

527th Transportation Technical Committee Fargo-Moorhead Metropolitan Council of Governments THURSDAY, March 10, 2022 – 10:00 a.m.

AGENDA

- | | |
|---|-------------------------------|
| 1. Call to Order and Introductions | |
| 2. Approve the Agenda | Action Item |
| 3. Consider Minutes of the February 10, 2022 TTC Meeting | Action Item |
| 4. Public Input Opportunity | Public Input |
| 5. Bicycle and Pedestrian Count Report | Information Item |
| 6. 2022-2025 Transportation Improvement Program Amendment #2 | Action Item |
| 7. Veterans Boulevard Corridor Extension Study and Network
Implementation Analysis Amendment | Action Item |
| 8. Future Planning Study Ideas | Discussion Item |
| 9. Agency Updates | Discussion Item |
| a. City of Fargo | e. City of Horace |
| b. City of Moorhead | f. Cass County |
| c. City of West Fargo | g. Clay County |
| d. City of Dilworth | h. Other Member Jurisdictions |
| 10. Additional Business | Information Item |
| 11. Adjourn | |

REMINDER: The next TTC meeting will be held **Thursday, April 14, 2022** at 10:00 a.m.

Due to ongoing public health concerns related to COVID-19, Metro COG is encouraging citizens to provide their comments on agenda items via email to leach@fmmetrocog.org. To ensure your comments are received prior to the meeting, please submit them by 8:00 a.m. on the day of the meeting and reference which agenda item your comments address. If you would like to appear via video or audio link for comments or questions on a regular agenda or public hearing item, please provide your e-mail address and contact information to the above e-mail at least one business day before the meeting.

For Public Participation, please REGISTER with the following link:

https://us02web.zoom.us/webinar/register/WN_VPNIDUnzQJW3pbNu00_ILA

Red Action Items require roll call votes.

NOTE: Full Agenda packets can be found on the Metro COG Web Site at <http://www.fmmetrocog.org> – Committees

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**526th Meeting of the
FM Metro COG Transportation Technical Committee
Thursday, February 10, 2022 – 10:00 am
Metro COG Conference Room**

Members Present:

Jonathan	Atkins	City of Moorhead Traffic Engineering
Jason	Benson	Cass County Highway Engineering
Julie	Bommelman	City of Fargo, MATBUS
Nicole	Crutchfield	City of Fargo Planning
Jeremy	Gorden	City of Fargo Transportation Engineering
Cindy	Gray	Metro COG
Robin	Huston	City of Moorhead Planning
Don	Lorsung	City of Dilworth Planning
Aaron	Nelson	West Fargo City Planning
Grace	Puppe	Cass County Planning
Mary	Safgren	MnDOT – District 4
Russ	Sahr	City of Horace Planning
Jordan	Smith	MATBUS
Justin	Sorum	Clay County Engineering
Brit	Stevens	NDSU – Transportation Manager
Mark	Wolter	Freight Representative
Andrew	Wrucke	City of West Fargo Engineering
Wayne	Zacher	NDDOT – Local Government Division

Members Absent:

Matthew	Jacobson	Clay County Planning
Joe	Raso	GFMEDC

Others Present:

Adam	Altenburg	Metro COG
Jaron	Capps	Metro COG
Luke	Champa	Metro COG
Jim	Dahlman	Interstate Engineering / City of Horace
Ari	Del Rosario	Metro COG
Dan	Farnsworth	Metro COG
Jennifer	Hanley	Ulteig Engineers
Scott	Harmstead	SRF
Sharijad	Hasan	ATAC
Will	Kerns	Ulteig Engineers
Savanna	Leach	Metro COG
Michael	Maddox	Metro COG
Diomo	Motuba	ATAC
Brent	Muscha	Apex Engineering
Anna	Pierce	MnDOT
Kshitij	Sharma	ATAC
Tom	Soucy	Cass County Highway
Kristen	Sperry	FHWA
Steve	Strack	Houston Engineering
Kyle	Weiler	HDR
Bradley	Wentz	ATAC

1. CALL TO ORDER AND INTRODUCTIONS

The meeting was called to order at 10:02 am, on February 10, 2022 by Chair Gray. A quorum was present.

2. Approve the 526 TTC Meeting Agenda

Chair Gray asked if there were any questions about or changes to the 526 TTC Meeting Agenda.

**Motion: Approve the 526 TTC Meeting Agenda.
Mr. Benson moved, seconded by Ms. Crutchfield.
MOTION, PASSED.
Motion carried unanimously.**

3. APPROVE January 13, 2022 TTC MEETING MINUTES

Chair Gray asked if there were any questions about or changes to the January 13, 2022 TTC Meeting Minutes.

**Motion: Approve the January 13, 2022 TTC Minutes.
Mr. Lorsung moved, seconded by Ms. Bommelman.
MOTION, PASSED
Motion carried unanimously.**

4. Public Comment Opportunity

No public comments were made or received.

5. ATAC Addendum – Dynamic Traffic Assignment Model

Chair Gray provided information on the scope of work for the dynamic traffic assignment (DTA) modeling and project staging to be completed by the Advanced Traffic Analysis Center (ATAC). She stated that the purpose of this study would be to understand the traffic impacts from construction phasing of multiple upcoming projects within Metro COG's Metropolitan Planning Area (MPA). She noted that the principal investigator on the project would be Diomo Motuba. She stated that the project budget is \$9,912.

Ms. Sperry noted that this project could potentially assist with a 2021 Executive Order which promotes physical access to voting locations.

**Motion: Recommend approval to the Policy Board of the ATAC Contract addendum and scope of work for the Dynamic Traffic Assignment Modeling to Optimize Transportation Project Staging.
Ms. Safgren moved, seconded by Mr. Sahr
MOTION, PASSED
Motion carried unanimously.**

6. ATAC Addendum – Review and Adjustment to Household and Job Data

Chair Gray informed the TTC that a scope of work had been developed by the Advanced Traffic Analysis Center (ATAC) to assist Metro COG with a review and analysis of household and jobs data purchased in October 2021. She stated that purpose of this spatial review is to ensure that Metro COG's traffic analysis zones (TAZs) accurately reflect base year jobs and household data, a key component

to Metro COG's travel demand model (TDM). She stated the budget for the project is \$7,189.

Motion: Recommend approval to the Policy Board of the ATAC Contract addendum and scope of work for the Review and Adjustment to Household and Job Data.

Ms. Crutchfield moved, seconded by Ms. Huston

MOTION, PASSED

Motion carried unanimously.

7. ATAC Addendum – Moorhead Intersection Data Collection

Mr. Farnsworth provided information on the scope of work for traffic data collection and modeling update for the City of Moorhead. He stated that this project would assist Moorhead in their planned annual traffic data collection needs as well as a three-year traffic signal retiming and optimization program using Synchro traffic modeling software.

Mr. Atkins noted guidance that indicates signal retiming and roadway network geometries should be analyzed every five years.

Ms. Gray stated that the three-year budget is \$37,111 which breaks down into annual amounts of \$12,370.33 per year, and the local share will be paid by the City of Moorhead.

Motion: Recommend approval to the Policy Board of the ATAC Contract addendum and scope of work for the Moorhead Intersection Data Collection Project.

Mr. Atkins moved, seconded by Mr. Lorsung

MOTION, PASSED

Motion carried unanimously.

8. ATAC Addendum – Regional ITS Architecture Update

Mr. Farnsworth stated that Metro COG would be updating its Regional Architecture (RA) for Intelligent Transportation Systems (ITS) within Metro COG's Metropolitan Planning Area (MPA) in 2022. He explained that these systems include the deployment of CCTV cameras, Dynamic Message Signs (DMS), signal timing and optimization, and other regional traffic management and communication measures. He noted that the last update was completed in 2014.

Chair Gray noted that the ITS update will require input from each jurisdiction, and the project budget is \$27,970.

Motion: Recommend approval to the Policy Board of the ATAC Contract addendum and scope of work for the Regional Architecture Update.

Mr. Atkins moved, seconded by Mr. Wrucke

MOTION, PASSED

Motion carried unanimously.

9. ATAC Addendum – Travel Demand Model Update

Chair Gray informed the TTC that Metro COG was scheduled to update its travel demand model (TDM) in 2022 in anticipation of the next Metropolitan Transportation Plan (MTP) update. Metro COG's TDM has historically been housed and revised by the Advanced Traffic Analysis Center (ATAC).

Mr. Motuba noted that metrics analyzing transit and freight impacts to roadway networks would be added to Metro COG's TDM for the first time. StreetLight will be used to update origin-destination assumptions used in the model. Chair Gray also explained that it will be beneficial to get additional information from jurisdictions and to consider effects from Covid-19 and other recent traffic impact studies. She noted that the project budget is \$59,169, which is within the amount estimated in the UPWP, and the project is spread over 2022 and 2023.

Motion: Recommend approval to the Policy Board of the ATAC Contract addendum and scope of work for the Travel Demand Model Update.

Mr. Sahr moved, seconded by Mr. Gorden

MOTION, PASSED

Motion carried unanimously.

10. 2022-2025 Transportation Improvement Program (TIP) Amendment #1

Mr. Champa explained that Metro COG was holding a public hearing via Zoom on Thursday, February 17 at 4:00 PM to consider a proposed amendment to the 2022-2025 TIP. He noted that public comments would be accepted by Metro COG until 12:00 noon on February 17.

Mr. Champa stated that the proposed TIP amendment included the following adjustments:

1. **Removal of Project 5200010:** City of Moorhead reconstruction project on 34th St S from 4th Ave S to 24th Ave S (2023). Project has been removed.
2. **Modification of Project 3210019:** West Fargo bike & pedestrian new multi-use path project on Drain 45 from 7th Ave E to Main Ave (2022). The total project cost increased 35% from \$442,500 to \$598,300 of which the Federal Transportation Alternatives (TA) funds remained \$290,000 and local funds increased 102% from \$152,500 to \$308,300.
3. **Addition of Project 9221001:** NDDOT chip seal rehabilitation project on ND 18 from ND 10 to Cass/Traill County line (2022). The total project cost is \$794,400 of which \$635,200 (80%) is Federal Non National Highway System - State Rural Project (Non-NHS-S) funds and \$158,800 is state funds.
4. **Addition of Project 9221002:** NDDOT wrong way detection system (Intelligent Transportation Systems) safety project on I-29 at Exit 69 (2022). The total project cost is \$92,000 of which \$82,800 (90%) is Federal Highway Safety Improvement Program (HSIP) funds and \$9,200 is state funds.
5. **Addition of Project 9221003:** NDDOT upgrade automated traffic recorder (Intelligent Transportation Systems) rehabilitation project on I-94 at RP 352.33 (2022). The total project cost is \$105,000 of which \$84,000 (80%) is Federal Non National Highway System - State Rural Project (Non-NHS-S) funds and \$21,000 is state funds.

6. **Modification of Project 9210010:** NDDOT curb ramp rehabilitation project on ND 18 from 7th St S to 3rd St N in Casselton (2022). The total project cost increased 10% from \$334,765 to \$369,000 of which the Federal Non National Highway System – State Rural Project (Non-NHS-S) funds increased 10% from \$267,812 to \$295,000 and state funds increased 10% from \$66,953 to \$73,800.
7. **Modification of Project 9162665:** NDDOT rehabilitation project on I-94 E from W Wheatland to E of Casselton (2022). The total project cost decreased 46% from \$1,283,344 to \$689,000 of which the Federal Interstate Maintenance (IM) funds decreased 46% from \$1,155,010 to \$620,100 and state funds decreased 40% from \$114,534 to \$68,900.
8. **Modification of Project 9192639:** NDDOT rehabilitation project on I-94 W from Wheatland E to E of Casselton (2022). The total project cost decreased 46% from \$1,283,344 to \$689,000 of which the Federal Interstate Maintenance (IM) funds decreased 46% from \$1,155,010 to \$620,100 and state funds decreased 40% from \$114,534 to \$68,900.
9. **Modification of Project 9200012:** NDDOT high tension cable median guardrail safety project on I-94 from W of Main Ave to 42nd St grade separation (2022). The total project cost decreased 63% from \$2,036,000 to \$748,000 of which the Federal Highway Safety Improvement Program (HSIP) funds decreased 63% from \$1,832,000 to \$673,200 and state funds decreased 63% from \$204,000 to \$74,800.
10. **Modification of Project 9210006:** NDDOT high tension cable median guardrail safety project on I-94 from W Lynchburg interchange to E Kindred interchange (2022). The total project cost increased 22% from \$3,918,300 to \$4,797,200 of which the Federal Highway Safety Improvement Program (HSIP) funds increased 22% from \$3,526,470 to \$4,317,480 and state funds increased 22% from \$391,830 to \$479,720.
11. **Addition of Project 9221007:** NDDOT high tension cable median guardrail project on I-94 from W of Ayr interchange to W of Lynchburg interchange (2022). The total project cost is \$4,797,200 of which \$4,317,480 (90%) is Federal Highway Safety Improvement Program (HSIP) funds and \$479,720 is state funds. The project is associated with project 9210006 and the cost estimate is reflective of both 9210006 and 9221007.
12. **Addition of Project 9221004:** NDDOT LED lighting update rehabilitation project at various locations including 52nd Ave S, University Dr, Main Ave, 12th Ave N, and 19th Ave N (2023). The total project cost is \$1,000,000 of which \$800,000 (80%) is Federal Non National Highway System - State Rural Project (Non-NHS-S) funds and \$200,000 (20%) is state funds.
13. **Modification of Project 9191007:** NDDOT lift station and storm sewer rehabilitation project on I-94 E from 25th St interchange to the Red River (2024). The total project cost decreased 20% from \$2,600,000 to \$2,073,000 of which the Federal Interstate Maintenance (IM) funds decreased 20% from \$2,340,000 to \$1,865,700 and state funds decreased 20% from \$260,000 to \$207,300.
14. **Addition of Project 9221006:** NDDOT slide repair rehabilitation project Main Ave/US 10 near the Sheyenne River (2024). The total project cost is \$5,001,000 of which \$4,047,000 (80%) is Federal National Highway System - Urban (NHS-U) funds, \$454,000 (9%) is state funds, and \$500,000 (11%) is local funds.

15. **Modification of Project 9220025:** NDDOT structural deck overlay rehabilitation project on I-94 E at the Red River bridge structure (2025) – project is being modified to include I-94 W so both projects are part of one TIP project. The total project cost increased 100% from \$1,601,806 to \$3,204,000 of which the Federal Interstate Maintenance (IM) funds increased 100% from \$1,441,625 to \$2,883,600 and state funds increased 100% from \$160,181 to \$320,400.
16. **Removal of Project 9220026:** NDDOT structural deck overlay rehabilitation project on I-94 W at the Red River bridge structure (2025) – project is being included as part of project 9220025 as described above. Project has been removed.
17. **Addition of Project 9221005:** NDDOT minor rehabilitation including shoulder repair project on ND 46 from 9 miles east of Enderlin E to I-29 (2025). The total project cost is \$5,300,000 of which \$4,240,000 (80%) is Federal Non National Highway System - State Rural Project (Non-NHS-S) funds and \$1,060,000 is state funds.
18. **Modification of Project 2190039:** Clay County mill and overlay rehabilitation project on CSAH 52 from CR 67 in Sabin to I-94 bridge in Moorhead (2022) – project is an Advance Construction project and is associated with project 2200009. The total project cost increased 67% from \$1,067,760 to \$1,778,484 of which the Federal Surface Transportation Block Grant Program - Regional (STBGP-R) funds remained \$468,160 and local funds increased 119% from \$599,600 to \$1,310,324. AC project 2200009 remains unchanged with STBGP-R funding of \$1,032,240. Total AC project estimate (projects 2190039 & 2200009) increased 35% from \$2,082,760 to \$2,810,724.

Mr. Atkins clarified that the funds being reallocated from the 34th Street reconstruction project to the 11th Street underpass project would not change the total budget amount for the underpass but rather increase the federal share and decrease the local share. Ms. Safgren stated that the funds being reallocated would actually go to a project in Alexandria, and that other federal funds would be added to the 11th Street underpass project.

Ms. Pierce asked if the 34th Street reconstruction project would be pushed to an out-year. Mr. Atkins replied that the project would still go ahead but would be funded by local dollars and potentially by Municipal State-Aid Street System (MSAS) funds.

Motion: Recommend approval to the Policy Board of Amendment #1 of the Metro COG 2022-2025 Transportation Improvement Program (TIP) pending public comment.

Ms. Huston moved, seconded by Ms. Bommelman.

MOTION, PASSED

Motion carried unanimously.

11. Performance Measures (PM1, PM2, PM3) – 2022 Safety Target Adoption MN & ND

Mr. Del Rosario presented the Minnesota and North Dakota Performance Measures (PM) 1, 2, and 3 for 2022 Safety Target Adoption. He noted that only PM 1, meant to establish performance targets related to safety for North Dakota and Minnesota portions of the Metropolitan Planning Area (MPA), need to be

reviewed and adopted annually. He stated that PM 2 (highway and bridge condition targets) and PM 3 (automobile and truck time reliability) are adopted every four years.

Metro COG staff recommends the adoption of NDDOT's safety targets for Performance Measure 1, and the adoption of MnDOT's safety targets for Performance Measure 1.

Motion: Recommend Policy Board adoption of NDDOT's 2022 Safety Performance Measure (PM1), and MnDOT's PM1 by signing the respective resolutions.

Mr. Sahr moved, seconded by Ms. Crutchfield.

MOTION, PASSED

Motion carried unanimously.

12. West Fargo Traffic Calming Study Final Report

Mr. Champa presented the final report of the West Fargo Traffic Calming Study. He explained that the purpose of the study was to establish a traffic calming toolbox and strategies to address speeding and safety on residential West Fargo streets by engaging residents, reviewing the existing conditions and traffic conditions, and developing an evaluation and implementation strategy to address traffic calming measures. He noted that, in addition to the toolbox and strategies, evaluation and prioritization matrices were established, specific traffic calming implementation scenarios and alternatives were analyzed, and planning-level cost estimates were developed for six priority locations in West Fargo. He stated that the project was recently approved by the West Fargo City Commission.

Motion: Recommend approval to the Policy Board of the West Fargo Traffic Calming Study.

Mr. Nelson moved, seconded by Mr. Gorden.

MOTION, PASSED

Motion carried unanimously.

13. Update of Federal Functional Class System

Mr. Del Rosario stated that NDDOT had reviewed and approved a Federal Functional Classification (FFC) system update for roadways within Metro COG's Metropolitan Planning Area (MPA) in North Dakota. He noted that the last approved FFC update for North Dakota roadways dated back to 2008, and that the 2022 update will now be sent to the Federal Highway Administration (FHWA) for final review and approval.

14. IJJA Planning Emphasis Areas & Future Projects

Chair Gray summarized the updated 2021 Planning Emphasis Areas (PEAs) that were issued jointly by the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA). She noted that these are intended to be used by metropolitan planning organizations, state departments of transportation, transit agencies, and federal land management agencies in Unified Planning Work Programs (UPWPs) and State Planning and Research (SP&R) programs. The updated PEAs include: Tackling the Climate Crisis –

Transition to a Clean Energy, Resilient Future; Equity and Justice⁴⁰ in Transportation Planning; Complete Streets; Public Involvement; Strategic Highway Network (STRAHNET)/U.S. Department of Defense (DOD) Coordination; Federal Land Management Agency (FLMA) Coordination; Planning and Environment Linkages (PEL); and Data in Transportation Planning.

Chair Gray also noted that the packet contains a list of suggested future studies and planning efforts that could be undertaken by Metro COG. She explained that she will begin working on the 2023 budget in the spring of 2022, which leads directly to the preparation of the 2023-2024 UPWP in the summer of 2022. She stated that this is not an action item at today's meeting, but that in March, this would be a more formal item, and that in the meantime, local jurisdictions are asked to consider what projects they need included in Metro COG's list of future work efforts. She stated that the updated PEAs will be reflected and addressed in future UPWP projects.

15. AARP Funding Opportunity

Mr. Farnsworth presented information about the AARP Community Challenge grant program, an initiative which supports livability efforts for cities and communities in areas such as: public places, transportation, housing, civic engagement, and diversity, equity, and inclusion. He noted that organizations eligible for funding include government entities and 501(c)(3), 501(c)(4), and 501(c)(6) nonprofits.

16. Additional Business

Chair Gray asked for TTC members to share information on any additional items.

No additional comments were made.

17. Adjourn

The 526 Regular Meeting of the TTC was adjourned on February 10 at 12:06 p.m.

THE NEXT FM METRO COG TRANSPORTATION TECHNICAL COMMITTEE MEETING WILL BE HELD March 10, 2022, 10:00 A.M.

Respectfully Submitted,

Metro COG Staff

To: Transportation Technical Committee (TTC)
From: Dan Farnsworth
Date: March 4, 2022
Re: **2022 Bicycle & Pedestrian Count Report**

Over the years Metro COG has counted bicycle and pedestrian traffic throughout the Fargo-Moorhead Metro Area. In 2013 Metro COG started an annual program consistently counting bicycle and pedestrian traffic along roadways, paths, and at intersections across the Metro Area. These counts are performed manually and occur once a year in September.

In addition, Metro COG has five automated bicycle and pedestrian counters which have been counting trail and sidewalk users since 2014. These counters collect data 24 hours a day, 365 days a year.

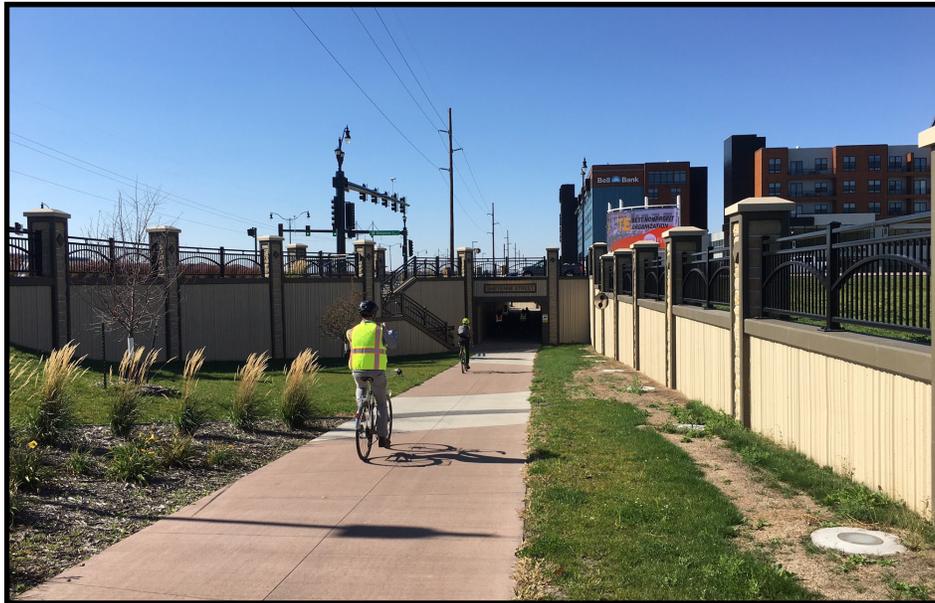
Every few years Metro COG compiles the data from both the manual counts and automated counters and develops a report. The purpose of the report is to provide data regarding local bicycle and pedestrian activity to the public, elected officials, interested persons, parks departments, local planners and engineers, and more. This information also informs Metro COG of bicycle and pedestrian usage throughout our planning area. In some cases, the data is thorough and on-going, due to the use of counting equipment installed along the facility. In other cases, the date is simply a snapshot of a certain day of the year. Guidance is used from the National Bicycle and Pedestrian Documentation Project (www.bikepeddocumentation.org) when counting bicycle and pedestrian traffic. Metro COG has submitted the count data to this organization for use and research in their national database.

Attached is the 2022 Bicycle and Pedestrian Count Report. This report includes all count data from 2013 through 2021.

For more information regarding these counts, or to request the raw bicycle & pedestrian count data, don't hesitate to contact Dan Farnsworth at 701-532-5106 or farnsworth@fmmetrocog.org.

2022 Bicycle and Pedestrian Count Report

Counts located in: West Fargo, Fargo, Moorhead, Dilworth
Data from 2013—2021



Prepared by:

The Fargo-Moorhead Metropolitan Council of Governments

METROCOG
FM REGIONAL TRANSPORTATION PLANNING ORGANIZATION

March, 2022

2022 Bicycle and Pedestrian Count Report

Report background

The Fargo-Moorhead Metropolitan Council of Governments (Metro COG) is the designated metropolitan planning organization for the Fargo-Moorhead metro area. A major responsibility of Metro COG's efforts is transportation planning which includes planning for bicycle and pedestrian facilities. Understanding the demand for bicycle and pedestrian facilities allows local units of government and Metro COG to plan for future bicycle and pedestrian use in the area. This report details both manual and automated counts taken since 2013 and 2014 respectively.

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Automated Counts
2014—2021

Automated Counts

Metro COG Counters

A total of five automated counters are placed at various locations in the Fargo-Moorhead Metro Area. The five counters are TRAFx G3 Infrared Trail Counters. However three of the five TRAFx counters were replaced in the fall of 2021 with the more modern EcoCounters (MULTI system at two locations and PYRO-Box at one location). Below is a description of the counter locations.

