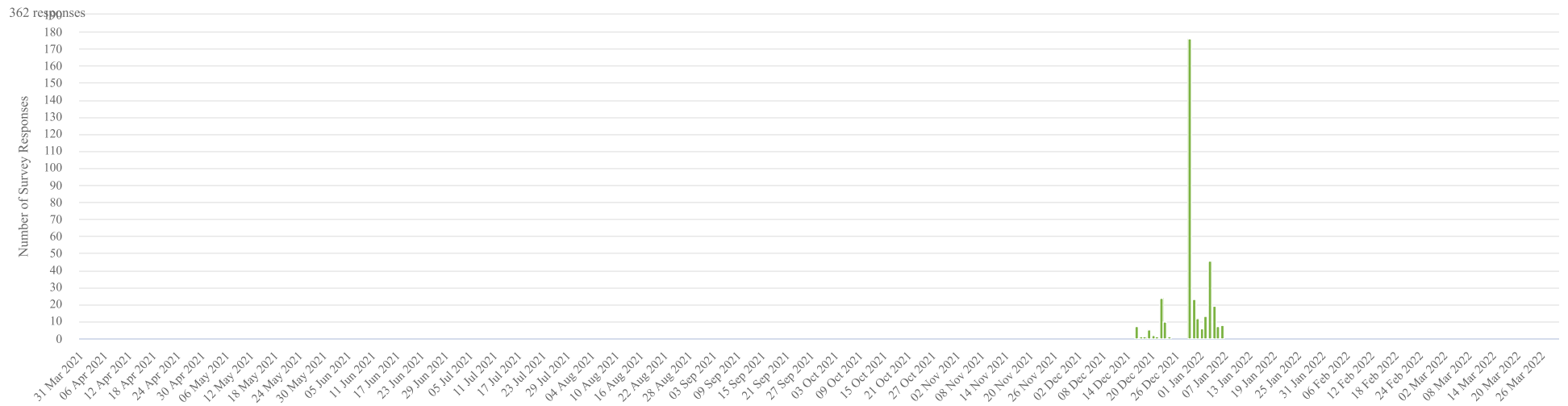


Open House 2 Survey - Online Responses

362 responses

Export

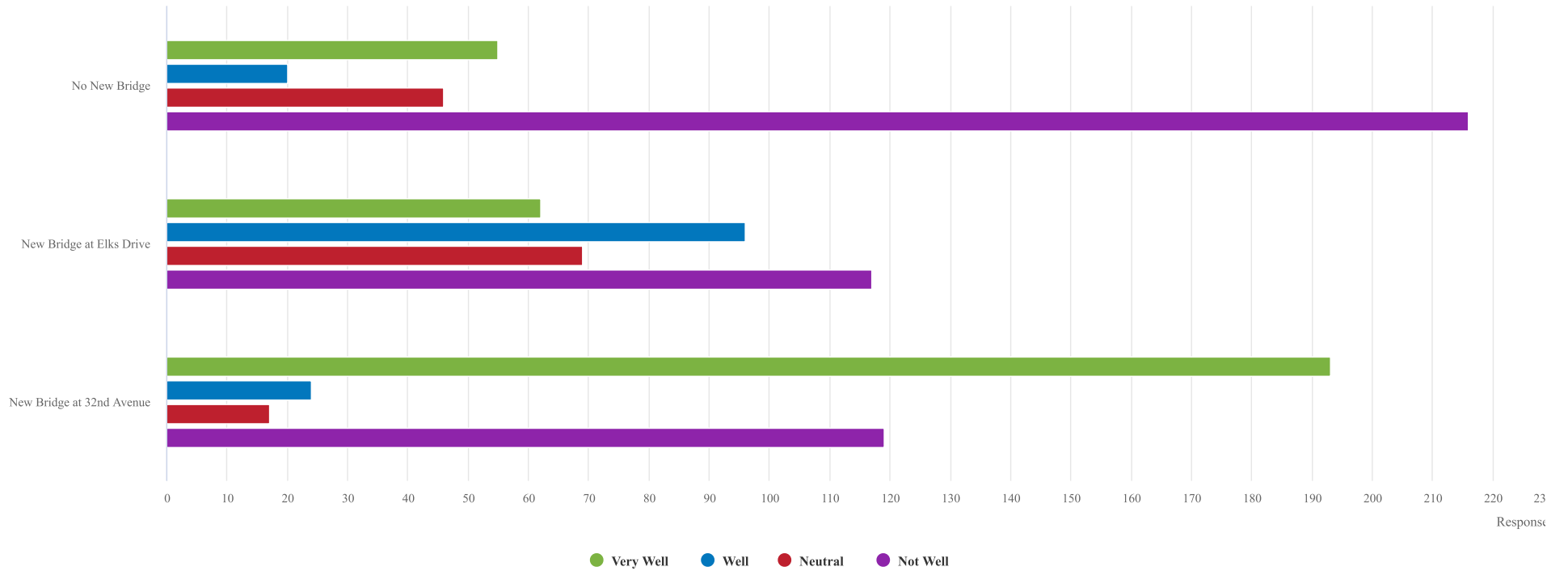
Number of Survey Responses by Day



Q1. How well do you feel each alternative meets the project purpose and need?



356 answers



Q2. What would you change, if anything, to improve the performance of each new bridge option?

109 answers

[Word Cloud](#) [Response List](#)

[Responses](#) [Download CSV](#)

- Not choose.
- No bridge
- Nothing
- Why congestion Belmont if you don't need to?
- nothing
- Not have a bridge
- The only thing a potential bridge at Elks Drive is good for, is making a potential bridge at 32nd look much better by comparison. A bridge at Elks is INSANE.
- No bridge here!
- Dont do it in established neighborhood
- This option would disrupt the harmony of the greenway
- Move it further south.
- I don't think that this option is in the right location to alleviate traffic issues on both sides of the river.
- Perfect spot. Doesn't disrupt the schools and all the homes that face 32nd
- Maybe acquire more properties and jog it a bit more to make it more of a straight shot to 24th?
- 2nd option
- Please don't do this. It will so greatly harm the south end neighborhoods.
- Not an option
- Doesn't access a main E/W corridor road in GF immediately. 32nd is best option.
- I trust the experts who work on this for a living.
- What would be the impact on Lincoln Golf Course?
- Move it to 32nd
- Not far enough south
- Make higher so doesn't close during flood season

Terrible idea

Relocate the museum and move the bridge to 24th. Elks Dr is a horrible option.

Move to Merrifield Road

Traffic bottleneck at Belmont

:(

There are too many homes and schools close to this location.

Move to 47th ave s

Make this a high bridge which doesn't flood

No bridge!!

I'm not sold on the traffic signals at 32nd Ave and Cherry and Belmont in this option. Nor at 24th and Belmont-- how about a roundabout there instead?

No bridge

I wouldn't build a bridge here

Needs better approach in GF

The road should be widened due allow for exits into the golf course and the one home that is there, or that home should be provided a new entrance/exit driveway

change location rerout the traffic flow

raise the bridge 3 feet

Build a bridge on Merrifield Road

Less residential impact

It needs to be closer to EGF

No way to keep pedestrians safe

It is not as busy as 32nd ave is, so I feel like the traffic is already on 32nd, so its unnecessary to add more traffic to a less busy area.

roundabout at B and E

No bridge

Bad location

Place the new bridge at 32nd Ave

This one makes sense for EGF, but GF Has grown too far South to make this option ideal

this is the only option that makes sense. disrupts much less people

Nothing, get it done.

Lighted

To far south makes no sense for East Grand Forks

N/a

I would propose that there not be a bridge built at Elks Drive.

I like the options of having the bridge by Elks Drive because I think the traffic would be too great next to an elementary and middle school.

Makes sense for EGF, not GF

Eliminate existing pedestrian bridge. Have walkway on new bridge. Install roundabout at intersection of elks drive and Belmont. No truck traffic..

Not sure

Stop lights

close to schools and residential neighborhoods.

No bridge there

Could work but 32nd is the best option

Not an option

Project should include roundabout on Bygland by Rhinehart

Not a good option

The Elks Drive option for a bridge is really not an option.

Not an ideal location and will have the same traffic impacts on 32nd Ave west of Belmont Road. Appears to be a purposely inefficient bridge which is a poor use of tax payer dollars. All users of the regional transportation system would suffer simply to appease one small neighborhood in Grand Forks.

Round about at Elks.

Would this include a "full stop" - or a round-about option?

Nothing, this makes no sense. You're directing traffic into a residential area that already has too much traffic.

Need to have a light at Bygland and Reinhardt to control the increased traffic

The old Elks lodge caretakers home can go. Not sure about new home built after the flood.

two bridges are needed

Would it be helpful for the bridges to be higher to be used if the river rises? Or is it cost prohibitive?

Provide free school bussing to alleviate traffic concerns near schools.

[Word Cloud](#) [Response List](#)

Responses [Download CSV](#)

Nothing upon originally building, after there may be additional components deemed beneficial but it's hard to determine just yet.

I live in this area and DO NOT favor this bridge as an option!

No bridge

No bridge at all. 32nd Ave is already too busy especially with 2 schools directly on it.

Everyone uses 32nd regardless

nothing

This is an absolutely absurd option in regard to the safety of the children who attend both Schroeder and Kelly schools. There is already too much traffic in this area during school pickup and drop off and invites unnecessary traffic in a school zone.

Round about at the Belmont/32nd intersection

Absolutely not have a bridge

We need a bridge here

Build it forty years ago, and NO DAMNED ROUNDABOUTS TO DESTROY TRAFFIC FLOW. Build the bridge like the Columbia--capable of being expanded to four-lane in the future.

Not have it there! It's a neighborhood

Don't do it in established neighborhood

I think it's a bad idea to have a bridge so close to an elementary school. It puts children in more danger of getting hit by a car with the heavy traffic that will be produced with all of the extra cars

There is no way to do this option and keep all the children at Kelly and Schroeder safe every day.

Move it so the increased traffic affects the two schools on and near 32nd Ave.

allow truck traffic

I wouldn't change anything with this bridge option -- I think the location would be the perfect solution to traffic issues on both sides of the river.

To many schools and homes facing 32nd avenue. Terrible option!

Best option in my opinion.

Please don't do this. It will so greatly harm the south end neighborhoods.

It would provide safer options and better time management when traveling between the two areas.

Not an option

This is not a good option, and nothing would improve this option.

Don't worry about bike lanes

Great option!

Make higher and more lanes so able to handle traffic and doesn't close during flood season

Stupid location by major, busy schools. Shouldn't even be an option!

Shouldn't even be an option.

Best option

Move to Merrifield Road

Is it possible to limit access to 32nd from some N/S roads

Traffic capacity: too many established homes and school traffic congestion already without a bridge

:(

There are too many homes and schools close to this location.

Move to county road 6

I would move this option further south to Merrifield Road considering how the city is growing.

Since GF is growing to the south, this seems the more logical option. My only concern is just the impact on Kelly and Schroeder, as the double school setup already has more pedestrian and car traffic at certain times of the day. So if that one wins out,

This location makes no sense. This is an established neighborhood.

Pedestrian underpass on 32nd by the schools

This is a dangerous location. A bridge should not be placed at this location.

Absolutely NO BRIDGE!

The projected traffic increase past Kelly and Schroeder is HORRIBLE. This option drastically shifts traffic problems near Phoenix Elementary to TWO other schools instead.

No bridge

This seems the better option, as GF is growing to the south. My only concern is the traffic around the double school site of Kelly/Schroeder. Just please do consider how to deal with this!

More lanes; its inevitable.

I wouldn't build a bridge here

This should not be placed here, we have two schools down this road, not a good option at all. Dangerous to our kids.

I would change nothing on this location, it just makes common sense!!!!

Don't have this as an option. It is too close to a school with already crazy busy traffic.

Don't end E-W, shoot north once in MN

There needs to be railings and warning signs to protect kids, pedestrians and bicyclists, the speed limit should be at 30 or less with speed cameras to deter fast driving

Try to straighten the road way geometry, but that may not be possible

change location reroute the traffic flow

Traffic is a major issue right now with the intersection of 32nd Ave & Cherry. Adding a bridge increases the traffic more and should not be considered.

Pedestrian underpass/overpass at Cherry and 32nd

Build a bridge on Merrifield Road

NA

Speeding in local neighborhoods

There is already a lot of traffic going down 32nd, then to Belmont and north to 4th, so this would just help traffic flow better.

shoutbound signs for for redirecting all the north side traffic of the 32nd neighborhood

No bridge

Worse location

Make sure the bridge is placed at this location

Best option and EGF will eventually develop towards it

This alternative is in my opinion , the best option.

Nothing, get it done.

Lighted

To far south makes no sense for East Grand Forks

This is dumb. Let's make a street with 30 driveways and 2 schools even busier.

N/a

I would propose that there not be a bridge built at 32nd Avenue.

Too much traffic by schools.

Stupid idea for GF Public Schools. Clearly safety of kids is not a factor.

Add sidewalk to greenway on both sides of the river. No truck/agricultural traffic allowed on the bridge.

Makes the most sense because it connects to I-29. Best for through traffic.

LOTS of stop lights!!

No, too close to 2 schools.

Control on street parking on 32 nd avenue

Widening of 32nd up to the intersection @ S Washington

Traffic management by the schools in the corridor.

How will this affect the Greenway?

This is an option that will harm the community.

The sooner the better!

Project should include roundabout on Bygland by Rhinehart

There is a school along 32nd. I do worry that increased traffic might pose a safety concern. I would review the pickup/drop off entry/exit procedures at this school to try to mitigate the interaction with 32nd avenue.

proximity to school(s)

Not a good option

The 32nd option is a poor choice. The bridge needs to be built on 47th.

Ideal location for a neighborhood bridge between GF and EGF. Extensive investment and mediation efforts must be part of bridge project to ensure we improve pedestrian safety in our school zones and throughout the neighborhood along 32nd Ave from the Greenway all the way to South Washington. Focus on improved school zone pick up /drop off, intersection controls, and lighting to ensure a net positive benefit in school zone safety.