- Broadway west sidewalk just south of 2nd Ave N, Downtown Fargo
- Eagle Run Neighborhood Trail between Rendezvous Park and 9th St W, West Fargo
- Lindenwood Park / Gooseberry Park bicycle & pedestrian bridge, Fargo/Moorhead
- Milwaukee Trail between 35th Ave S and 37th Ave S, Fargo
- Oak Grove Park / Memorial Park bicycle & pedestrian bridge, Fargo/Moorhead

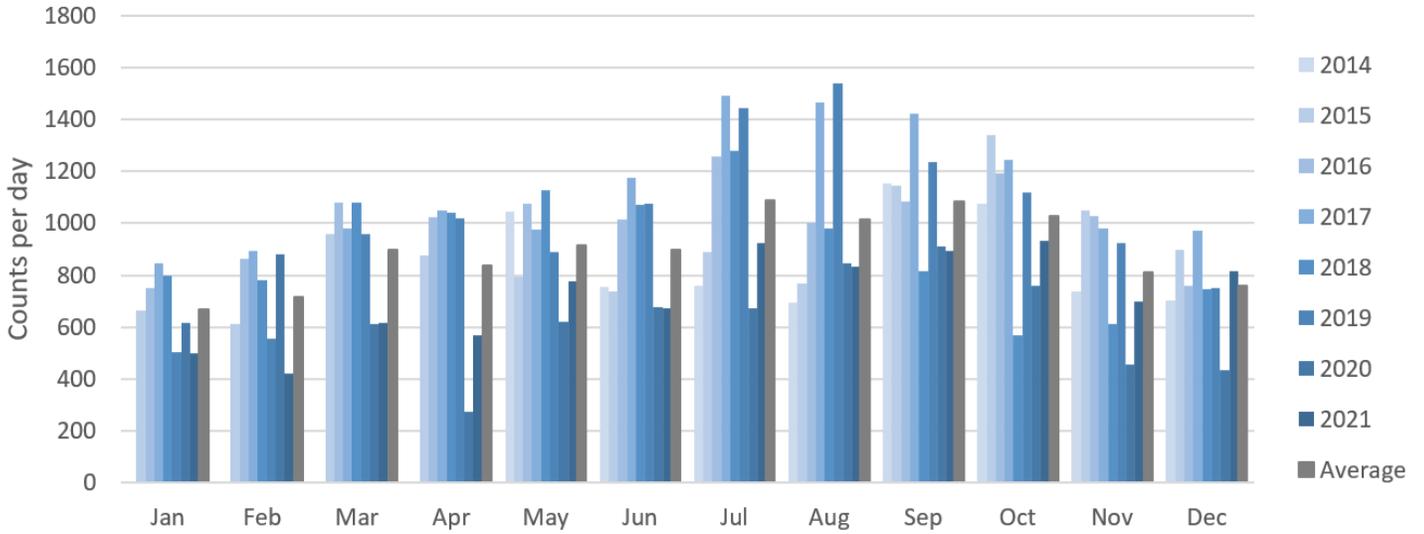
These counters count passer-byers 7 days a week, 24 hours a day, 365 days a year. It is important to note that these counters are not capable of differentiating between bicyclists and pedestrians. In addition, if two or more people are walking/biking side-by-side, the counter often records the group as one individual. Therefore, actual counts are higher than recorded. In 2020 Metro COG conducted a study to determine how many people actually passed by a counter versus the number recorded by the counter. The counter located along the Milwaukee Trail showed that 1.44 times more people actually passed by the counter than were recorded. The counter located on Broadway showed 1.77 times more people passed by than were recorded by the counter. Since not all automated counters were studied, and for data consistency, these multipliers are not incorporated in the data shown in this report.

MnDOT Counter

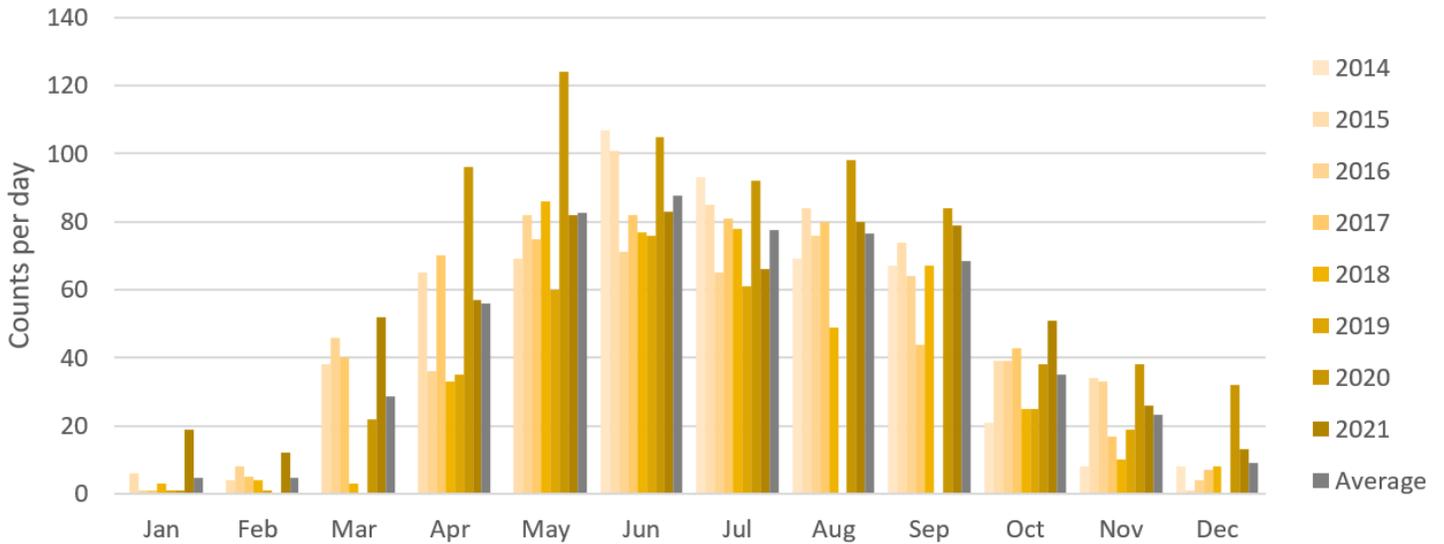
The Minnesota Department of Transportation (MnDOT) installed an automated counter in 2016 when the I-94 interchange at 8th St (US 75) was reconstructed. The counter is made by EcoCounter and uses both infrared technology and inductive pavement loop detection, allowing the counter to differentiate between bicycles and pedestrians. In addition, this counter is capable of detecting both directions of travel on the path. This counter is located on & along the shared use path on the east side of 8th St just north of the I-94 westbound off-ramp. The counter is one of 27 bicycle/pedestrian counters located across Minnesota.

The following pages show the monthly count data per counter along with an overall comparison of counts per location annually.

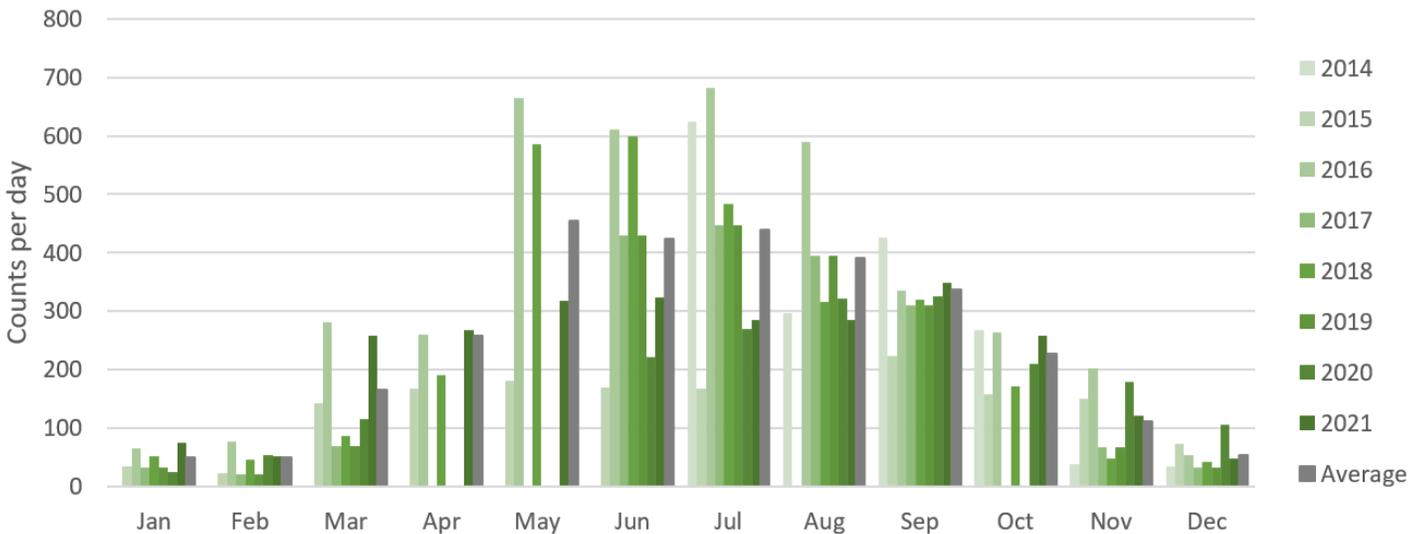
Broadway Sidewalk - Just S. of 2nd Ave N



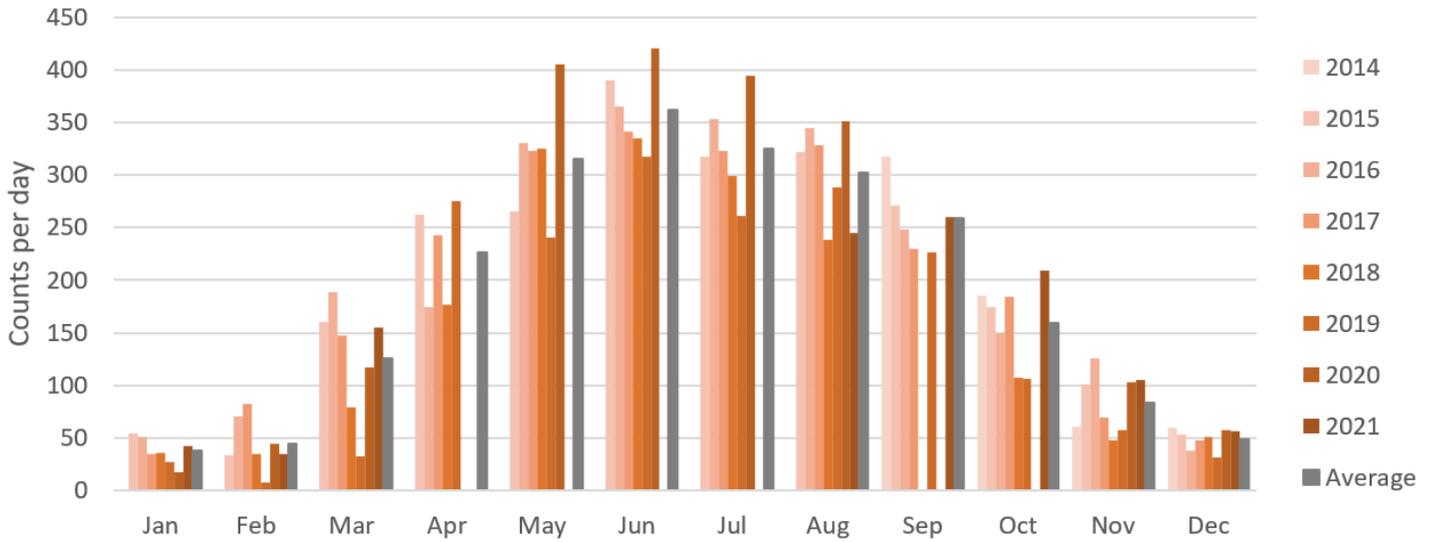
Eagle Run Trail



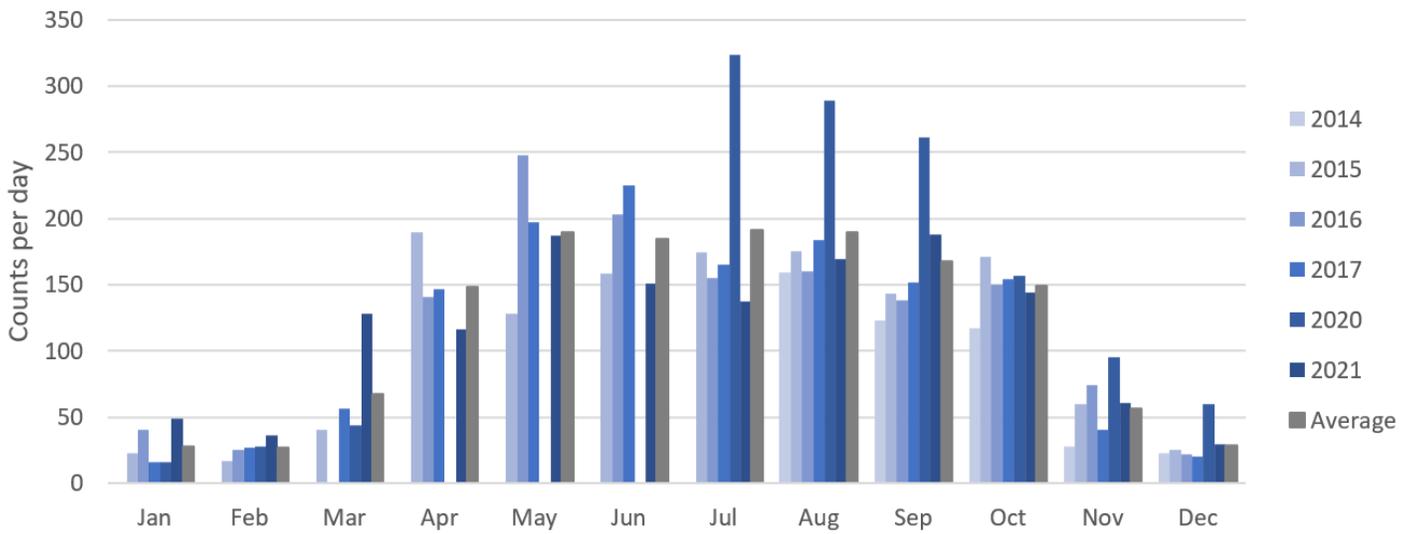
Lindenwood/Gooseberry Park Bridge



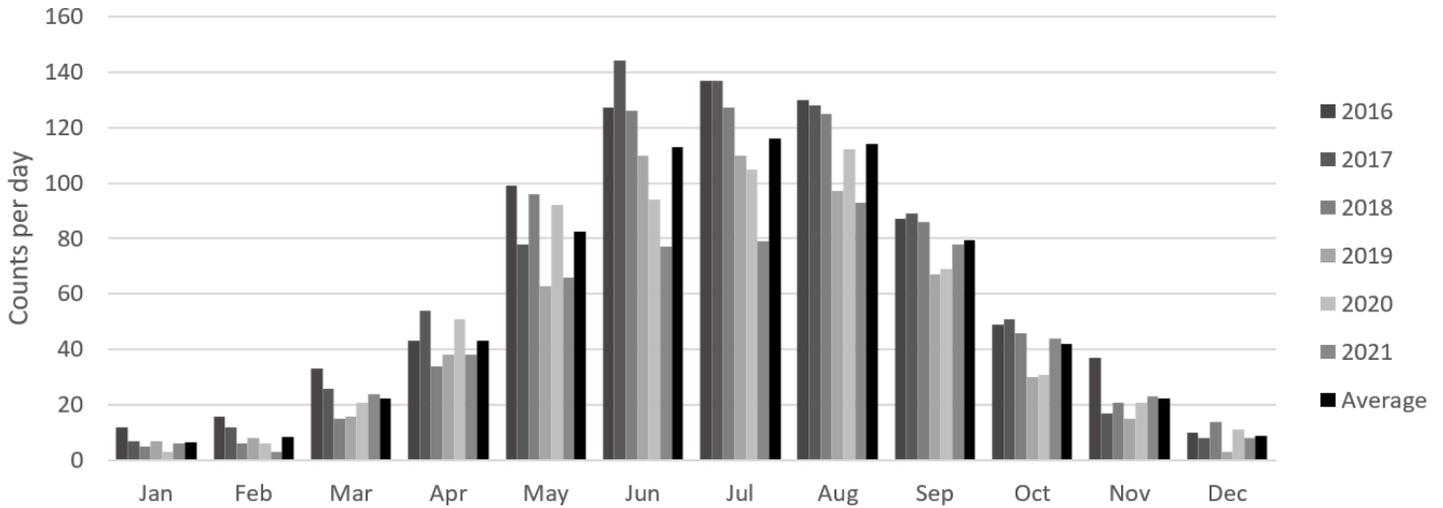
Milwaukee Trail



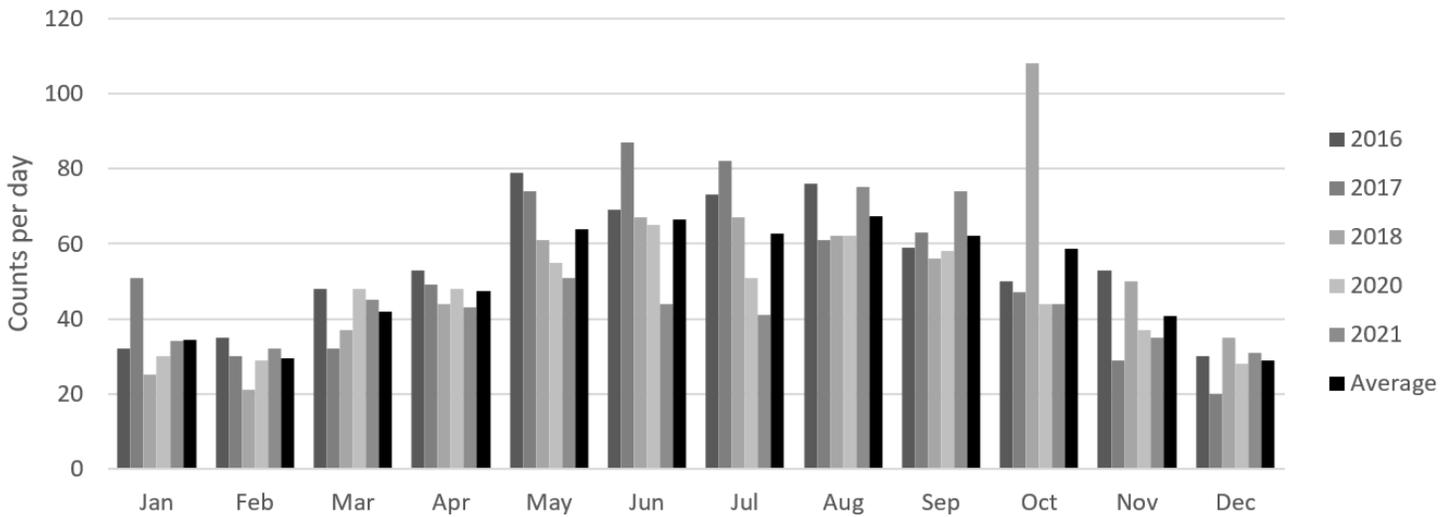
Oak Grove/Memorial Park Bridge



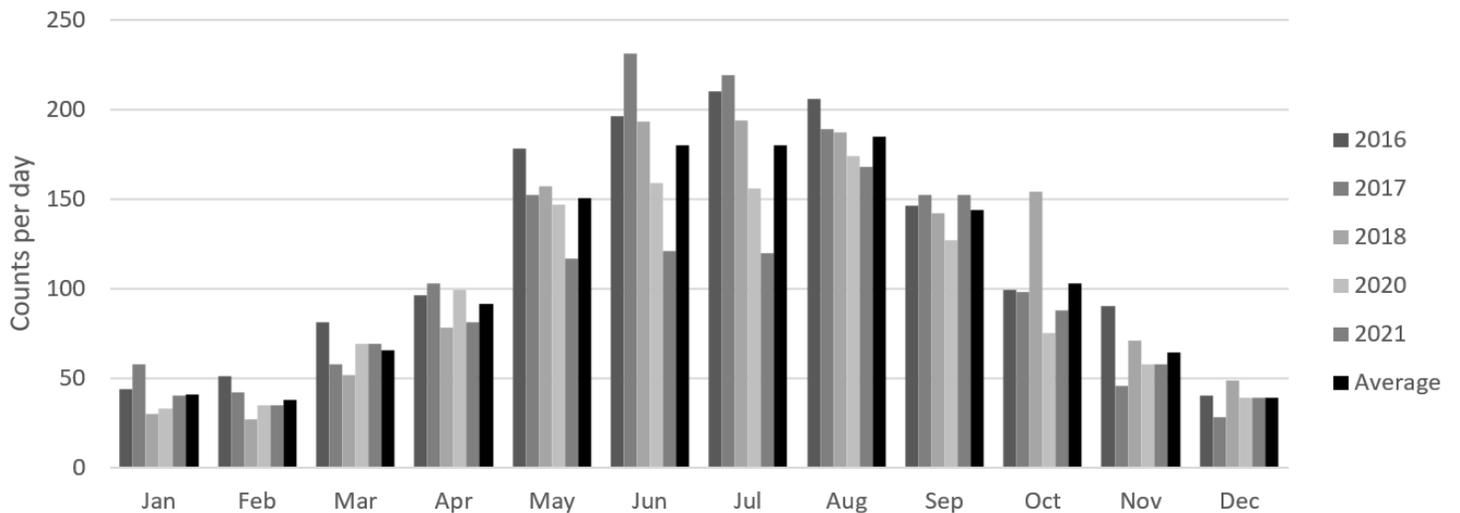
Moorhead 8th St Trail crossing I-94 - Bicycles



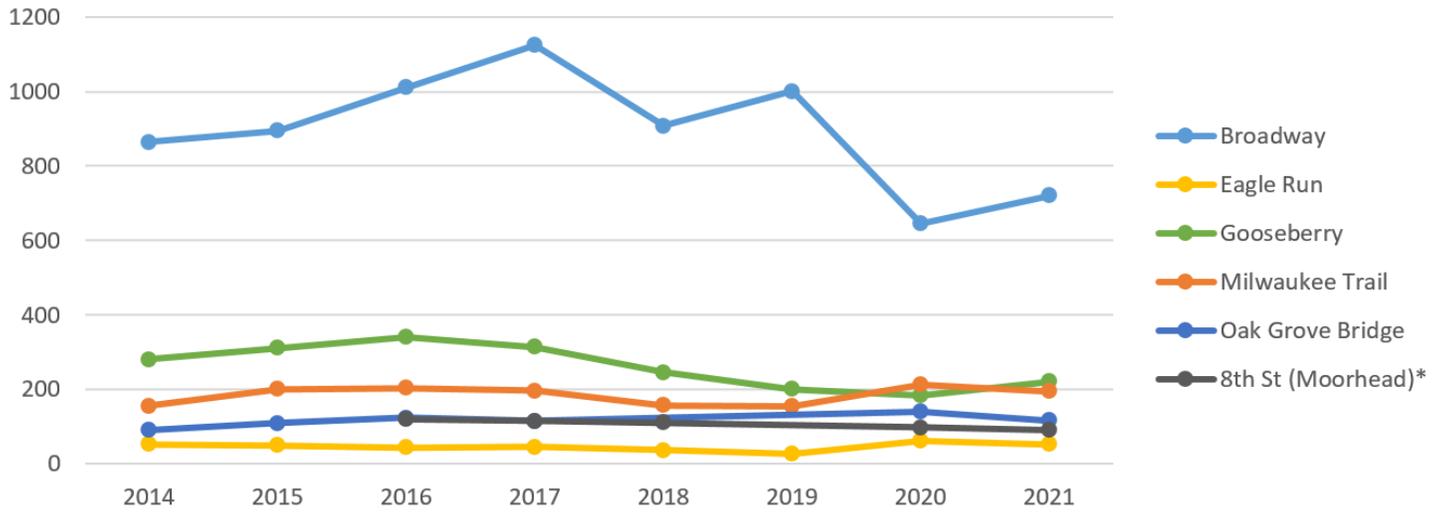
Moorhead 8th St Trail crossing I-94 - Pedestrians



Moorhead 8th St Trail crossing I-94 - Bike & Pedestrians



Average Annual Daily Counts



* Includes both bicycle & pedestrian counts

Average Annual Daily Counts

	2014	2015	2016	2017	2018	2019	2020	2021	Average (2014-2021)
Broadway	865	894	1011	1124	908	1001	646	721	896
Eagle Run Trail	53	50	44	45	37	28	61	52	46
Gooseberry Bridge	281	311	341	315	245	201	183	220	262
Milwaukee Trail	156	200	203	196	157	156	212	195	184
Oak Grove Bridge	90	109	123	115	-	-	142	116	116
8th St (Moorhead)*	-	-	120	115	111	-	98	91	107

*Includes both bicycle & pedestrian counts

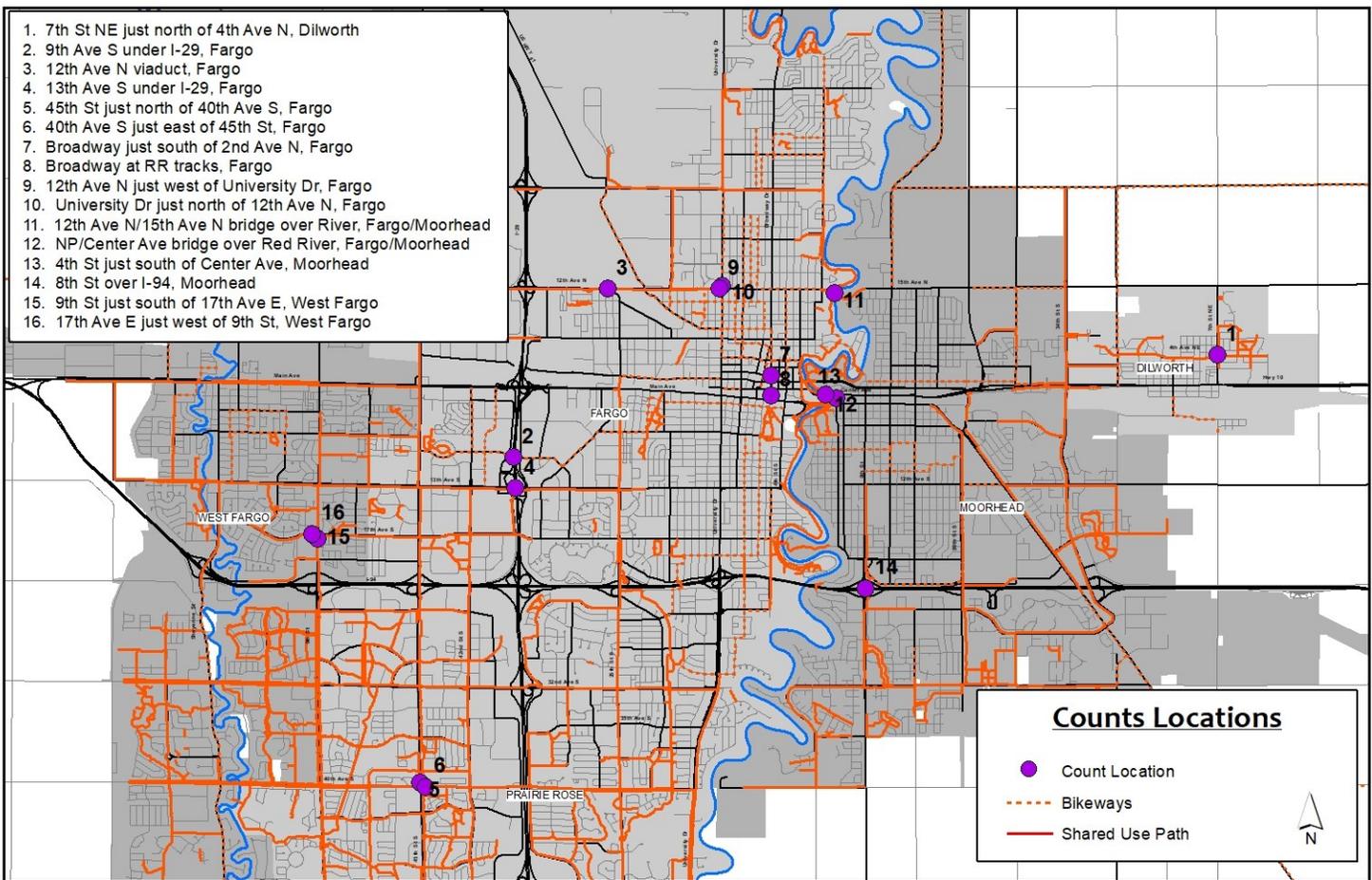
Manual Counts
2013—2021

Manual Counts

Manual counts are conducted once a year for a four-hour period on a typical weekday in September (Note: locations near NDSU campus are counted for a five-hour period). Based on availability of staff and resources some locations are counted for two consecutive weekdays to increase accuracy. The counts are taken at 16 locations in the Fargo-Moorhead Metro Area. These counts differentiate between pedestrians, bicyclists on the path/sidewalk, and bicyclists on the street where applicable. Poor weather conditions are avoided in order to provide a consistent count platform. However, variations in weather do occur which likely have some effect on the number of bicyclists and pedestrian from year to year.

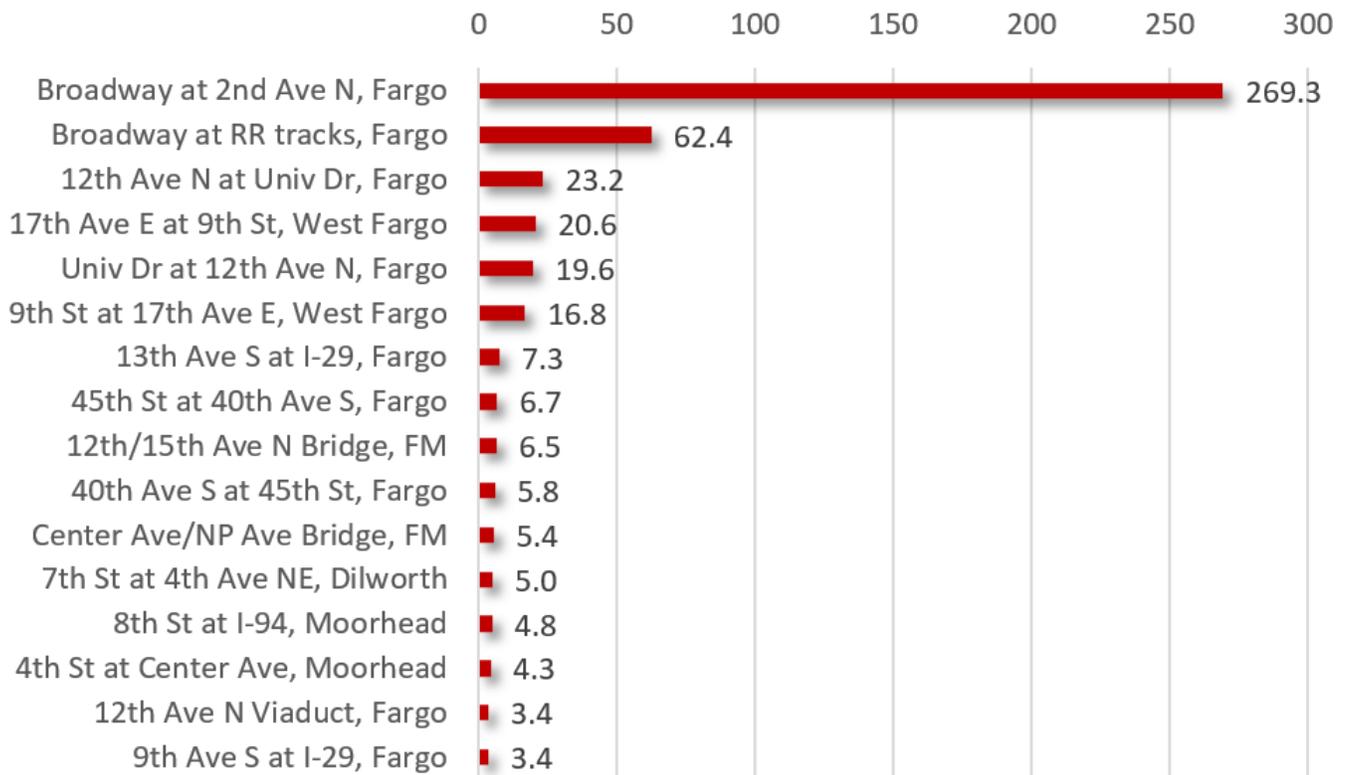
The count data shown in this section of the report includes years 2013 through 2020, however several locations may not include all years due to previous counting mythology, construction, or equipment failure. Below is a map showing the location of each manual count:

Manual Count Locations

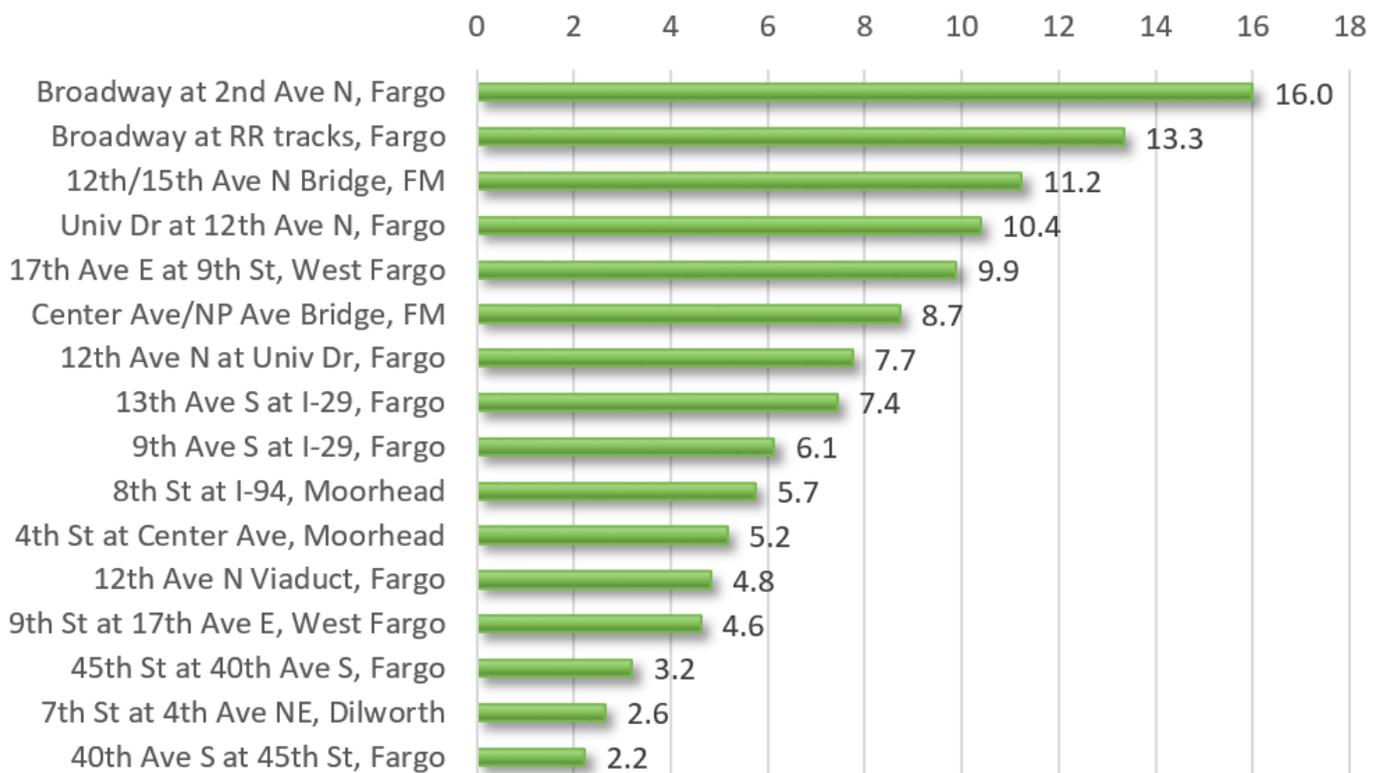


The following pages show the manual bicycle and pedestrian count data for the years 2013 through 2021.

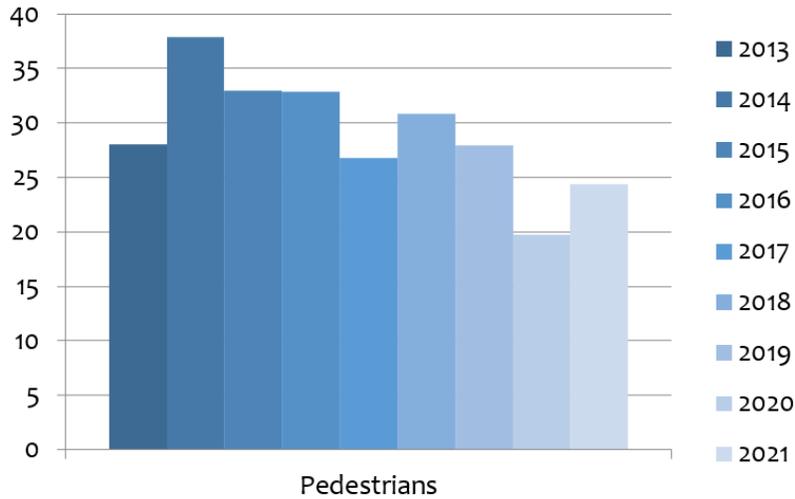
Pedestrians per hour (Average of years 2013 - 2021)



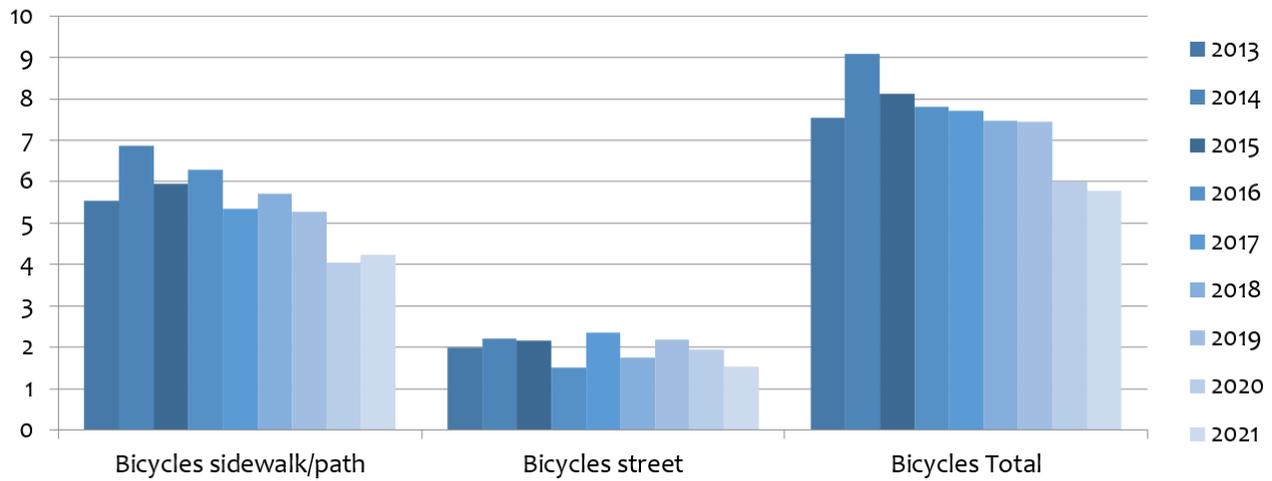
Bicycles per hour (Average of years 2013 - 2021)



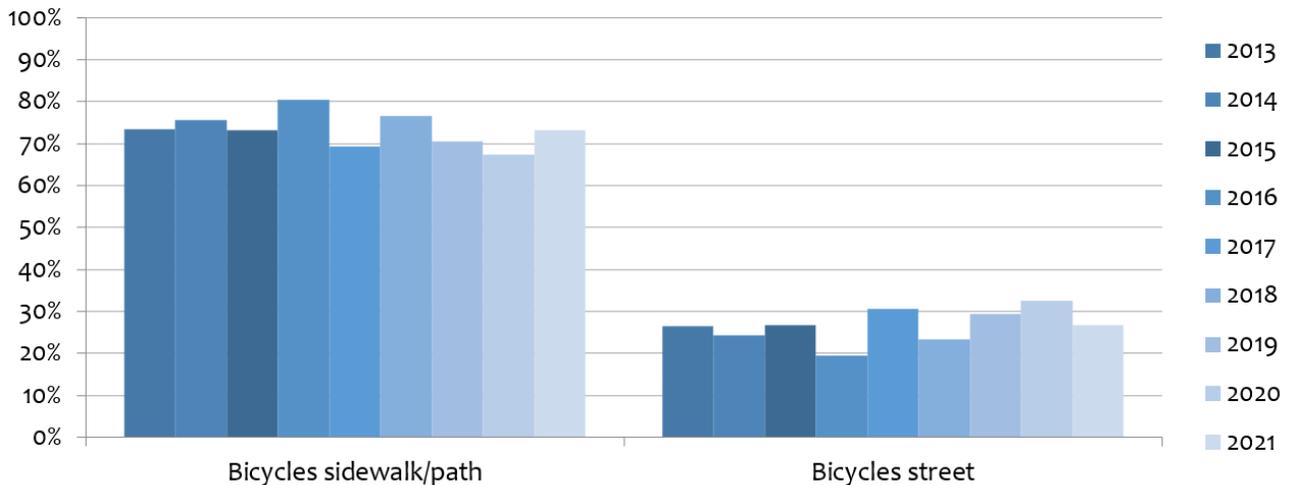
Pedestrian counts per hour by year (average of all locations)



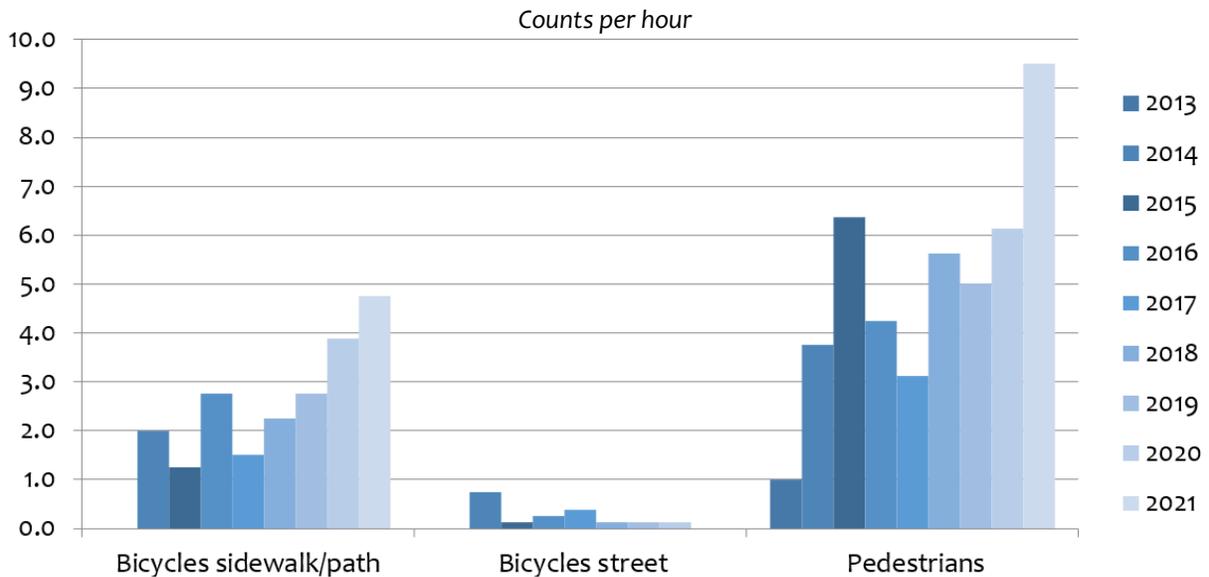
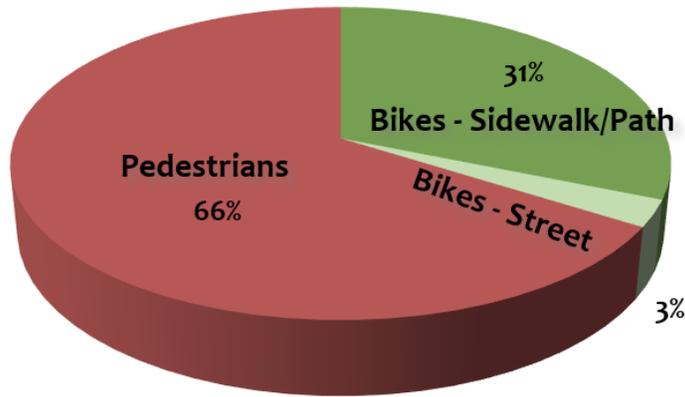
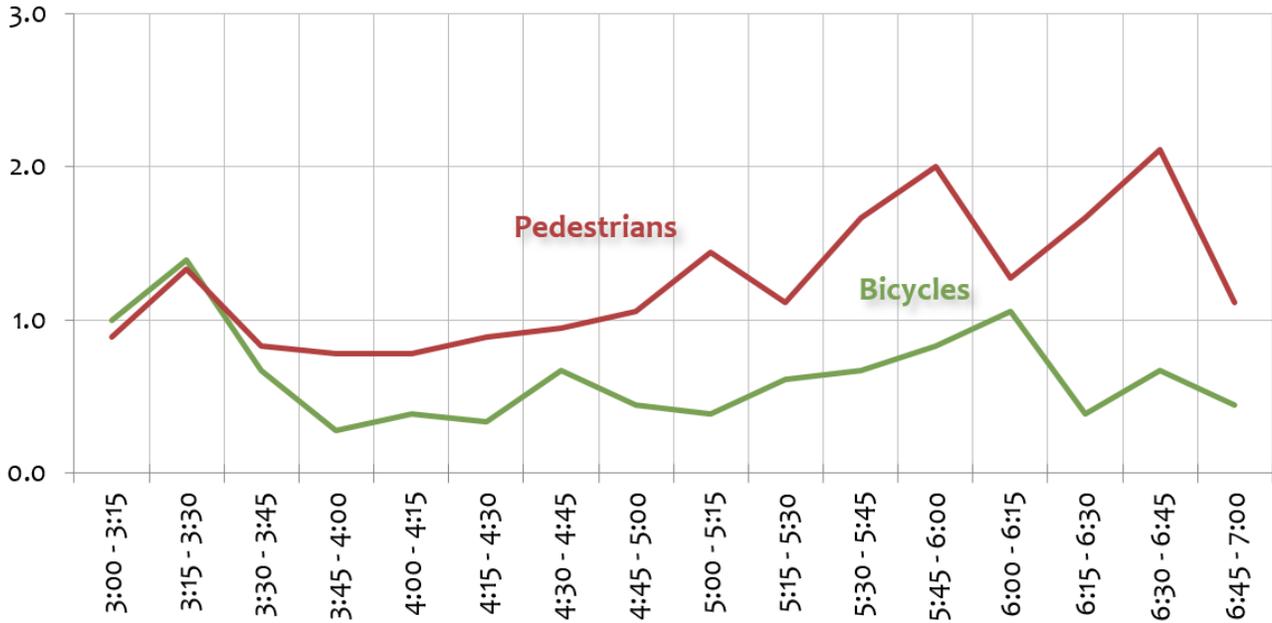
Bicycle counts per hour by year (average of all locations)



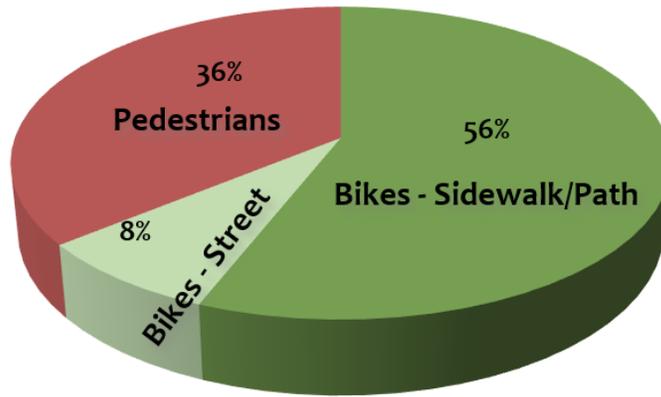
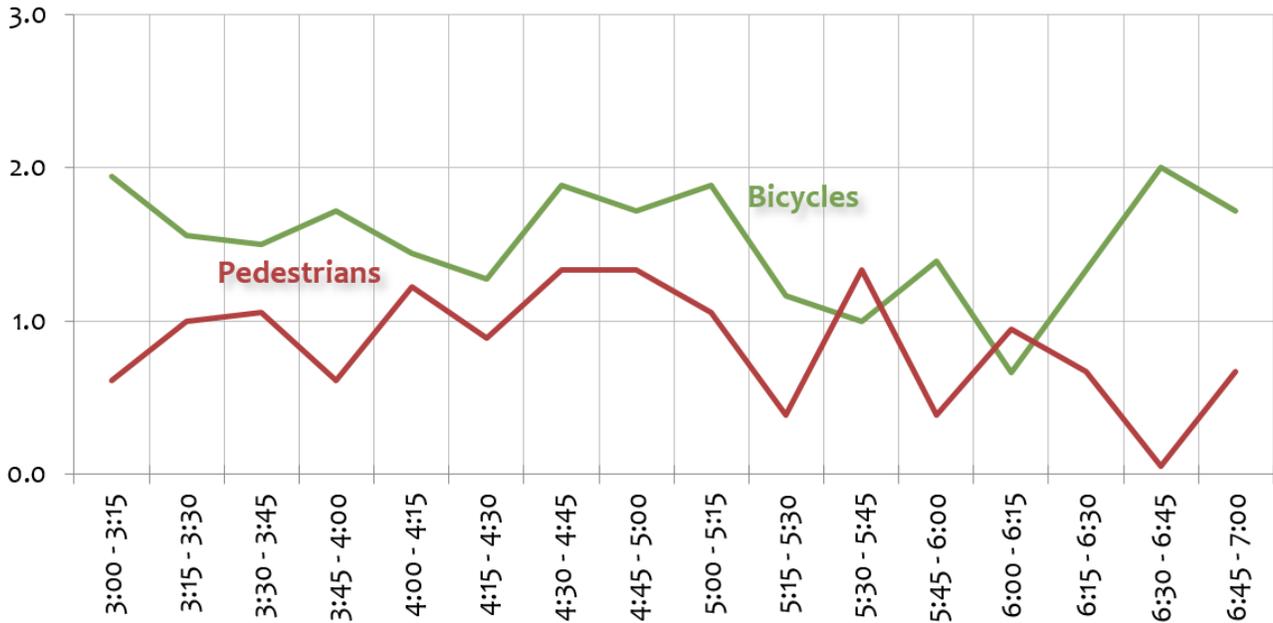
% of bikes on sidewalk/path vs. bikes on street (average of all locations)