This does not seem in the best interest of both municipalities.

Safety zone between 32nd avenue and Schroeder Middle School and Kelly Elem.

Need a light at Bygland and Reinhard to control traffic

Would need to buyout dozens of homes east of Belmont it seems.

Make sure it is high enough that flooding doesn't affect it

two bridges are needed

Would it be helpful for the bridges to be higher to be used if the river rises? Or is it cost prohibitive?

Round-about or traffic lighted intersection at 32 ave & Belmont Rd.

Provide free school bussing to alleviate traffic concerns near schools.

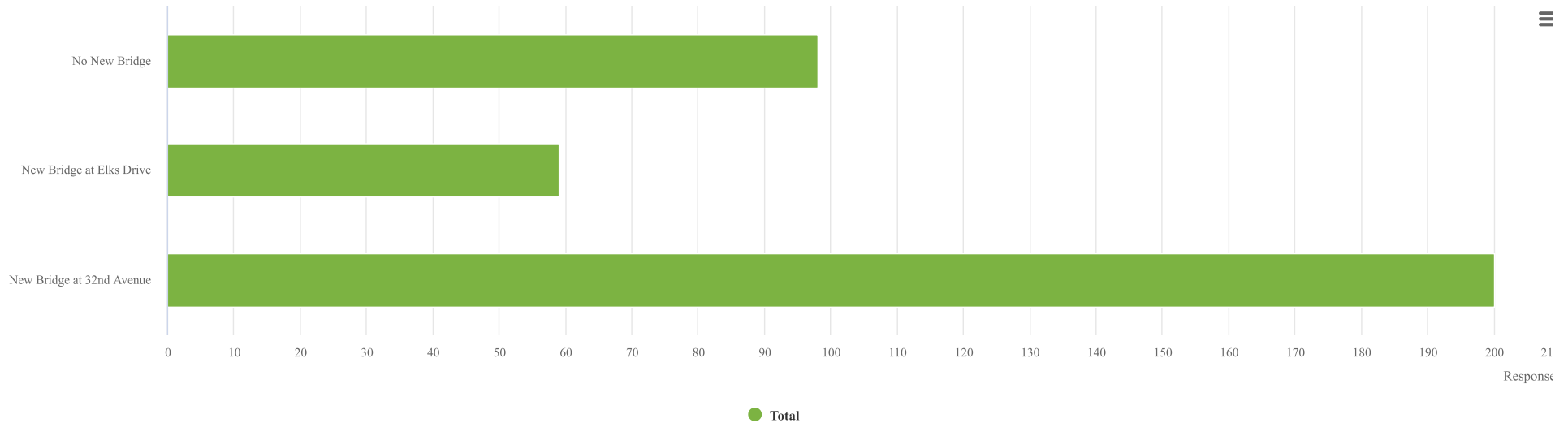
Yea... where would the bridge go too..?

Stop lights would need to be added by the schools for this option to be safe for kids to walk/bike to school

No bridge

Q3. Which alternative would you prefer?

357 answers



Q4. Do you have any comments or questions on the bridge alternatives or the study?

152 answers

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1. All talk of impact on schools is overblown. The only time traffic near schools is important is one hour a day, only during the school year, and only on weekdays that aren't school holidays. School-area traffic impact is relatively unimportant--half-an-hour before school, half-an-hour after school, about 180 days/year. Do not screw-up traffic flow 24/7/365 to prioritize the 180 hours a year that traffic in front of schools has some importance. 2. NO DAMNED ROUNDABOUTS. The ONLY purpose of a roundabout is to cheat motor-vehicle-fuel-taxpayers out of decent traffic flow. In other words, to deliberately harass and delay motorists including emergency responders. In particular, a roundabout on Bygland/Reinhard is NUTS, but ALL roundabouts are hateful. You will KILL traffic flow, INCREASE congestion, and divert traffic to nearby streets. 3. Add suitable white paint stripes to Bygland at the intersection with the road to the Point Bridge, to smooth and speed traffic flow, and to prevent morons from coming to a dead stop when turning right (Southbound) onto Bygland from the Point Bridge. For the first year or two, use the plastic poles in late spring/summer/early fall to divide the southbound lanes on Bygland as currently used at Washington/Demers to prevent turning into Starbucks. Revise signage to eliminate "Yield", and to show that there's now a "merge lane" as currently used at Demers-to-Southbound Columbia Road merge area. 4. The Minnesota-Fourth Corridor is a citywide embarrassment. FOUR-LANE MINNESOTA-FOURTH FROM THE POINT BRIDGE TO THE SENIOR CENTER, and RAISE THE SPEED LIMIT. Make sure that whoever is given the "old water plant" knows that some property will be taken for the improved roadway. Put the friggin' Granitoid in a museum where it should have been sixty years ago. Busted-up, hundred-year-old stamped concrete is not a holy shrine. 5. Raise ALL the speed limits to at least the 85th Percentile of FREE-FLOWING TRAFFIC--measured properly, not like on 32nd a few years ago. 6. Make the bridge at 32nd higher--more rise, fewer problems during flooding. We don't need another Point Bridge that closes every time the river rises. 7. Make the bridge at 32nd connect more easily to 190th St. NW on the Minnesota side. Improve 190th and the short section of "Bygland" as needed. Split traffic between Reinhart and 190th/Bygland, therefore fewer problems accessing Bygland from Reinhart. Also, easier access to Hwy 2 from 32nd. 8. Define "No Trucks" on the new bridge. I assume you're not dumb enough to restrict pickups and SUVs. You're meaning "2-ton" trucks and larger, right? DO NOT BE AMBIGUOUS IN YOUR SIGNAGE. 9. We still need a four-lane "big-truck" bridge farther south, and we need it now, not forty years from now. 10. Your study talks about the "Point Bridge". Why does the City of East Grand Forks mis-name it the "Minnesota Avenue Bridge"? Has no-one told them the proper name? Revise signage on Minnesota side. 11. This is going to be paid-for in large part with Motor-Vehicle Fuel Tax money. Therefore, the PRIORITY should be for motor-vehicle traffic. "Bike lanes" and such are NOT a priority, they are a luxury, and a dispensable one at that. Let bicycle users pay for their own infrastructure with a use-tax in the same proportion that motor-vehicle operators pay for theirs. What's fair for motor-vehicle users is fair for bicycle users. 12. Stop "studying" this, and BUILD THE DAMNED BRIDGE. You're FORTY YEARS overdue. Build it at 32nd, where it should have been all along. NO MORE DELAYS. [REDACTED]

32nd Ave Bridge is a better return on the tax payer's dollars. It is a more future proof location as GF/EGF continues growing to the South.

32nd Ave is a better option, because it's already a thorough fare to the rest of GF. Adding a bridge at Elks Dr will only continue to congest residential areas instead of providing better access to GF.

32nd Ave is too disruptive to established residential neighborhoods in Grand Forks. It doesn't make any sense to so greatly disrupt Grand Forks families for the benefit of East Grand Forks people who sought cheaper housing in EGF. Part of the homeowner balance in purchasing cheaper housing in EGF was knowing that it's more difficult to get to GF amenities.

32nd Ave option goes right past dense housing and is a major crossing hazard for kids going to school. They don't pay attention to crossing areas as it is. DO NOT increase traffic on 32nd. Kids will die.

32nd is already busy and leads directly to a shopping corridor and I29. A bridge there would only change traffic for the houses east of Belmont Rd.

32nd is already too busy.....

32nd is much less disruptive to neighborhoods . Elks does not go through to Washington or Columbia or any interstate exit so to access it would require driving through areas that have not been established as high-traffic in the past. There is also a pedestrian and tennis area there people use frequently

32nd street is congested as it is at pick up and drop off, which is also high traffic areas. We have small kids crossing the streets and parents doing pick up and drop off. If EGF insists on a bridge and they can't use the one's already built, then the best option is not near a school. Do not put our children at further risk. This will not go well.

47th ave. EGF is growing south.

A bridge at 32nd avenue provides the most direct access to the shopping center of Grand Forks along with many places of employment.

A bridge at 32nd Avenue would be better for the residents since it is already a main road. Increased traffic on 24th with a bridge at Elks would make it less safe for the schools, churches, and daycares in that area.

A bridge at 32nd would be the best option.

A bridge at either Elks Drive or 32nd Avenue is what we need - keeping it narrow, low speed limit, with bike access, and pedestrian safety/traffic calming measures. The cost-benefit is best at 32nd Avenue, so we get the most out of our money by putting it there.

A bridge further south that does not impact established neighborhoods.

A bridge in either of these locations would be detrimental to my neighborhood. I live on Park and Chestnut and the increase in traffic (especially the Elks Creek option) would cause my quiet neighborhood to become anything but that. Not to mention housing values would plummet after I have put tens of thousands of dollars into what I hoped would be my forever home. And for what? So a select few East Grand Forks residents that work in Grand Forks could save a little time on their commute. You can't tell me enough Grand Forks

residents commute to East Grand Forks for work that would make this waste of tax payers money a viable option. If the cities of Grand Forks and East Grand Forks are so bent on spending money on such an unneeded project, then build the bridge further south where it would impact less established Grand Forks residents. My contact information is [REDACTED] I would love to hear from someone that could explain to me why building a bridge in my backyard makes sense.

A bridge should not be put at a location that would increase traffic in the neighborhood of 2 schools!

A bridge would create Increased traffic in residential areas that can barely handle the current level of traffic. This is not smart planning. There are not any side walks on Reinhardt children are at play on this road. Increased traffic means increased risk of someone getting hurt. If a bridge goes in the entire street up to Bygland needs to be equipped to handle the traffic and protect our citizens. Our city can't even put in a light at Bygland and Reinhardt to address current traffic issues and safety concerns.

All a new bridge would do would be ruin the neighborhoods in these areas and make them more unsafe for the people who live, work, play, and go to school in these areas and ruin what little beauty, natural resources, and outdoor space we have in Grand Forks by ruining our Greenway. I don't believe that anything will be "safer" with a new bridge. It will put more children at risk - especially those who attend Schroeder middle school if a bridge were to be built on 32nd ave. Either think of a way to build a bridge somewhere out in the country where a development hasn't been built yet or scrap this ridiculously stupid idea. If people in Minnesota think this is so necessary than they should move to North Dakota so they no longer have to commute that way.

Although a new bridge sounds nice. This does not seem like it will detour traffic when they are all heading to the same direction/center point location.

Although I understand the need to have access mid-way through Grand Forks currently, it does seem that business additions in GF are trending south of 32nd Ave, making the primary destination for EGF residents the southern points of town. Washington is also a very clunky transportation route overall and bypassing it entirely feel like the best long-term goal.

Am I missing something?? A bridge in an established neighborhood of 32 or Elks? This is absolutely absurd. I am born and raised in GF. I went to Kelly, Schroeder, Red River, and UND. I am raising 3 kids and I am fortunate to have them go to the same schools as I did. 32nd and Elks is no place for a bridge. And yes, I live off of 32nd so I know the traffic that happens there. There is already traffic on that area with EGF cars coming from the North bridge, down Belmont, down 32nd and to Washington. We spent a lot of time and money on our downtown. Reconstruct the bridge down there to accommodate more traffic somehow. The downtown looks amazing by the way. Or 47th would be best. It may not serve the purpose today, but both GF and EGF are expanding south. In no time this area in EGF will be developed and best served here. It makes the most sense for GF. It will make sense for EGF in couple of years. 47th has no driveways of houses and is ready for more traffic. NO Elks or 32nd. This is does not serve GF residents.

A new bridge at 32nd Ave seems to be the only viable option. Elks drive is not a great option due to high traffic entering Belmont Road daily. This would disrupt the flow of traffic tremendously in all directions on and off of Belmont. It would add a ton of traffic in established neighborhoods. Crossing a bridge at 32nd would add more traffic but it's an easier route straight west to Washington and doesn't allow traffic to use neighborhood streets to reach his/her destination

A new bridge in Grand Forks at either location does nothing to benefit the residents of these neighborhoods. This only impacts those traveling to GF from MN. It will increase traffic flow in neighborhoods that do not want it. It is a benefit to MN residences not ND residents. Therefore if it is necessary the whole thing should be funded by MN.

A new bridge would only ruin the existing neighborhoods, and greenway. It would make it unsafe for people who love, work, play and go to school in these areas. Fix what we already have instead of building things we don't need. There are plenty of things the city should be putting their money into on the NORTH end of town. Lord knows it needs it.

Another nice quiet neighbor destroyed if new bridge is built. Build the Merrifield bridge if one is needed. EGF has not grown that much to warrant a 4th bridge in city limits.

An overpass that serves as a bypass for traffic that would not need to be inside the city is preferred. Therefore, a crossing at Merrifield that can bypass Grand Forks makes more sense for an investment.

As an East Grand Forks resident I don't see how these two locations benefits many people.

As a resident of the S end of EGF, either option is fine, but it's needed much sooner than 2045, take 20 yrs off the project!

As I mentioned above, the Elks Drive location is really not an option. A bridge on 32nd is a poor choice for a location. A new bridge should be built on 47th Ave. S. but you won't give the GF residents that choice because the EGF residents don't want it.

A south end bridge is badly needed for the MN side as many parents drop kids off at those south end schools and then have to back track. It has also caused Bygland to be very congested in both directions. I know there is an argument about too much traffic near a school (like Schroeder on 32nd), but Phoenix elementary has had all the traffic forever coming off the Point Bridge and this will help them.

At what times of day have actual traffic studies been done at the corner of Belmont and 32nd Ave? [REDACTED]

Bad for 32nd already a very busy street with lots of kids around. Would be more difficult for residents to get out into the street. And not having alleyways to get around traffic hard to merge out of residents driveway.

both options provided with the new bridges, go through established neighborhoods where there are also two elementary schools and one middle school - the bridges will lead to more traffic making these areas unsafe for children. this bridge should be placed further south where there are no schools in the area. these are poor options to consider and i don't support either one

Bridge at 32nd would help lessen congestion on the point bridge and allow for easier access to businesses in GF.

bridge should be at 47th or 62nd

Building another bridge within current high-traffic city areas does not make sense. Please consider building this bridge at Merrifield road and add an Interstate 29 interchange in the same project scope. I realize that this does not align with EGF's goals but I believe it's a better long-term play for both sides and a better use of any investment in resources.