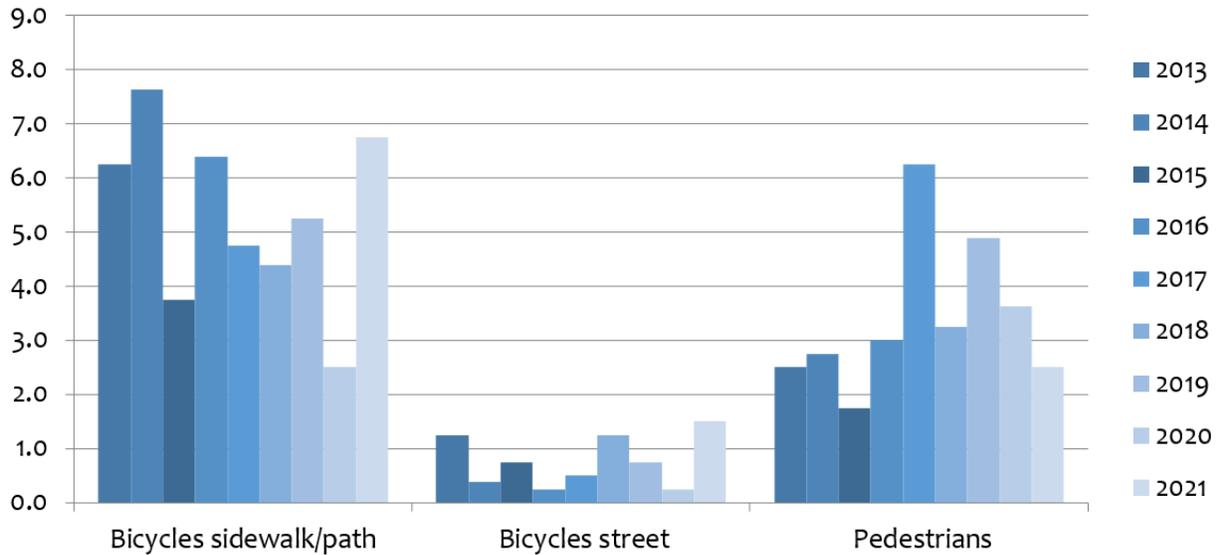
Dilworth—7th St NE just north of 4th Ave NE (Average of years 2013-2021)



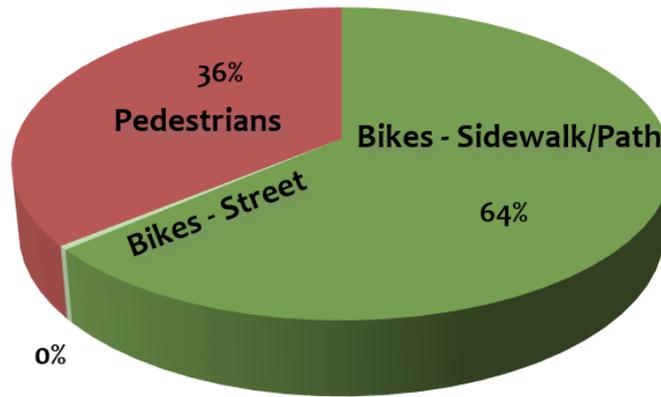
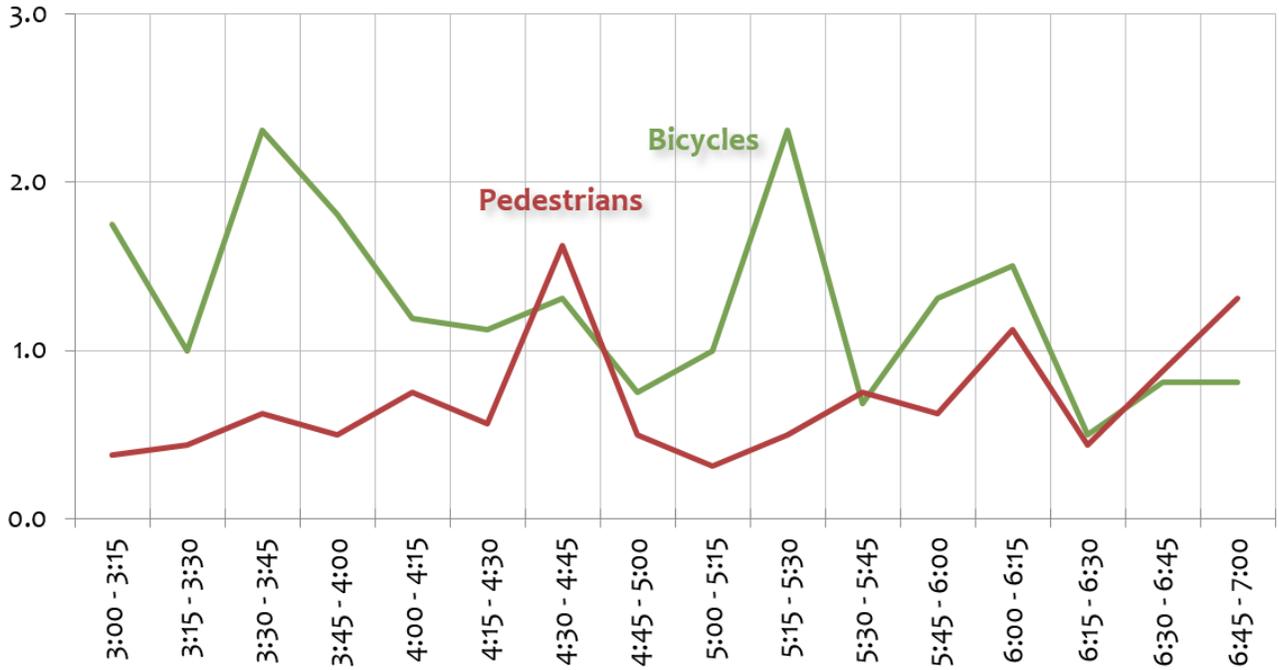
Fargo—9th Ave S under I-29 (Average of years 2013-2021)



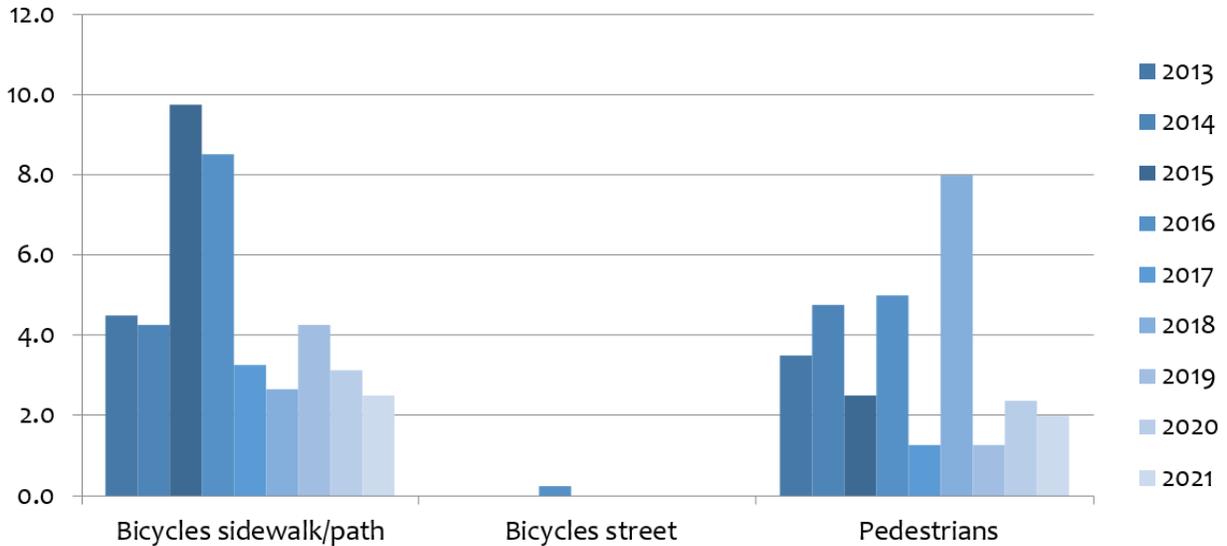
Counts per hour



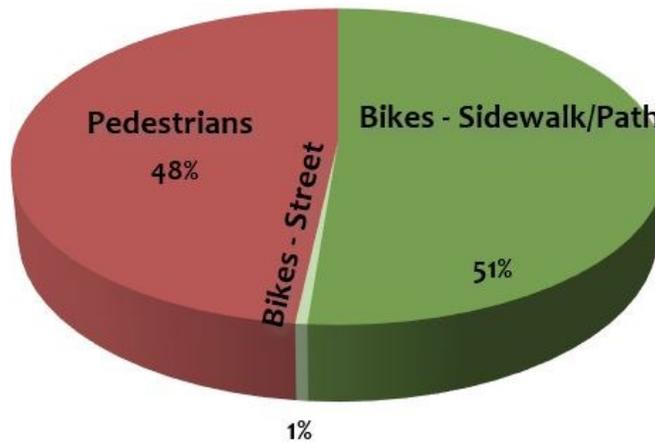
**Fargo—12th Ave N viaduct
(between 19th St & 29th St)
(Average of years 2013-2021)**



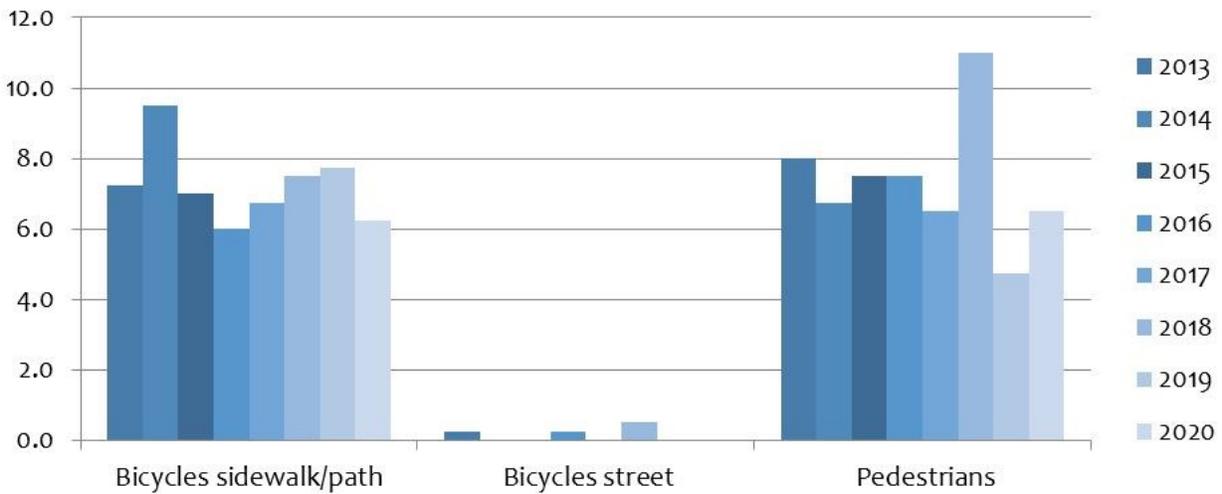
Counts per hour



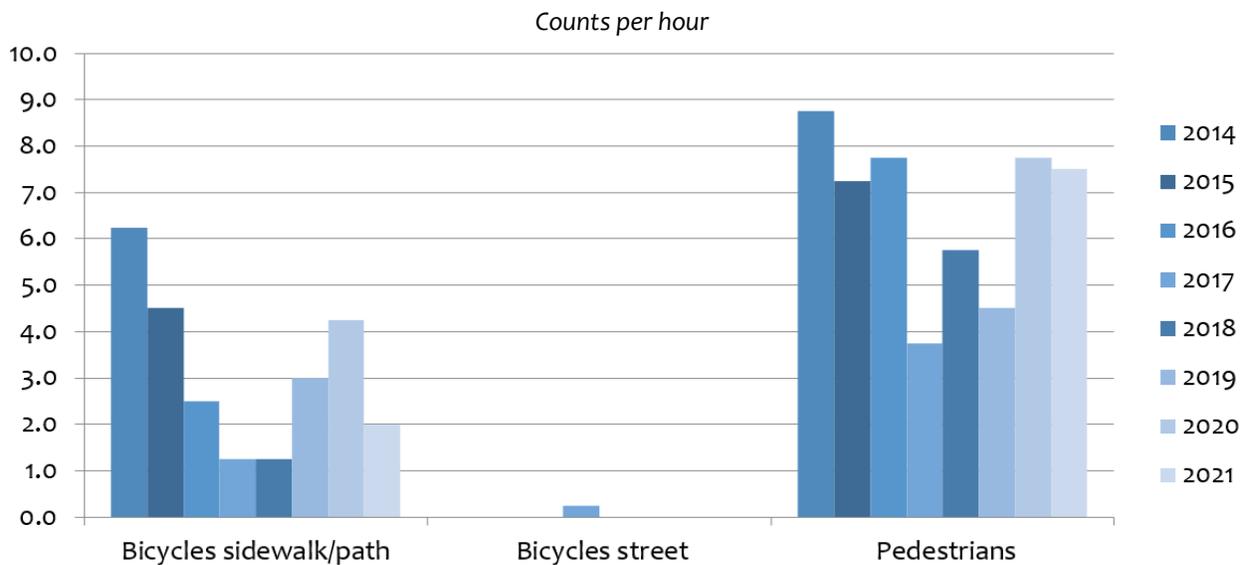
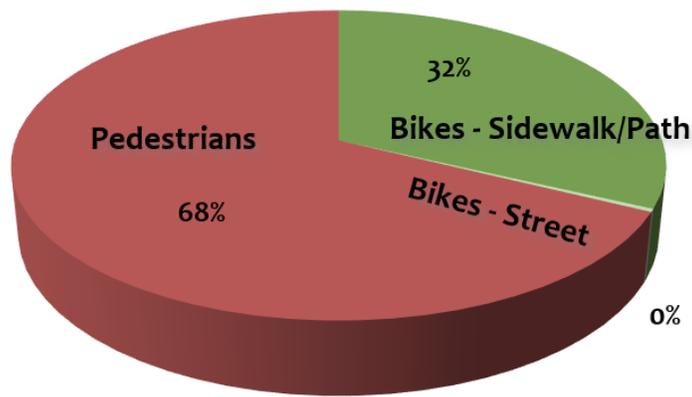
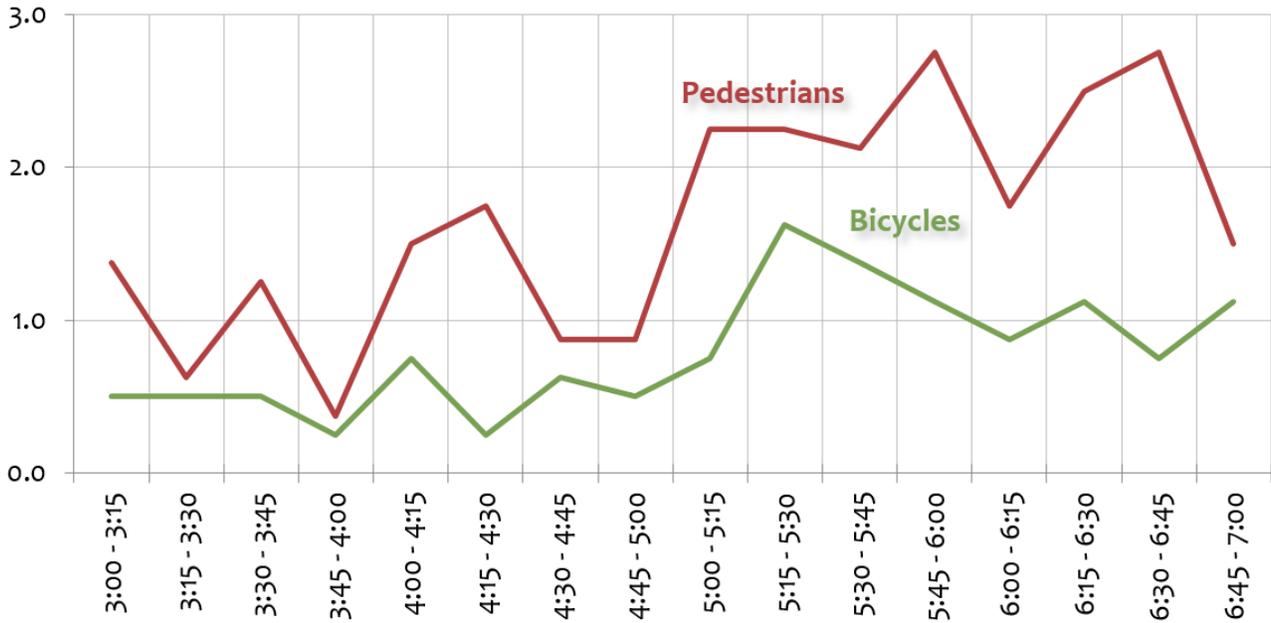
Fargo—13th Ave S under I-29 (Average of years 2013-2020)(no 2021 data)



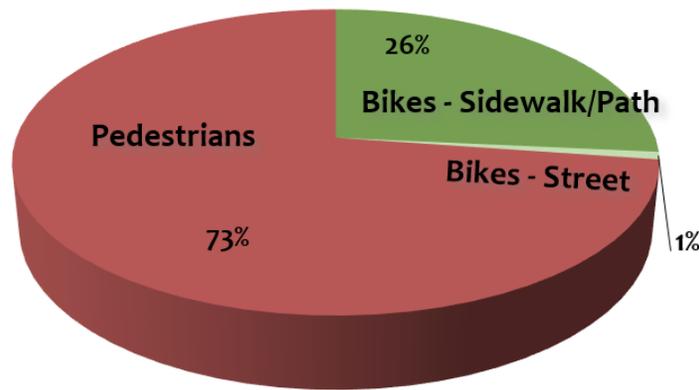
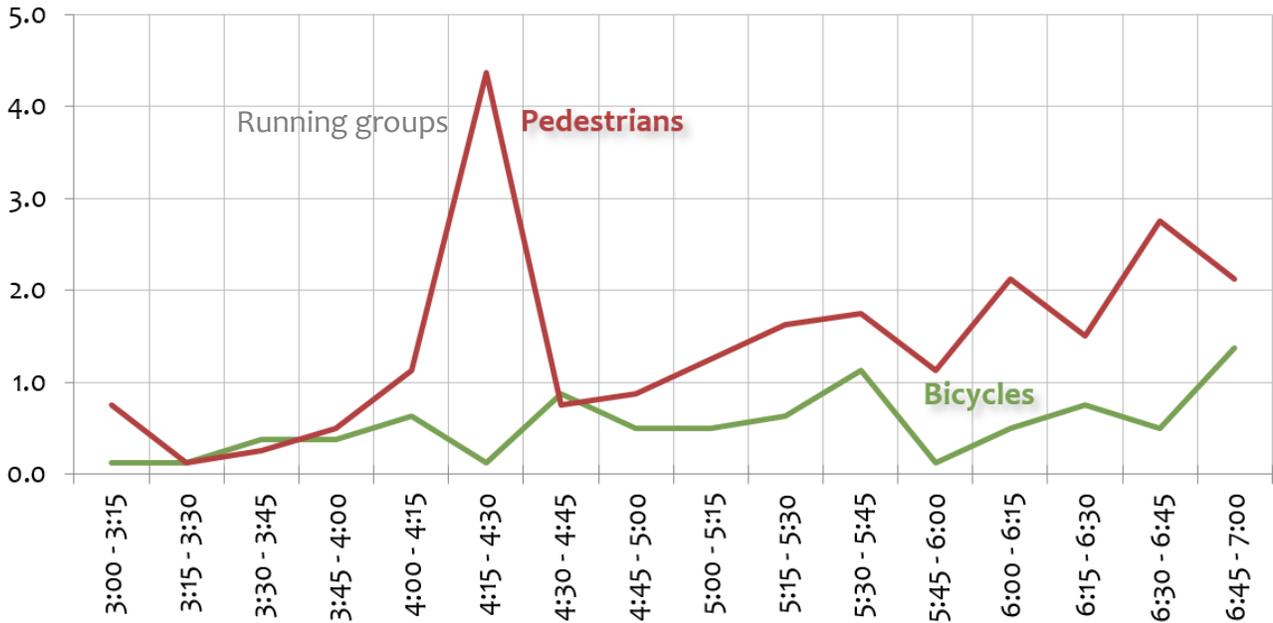
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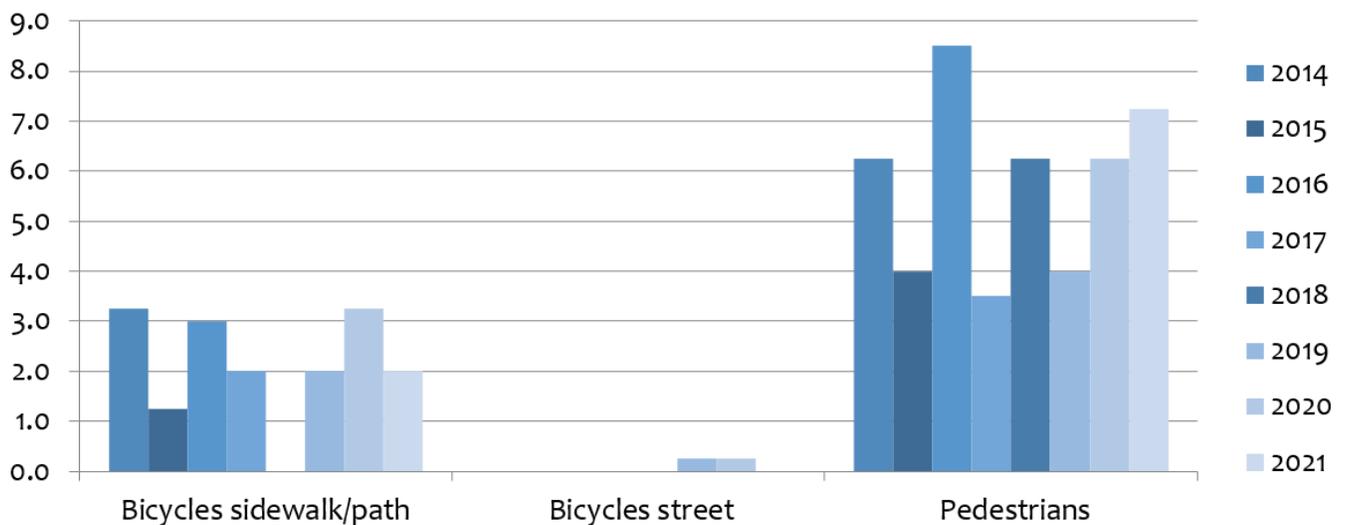
Fargo—45th St just north of 40th Ave S (Average of years 2014-2021)



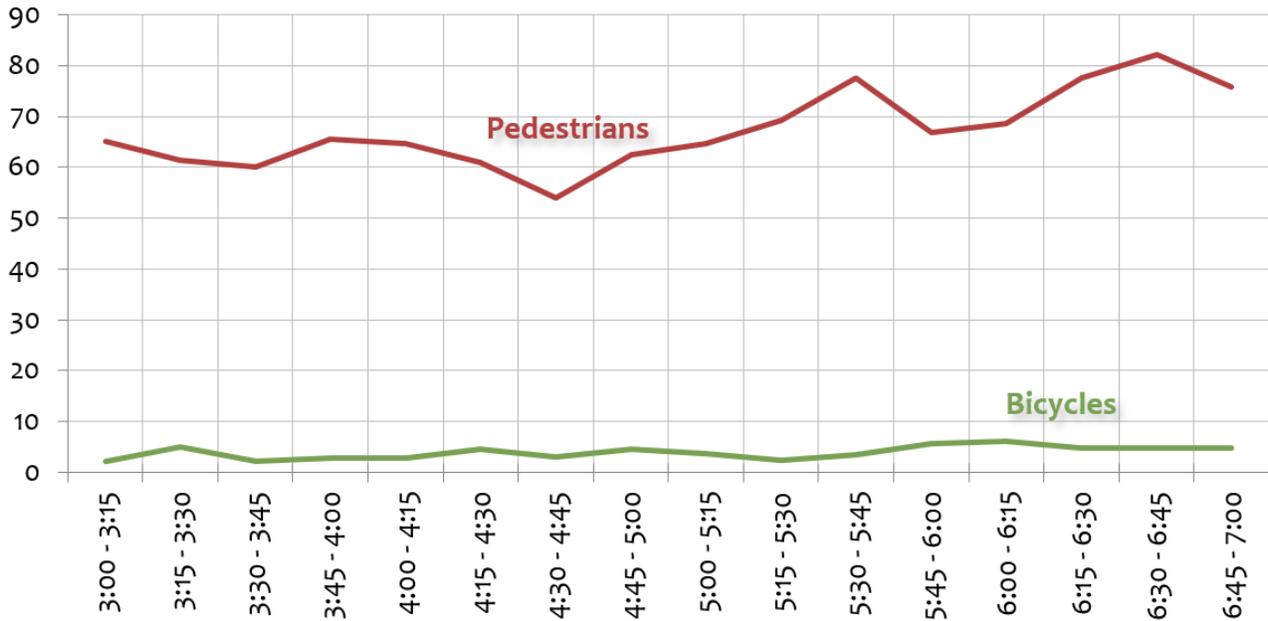
Fargo—40th Ave S just east of 45th St (Average of years 2014-2021)



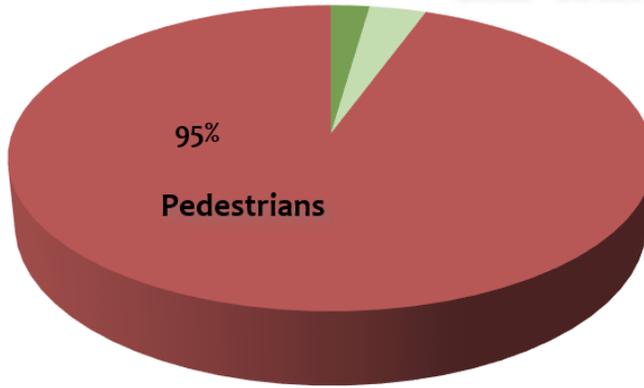
Counts per hour



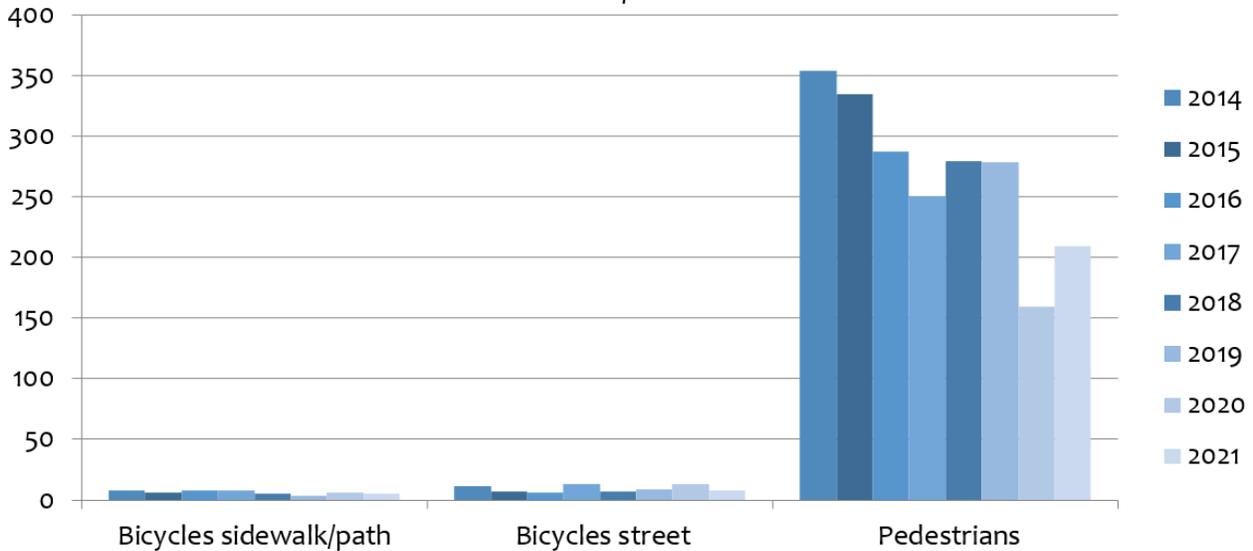
Fargo—Broadway just south of 2nd Ave N (Average of years 2014-2021)



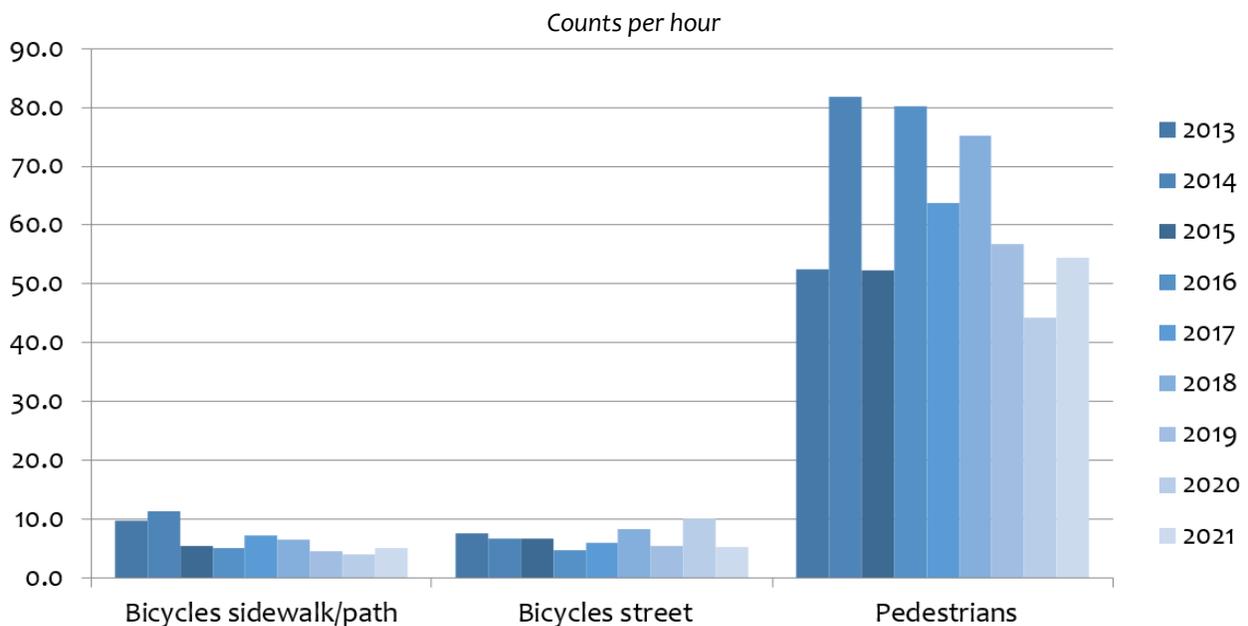
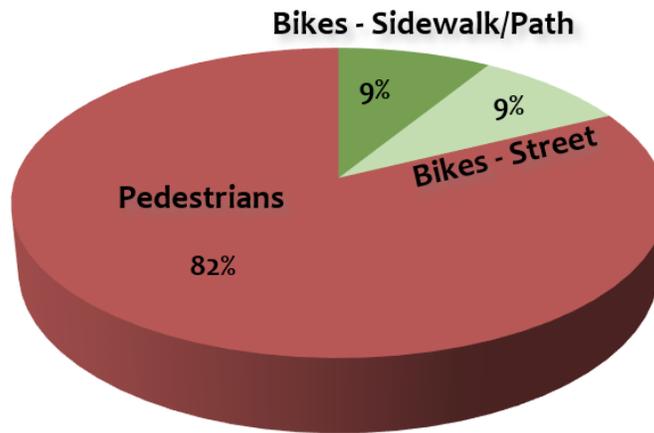
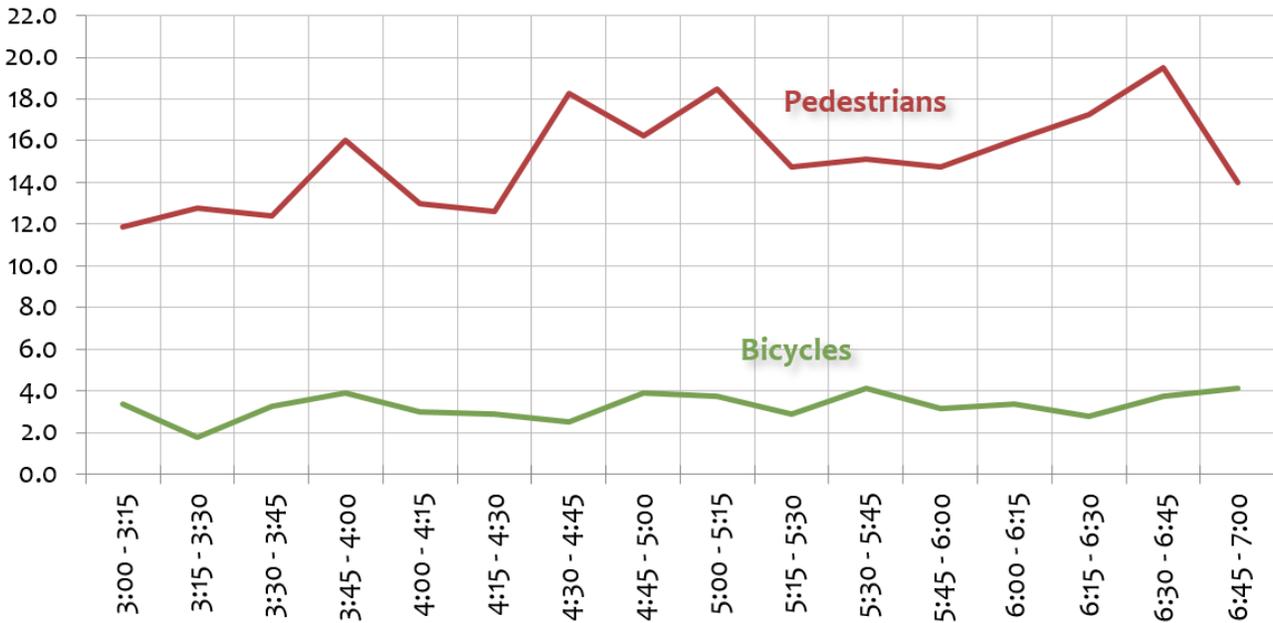
Bikes - Sidewalk/Path 2% 3% Bikes - Street



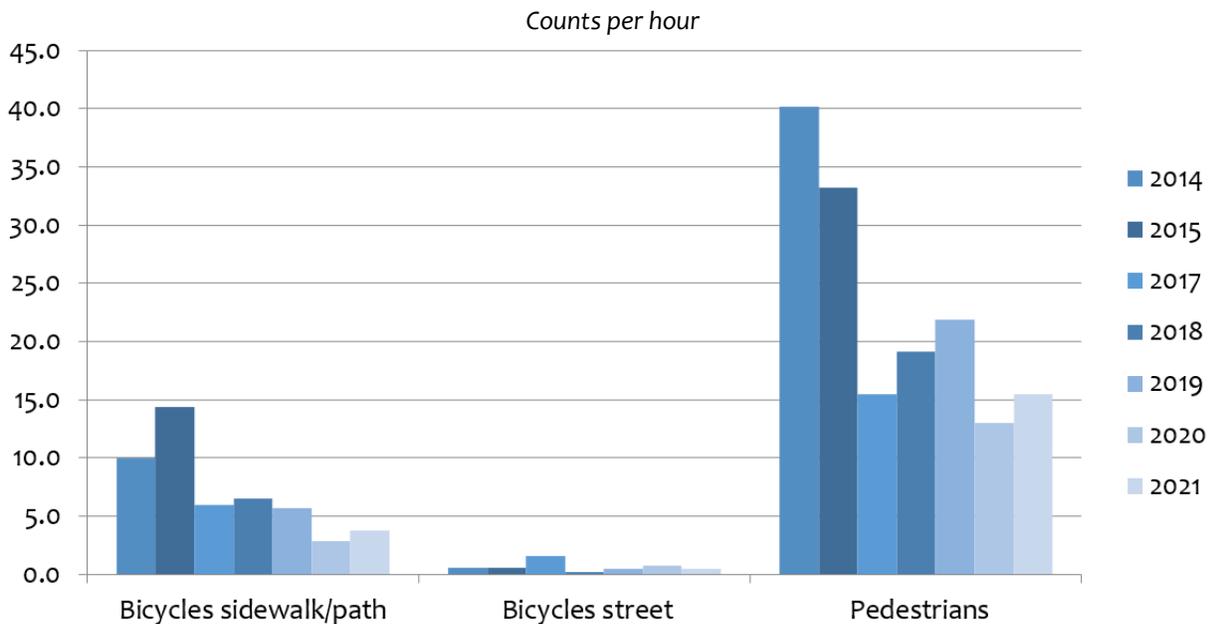
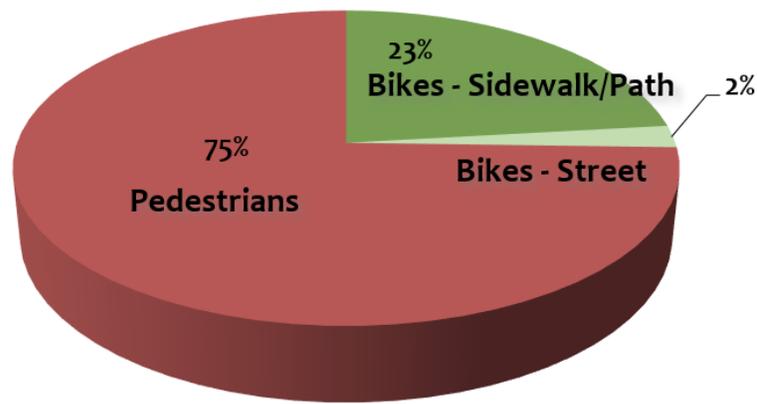
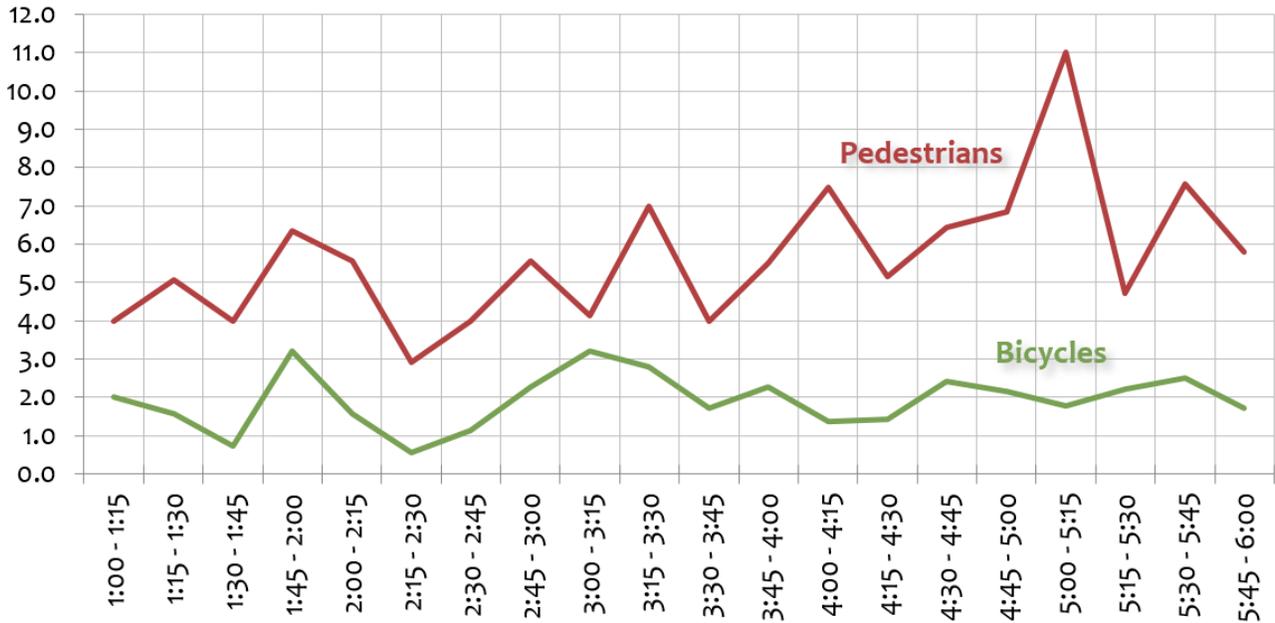
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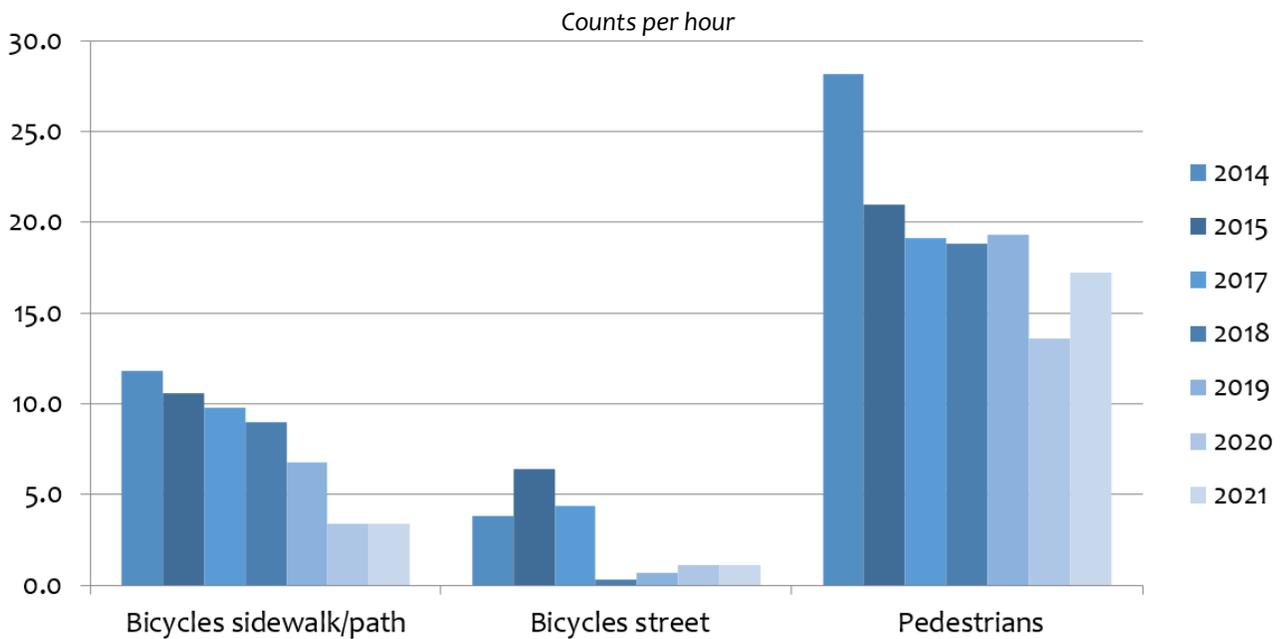
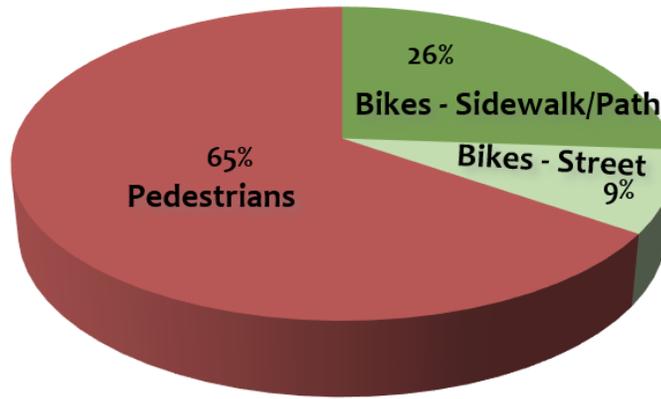
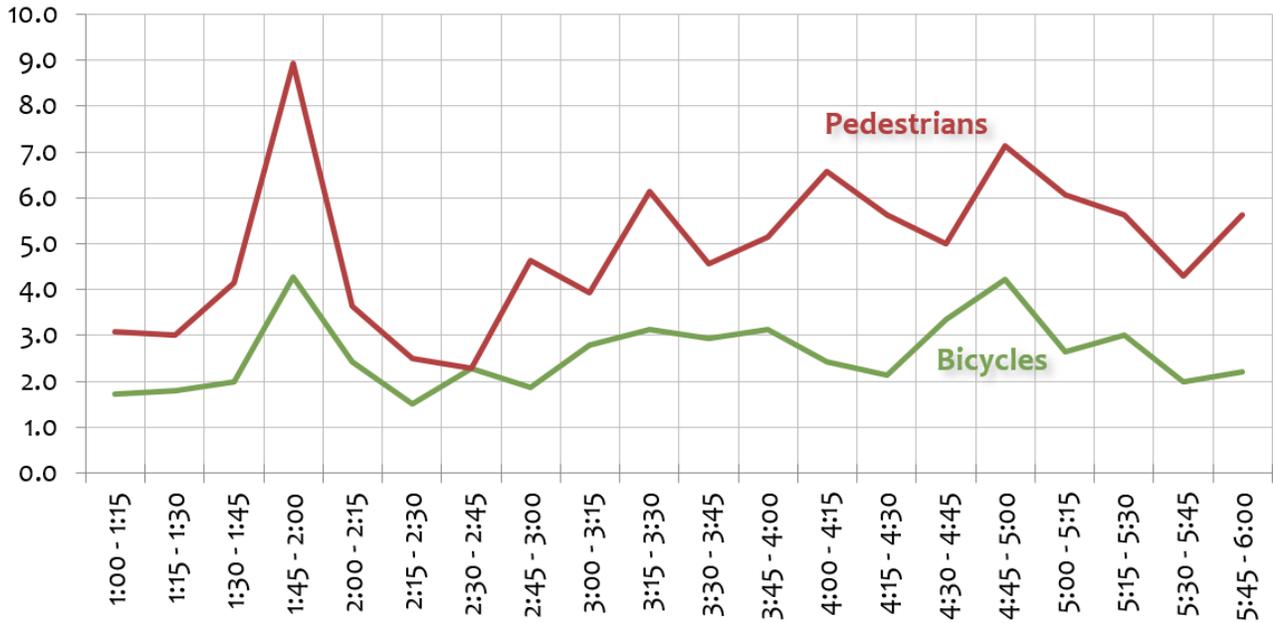
Fargo—Broadway at RR tracks (between NP Ave & Main Ave) (Average of years 2013-2021)



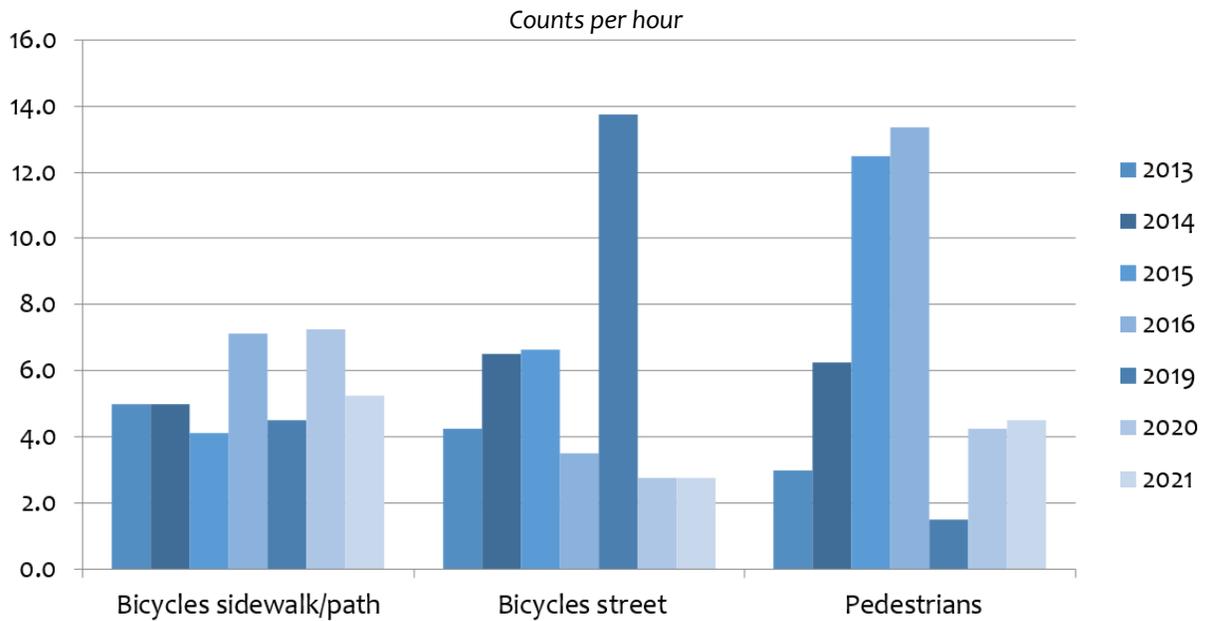
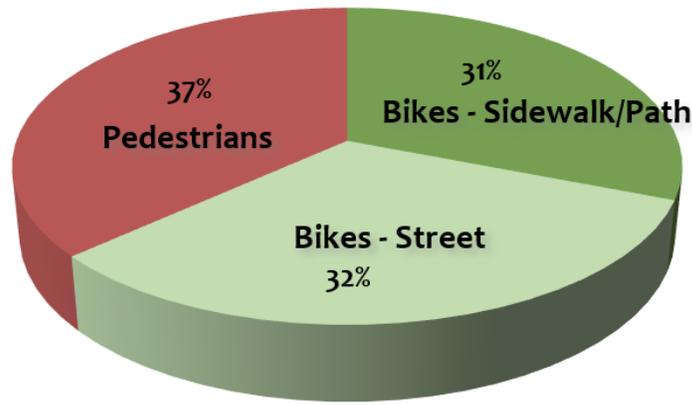
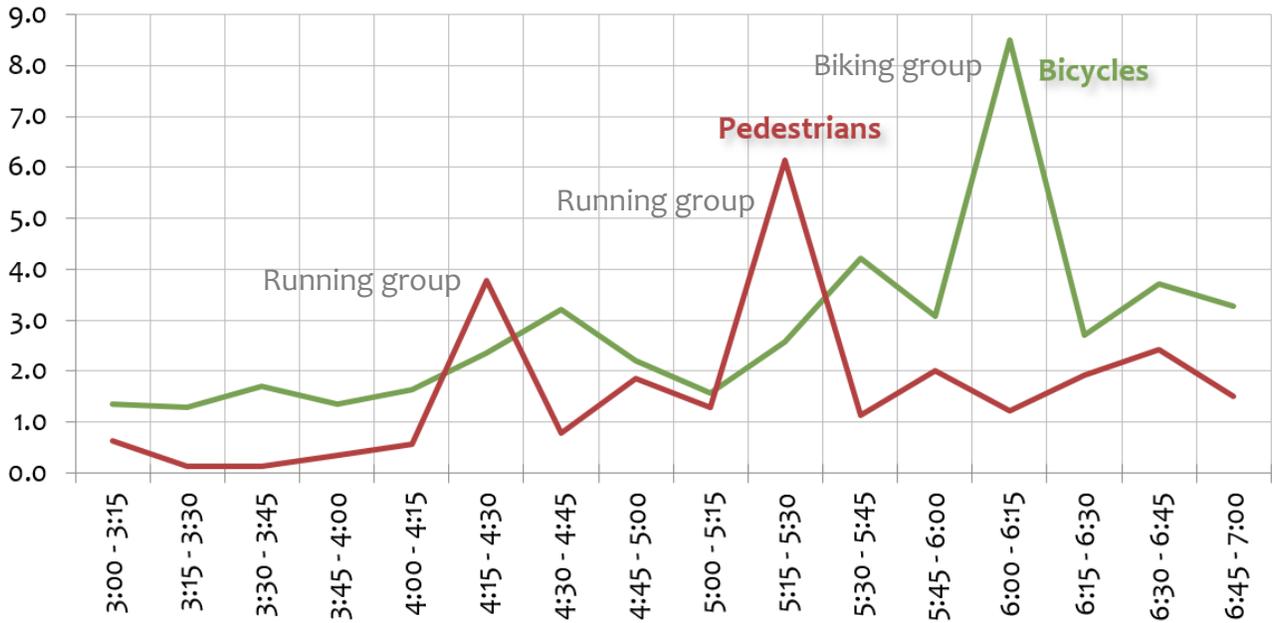
Fargo—12th Ave N just west of University Dr. (Average of years 2014-2021)