Build the bridge and light it up.

Build the bridge.... using schools is a silly excuse when you already run traffic by them. A bridge would only help traffic by each school. The only street that will be effected negatively would be 32nd west of Belmont. Who lives there?

City expansion is to the South. Bridge should be built farther south to fit the future expansion of the city.

Comments: From the latest MPO report, it appears to be clear that 32nd Ave S would be the best fit from an engineering, traffic flow, cost and logical standpoint. The benefit cost analysis shows that 32nd ave s is the best. Please pick 32nd ave s and be done, lets finally agree and get something done. Now is the time to move forward with a new selected location. The two city's must agree before the state or feds will ever cost share in a new bridge. After this last MPO report, the selection should be obvious and straight forward. No location is perfect, any change will come with a negative consequences, those negative items will just have to be mitigated to the best of the City's abilities. Now is the time to listen to the engineers logic and move forward.

Connects to interstate and away from my house

Definitely no bridge in either of these proposed sites. Too much traffic in a neighborhoods not designed for a bridge with too many children who will be negatively impacted

Destroying established neighborhoods and putting kids at risk with busy road next to schools make as absolutely No sense.

EGF side is wide open but GF side is built in. There is already a gateway at Elks; there is none at 32nd. EGF flood protection stops before aligning with 32nd; Elks will serve growth of EGF southward for a long time. I see a hub and spoke landing at Elks; I cannot see that at 32nd deep into a neighborhood east of Belmont and with a pump station and pedestrian access to Greenway at the juncture. In theory, 32nd may have some better numbers but not in practicality, is my summation.

Either of these locations only benefits EGF who want quick access to services on 32nd Avenue. Both of these locations are residential neighborhoods that do not need additional traffic from EGF ruining the neighborhood and making our schools more dangerous for kids to walk or ride their bike to. The bridge should be further south not in the middle of a very established residential area.

Either option does not benefit anybody in the neighborhoods in Grand Forks. Please spend time looking for an alternative to where it wont impact people/ schools/ greenway.

Elks bridge to come to a "T" stop is NOT an option. 32nd is the better option, but if Elks location is better, move it a block to the south and create a 4 way at 24th Ave S. Relocating the museum could very likely benefit the museum as well.

Elks Drive and 32nd Avenue both feed into residential areas that have schools. There are lots of residential driveways that would need to back out into the new route, which is a safety concern. In addition, the proximity to elementary schools is a huge safety concern. A 47th Avenue bridge avoids homeowners having to back unto a busy street, except 1 home. In addition there are no elementary schools on 47th and the one middle school will soon have lights. 47th is also already a thoroughfare for most people.

From the perspective of a Grand Forks resident, there is no benefit to installing a new bridge on either proposed south end location. There are no business or attractions on the MN side of the river that far south which would improve ND access to MN businesses. A new bridge will only have negative impacts to Grand Forks residents through negativity impacting property values and adding additional traffic on our residential streets running past schools, parks, and playgrounds. No new bridge should be constructed and any resources allocated to this project would be better spent updating current bridges and researching alternative agriculture access to MN south of city limits.

Gf residents do not need to go to EGF for any reason, especially via this location. Way too much Belmont and 32nd traffic already. Schools and established neighborhoods. Bad idea.

Grand Forks residents in these neighborhoods do NOT want a new bridge. When we are looking at travel time, it's travel time of MN residents to ND, so obviously EGF residents are on board for this project. Those that purchased homes in these GF neighborhoods don't see a benefit to a new bridge. I understand that traffic coming across the Point Bridge has been an issue - citing the safety of the elementary school as a concern, however - when looking at the "Traffic Change Near Schools (LOS Standard)" slide, Phoenix Elementary has

a "B" and "C" rating in the no build option. The 32nd Ave bridge option leaves TWO schools with "C" ratings. I don't believe trading the traffic problem at one school, only to give two other schools a traffic problem is a well thought out solution. I feel this is a biased solution benefiting EGF residents far more than GF residents.

Grand Forks should not be involved in building a bridge for East Grand Forks. Traffic is already abysmal in Grand Forks and we haven't put in the proper infrastructure to maintain what we have, much less this proposed increase. Though I'm sure the decision has been made behind closed doors and we need to spend some of that free Covid money while we can. Even having these plans made it this far is concerning about our inept local government. [REDACTED] Feel free to reach out if you need more feedback on this "plan."

Has the committee considered improvements to current roadways/bridges in commercial corridors to alleviate congestion that would not involve a neighborhood bridge? For example, what improvements could be made to Washington, Demerara, etc that could assist with congestions?

Has there been studies for a bridge possibly further to the south? As we can see Grand Forks continues to grow to the south.

Have a walking bridge as well.

How are you prepared to compensate these neighborhoods for a high traffic bridge going through them? How does this benefit the residents of GF? I would like a phone call back. My cell is [REDACTED]

How will be impacted the market value of the houses on 32nd Ave with more noise? It will be a 25 mph limit between Washington and Belmont?

I am against the bridge to be put on 32nd. I live on 32nd. There is alot of traffic as it is. I have a hard time getting out of my driveway when there is school. I have no ally, so if there is a bridge I would have a harder time getting out of my driveway. My kids go to kelly school.

The traffic there is horrible when school is released. With there being 2 schools on 32nd it is not a safe place for the bridge to be put. If the decision is to put the bridges on 32nd I will be selling my house and moving.

I am a resident on the south side of EGF, and this is desperately needed. I do not see that there will be a "substantial" increase in traffic to warrant any concern; rather, the ability to travel more efficiently from EGF to GF would be a wonderful and needed improvement that should have happened years ago.

I am disappointed that the safety concerns on 32nd Avenue are not being considered more seriously. It is illogical to think that some "calming" strategies will be able to mitigate the safety issue that results when a large increase in traffic is added to a residential area where 1,000 students ages 5-13 come to school daily. The idea that these "calming strategies" actually improve the current safety in this neighborhood (as stated in the presentation) cannot possibly change the inherent danger that comes from adding more traffic to this area. It's completely counterintuitive. Also, the bridge is much more important to EGF and it seems all options are driven by costs and options that suit them best. A bridge was meant for 47th Avenue - if it costs more for this option, than EGF can pay a larger share for it. The fact that is location, which would be far safer on the GF side, was dismissed due to costs doesn't sit well. Safety may mean higher costs. And, as a result of construction of the roads to get to a bridge at 47th (the safest and most logical option) the higher costs incurred should be the responsibility of the MN residents who stand to gain the most from a new bridge.

I am in the 32nd Ave. neighborhood and my children go to Kelly school. Having a a bridge near our home will make the 32nd Ave/ Cherry steer intersection extremely busy. It is already busy. The large traffic flow for Kelly school is also another reason. The bridge on 32nd Ave. will make the cherry street area too busy and not what many people in this neighborhood or good want.

I am not in favor of the 32nd Ave location because I am concerned with pedestrian safety. Children bike, walk, rollerblade, to Kelly or Schroeder in the warmer months. Adding a bridge with an access point only blocks away from both schools, would increase traffic on 32nd, which is already congested during school start/end times. The pedestrian safety ideas outlined in this plan, in my opinion, are not adequate. I hope you considered how many kids have been hit by cars while crossing Columbia to bike to Discovery, which includes a stoplight; I know of at least 3.

I am strongly opposed to the idea of a new bridge running along 32nd Avenue. There is no need to increase traffic this far east along the 32nd Avenue corridor with both Schroeder Middle School and Kelly Elementary School located in the direct area. I have questions about the impact on Lincoln Golf Course if the Elks Drive location is chosen. Would there be plans to add at least 9 holes of golf somewhere else in town? The golf options are already limited as it is.

I can appreciate that those who have spent a lot of money for houses along or near 32nd Avenue would have reservations about increased traffic. However, I hope those individuals can also appreciate how it looks when they complain that there aren't enough low-paid service workers for the businesses along 32nd Avenue, but at the same time would prefer that any such workers crossing from Minnesota travel miles out of their way to avoid the inconvenience of increased traffic.

I do not feel a new bridge is needed and if East Grand Forks feels they want a bridge they should build it outside of the GF City limits.

I do not see either the Elks or 32nd bridge being built. There is talk of a new interchange, a new underpass, and a new industry coming in on the north end of town. I don't see where the money would be coming from to afford such an expensive bridge. I also do not think that the residents in these neighborhoods will be quiet when they are told a bridge is being built on their street. They will likely call to the city council and the mayor. If a new bridge was to be built, I think that a new bridge built on county road 6 that trucks could use would make more sense. Particularly to move beet truck traffic out of the downtown and away from Demers and Washington.

I do not think it is safe to have a major thoroughfare go along the side of a large elementary school. As a person who grew up near Minnesota Avenue, I can tell you that vehicles come off an overpass very quickly, making it dangerous for children crossing the road. I do not support any option for a bridge near a school.

I don't think the infrastructure is set up properly for the elks drive option. That site couldn't handle the traffic load. The 32nd Ave option, although not perfect, is the best option to handle the traffic load it will have.

I fear that placing a bridge at 32nd avenue will create a direct line from i29 for unnecessary traffic through neighborhoods and school areas. It will make our schools and children less safe. Pick up and drop off near 32nd avenue for the middle and elementary school located on Cherry st. are already extremely busy times. Adding inter-state through traffic that has no care for the community through which it is traveling, is hurtful to children and families. Let's do what is best for the children--not what is most convenient for our cars. Putting children's safety first is what will make Grand Forks a great place to live--not a thoroughfare.

I feel that both of these bridge placement options are very poor. There are 2 elementary schools (Viking and Kelly) and one middle school (Schroeder) that are way too close to these proposed bridge locations. That would cause increased traffic and possible safety issues for the students that walk to and from school on a daily basis. I have lived in GF for my whole life and don't see a need for an additional bridge.

I find it exhausting that GF residents need to continually state the same thing. Elks Drive is a poor option and 32nd Avenue is a poor option at best! The fact that the safety of students at a middle school and elementary school are not on your radar is absurd. EGF residents can head further south if they need this so badly. You know what happens when I have to drive to EGF?? I plan accordingly and allow enough travel time.

IF these are the options, then no new bridge. i think the bridge if built should be farther south of town GF. i think that there are to many residential houses in these areas and schools. i think the extra traffic will be a issues with the schools and homes that have young children. As of no i do not think that these roads are built to handle the extra traffic and there isn't room for the expansion of the roads. Not to mention bring down property values in this area.

If this happens at 32 nd ave, there will be more traffic through this area. I have always been concerned about students crossing 32 nd by Schroeder. If this happens, will you put in another light for students crossing 32nd? Will there be more lanes of traffic? A stoplight at 32nd and cherry? 32nd and Belmont? There is a LOT of traffic especially in the mornings and afternoons because of school drop off and pick up. How do you plan to ease and control traffic with the increased throughput from a new bridge to EGF? Thank you for your time.

[REDACTED]

I grew up on the Point (1950's) & lived there most recently from 2000--2012. The main problem I see & experienced is the time it takes to get from the South end of Grand Forks (where the majority of the retail is now located) back to home on the Point. It's at least a 20 minute drive. The second and most annoying problem is during flooding. Even with the dikes, the Point Bridge & the Sorlie are often closed leaving only the Kennedy open. This creates traffic congestion & lost time by having to go North to go to South Grand Forks. I have personally experienced sitting in a traffic backup on Hiway 2 East past the old Costco just waiting to cross the Kennedy. Also, sometimes the Murray Bridge is closed leaving only one way off the Point by going around near Mallory. A bridge at one of the proposed locations would offer another option for leaving the Point during flooding. Driving all the way out to the Thompson Bridge & back in is a waste of gas & time. A new bridge based on the newly constructed (a few years ago) Thompson Bridge would be great. It is high enough to weather our largest floods. Such a bridge just needs to be closer to the residences on the Point. Finally, since I have lived in the Grand Forks area most of my life, I have watched/listened as the powers that be have argued for years over future projects before finally doing them (examples: the Demers overpass, the Columbia Road overpass, the Alerus Center). The feet dragging against progress of the locals is very unnerving. Even after whatever is built & highly used, the locals still cannot see how it has benefited the community. It seems that future projects are discussed for 20 years before being built. Then, as in the case of the Columbia Overpass, because the city was too cheap to build a 4 lane to begin with they had to go back a few years later and add lanes resulting in a higher cost. This is happening again with the proposed underpass on 42nd. I realize you cannot do anything about people's attitudes, but just wanted to point out the mindset of the people on the ND side. Personally, I see not much hope for a bridge at either one of the proposed locations. The crossings would be in well established neighborhoods on the ND side so there will be an avalanche of 'not in my backyard' resistance. If the authorities from years past had done their future planning, preparation for another bridge would have been readied after the flood at 32nd when the housing stock in that corridor was depleted. The other potential crossing at 47th should have not been developed thus leaving space for a future bridge at that location. I lived on the end of Belmont for 22 years and that area around 47th was undeveloped for many years. No leaders from those days seemed to have any future vision. Thank you.

I have concerns about a 32nd Avenue bridge due to school traffic

I know there were a lot of people who were concerned about traffic going past Kelly and Schroder schools on 32nd, and as someone who has children going to Phoenix, the only bridge access point on this end of town, I feel like that is not an argument. If Phoenix, right on 4th, can be on the bridge route, then another bridge route can be on 32nd and will break up the amount of traffic on the bridge on 4th.

I live on Reeves Drive and feel like a large volume the traffic from EGF funnels down Reeves and Belmont. Getting a bridge further south seems more ideal, so 32nd makes more sense than Elks. While Elks drive isn't a thru street, there are some advantages in that it will slow down traffic. 32nd is already a more major street (though residential east of S Washington) so that's an advantage but it will become more of a high speed danger area I'm afraid. But it would relieve Belmont of more traffic if the bridge were at 32nd.