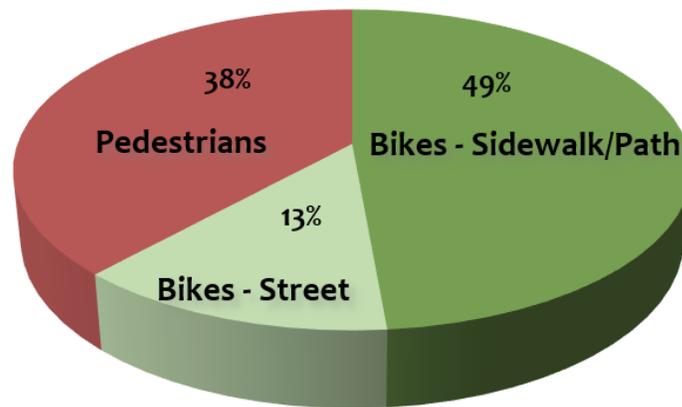
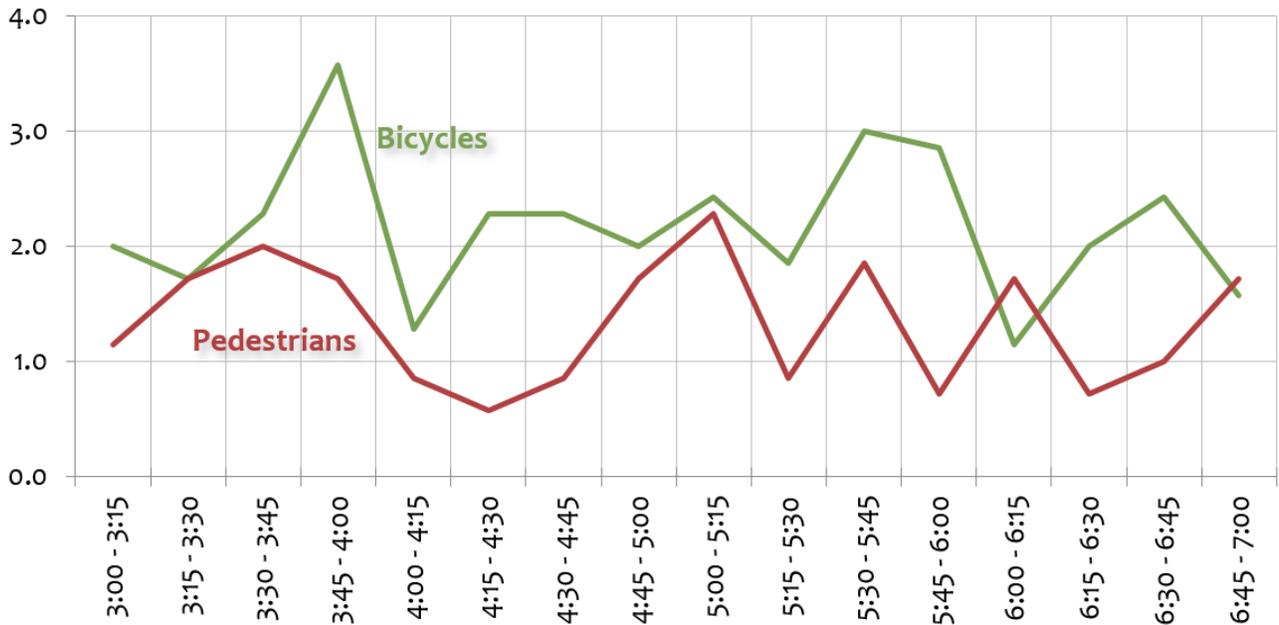
Fargo—University Dr just north of 12th Ave N (Average of years 2014-2021)



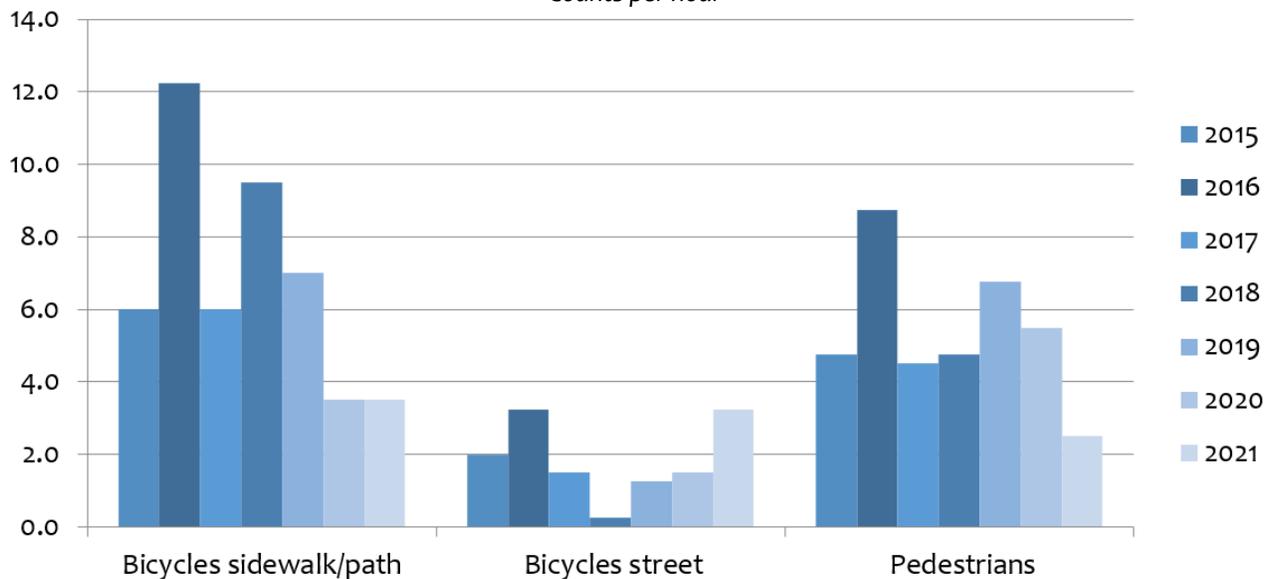
Fargo/Moorhead—12th Ave N/15th Ave N Bridge over Red River (Average of years 2013-2021)



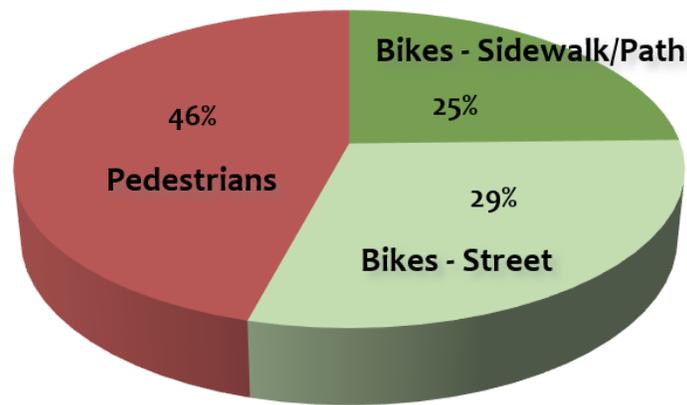
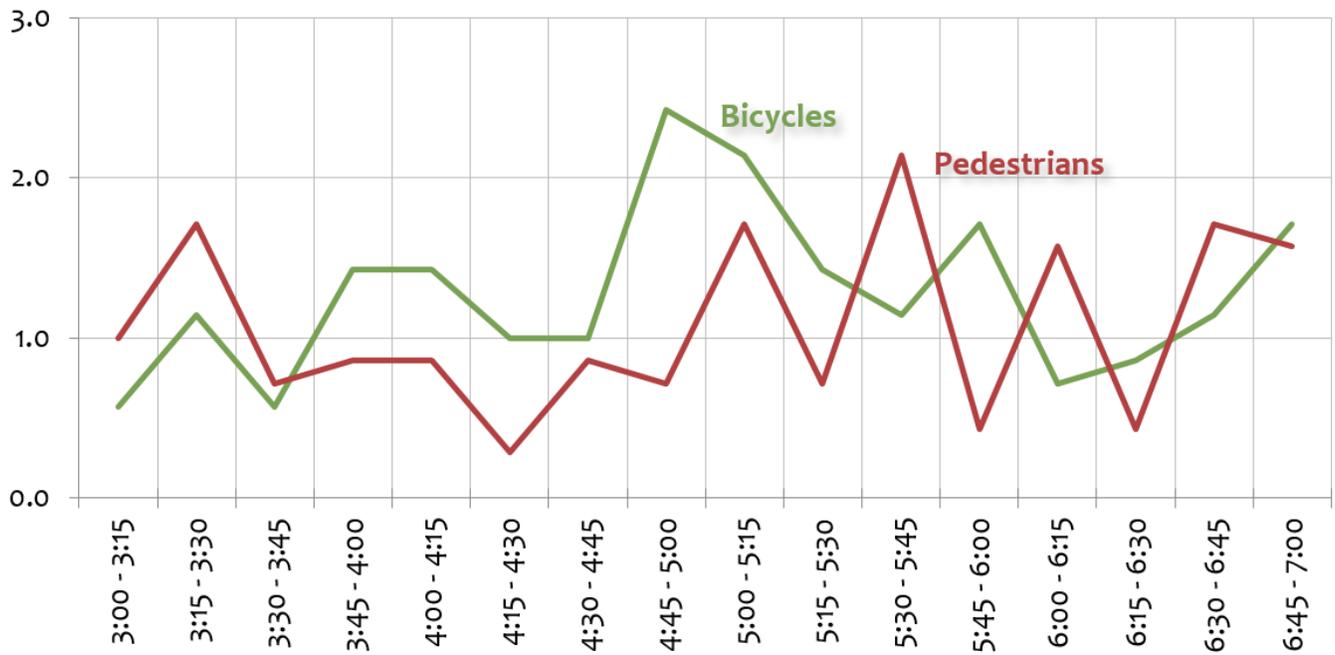
Fargo/ Moorhead—NP Ave/Center Ave bridge over Red River (Average of years 2015-2021)



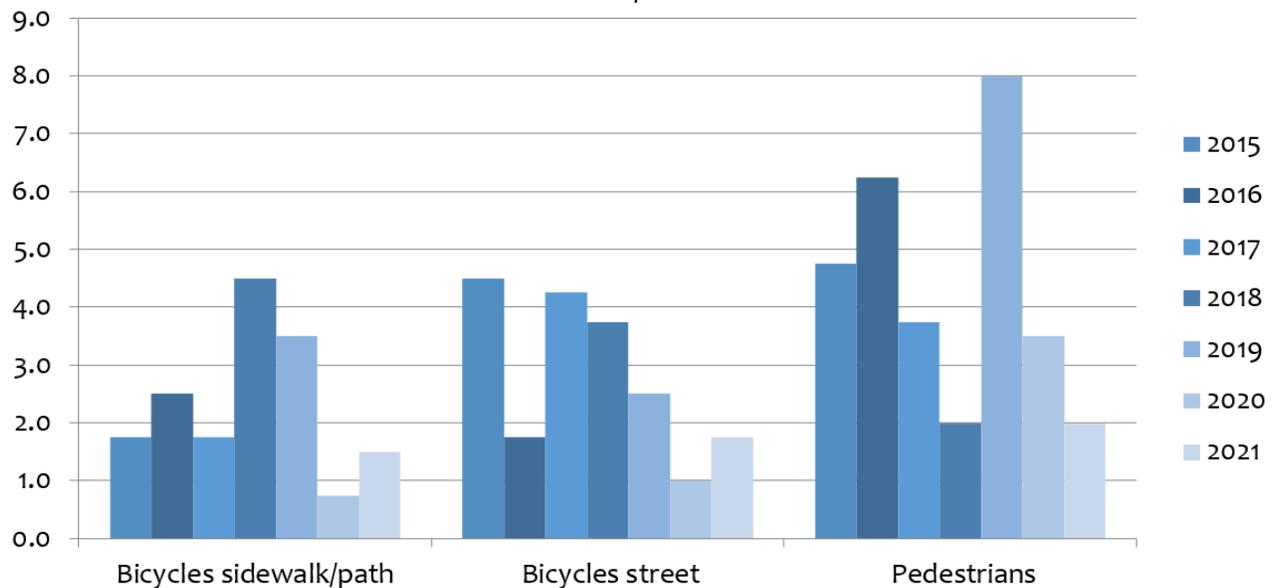
Counts per hour



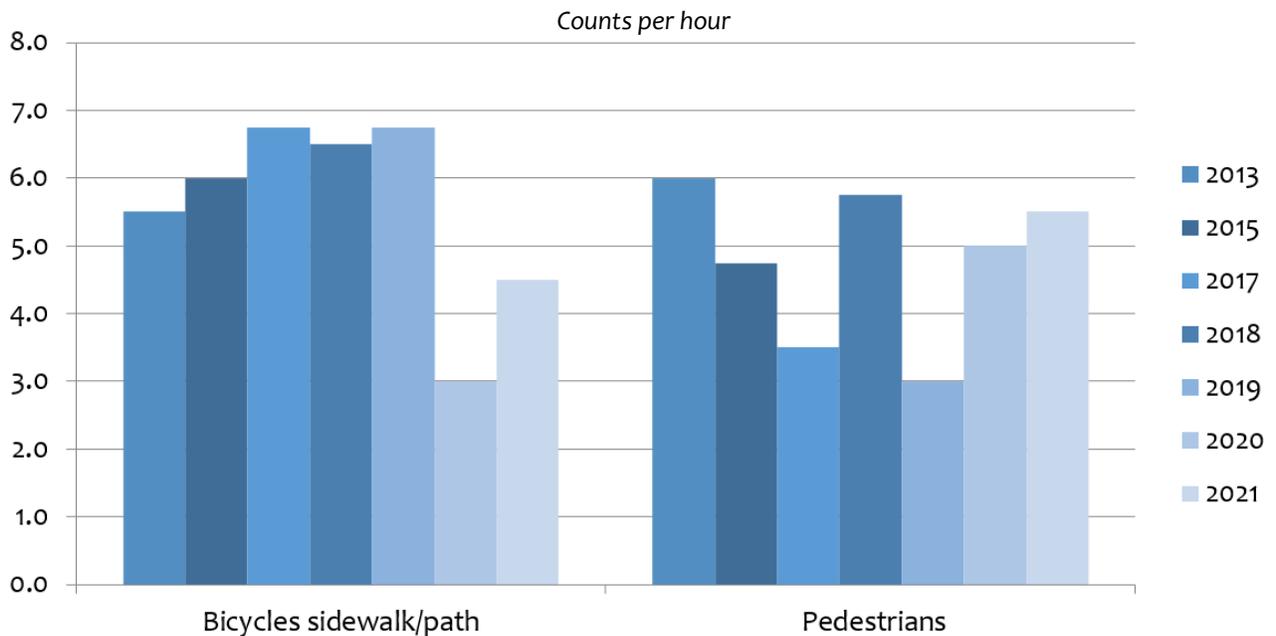
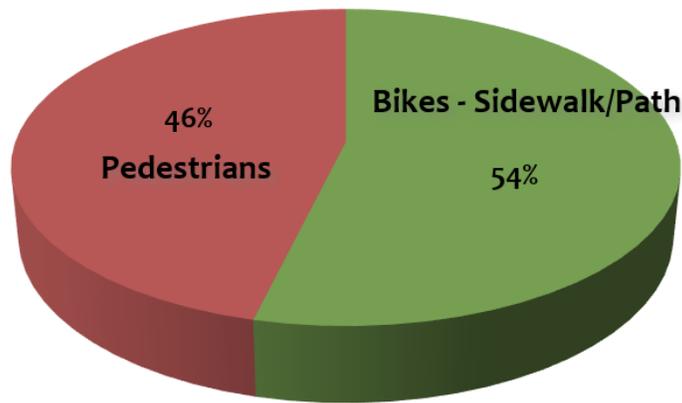
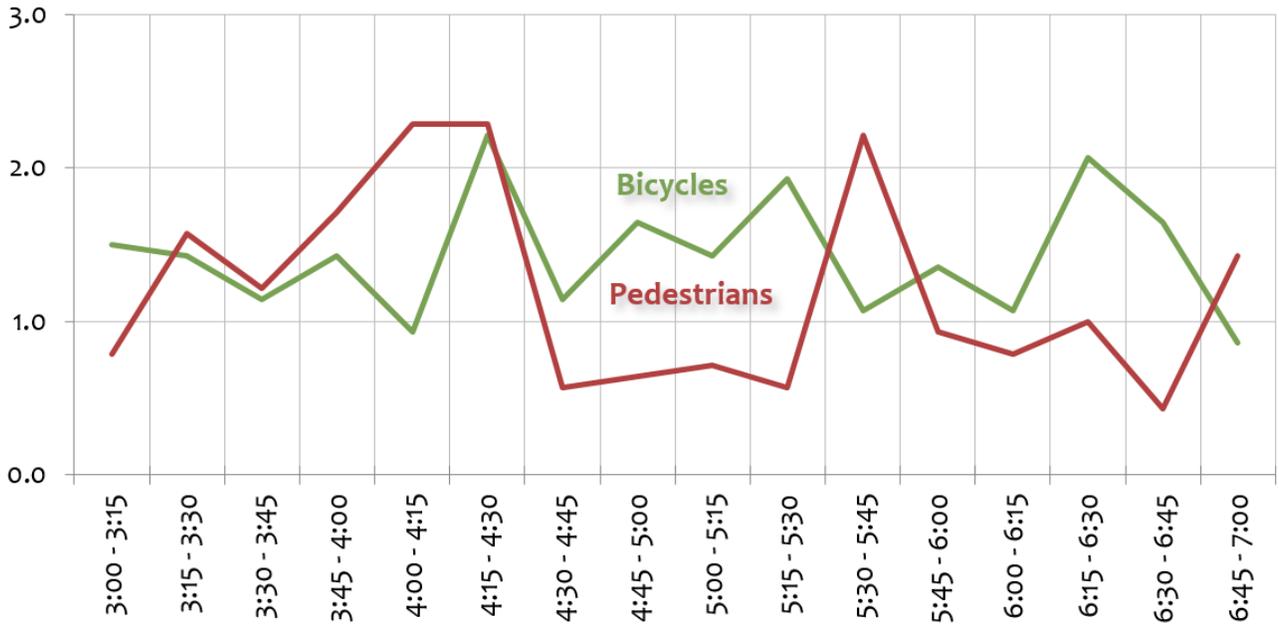
Moorhead—4th St just south of Center Ave (Average of years 2015-2021)