I live on the point in EGF, and like I have stated at public meetings over the past several years, it is not a good use of funds to build a bridge that would cut a 10 minute commute down to 4. A simple roundabout near Orton's gas station, and if spending is a must, the Merrifield bridge (I realize this isn't in the city's jurisdiction) would solve all the issues plus be able to be utilized for trucks.

I love that in either model, the intersection of 4th and Belmont turns into a roundabout. I realize that doesn't have anything to do with bridges but it really is a "confusion corner" for both pedestrians and vehicles. For the future movement of population to the south in our town, I think the 32nd avenue location is better. The Schroeder and Kelly population have concerns about there being a bridge, but Phoenix has been dealing with high traffic levels all the time. It would be great if an underpass could be installed similar to on Washington, if that option was available. Also, the Schroeder parking lot should be restructured so the coming in and out of the parking lot isn't such a mess.

I'm glad to see that a pedestrian/bike lane is part of the bridge plan. This is very important, and the lack of a pedestrian crossing on the Point bridge is very irritating.

I'm really concerned about the impacts of a bridge on 32nd to the schools and neighborhood

I'm very much looking forward to a south end bridge that will relieve the dangerous amount of traffic using residential Belmont and Reeves as speedways to EGF.

I really don't think GF is in a financial position to have a new bridge. The benefits are far outweighed by the negatives- costs, disruptions to neighborhoods, and lack of an essential reason to build a new bridge. GF already has a heavy tax burden and until this is alleviated expensive pie in the sky projects should be avoided!

I really think that the Merrifield Road would be a better location, and is more proactive for future growth.

Is building a new bridge to cut peoples commute times really worth it? Whether people live or work and need to cross the River, they knew that before they bought their house or got their job. I am not near either Elks or 32nd Ave area, but I would hate to see such an increase in traffic in either residential area.

I think it's smart to think of the future! 32nd is the only option that makes sense.

I think the 32nd Ave option is untenable because of the location of the schools.

I think this is a really good idea and can open up even more business opportunities near where the bridge will come into East Grand Forks.

It is concerning to have the additional traffic in the areas that are being proposed.

It is outrageous to consider a new bridge anywhere north of 47th Avenue. It serves zero purpose for the residents of Grand Forks and only helps people of East Grand Forks. If they don't like to drive around to get to work in GF, they should have considered that before moving to EGF.

I truly believe that it's a few wealthy homeowners along any proposed bridge corridor that is and have been causing all of this angst. I think the cities just need to ignore them for a change and do what's best for the greater good, pick a path forward, and go with it. Either option will provide immense value to our communities. The only wrong action is continued inaction.

it's ridiculous that the 32nd Avenue option is still in the running. The fact that it runs by two schools and dozens of driveways that face 32nd is crazy. Who cares if it's not convenient for EGF, they should be happy to get any sort of bridge. Not sure we need to bend over backwards to accommodate them..

It's time for a bridge. If grand forks wants to grow as a community, it's time! EGF residents work, shop and spend money in GF!

It would significantly cut down on traffic on Belmont road from individuals cutting through from the East Grand Forks point area to get out to shop at places like Target, Sam's Club etc. from East Grand Forks point area. The traffic on Belmont has been crazy and has gotten out of hand.

I understand that 32nd has more to worry about with driveways on the street, two schools with crosswalks and widening the road possibly. Elks drive would be perfect.

I understand the need for the bridge to be closer to the south edge of east grand Forks. However putting a bridge less than half way through grand Forks would severely reduce the benefit for the future. As well as elks drive not having a through street, and both bridge options to go through narrow residential roads with no room for expansion. Within probably 5 years grand Forks will be building south of 62nd ave. Which will put us in the same situation as now just further south. As a south end resident, I already go to the Thompson bridge to cross just to avoid the slow residential roads and traffic. The new crossing needs to be further south!!!

I understand traffic congestion is a major issue in the city of Grand Forks. However, a new bridge at either the Elks Drive or 32nd Ave. location ruins both of those neighborhoods and makes the roadways less safe. I know the study said traffic would be addressed around school buildings at either location, really? Just like traffic is continuously addressed outside of Valley Middle School or Central High School? All adding a new bridge would do is create a more dangerous situation around those schools. Get over it Grand Forks/East Grand Forks. Stop building more and more on the south end and fix what we have.

I've been involved in several meetings with this topic on agenda, and 32nd Ave. seems the best option for both communities.

I've lived on the Point for over 15 years and have witnessed traffic steadily increase (population growth is a good problem!) and the daily bottle-neck traffic on Bygland Road is a real safety issue. Many years ago when I first built a home, the city boldly shared there would be a bridge to help traffic in the near future so the Point would never become an island if the flood walls needed to be used. That hasn't happened yet, so these conversations need to continue until something is decided! Now that I'm a parent, the heavy traffic flow worries me even more! Every year the schools face transportation issues and routes are cut...my neighborhood has been on the chopping block several times. Driving my kids to school adds to the congestion and heavy traffic to take Bygland Road to get to my job. My children can't safely walk to school because there are no sidewalks and traffic through the neighborhoods is heavily increased before and after school as parents are trying to avoid the traffic. If EGF is going to continue growing, there needs to be more than one way to access GF from the Point!

I was wondering how this would change the need for improving truck traffic? Are there still plans for a south end I-29 interchange and bridge crossing further south?

I would be happy with either option for a bridge. A bridge is way overdue and is necessary for residents of Grand Forks and East Grand Forks alike.

I would hope that the collective good of both communities would outweigh the limit few who would be negatively impacted at either location on the Grand Forks side. Living near the point bridge, I daily witness the traffic constraints and the school safety concerns that are being managed with that bridge every day. 32nd Avenue option will continue to help grow the City of Grand Forks as it connects to a major commercial and interstate corridor. I not only hope that a location is determined but that funding is pursued after all the plans have finalized so we can actually see that the sky isn't going to fall once a bridge is constructed and operating.

I would like to see the traffic safety mitigation around the schools implemented in the very near future, with top priority given to the Phoenix area since it is already identified as having high congestion.

I would only support a bridge at 47th street. This street was designed to handle the traffic of a potential new bridge. The homes do not enter/exit directly onto the street like they do at the other bridge options. Also, the bridge could be built tall enough so it could remain open during flooding. The Elks and 32nd options are going to increase traffic and noise near homes and schools and cause congestion.

Makes the most sense due to a high traffic route like 32nd Ave!

Many times I've wished for a bridge out here so I didn't have to drive so far and almost back track

Merrifield bridge only

Merrifield exit for the new bridge.

My child already crosses three busy intersections to bike to school every day. If you add additional traffic on 32nd from a bridge it would be exponentially less safe.

N/a.

Neither Elks Drive nor 32nd Ave are good alternatives for a new bridge. Both cities are growing further south so a new bridge further south would a better option.

No

No additional bridge is needed.

People who live on 32nd have known for decades that this was a future bridge location.

Please consider a bridge at the Merrifield Road location as it doesn't interfere with existing schools, housing etc. I beg you not to put it on 32nd Ave., South. I have observed on, many occasions, the school pick up/drop off congestion nightmare. Please do not add to this already dangerous situation.

Please do not put the bridge at 32nd Ave. The added traffic to that area is not a good choice given Kelly elementary school and Schroeder middle school are there. We need to protect and promote our kids who walk/ride bike to school.

Project would need to at least address some alternatives outside of the bridge itself. Roundabout on Byland at Rhinehart & Greenway.

See above response

Stop wasting money on all these studies and just build it!!!! We all know where this bridge should be built. Look at all the money you have wasted on these studies. Thanks for letting me VENT!!!

The 32nd Ave bridge would greatly help with traffic flow. I think the Elks Drive option would not be as effective or efficient as it's not a straight connection to Washington St and would add considerable congestion to the section of Belmont St that is already narrow and congested.

The 32nd avenue bridge should only be built after the Merrifield road river bridge. The 32nd avenue bridge can be a low level bridge, ie closed when the river gets to major flood stage.

The 32nd Ave option makes the most sense because it provides a direct route to all of the businesses along the 32nd Ave corridor, as well as access to I-29.

The benefit:cost ratio and impact on potential funding sources should be discussed. The relative benefits matrix shows that soils are a greater problem at Elks Drive. Soils and geotechnical costs have more uncertainty so hopefully these potential costs are given a greater range relative to the 32nd Driven option. [REDACTED]

The bridge at the 32nd Ave location would create a significant increase in traffic flow from the interstate all the way to EGF. Traffic on 32nd between South Washington and the interstate is already very congested and bridge access would further exacerbate that issue. More importantly, this location would create major safety issues as it pertains to Kelly Elementary School and Schroeder Middle School. According to the traffic impact study, a more even distribution of traffic can be achieved with the Elks Drive location without impacting the school safety ratings.

The bridge needs to be where it benefits traffic between the two cities. Politics and influential home owners need to be ignored. Do what is right!

The bridge on 32nd would make the roadway even more dangerous for not 1 but 2 schools. The road is already crazy busy!!!

the bridge would bring a harmful flow of traffic through the school zone i work in and would be harmful and cause traffic jams and unsafe for the children walking to and from school

The Elks bridge still requires the traffic to go down Belmont Rd. The 32nd bridge allows for that bypass of Belmont.

The intersection at 4th and Belmont needs to go back to 4 way street light ASAP

The LOS slide indicates that a 32nd Ave. bridge results in two C ratings, one for Kelly and one for Schroeder. This represents a worse overall rating when compared to the current rating of a C and a B rating at Phoenix under the "No Bridge" option. I can't support spending \$40MM on a new bridge that would result in a net reduction in rating. The adverse impacts to residents along the 32nd ave. corridor are enormous. Regardless of what modeling results predict, it's easy to imagine a 32nd ave. bridge becoming a "bypass" route for travelers heading into Minnesota. It routes traffic away from established businesses in both communities, especially EGF's downtown. I've heard this described as a "neighborhood bridge", but a neighborhood bridge needs to distribute traffic and be sufficiently inconvenient that it doesn't significantly increase traffic. I see no way a true neighborhood bridge can be built on a street with significant commercial activity (west of Washington street to I-29) and interstate access. The residential segment of 32nd ave. between Washington and the river will become a thoroughfare, enabling interstate traffic to bypass GF/EGF, damage property values, and negatively impact the safety of students around the Schroeder and Kelly schools. Build a bypass bridge south of GF. Get that traffic off city streets and existing bridges. Then reassess the need for a new inner-city bridge. Alternately build a bridge on 47th as was previously planned and advertised. Address the flood control issues with EGF and Polk County separately while still providing the needed alternate routing for both communities. Please don't create a thoroughfare of 32nd ave. and adversely impact the hundreds of homes currently w/in the impact zone of a 32nd ave. bridge.

The presentation was very well done and easy to understand. Thank you! The only wonder I have is, is a goal of the bridge crossing to allow for another crossing if the river reaches flood stage? Either option would be nice to allow traffic pressure to be more distributed throughout the two cities. Thank you for your work on this project!

There is no reason for this bridge. There's nothing over there on the EGF side this far south anyway. Please stop trying to ruin our south-end neighborhoods. Traffic will be a nightmare. There is no reason to divert traffic through our neighborhoods (no commercial zoning, etc). And because of all of this publicity, we can't even sell our houses in time to keep from having to deal with it. This is one of the best areas of Grand Forks and it seems ridiculously short-sighted to ruin the quiet, established residential areas with this bridge. Had a bridge already been here, we'd have known not to purchase a home here. People wanting to cross on the south end can go out 81 to the crossing of ND hwy 7 and MN hwy 9 and go up 220 North in MN.

These limited options are not adequate. A bridge should be placed at the far south end. The 32nd option is a very dangerous location with Schroeder and Kelly schools. Having increased traffic at the school crossing will face strong community opposition.

These two options seem to benefit East Grand Forks much more than Grand Forks. The previous southern options seem to have a better benefit to Grand Forks. East Grand Forks should pay more if the option selected benefits them the most.

The thing I need to be convinced of is that this will benefit GF in any way. I'm not saying there is no benefit—I'm saying I haven't yet heard a compelling argument. The Point Bridge will have less traffic. True. But will it be enough less traffic to make any of the streets along that route enough less busy to make it worth doing? Will kids be able to play basketball in the street at Belmont and 4th? Either the Elks option or the 32nd option will make life in those neighborhoods markedly worse. I haven't seen the benefits to GF explained in a way that makes this make sense.

This bridge is long overdue. The video was very informative and interesting. Thank you for sharing information in this manner with the public.

This project SO CLEARLY benefits only those from EGF that it is laughable. Grand Forks bears 100% of the risk/negative impacts of this project: from radically transformed traffic patterns and problems, the consequences of additional traffic past our schools, and decreased property values. To add insult to injury, homeowners in the affected area will probably be "thanked" for their suffering with a big fat assessment to pay for this ridiculous project! EGF has absolutely zero skin in the game - either of the proposed bridge options would be built on land that doesn't have a home within a quarter mile. THOSE OF US LIVING ON THE SOUTH END OF GRAND FORKS DO NOT WANT A "NEIGHBORHOOD" BRIDGE! All of the made-up statistics and figures will not hide the fact that this bridge is for the EGF people that work and shop on the ND side. This bridge WILL NOT BE BUILT.

To not put the bridge by two schools... It may help even out other schools but moved Kelly and Schroeder to a C rating! There HAS to be a better alternative than to do something that only really benefits EGF. 32nd is not a good option.

Traffic flow would be so much easier if there was another bridge added to connect EGF and GF.

Unless the cities choose not to build a new bridge it will hurt Kelly Elementary and Schroeder Middle Schools regardless. If the cities choose to build at 32nd Ave it will greatly hurt Kelly and Schroeder and do a disservice to the students and families who attend there. Not to mention the noise levels, pollution, and harm to the families who live in this area and the greenway. This study is just skewed to make the bridge at 32nd Avenue seem like the better option, which in reality it's HURTING the people who live and go to school in these neighborhoods. Both bridges are a terrible idea and will do a disservice to the children who go to school at ALL of the schools affected. Our homes will lose value and the area will become unsafe.

Use Merrifield. Do not put in established neighborhoods. These two options only benefit EGF and they hurt GF. I agree with some kind of bridge to the south but not running through neighborhoods. There is a conflict of interest with the owner of the land on the East side being a member also of the committee.

Visibility into how the weight of various factors are determined would be beneficial. It seems odd that the Elks/32nd options are so close, when the 32nd option seems to be a better fit.

We do not want the bridge at 32nd! Wake up and LISTEN to what the GF residents are saying. Actually hear us and take it into consideration that the residents in these neighborhoods are STRONGLY opposed. It feels like we can say all we want, but it's not going to change anything.

Well done.

We need a new bridge and of these options I think 32nd avenue is the best choice. However, I think any new bridge should be located farther south than 32nd considering future city growth. I would look into Merrifield road or something like that.

We need a new bridge. It should have been done a long time ago. It should connect as far south as possible because that is the way the town is building. 32nd makes best sense for EGF too.

What's wrong with the Merryfield road idea.

When considering the EGF community, we have two schools on the very south end of town. In order to pick up our children to get to doctor appointments, orthodontist appointments, or simply to go to GF for any reason, we need to go to the very south end of EGF and come all the way up to the point bridge to go over to the GF side to then drive all the way to the south end of GF. A bridge at either location would help save time and mileage....and would be very much appreciated!

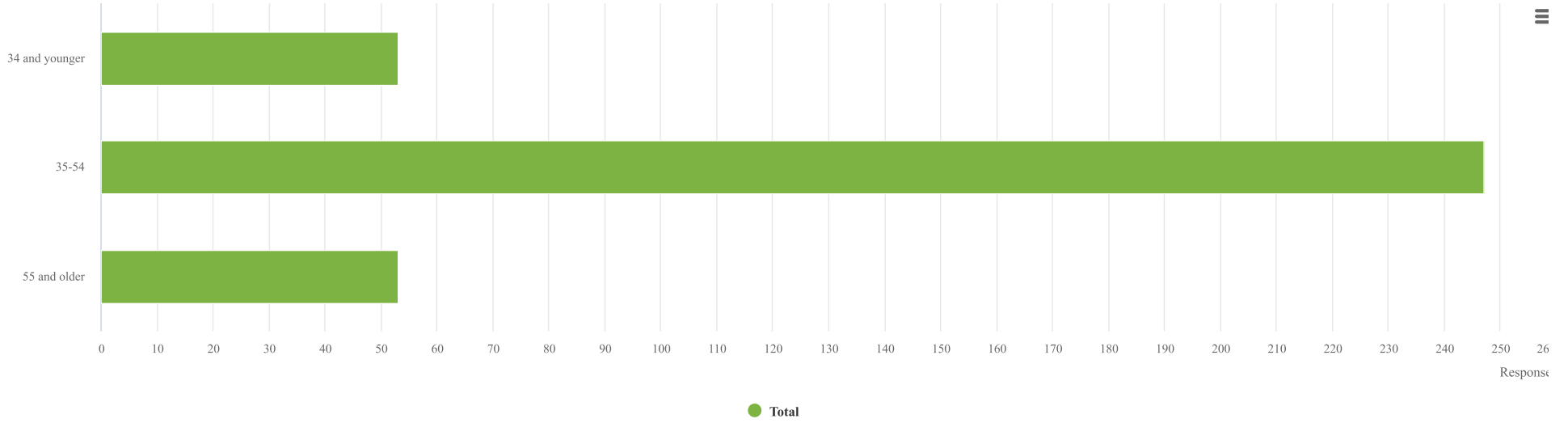
Why are we not allowing/planning for trucks? This is very much needed

Why do we need a new bridge? EGF residents will still come to GF regardless. Place new bridge further South, past 62nd if anything. It will be better for the entire town and farming trucks but still provide a South Bridge option. 32nd option would be the worst thing you could do.

With two schools at 32nd Ave, there is already much congestion along that route. I am very concerned about student safety. The Elks option seems to present less of a problem since the volume of students in that area is less. Ideally, I'd like to see something that does not pass any school area, but that does not seem to be an option.

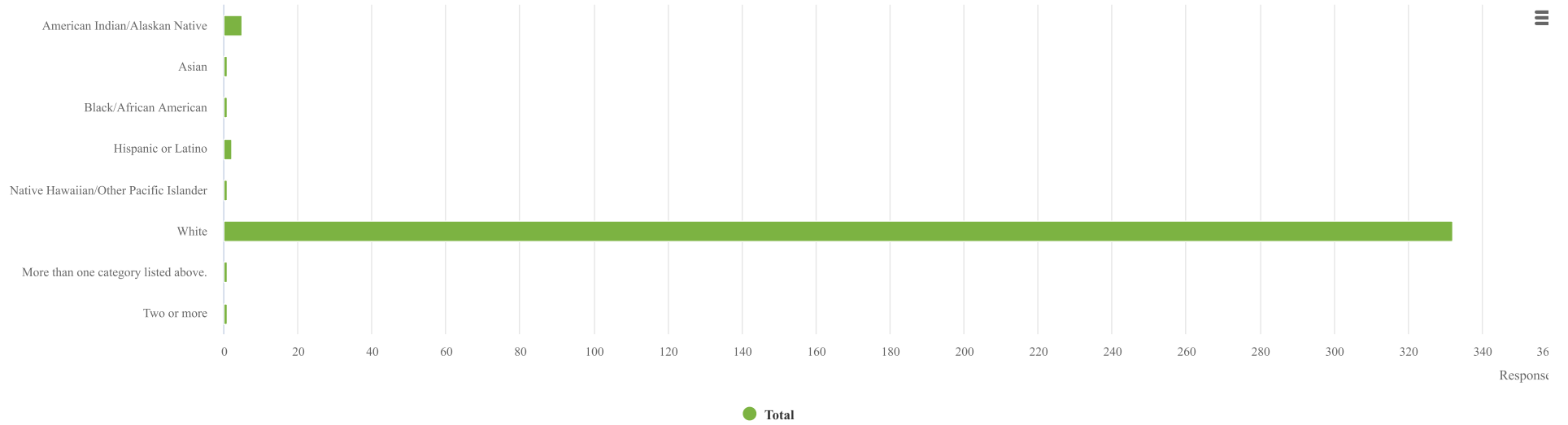
Q5. Age:

353 answers



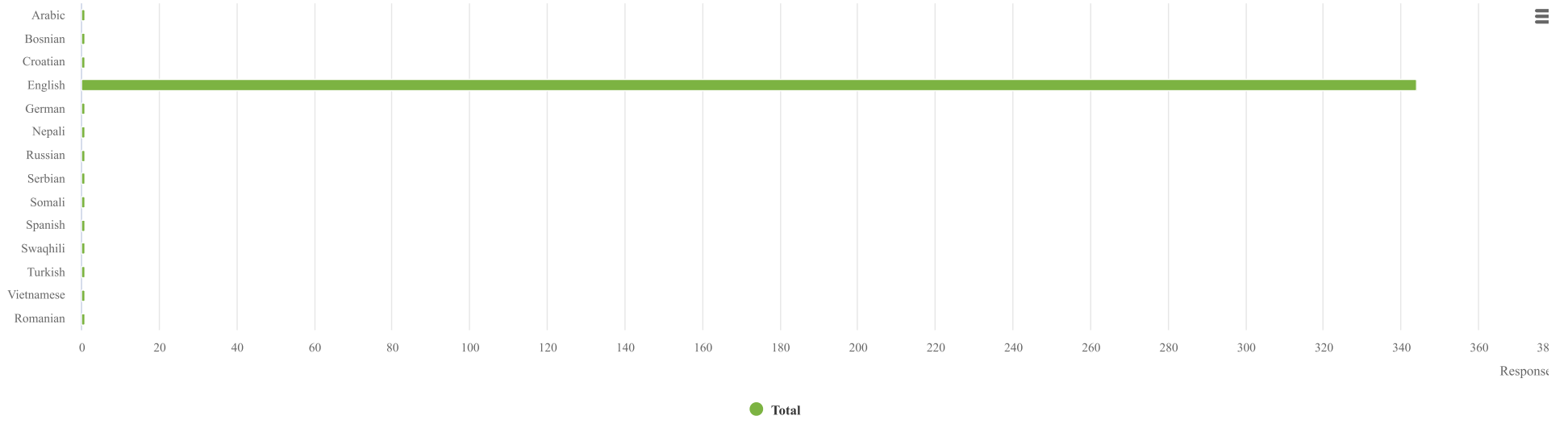
Q6. Race:

343 answers



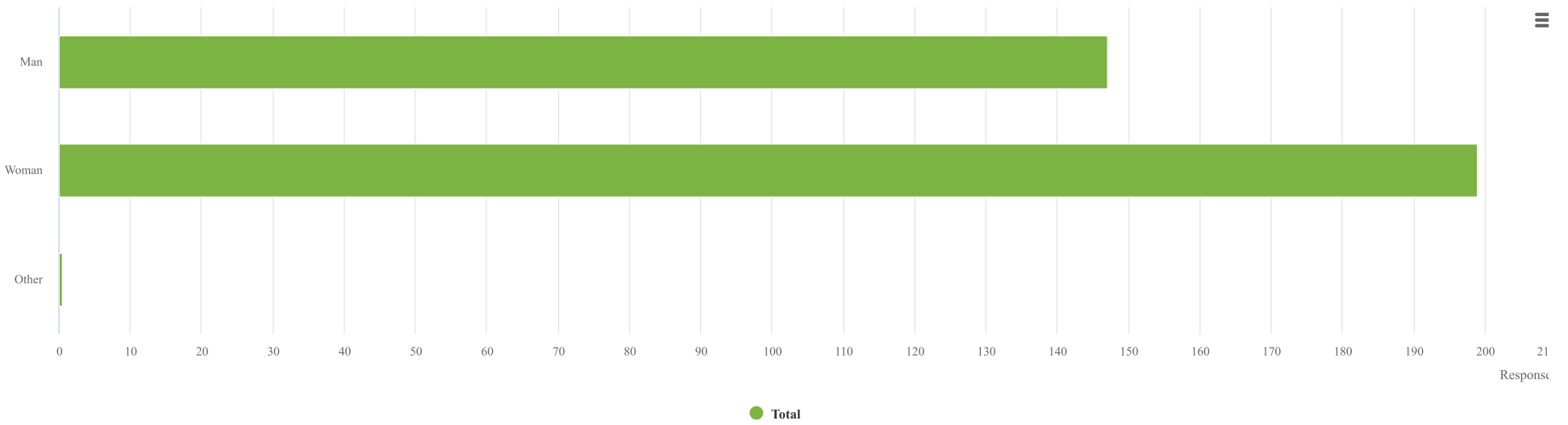
Q7. Language most frequently spoken in your home:

345 answers



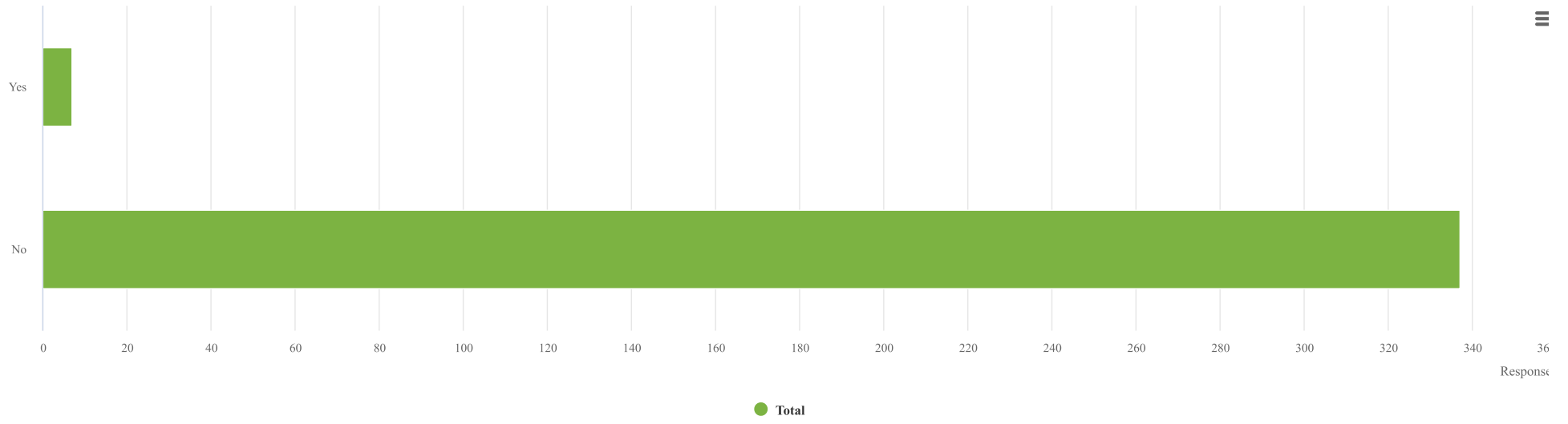
Q8. Gender:

346 answers



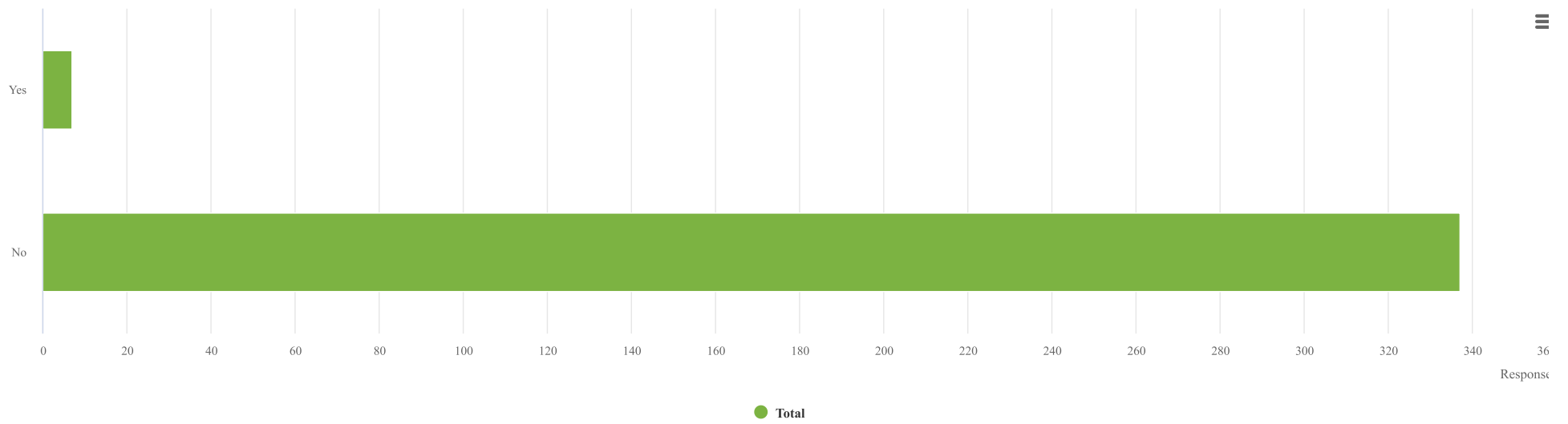
Q9. Disability:

344 answers



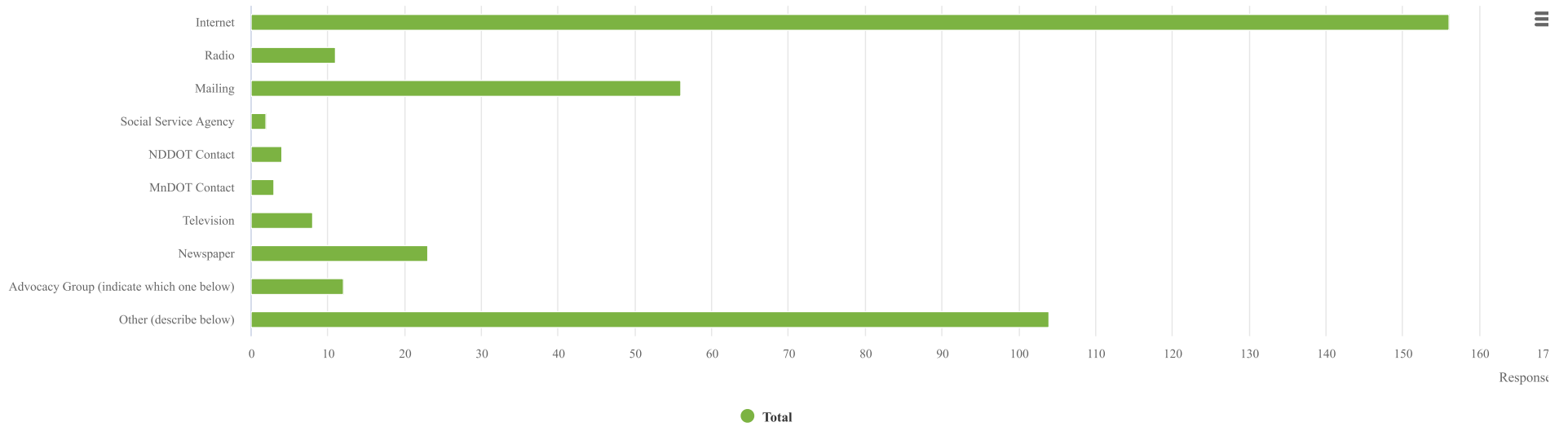
Q10. Do you receive public assistance?

344 answers



Q11. Indicate how you heard about the event:

331 answers



Q12. If you selected "Other" or "Advocacy Group" please indicate here:

81 answers

[Word Cloud](#) [Response List](#)

[Responses](#) [Download CSV](#)

32nd Ave neighborhood

32ND Ave Neighborhood

As hoc

City Council

EGF School District

EGF Schools sent this out

Elementary School.

email

email

Email

Email

E-Mail

Email after the December 16, 2021 open house was held.

Email alert from Grand Forks Public Schools

Email as a GF Public School employee

Email East Grand Forks School District

email from GFPS

Email from GFPSD

email from GF Public Schools

Email from GF Schools

e-mail from Grand Forks Public School District

Email from Grand Forks Public Schools

Email from Kelly school

email from my school group

email from the EGF school district

Email from the Grand Forks Public School System.

Email notification

Emails.

Email via ISD 595

Employer Email

Facebook

Forwarded email, not from a city organization

Friend on Facebook

From school district
GF/EGF Schools
GFPS
GFPS
GFPS email
GF public school district
GF public schools
GF Public schools
GF Public Schools
GF Public Schools email
GF Schools
Grand Forks Public School emails
Grand Forks Public Schools
Grand forks public schools email
Grand Forks Public Schools Email
grand forks school email
Greenway Email
Greenway newsletter
MPO email list
My children go to Kelly and Schroeder
Neighborhood group chat
Neighborhood group of Olson & Elmwood Dr
Neighborhood support group
Neighbors
Neighbors
Public schools email
Safe kids
Safe Kids
School bored
School District
School District
School district email
School district publication
school email
School email
School email
School Email
School Principal
School system
Social media
Social Media
Sons school email
This I my neighborhood and we are fighting the 32nd bridge option!
Through GFPS email
Word of mouth
Word of mouth in the community
Work colleague.
Work email

Open House 2 Survey - In Person Responses

FUTURE BRIDGE TRAFFIC IMPACT STUDY

Share your thoughts!

How well do you feel each alternative meets the project purpose and need?

You can give multiple options the same rating.

	Very Well	Well	Neutral	Not Well
No New Bridge	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
New Bridge at Elks Drive	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
New Bridge at 32nd Avenue	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

What would you change, if anything, to improve the performance of each new bridge option?

Elks Drive Option

32nd Avenue Option

Nothing, maybe elevation increase

Which alternative would you prefer?

- No New Bridge
- New Bridge at Elks Drive
- New Bridge at 32nd Avenue

Do you have any comments or questions on the bridge alternatives or the study?

If you would like a response to your question please provide your contact information.

how receptive is Polk county to taking over/widening road??



More questions on other side

FUTURE BRIDGE TRAFFIC IMPACT STUDY

Tell us about yourself

The Civil Rights Act of 1964 and related nondiscrimination authorities require the Grand Forks-East Grand Forks MPO to ensure everyone has the opportunity to comment on the transportation programs and activities that may affect their community.

To help with that, we ask that you respond to the following questions. You are not required to disclose the information requested in order to participate. Any information provided to the MPO will be retained solely for the purpose of collecting statistical data to ensure inclusion of all segments of the population affected by transportation programs and activities.

These questions are optional. Please click "Submit" at the bottom of this page to share your feedback on the bridge options.

Age:

- 34 and younger 35-54 55 and older

Race:

- American Indian/Alaskan Native Asian Black/African American Hispanic or Latino
 Native Hawaiian/Other Pacific Islander White Other (describe)

If you answered "Other" please describe here:

Language most frequently spoken in your home:

- Arabic Bosnian Croatian English German Nepali Russian Serbian
 Somali Spanish Swahili Turkish Vietnamese Other (describe)

If you answered "Other" please describe here:

Gender:

- Man Woman Other

Disability:

- Yes No

Do you receive public assistance?

- Yes No

Indicate how you heard about the event:

- Internet Radio Mailing Social Service Agency NDDOT Contact MnDOT Contact
 Television Newspaper Advocacy Group (indicate which one below) Other (describe)

If you selected "Other" or "Advocacy Group" please indicate here:

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New Bridge at 32nd Avenue	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

What would you change, if anything, to improve the performance of each new bridge option?

Elks Drive Option

32nd Avenue Option

Which alternative would you prefer?

- No New Bridge
- New Bridge at Elks Drive
- New Bridge at 32nd Avenue

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- Yes No

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Ad Hoc Member

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Elks Drive Option

32nd Avenue Option

Which alternative would you prefer?

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Facebook

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New Bridge at 32nd Avenue	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

What would you change, if anything, to improve the performance of each new bridge option?

Elks Drive Option

32nd Avenue Option

-Remove option. Concern w/ logistics of two schools (lg. ones) close to the bridge w/ lots of their students having to cross

Which alternative would you prefer?

*#1
#2*

- No New Bridge
- New Bridge at Elks Drive
- ~~New Bridge at 32nd Avenue~~

Do you have any comments or questions on the bridge alternatives or the study?
If you would like a response to your question please provide your contact information.

32nd Avenue. to get home.

More questions on other side

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Gender:

- Man Woman Other

Disability:

- Yes No

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- Yes No

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32nd Avenue Option

Which alternative would you prefer?

- No New Bridge
- New Bridge at Elks Drive
- New Bridge at 32nd Avenue

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32nd makes the most sense.

More questions on other side

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Indicate how you heard about the event:

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 Television Newspaper Advocacy Group (indicate which one below) Other (describe)

If you selected "Other" or "Advocacy Group" please indicate here:

FUTURE BRIDGE TRAFFIC IMPACT STUDY

Share your thoughts!

How well do you feel each alternative meets the project purpose and need?

You can give multiple options the same rating.

	Very Well	Well	Neutral	Not Well
No New Bridge	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
New Bridge at Elks Drive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
New Bridge at 32nd Avenue	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

What would you change, if anything, to improve the performance of each new bridge option?

Elks Drive Option

Find new location

32nd Avenue Option

Find new location

Which alternative would you prefer?

- No New Bridge - *further south!*
- New Bridge at Elks Drive
- New Bridge at 32nd Avenue

Do you have any comments or questions on the bridge alternatives or the study?

If you would like a response to your question please provide your contact information.

I believe a bridge in either location will not be received well with anybody in these neighborhoods. plan for the future, build south which allows farm trucks to use as well! Not to mention traffic and the schools!

As the presentation tried saying with new intersections would be safer... Adding 6,000 cars is going to increase the chances of an accident regardless.

More questions on other side

FUTURE BRIDGE TRAFFIC IMPACT STUDY

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Age:

- 34 and younger 35-54 55 and older

Race:

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 Native Hawaiian/Other Pacific Islander White Other (describe)

If you answered "Other" please describe here:

Language most frequently spoken in your home:

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 Somali Spanish Swaqhili Turkish Vietnamese Other (describe)

If you answered "Other" please describe here:

Gender:

- Man Woman Other

Disability:

- Yes No

Do you receive public assistance?

- Yes No

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New Bridge at 32nd Avenue	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

What would you change, if anything, to improve the performance of each new bridge option?

Elks Drive Option

32nd Avenue Option

Which alternative would you prefer?

- No New Bridge
- New Bridge at Elks Drive
- New Bridge at 32nd Avenue

Do you have any comments or questions on the bridge alternatives or the study?

If you would like a response to your question please provide your contact information.

This study confirms all the previous studies that 32nd Ave is the best option on a cost/benefit ratio. It's time to stop studying and start the planning process. The recently passed infrastructure bill is the perfect opportunity for the community to get the funding needed. We need to have a plan ready to get the project in motion. The MPO needs to recommend 32nd and allow the cities to get to work on the construction.

More questions on other side

FUTURE BRIDGE TRAFFIC IMPACT STUDY

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Disability:

- Yes No

Do you receive public assistance?

- Yes No

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 Television Newspaper Advocacy Group (indicate which one below) Other (describe)

If you selected "Other" or "Advocacy Group" please indicate here:

Email newsletter

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You can give multiple options the same rating.

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New Bridge at 32nd Avenue	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

What would you change, if anything, to improve the performance of each new bridge option?

Elks Drive Option

32nd Avenue Option

Would need to be high bridge + buyout homes East of Belmont-

Which alternative would you prefer?

- No New Bridge
- New Bridge at Elks Drive
- New Bridge at 32nd Avenue

Do you have any comments or questions on the bridge alternatives or the study?

If you would like a response to your question please provide your contact information.

~~32nd~~ 32nd Bridge appears to have a vast footprint across Greenway, taking away from one of best assets Grand Forks has to offer to it's residents.

More questions on other side

FUTURE BRIDGE TRAFFIC IMPACT STUDY

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Gender:

- Man Woman Other

Disability:

- Yes No

Do you receive public assistance?

- Yes No

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If you selected "Other" or "Advocacy Group" please indicate here:

Facebook Messenger Neighborhood Group

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What would you change, if anything, to improve the performance of each new bridge option?

Elks Drive Option

32nd Avenue Option

Which alternative would you prefer?

- No New Bridge
- New Bridge at Elks Drive
- New Bridge at 32nd Avenue

Do you have any comments or questions on the bridge alternatives or the study?

If you would like a response to your question please provide your contact information.

Belmont & 32nd Ave is currently rated an F by the MPO on traffic flow. How will adding 6,000 cars/day change this to a C? If road changes needed is this a shared cost between the 2 cities? EGF will have thousands of acres of undeveloped land to expand in. GF has no additional undeveloped land that would come available after a bridge. *More questions on other side*

Was Economic Development looked at benefit - percentage to each side of the river? What's the breakdown?

FUTURE BRIDGE TRAFFIC IMPACT STUDY

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Disability:

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New Bridge at 32nd Avenue	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

What would you change, if anything, to improve the performance of each new bridge option?

Elks Drive Option

Nothing

32nd Avenue Option

Nothing

Which alternative would you prefer?

- No New Bridge
- New Bridge at Elks Drive
- New Bridge at 32nd Avenue

Do you have any comments or questions on the bridge alternatives or the study?

If you would like a response to your question please provide your contact information.

More questions on other side

FUTURE BRIDGE TRAFFIC IMPACT STUDY

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What would you change, if anything, to improve the performance of each new bridge option?

Elks Drive Option

32nd Avenue Option

Which alternative would you prefer?

- No New Bridge
- New Bridge at Elks Drive
- New Bridge at 32nd Avenue

prefer 47th location

Do you have any comments or questions on the bridge alternatives or the study?

If you would like a response to your question please provide your contact information.

More questions on other side

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What would you change, if anything, to improve the performance of each new bridge option?

Elks Drive Option

32nd Avenue Option

Which alternative would you prefer?