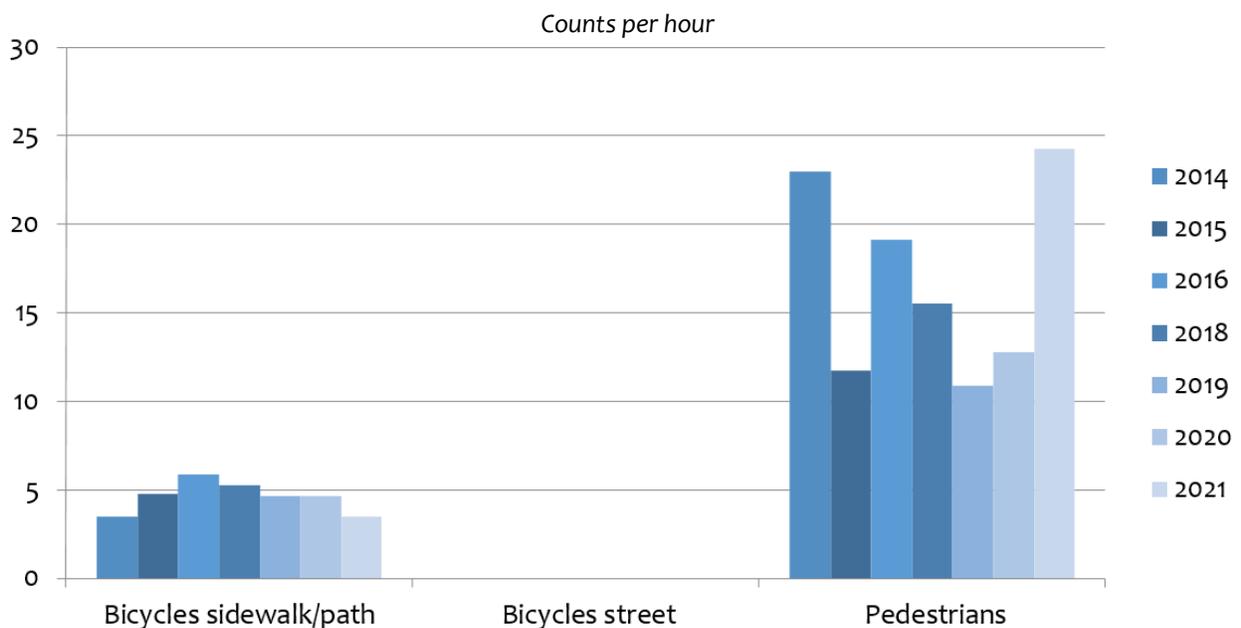
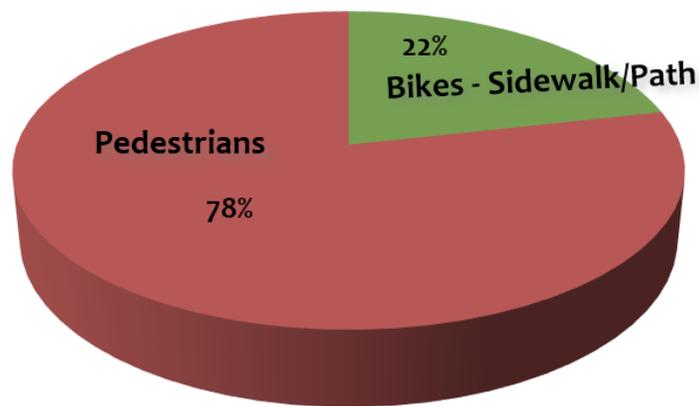
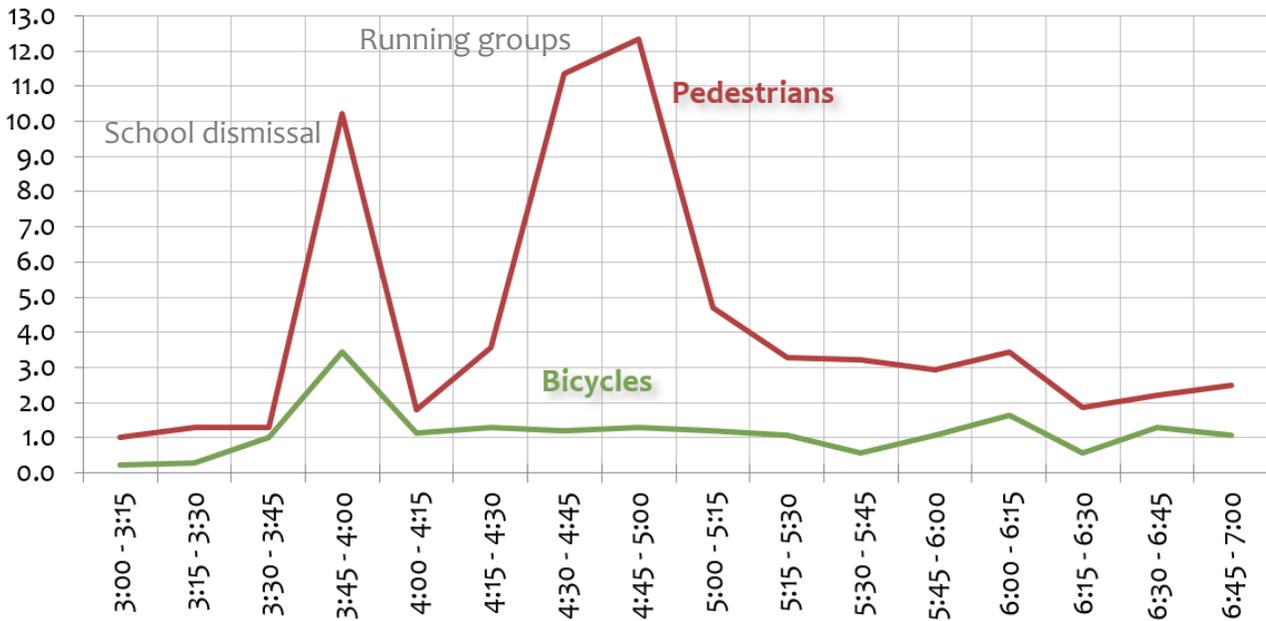
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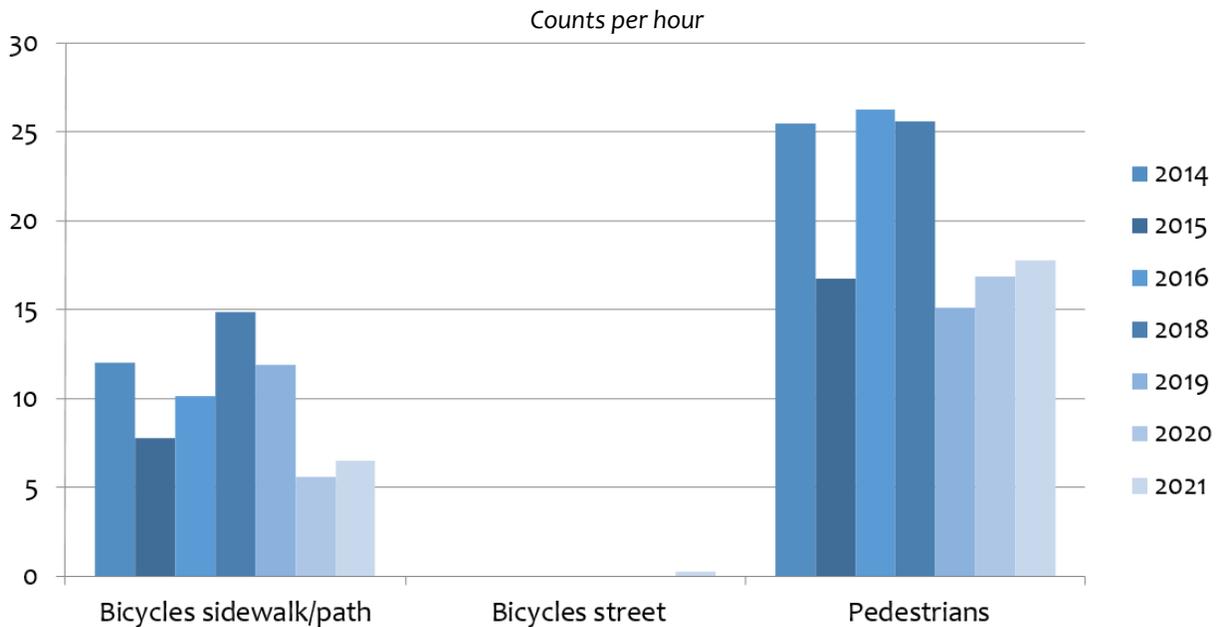
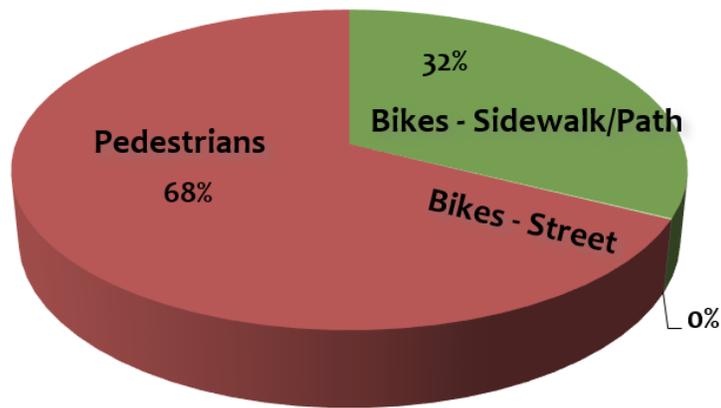
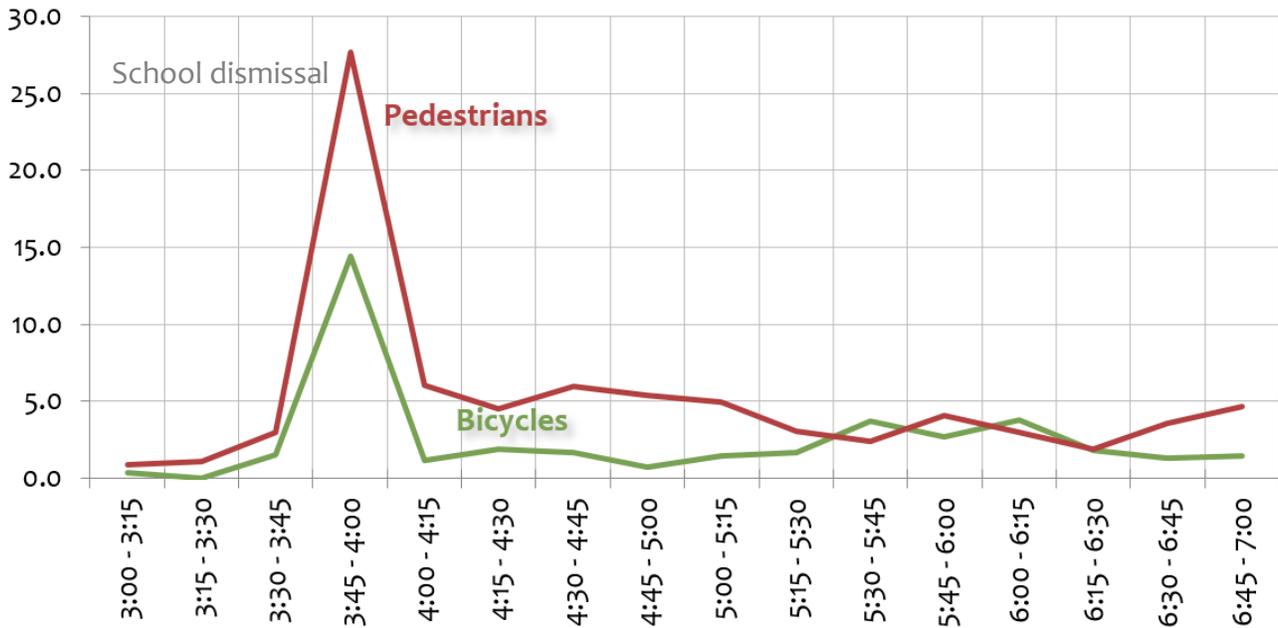
Moorhead—8th St over I-94 (Average of years 2013-2021)



West Fargo—9th St just south of 17th Ave E (Average of years 2014-2021)



West Fargo—17th Ave E just west of 9th St (Average of years 2014-2021)



To: Transportation Technical Committee
From: Luke Champa, Associate Transportation Planner
Date: 03/04/2022
Re: **2022-2025 Transportation Improvement Program (TIP) Amendment #2**

The Fargo-Moorhead Metropolitan Council of Governments (Metro COG) will hold a virtual public hearing via Zoom Video Communications on Thursday, March 17, 2022 at 4:00 p.m. to consider public comments regarding a proposed amendment to the 2022-2025 Transportation Improvement Program (TIP) for the FM Metropolitan Area. The proposed amendment to the 2022-2025 TIP reflects new federally funded projects within the Metropolitan Planning Area (MPA).

A public notice was published in the Forum of Fargo-Moorhead on Wednesday, March 2, 2022, advertising the public hearing, how to request more information, and detailed public comment information such as where to send written comments regarding the proposed amendment. The public notice advertised that public comments will be accepted until 12:00 p.m. (noon) on Thursday, March 17, 2022. As of the writing of this memo, no written comments have been received.

The proposed amendment to the 2022-2025 TIP is as follows:

1. **Addition of Project 3222001:** City of West Fargo rehabilitation project on 9th St E from 13th Ave E to Main Ave (2022). The total project cost is \$584,000 of which \$386,710 (66%) is Federal Coronavirus Response and Relief Supplemental Appropriations Act (CRRSAA) funds and \$197,290 (34%) is local funds.
2. **Addition of Project 9222002:** NDDOT Transportation Management Center (TMC) and Smart Corridor (ITS) planning project on I-29 from the SD Border to the Canadian Border (2022). The total project cost is \$1,100,000 of which \$550,000 (50%) is Federal Rebuilding American Infrastructure with Sustainability and Equity (RAISE) grant funds and \$550,000 is state funds.

See **Attachment 1** for more detailed project information.

Requested Action: Recommend approval of Amendment #2 of the Metro COG 2022-2025 Transportation Improvement Program (TIP) to the Policy Board.

Lead Agency	Metro COG ID State Number	Project Year	Project Location	Length	Project Limits		Project Description	Improvement Type	Total Project Cost	Federal Revenue Source	Other Revenue Source	Revenue
					From	To						
AMENDMENT 2 - 2022-2025 METRO COG TIP												
Moorhead Transit												
Fargo Transit												
City of Fargo												
City of Moorhead												
City of West Fargo												
City of West Fargo	3222001 23540	2022	9th St E		13th Ave E	Main Ave	Concrete Pavement Repair, Curb & Gutter Repair, ADA, Manhole & Inlet Adjustments	Rehabilitation	\$ 584,000	CRRSAA	Local	\$ 386,710 \$ 197,290
North Dakota Department of Transportation												
NDDOT	9222002	2022	I-29		South Dakota Border	Canadian Border	Planning Study: Transportation Management Center (TMC) and Smart Corridor (ITS) ***Cost estimate reflects all of project limits, not just work within Metro COG MPA***	Planning	\$ 1,100,000	RAISE	State	\$ 550,000 \$ 550,000
Cass County												
Minnesota Department of Transportation												
Clay County												

To: Transportation Technical Committee (TTC)
From: Dan Farnsworth, Transportation Planner
Date: March 4, 2022
Re: **Veterans Boulevard Corridor Extension Study and Network Implementation Analysis Amendment**

In May of 2020 Metro COG began the Veterans Boulevard Corridor Extension Study which has been developed in cooperation with staff from the Cass County, City of Fargo, City of Horace, and other stakeholders. In addition, public involvement was conducted throughout the study process. The study was led by consulting firm KLJ.

With the rapid growth in the southwest area of the Fargo-Moorhead Metro, this study analyzes the need for a phased future extension of the Veterans Blvd from 52nd Ave S to 100th Ave S. The study also looks at corridor improvements of the existing section from 40th Ave S to 52nd Ave S. As part of this study, various roadway layouts and alignments were analyzed.

As a result of evaluating short term and longer-term future roadway connectivity scenarios within the study area, local partners asked for the study's scope to be expanded to take advantage of travel demand model updates and traffic projections that came out of the work completed up to that point. As a result, an amendment to the project was added in August of 2021 to analyze implementation of a Veterans Boulevard extension as well as analysis and phasing other corridor improvements in the vicinity of Veterans Boulevard.

Both the Veterans Boulevard Corridor Extension Study and Network Implementation Analysis Amendment can be found on Metro COG's website at the following link: https://www.fmmetrocog.org/application/files/7916/4314/4830/VetsBlvd_Final_v9.pdf
In addition, **attached** is the study's Executive Summary.

Requested Action: Recommend Policy Board approval of the Veterans Boulevard Corridor Extension Study and Network Implementation Analysis Amendment.

VETERANS BOULEVARD CORRIDOR

EXTENSION STUDY

Executive Summary

January 2022

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EXECUTIVE SUMMARY

INTRODUCTION

As growth and development continues in the Fargo-Moorhead area's southwest metro, a continuous mile line corridor along Veterans Boulevard will be necessary to meet future transportation needs. Historically, major arterials like Veterans Boulevard attract vehicle-oriented development and thus prioritize moving vehicles quickly and efficiently. However, recent planning efforts across the metro have identified the desire and need to bring a multimodal approach to developing future corridors. Decisions regarding the form and function of the Veterans Boulevard corridor will influence investments on a series of adjacent corridors that are programmed for improvement over the next five to 10 years. These include mid-term improvements along Sheyenne Street and 45th Street and longer-term improvements along both 64th Avenue South and 76th Avenue South. Significant additional local, state, and federal funds are anticipated to be allocated to these corridors and have the potential to rebalance projected system-wide needs.

STUDY AREA AND BACKGROUND

This study will evaluate the existing segment of Veterans Boulevard between 40th Avenue and 52nd Avenue South, and the potential for a phased extension from 52nd Avenue to 100th Avenue South. A map of the study area can be seen in Figure 1. The study will also evaluate five existing intersections along the corridor:

- » Veterans Boulevard and 40th Avenue South
- » Veterans Boulevard and 44th Avenue South
- » Veterans Boulevard and 48th Avenue South
- » Veterans Boulevard and 51st Avenue South
- » Veterans Boulevard and 52nd Avenue South

Previous Studies

Several planning efforts are underway or have been completed that interact with the Veterans Boulevard study area. This section highlights relevant background information and existing plans for land use and the transportation network along the corridor. These planning efforts provide a basis to ensure that the Veterans Boulevard corridor is consistent with existing plans for the surrounding area.

- » 2045 Fargo-Moorhead Metropolitan Transportation Plan
- » Horace 2045
- » Fargo's Go 2030 Comprehensive Plan
- » Southwest Metro Transportation Plan
- » Fargo/West Fargo Parking and Access Study
- » Fargo Public Art Master Plan
- » 76th Avenue South Corridor Study
- » Fargo Stormwater Master Plan
- » Fargo Safe Routes to School Plan

The Veterans Boulevard corridor study can begin to incorporate these improvements into the improvement plans, as well as utilize the best practices identified in the Safe Routes to School Plan for bicycle and pedestrian amenities along the corridor.

Figure 1: Study Area



EXISTING CONDITIONS SUMMARY

Within the Veterans Boulevard study area, there are a variety of existing conditions that will guide and constrain the corridor's extension and the alternatives which can be considered. Below is a summary of these conditions.

- » **Right-of-Way.** Most of the land surrounding the corridor has not been platted, resulting in a lack of right-of-way. The full build out of Veterans Boulevard will dictate these right-of-way needs and guide subdivision processes in the City of Horace and City of Fargo.
- » **Utilities.** Both public and private utilities are present along the corridor. Coordination with these utilities will be necessary during construction activities.
- » **Environmental Conditions on the Existing Corridor.** Several environmental constraints are present along the existing corridor of Veterans Boulevard including water resources and noise sensitive land uses. These constraints will require additional consultation during any construction project to minimize potential impacts.
- » **Environmental Conditions will Constrain the Extension.** Water resources and constraints, including Drain 27, and flood plains will be the primary environmental constraint when evaluating future alignments for the Veterans Boulevard corridor. The stormwater size and location will be a major determinant in future alignments.
- » **Multimodal Facilities.** The existing corridor has facilities on both sides of the roadway with marked crossings. Transit serves the north end of the study area with hourly service. The number of facilities combined with the nearby schools and other pedestrian generators should put a high priority on pedestrian and bicycle mobility. The corridor extension should seek to provide a similar or higher level of multimodal amenities.
- » **Traffic Operations.** All study intersections and approaches currently operate at LOS C or better during the a.m. and p.m. peak hours. Some queueing issues exist during the p.m. peak hour at the Veterans Boulevard and 40th Avenue intersection.
- » **Corridor Safety.** There was a total of 36 crashes within the study area, the majority of which occurred at intersections along Veterans Boulevard with 40th Avenue or 44th Avenue. There were no fatal crashes along the corridor, although there was one incapacitating injury crash that occurred at 44th Avenue (bicyclist crash). Only the Veterans Boulevard and 44th Avenue intersection has a crash rate and severity rate above the critical rates for intersections with similar characteristics.

CORRIDOR VISION

The Veterans Boulevard Corridor Extension presents an opportunity for the community to shape the future road network of the southwest metro area. Neighbors, local business owners, city officials, emergency service workers, non-profit representatives, and city planners were all heard during this engagement process. Each brought a unique perspective to the issues and opportunities in the study area. The Corridor Vision, presented below, is a set of common interests and needs that emerged from the engagement process.

The Veterans Boulevard Corridor will enhance livability and serve the whole community. Creating a “sense of place” was a thread that ran through all the listening sessions. Community members felt that the corridor should be more than just a route through the southwest metro area, and should be a destination. Displays of public art that reflect the community, landscaping, green spaces, tree canopy, and recreational amenities will bring the community's vision to life.

The Veterans Boulevard Corridor will serve all modes. Throughout the listening sessions, community members expressed the importance of the corridor serving pedestrians, bicyclists, and motorized traffic. The corridor was

envisioned as a place where traffic flows smoothly and walking feels comfortable and safe. Beyond the needs of small vehicles, community members envisioned a corridor that was easily navigable by emergency vehicles and buses.

The Veterans Boulevard Corridor will improve connectivity and remain flexible for future growth. Veterans Boulevard is a critical connection between Horace and Fargo. As residential growth continues in the southwest metro area, connections from residential development and major east-west routes to the corridor will need to adapt to shifting demands. The Veterans Boulevard extension was envisioned as a roadway that can grow and change over time, with measures taken today to allow for the addition of intersections and roadway improvements in the future.

KEY STAKEHOLDER ENGAGEMENT

A study review committee (SRC) was assembled to review all project materials and provide guidance throughout the visioning phase. The committee consisted of 15 representatives from eight government entities, listed below.

- » City of Fargo
- » City of West Fargo
- » City of Horace
- » Cass County
- » Southeast Cass Water Resource District
- » Metro COG
- » North Dakota Department of Transportation
- » Federal Highway Administration – North Dakota

IMPROVEMENTS TO EXISTING CORRIDOR

A portion of the existing Veterans Boulevard corridor (between 40th and 52nd Avenue South) was reconstructed in 2009 and has minor roadway deficiencies. A key concern at the north of the corridor study area is safety, with the majority of crashes (i.e., 89 percent) occurring at the 40th or 44th Avenue South intersections. The crash analysis conducted during this study suggests that design aspects of the existing roundabouts, as well as queuing issues at the Veterans Boulevard/40th Avenue South intersection, may be factors contributing to the high crash rates at these locations. In addition, input received from emergency service representatives indicates that existing roundabouts do not provide sufficient space for larger vehicles, presenting challenges for ambulances and fire trucks. The study proposes improvements to address these concerns within the existing corridor.

Existing Roundabout Reconstruction

Analysis results and public input indicate that exiting roundabouts between 40th Avenue South and 52nd Avenue South do not provide sufficient space for larger vehicles. It was also noted that the design of the roundabouts can make for excessive braking and acceleration for vehicles entering and exiting the intersections. This is a particular

Figure 2: Veterans Boulevard Southbound Transition at 40th Avenue South



concern for emergency vehicle access and snow removal. To address this issue, it is recommended that existing roundabouts at 44th Avenue South, 48th Avenue South, and 51st Avenue South either have the approach roadways reconstructed to enhance the entry/exit paths or a completely reconstruction to increase the roundabout diameter from 150-feet to 180-feet. Reconstructing the approaches will allow vehicles, especially large vehicles, to navigate the roundabouts more efficiently while utilizing some of the existing roadway infrastructure. Construction of this option could be completed by closing each approach roadway individually opposed to closing the entire intersection. Reconstruction of the entire roundabout will increase the circulatory roadway diameter to 180-feet. This size was selected based on design guidance and feedback from City of Fargo that other roundabouts within the city of this size are easily navigable. Both 150-foot and 180-foot planning-level roundabout concepts were developed for each intersection. Example concepts for 44th Avenue South are shown in Figure 3 and Figure 4.

Figure 3: 180-Foot Roundabout Concept for Veterans Boulevard and 44th Avenue South



Figure 4: 150-Foot Roundabout Concept for Veterans Boulevard and 44th Avenue South



EXTENSION ALIGNMENT ALTERNATIVES

Three corridor alignment alternatives were developed in close coordination with the Study Review Committee. The alignment alternatives incorporate the benefits and constraints identified during the existing conditions analysis, as well as input collected through public engagement. A brief description of each alignment is provided below.

Meander Alignment

- » The Meander Alignment roughly follows the alignment of Drain 27 to the east of the section line. This alternative was developed with the intention of maximizing developable land along the corridor, and to provide a more dynamic and interesting roadway landscape. This alternative would place roughly half of the corridor extension – the portion south of 76th Avenue South – within the City of Horace.

Western Alignment

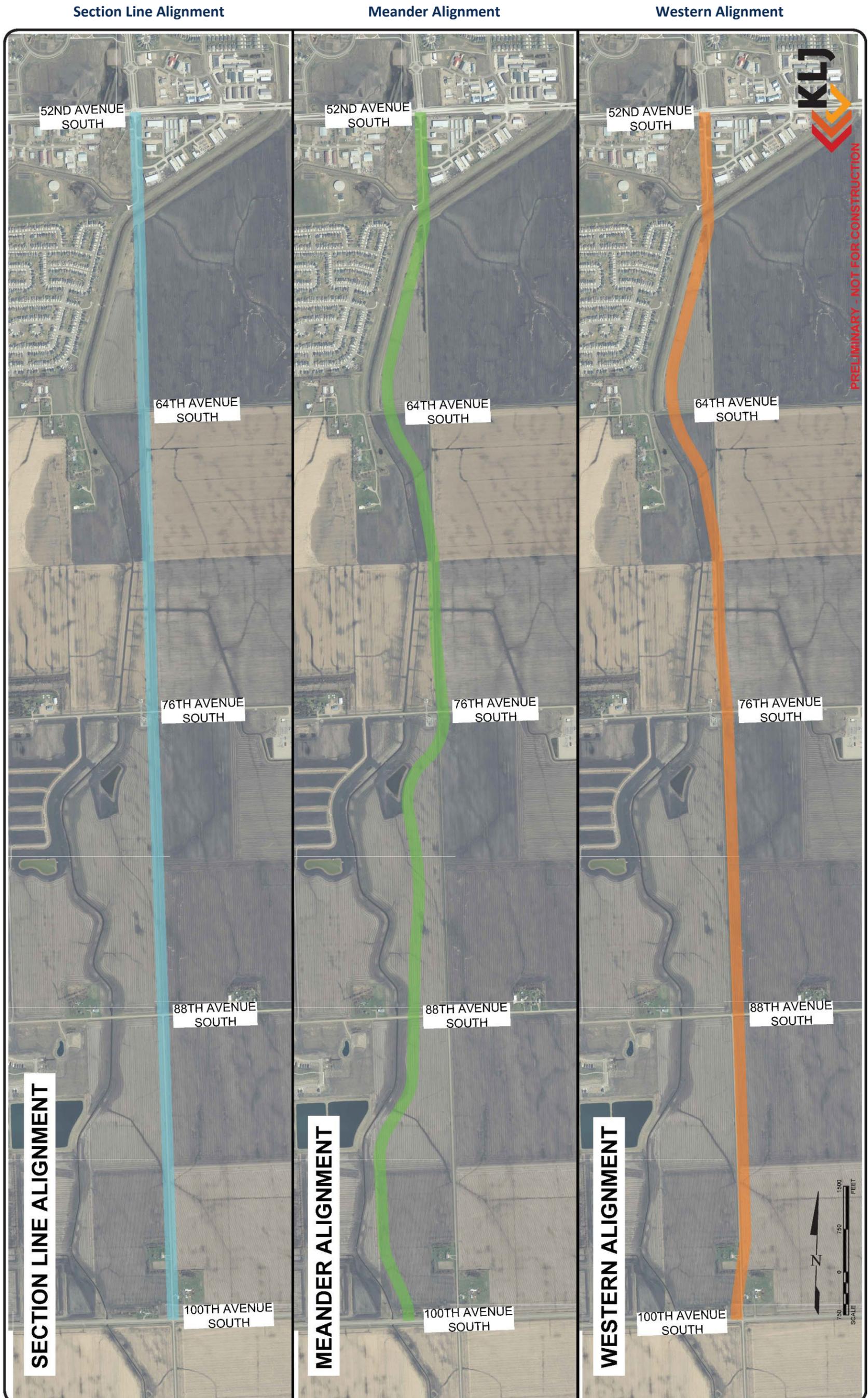
- » The Western Alignment generally maintains a straight path, only deviating from the section line at the north to follow the path of Drain 27 near Deer Creek. South of 64th Avenue South, the Western Alignment is offset slightly to the east of the section line, resulting in a large portion of the extension being located within the City of Fargo corporate limits.