- No New Bridge
- New Bridge at Elks Drive
- New Bridge at 32nd Avenue

Do you have any comments or questions on the bridge alternatives or the study?

If you would like a response to your question please provide your contact information.

The ELKS Dr. location isn't wise - traffic management would be difficult and frustrating for drivers

More questions on other side

FUTURE BRIDGE TRAFFIC IMPACT STUDY

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New Bridge at 32nd Avenue	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

What would you change, if anything, to improve the performance of each new bridge option?

Elks Drive Option

This location doesn't make sense

32nd Avenue Option

This is the better of the 2 options

Which alternative would you prefer?

- No New Bridge
- New Bridge at Elks Drive
- New Bridge at 32nd Avenue

Do you have any comments or questions on the bridge alternatives or the study?

If you would like a response to your question please provide your contact information.

Mike Brown, after being Mayor for 20 yrs, came to the conclusion that there is no political will for a bridge north of 4th ave. He is probably right

More questions on other side

FUTURE BRIDGE TRAFFIC IMPACT STUDY

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Gender:

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Disability:

- Yes No

Do you receive public assistance?

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 Television Newspaper Advocacy Group (indicate which one below) Other (describe)

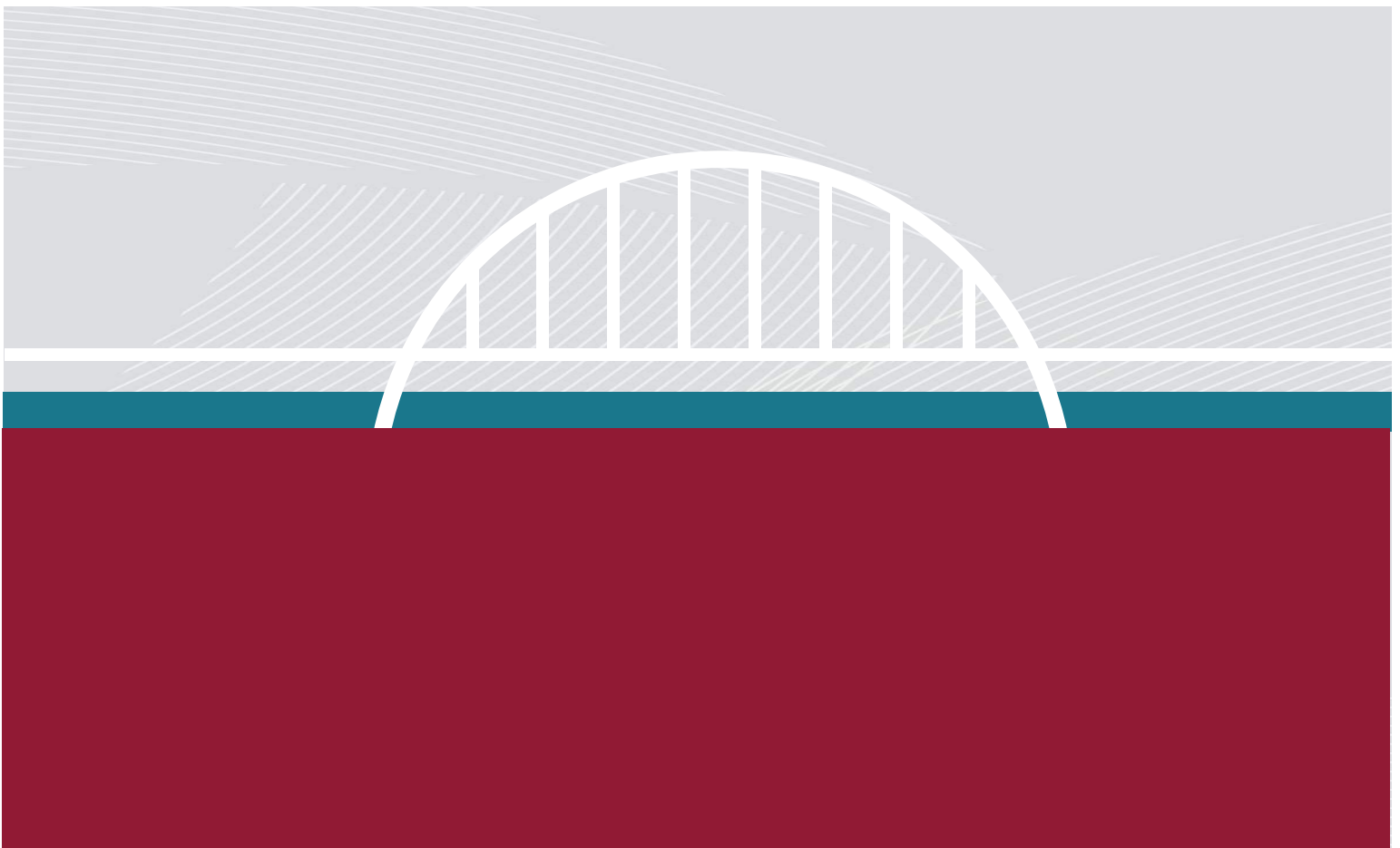
If you selected "Other" or "Advocacy Group" please indicate here:

Grand Fks Hist Soc. email

Appendix B

EVALUATION MATRIX

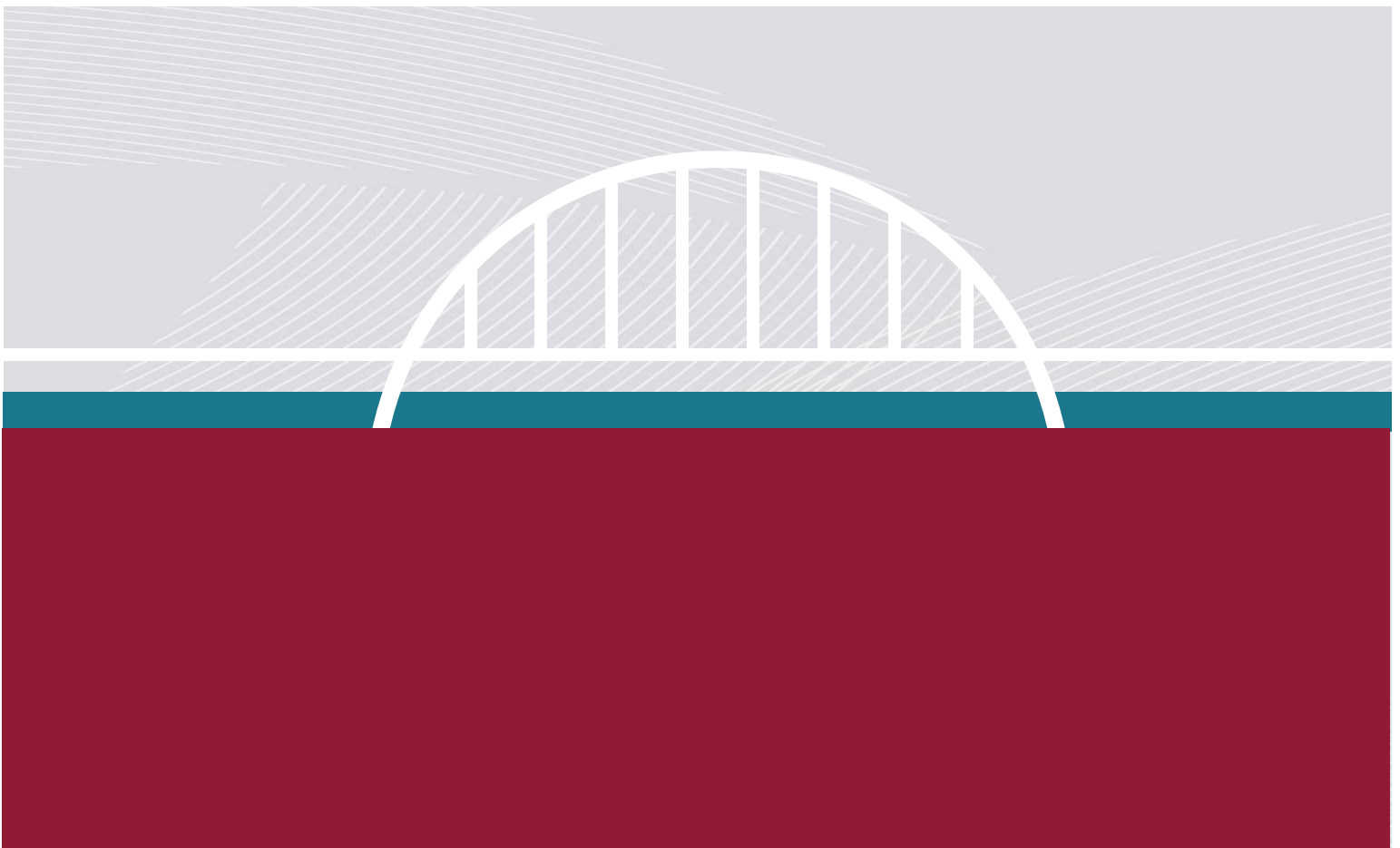
FOR FUTURE BRIDGE TRAFFIC IMPACT STUDY
GRAND FORKS-EAST GRAND FORKS



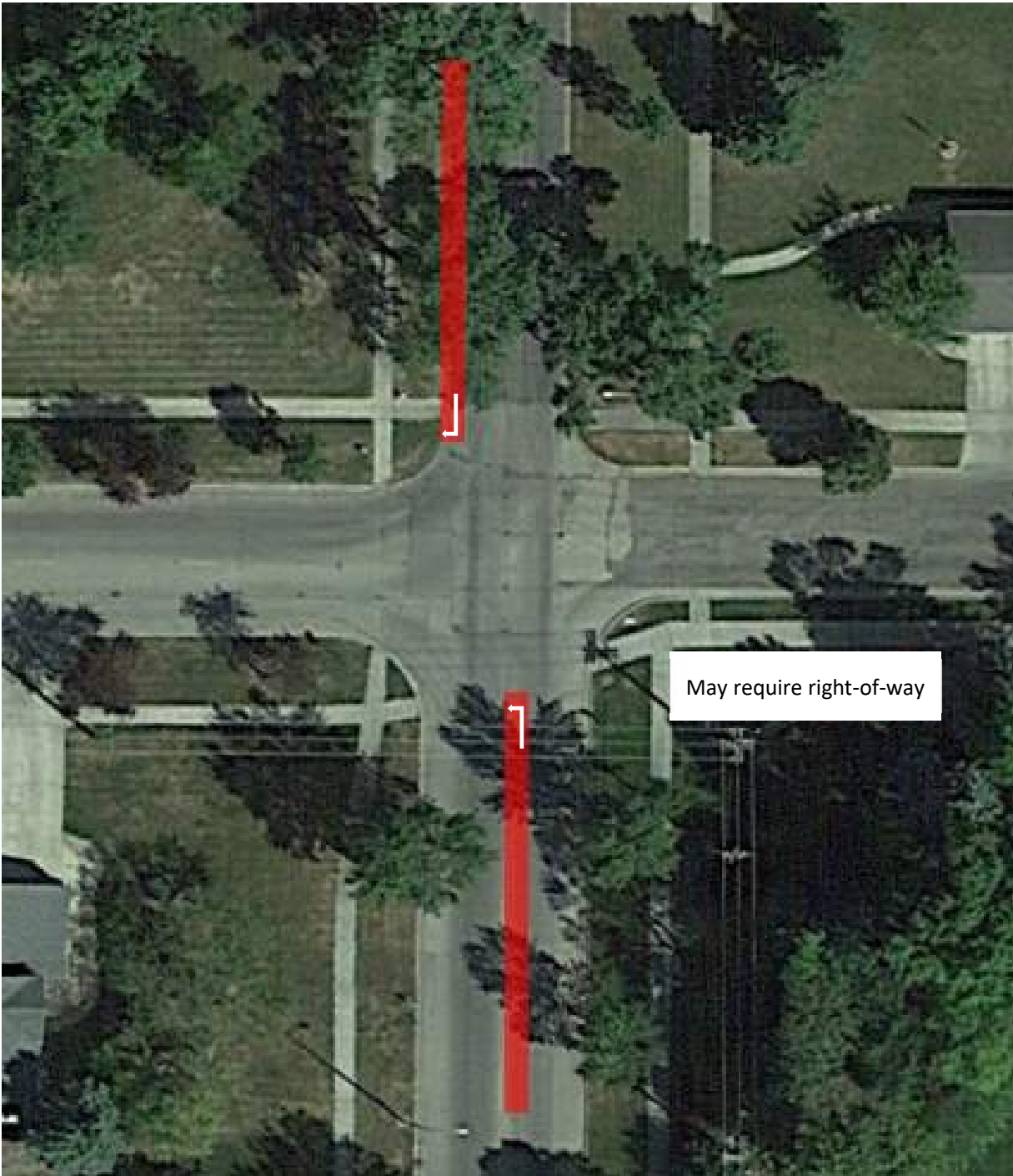
Appendix C

INTERSECTION MITIGATION CONCEPT SKETCHES AND SCHOOL/PEDESTRIAN SAFETY STRATEGIES

FOR FUTURE BRIDGE TRAFFIC IMPACT STUDY
GRAND FORKS-EAST GRAND FORKS



2045 No Build – 32nd Ave and Belmont Rd



2045 Elks Drive Bridge – 32nd Ave and Belmont Rd



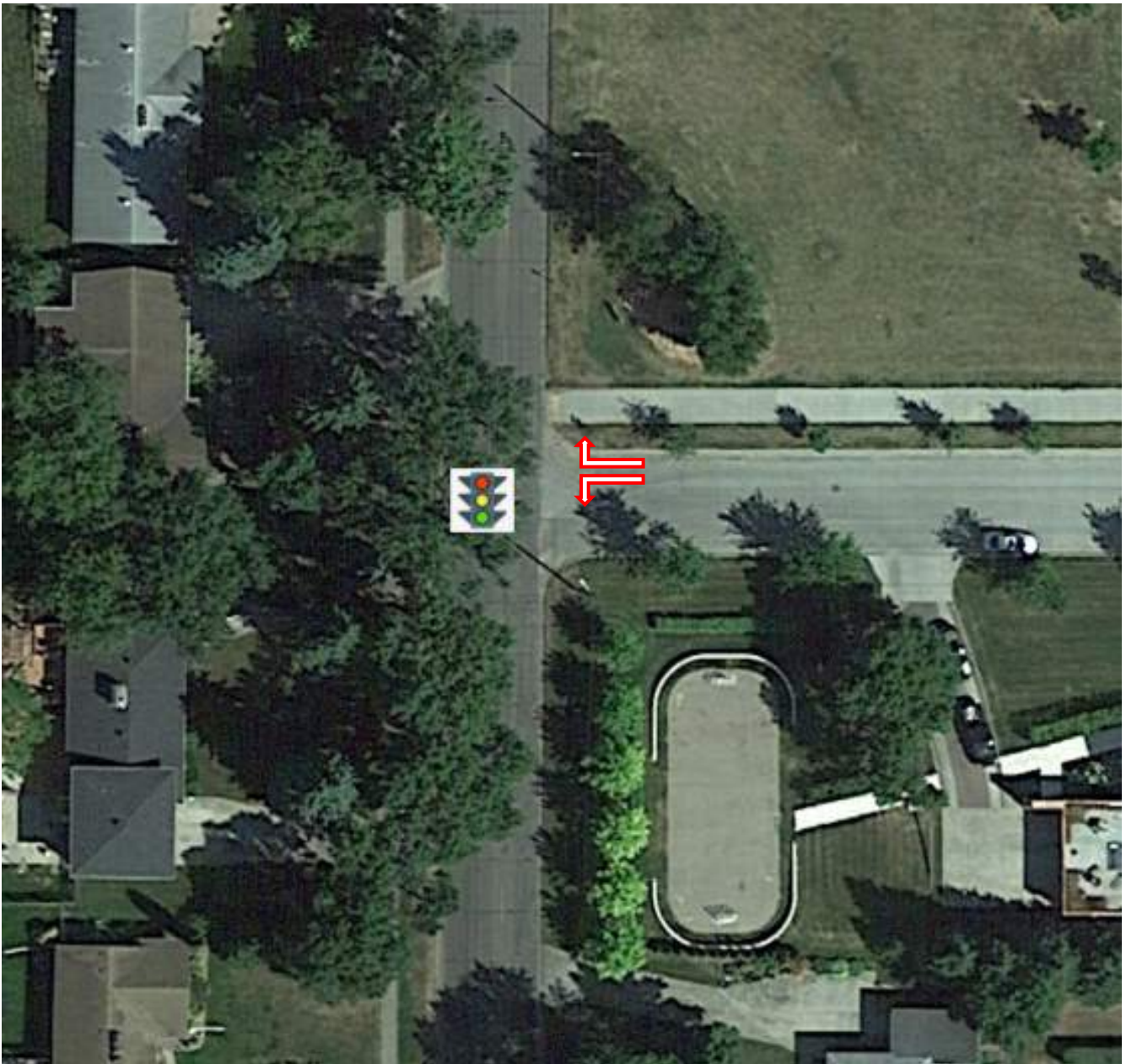


2045 Elks Drive Bridge – 32nd Ave and Cherry St

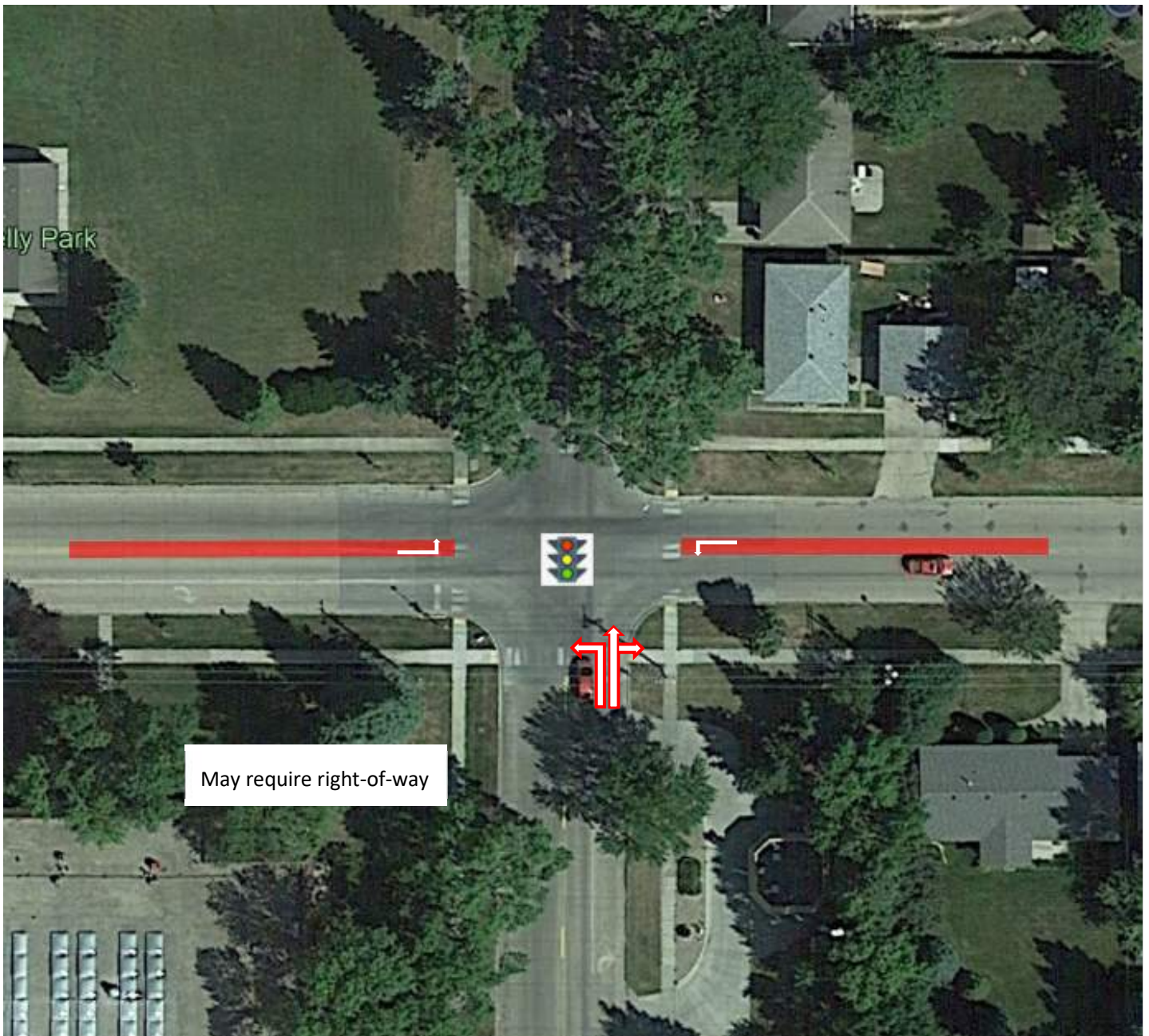




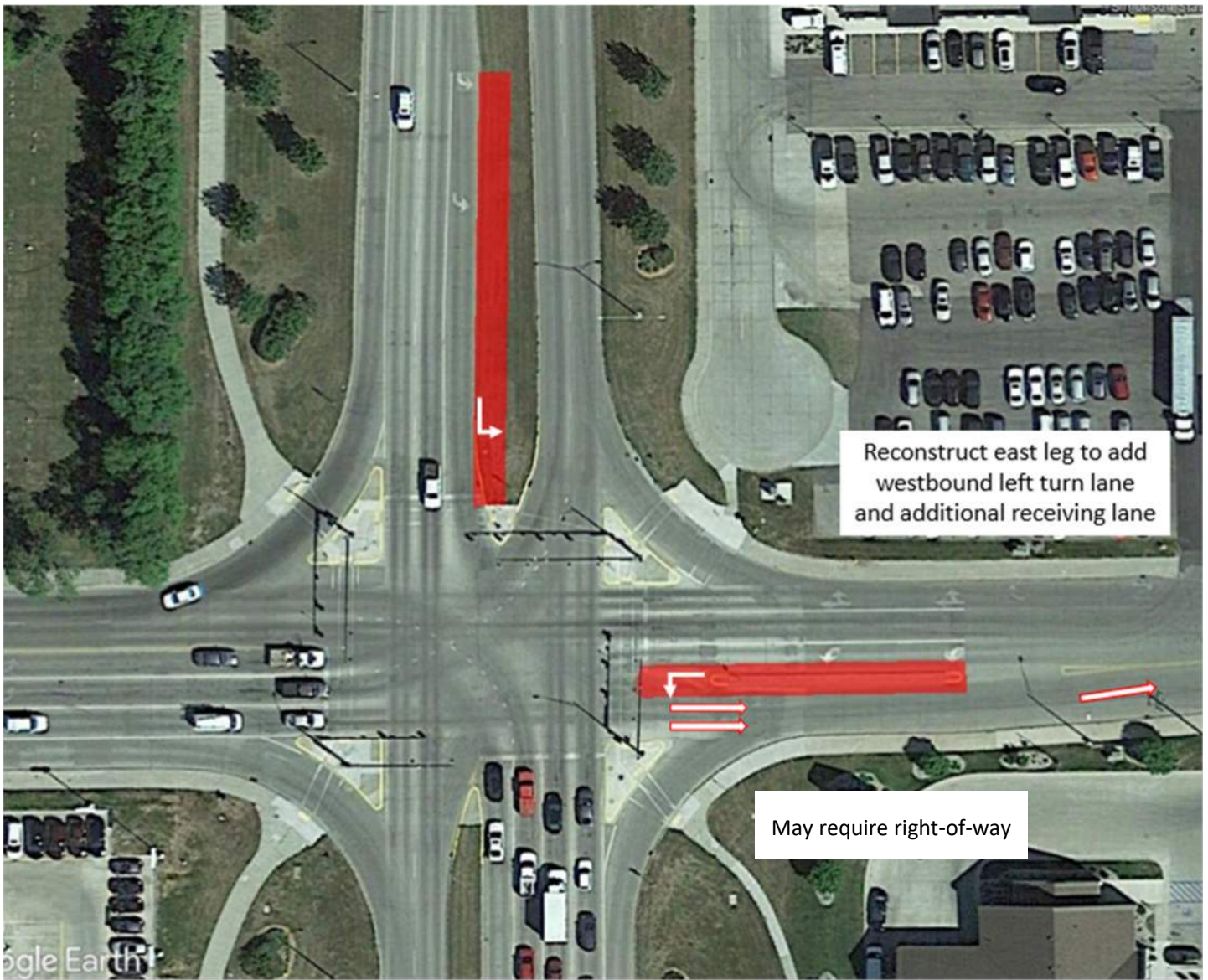
2045 Elks Drive Bridge – Belmont Rd and Elks Dr



2045 32nd Ave Bridge – 32nd Ave and Cherry St



2045 32nd Ave Bridge – 32nd Ave and Washington St



School Traffic Safety

Today

- Safe access to schools for children and families is a priority
- School survey results by Safe Kids Grand Forks show current concerns about traffic volumes, speeds, and safety
 - ▶ These issues can be addressed today

Future Bridge

- There are 6 schools in Grand Forks and 2 in East Grand Forks in study area
- A new bridge in either location would better balance traffic near these schools
- Safety and traffic calming features near schools would be included with bridge design

Draft Evaluation Results							
Evaluation Criteria	Measure	Alternatives					
		No New Bridge		Elks Drive		32nd Ave	
		Measurement	Rating	Measurement	Rating	Measurement	Rating
Traffic change on study corridors adjacent to schools	Based on traffic exposure at all schools in study area (see measures below)	55,170		-3%		-0%	
Phoenix Elementary School	2045 AADT on adjacent road (4th Ave S)	8,010	C	-32%	A	-32%	A
	2045 AADT on adjacent road (Belmont Rd)	9,210	B	-39%	A	-32%	A
Lewis & Clark Elementary School	2045 AADT on adjacent road (13th Ave S)	5,546	A	-2%	A	-2%	A
Holy Family-St. Mary's Private School	2045 AADT on adjacent road (17th Ave S)	5,184	A	+3%	A	+1%	A
Viking Elementary School	2045 AADT on adjacent road (24th Ave S)	3,690	A	+49%	A	-0%	A
Kelly Elementary School	2045 AADT on adjacent road (Cherry St)	3,340	A	-17%	A	-29%	A
	2045 AADT on adjacent road (32nd Ave S)	5,330	A	+27%	A	+74%	C
Schroeder Middle School	2045 AADT on adjacent road (Cherry St)	3,340	A	-17%	A	-29%	A
	2045 AADT on adjacent road (32nd Ave S)	5,330	A	+27%	A	+74%	C
South Point Elementary School	2045 AADT on adjacent road (13th St SE)	3,740	A	-3%	A	-4%	A
Central Middle School	2045 AADT on adjacent road (Bygland Rd)	2,450	A	+46%	A	-20%	A

Level of Service

A
 B
 C
 D
 E or F

Pedestrian Safety and Traffic Calming Strategies

These are examples of improvements that could be installed near schools to calm traffic and improve pedestrian safety.

- **High-Visibility Crosswalk Markings:**

A marked crosswalk alerts approaching motorists as to where pedestrians may be crossing the street.



- **Median Refuge Island:**

Median refuge islands are raised areas in the center portion of a roadway that can serve as a place of refuge for pedestrians to wait for motorists to stop or for an adequate gap in traffic before crossing the second half of the street.



- **In-Lane Pedestrian Sign:**

An in-lane pedestrian sign can alert drivers of the crosswalk placement.



- **Curb Extensions:**

Curb extensions narrow the roadway and reduce crossing distance/vehicle exposure for pedestrians.



- **Rectangular Rapid Flashing Beacon (RRFB):**

A rectangular rapid flashing beacon (RRFB) has two rapidly and alternatively flashing yellow indications attached to supplement a pedestrian warning sign at a crosswalk.



- **Mini Roundabout:**

A mini roundabout can be used as a traffic calming device to improve pedestrian safety.



Source: Star Tribune