Section Line Alignment

- » The Section Line Alignment follows a straight path from 52nd Avenue to 100th Avenue South. This alternative is located directly on the Fargo-Horace border for most of the alignment south of 64th Avenue South.

After detailed review and evaluation by the Study Review Committee, the Section Line Alignment was determined to be the most suitable alternative for the Veterans Boulevard extension. Central factors in this decision include the desire to share project development and corridor maintenance roles between Fargo and Horace, as well as consistency with the historical practice of aligning major corridors along section lines.

Figure 5: Veterans Boulevard Extension Corridor Alignment Alternatives



EXTENSION CORRIDOR ALTERNATIVES

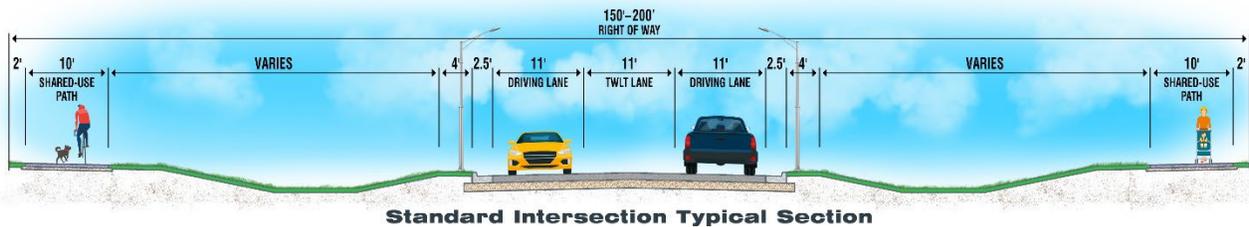
Three corridor-level alternatives were developed to support the Veterans Boulevard extension. Each alternative involves a slightly modified roadway section and intersection control features. Development of each alternative is supported through both public input gathered earlier in the planning process and through transportation planning projections for the study area. The defining features of each alternative are described below.

Standard Intersection Alternative

Roadway Section

The Standard Intersection Alternative proposes a three-lane roadway with a center two-way left turn lane (TWLTL). Both the travel lanes and the TWLTL lane have a width of 11 feet. This alternative includes a 10-foot shared-use path on each side of the corridor. This alternative follows the Section Line Alignment – maintaining a straight path from 52nd Avenue to 100th Avenue – and has an assumed right-of-way of between 150 to 200 feet. This right-of-way width was based on standard right-of-way dedication practices of City of Fargo and City of Horace. All areas of the roadway within City of Fargo corporate limits include 100-feet of right-of-way from the section line, outside of the corporate limits, 75-feet of right-of-way was shown. A typical section is shown in Figure 6.

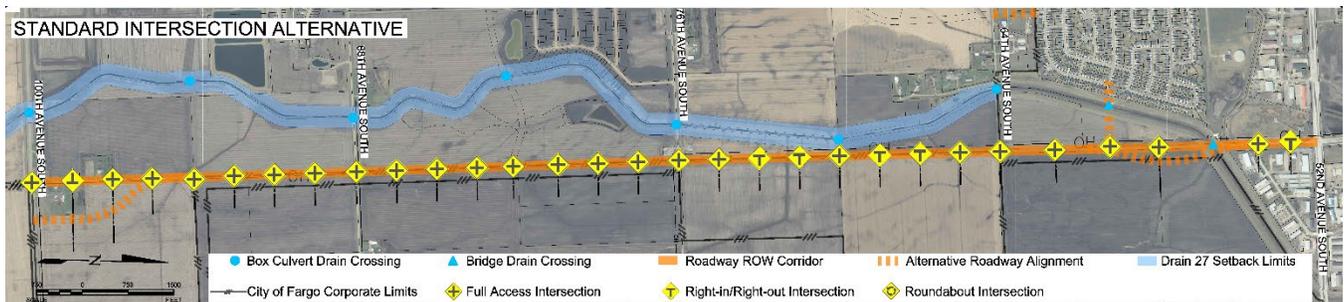
Figure 6: Standard Intersection Alternative Typical Section (Facing North)



Intersection Control

The Standard Intersection Alternative proposes standard signal control for primary intersections at 64th Avenue South, 76th Avenue South, and 88th Avenue South. In addition, this alternative includes minor, stop-controlled intersections every 1/8th of a mile along the corridor extension. Most minor intersections are four-legged, with the exception of T-intersections located immediately south of 52nd Avenue South, between 64th Avenue South and 76th Avenue South, and immediately north of 100th Avenue South. Intersection location and type for this alternative are shown in Figure 7.

Figure 7: Intersection Location and Type for the Standard Intersection Alternative



Design for the primary, signalized intersections at 64th Avenue South, 76th Avenue South, and 88th Avenue South reflect the roadway network assumptions specified in Chapter 3. Specifically, 64th Avenue South and 76th Avenue South are assumed to be four-lane facilities with right- and left-turn lanes. 88th Avenue South is assumed to be a three-lane facility with right- and left-turn lanes. Planning-level design concepts for the primary intersections is shown in Figure 8, Figure 9, and Figure 10.

Roundabout Intersection Alternative

Roadway Section

The Roundabout Intersection Alternative proposes a two-lane median-divided facility with full access every ¼-mile. The north- and southbound travel lanes have a width of 18 feet and are separated by a 16-foot median. The median is wide enough to provide full width left turn lanes at the minor approaches if deemed necessary. This alternative includes a 10-foot shared-use path on each side of the corridor. This alternative follows the Section Line Alignment – maintaining a straight path from 52nd Avenue to 100th Avenue – and has an assumed right-of-way of between 150 to 200 feet. A typical section for this alternative is shown in Figure 11.

Figure 8: Veterans Boulevard and 64th Avenue South

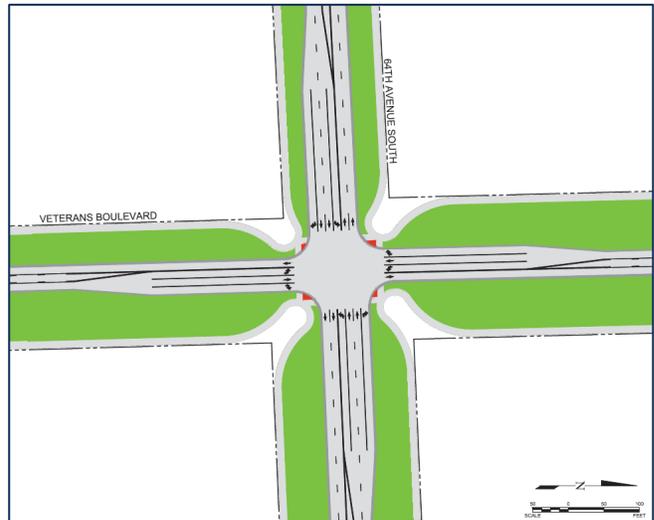


Figure 9: Veterans Boulevard and 76th Avenue South

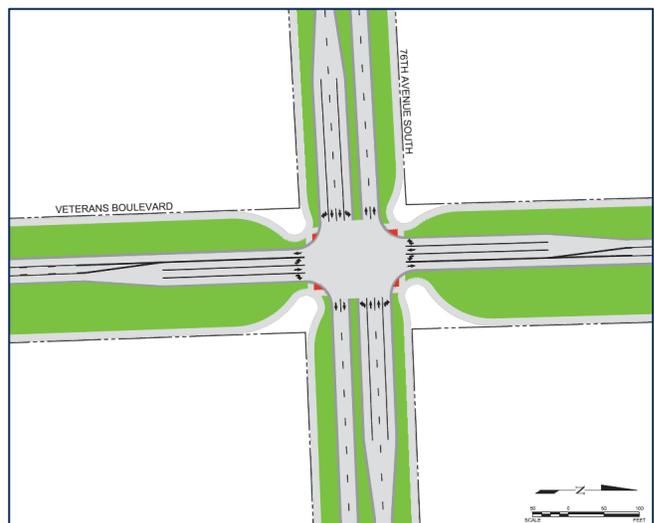


Figure 10: Veterans Boulevard and 88th Avenue South

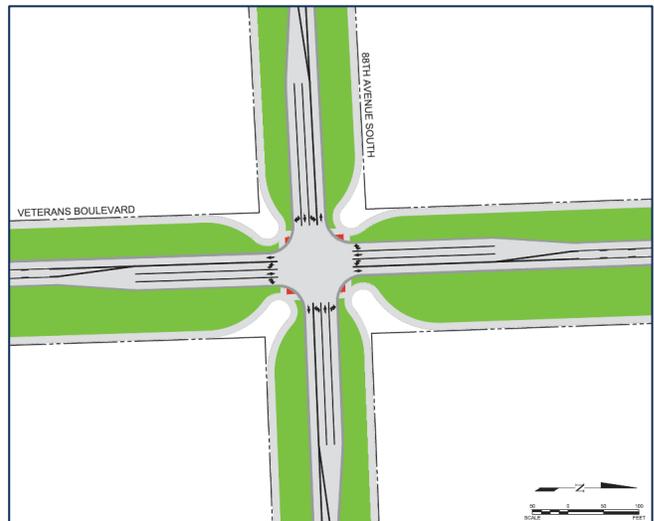
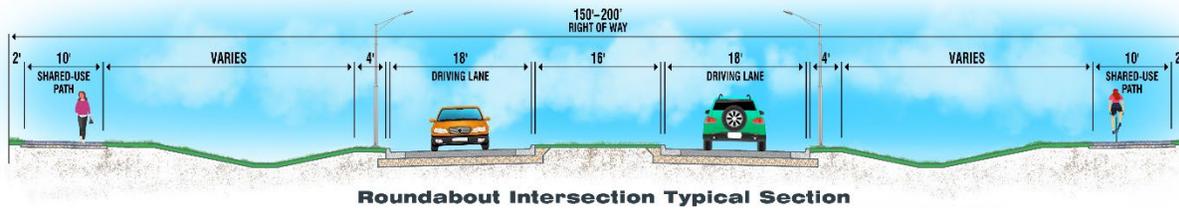


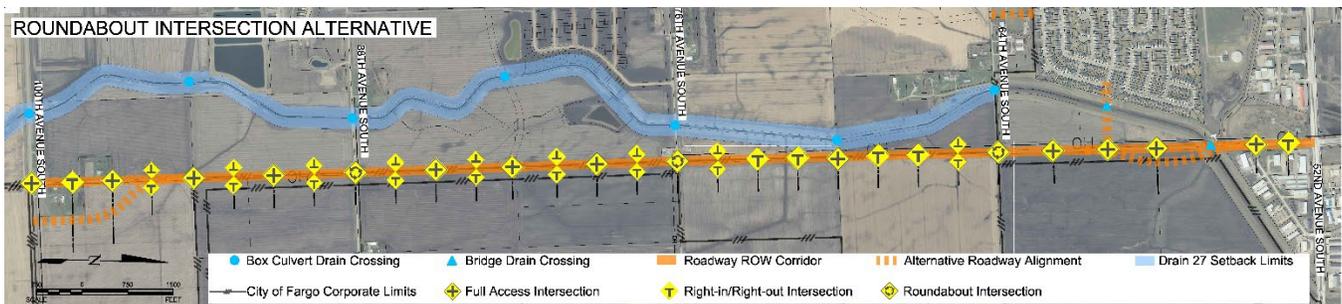
Figure 11: Roundabout Intersection Alternative Typical Section (Facing North)



Intersection Control

The Roundabout Intersection Alternative proposes roundabouts for the primary intersections at 64th Avenue South, 76th Avenue South, and 88th Avenue South. In addition to primary intersections, this alternative accounts for minor, stop-controlled intersections every 1/8th of a mile along the corridor extension. Both full-access and right-in/right-out minor intersects are proposed to support sufficient access management along the corridor. Intersection location and type for this alternative are shown in Figure 12.

Figure 12: Intersection Location and Type for the Roundabout Intersection Alternative



As previously noted, roundabouts evaluated along Veterans Boulevard at 64th Avenue South and 76th Avenue South were assumed to have single lane approaches along Veterans Boulevard and two-lane approaches along 64th Avenue South and 76th Avenue South. The roundabout at 88th Avenue South was assumed to have all single lane approaches. Thus, the 64th Avenue South and 76th Avenue South intersections are designed as 2x1 hybrid multilane roundabouts (2-lanes east-west; 1 lane north-south), and the 88th Avenue South intersection is designed as a single-lane roundabout. Planning-level design concepts for the primary intersections is shown in Figure 13, Figure 14, and Figure 15.

Figure 13: Intersection of Veterans Boulevard and 64th Avenue South

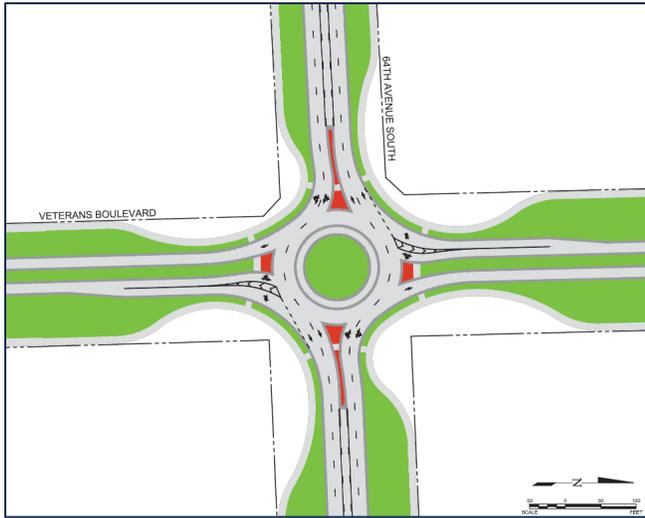


Figure 14: Intersection of Veterans Boulevard and 76th Avenue South

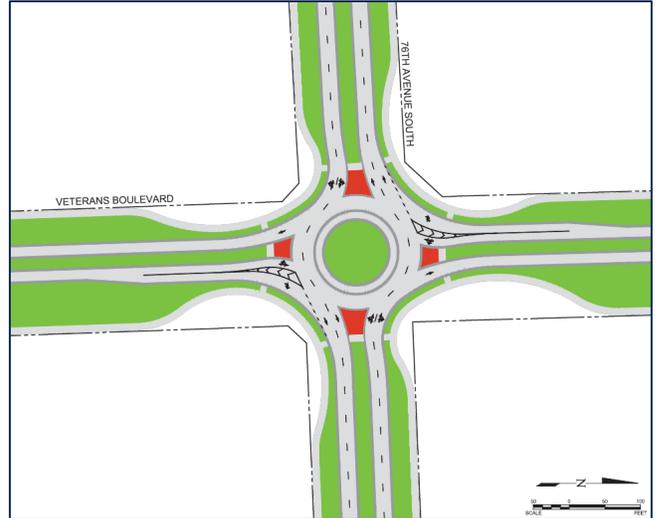


Figure 15: Intersection of Veterans Boulevard and 88th Avenue South



Modified/Variable Alternative

Roadway Section

The Modified/Variable Alternative proposes three distinct roadway typical sections for different segments of the corridor extension. The different typical sections are derived from public input, previous studies, and guidance from the design team.

- » **Typical Section A (52nd Avenue to 64th Avenue and 88th Avenue to 100th Avenue)** presents a three-lane roadway with one travel lane in each direction and a TWLTL. Both the travel lanes and the TWLTL lane have a width of 11 feet. This section includes a 10-foot shared-use path on each side of the corridor and has an assumed right-of-way of between 150 to 200 feet.

Figure 16: Typical Section A (Facing North)



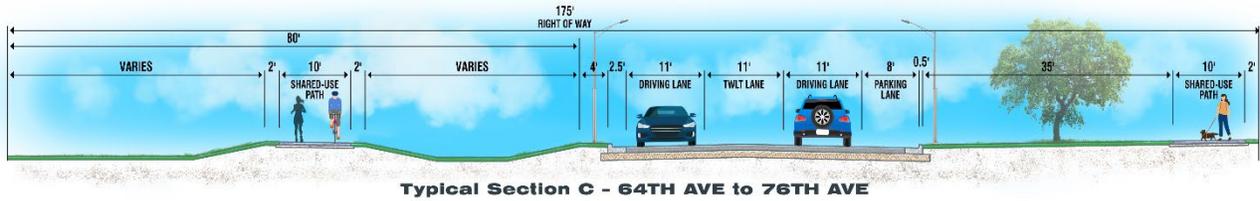
- » **Typical Section B (76th Avenue to 88th Avenue)** presents a three-lane roadway with one travel lane in each direction and a TWLTL. Both the travel lanes and the TWLTL have a width of 11 feet. Frontage roads with 11-foot travel lanes and 8.5-foot parking lanes are included on both sides of the corridor. 20-foot pedestrian, bicycle, and amenity areas are included on the eastern and western edges of the corridor. This section has an assumed right-of-way of 175 feet.

Figure 17: Typical Section B (Facing North)



- » **Typical Section C (64th Avenue to 76th Avenue)** presents a three-lane roadway with one travel lane in each direction and a TWLTL. Both the travel lanes and the TWLTL lane have a width of 11 feet. An 8-foot parking lane is included on the east side of the roadway, as well as 10' foot shared use paths on each side of the corridor. The roadway alignment for Typical Section C is shifted 28-feet east of the section line to allow for a larger green space on the western edge of the corridor adjacent to Drain 27. This shift maintains a large boulevard on the east side of the roadway while providing increased separation between the meandering shared-use path and the roadway on the west side of the roadway. This section has an assumed right-of-way of 175 feet.

Figure 18: Typical Section C (Facing North)



Intersection Control

The Modified/Variable Alternative proposes roundabouts for the primary intersections at 64th Avenue South, 76th Avenue South, and 88th Avenue South. In addition, this alternative accounts for minor, stop-controlled intersections every 1/8th of a mile. Along Typical Section B, three full-access intersections are located on the main roadway, with eight right-in/right-out intersections proposed for the parallel frontage roads (four on each frontage road). Intersection location and type for the Modified/Variable Alternative are shown in Figure 19. Figure 20 provides additional detail on the location and design of minor intersections, by typical section, along the corridor extension.

Figure 19: Intersection Location and Type for the Modified/Variable Alternative

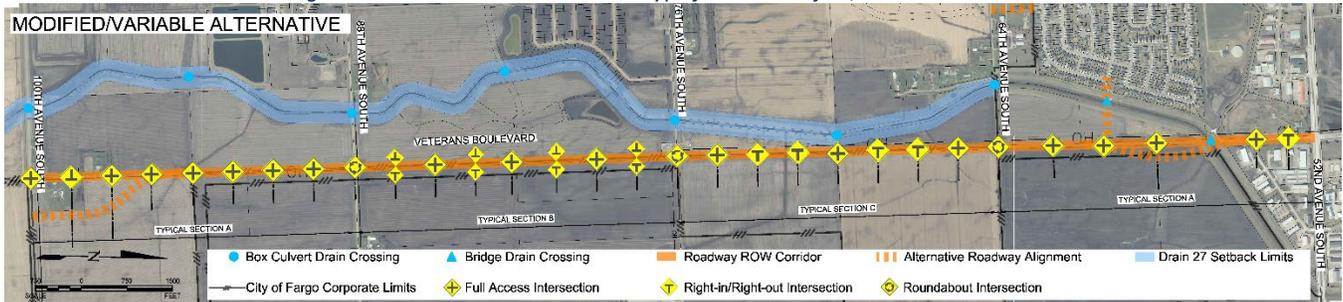
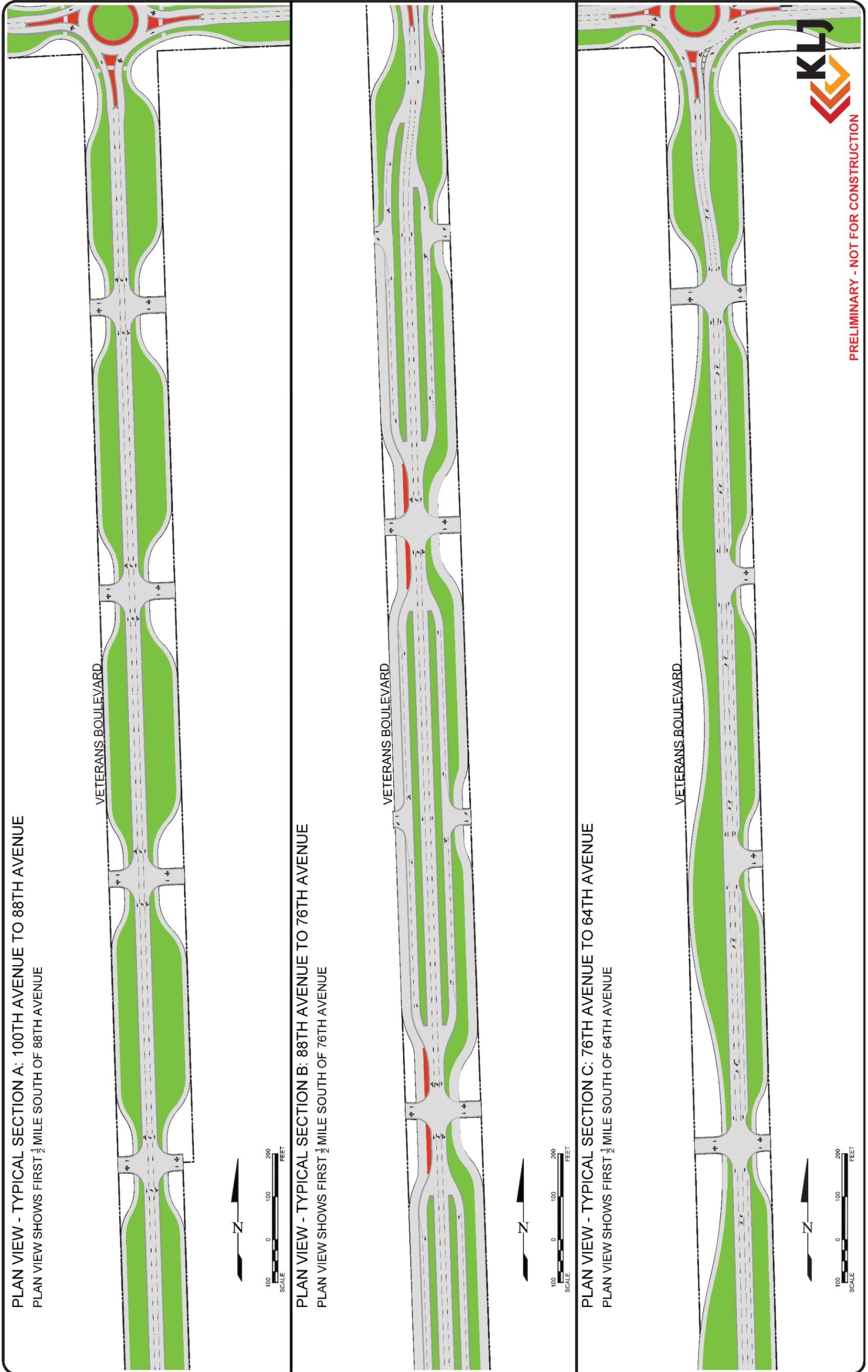


Figure 20: Location and Design of Minor Intersections by Typical Section



DEER CREEK CONNECTION

Alternatives were developed for potential new connections to the Deer Creek neighborhood. The connections would provide additional access to the neighborhood, which would help improve emergency vehicle access and reduce travel along 63rd Street South. The alternatives include:

- » Extension of 59th Avenue South to Veteran's Boulevard
- » Connection between 63rd Avenue South and 64th Avenue South
- » Both a 59th Avenue South extension and connection between 63rd Avenue South and 64th Avenue South

The potential traffic impacts of these alternatives are analyzed in Chapter 3. The connection alternatives are shown in Figure 21. Additional detail is provided for each alternative in Figure 22.

While both the 59th Avenue and 63rd Street connections are feasible, there should be further evaluation prior to implementation. With the additional connections, comes impacts that have not been assessed such as:

- » Increase speeds
- » Increased headlight nuisances for homeowners
- » Vertical grades were not assessed as part of this study

Due to the large area surrounding this corridor and the multi-jurisdictional boundary, it is important that pedestrian safety remain a top consideration through implementation of this study. Large attractions such as the Drain 27 Trail network and the Fargo Master Storm Water ponds will generate large amounts of pedestrian traffic. To ensure connectivity and promote safety, it may be beneficial to incorporate grade separated pedestrian crossings along the Veteran's Boulevard Extension as well as some of the arterial roadways that intersect. The below graphic incorporates information obtained during the study along with previous studies that have been completed to identify pedestrian attractions, proposed pedestrian routes, and possible areas to incorporate grade separated crossings.

These grade separated crossings could be above or below the existing roadway. Things to consider during the design of these facilities include:

- » Storm water drainage
- » Overhead utilities
- » Roadway grades/sight distances

Figure 21: Location of Deer Creek Connection Alternatives

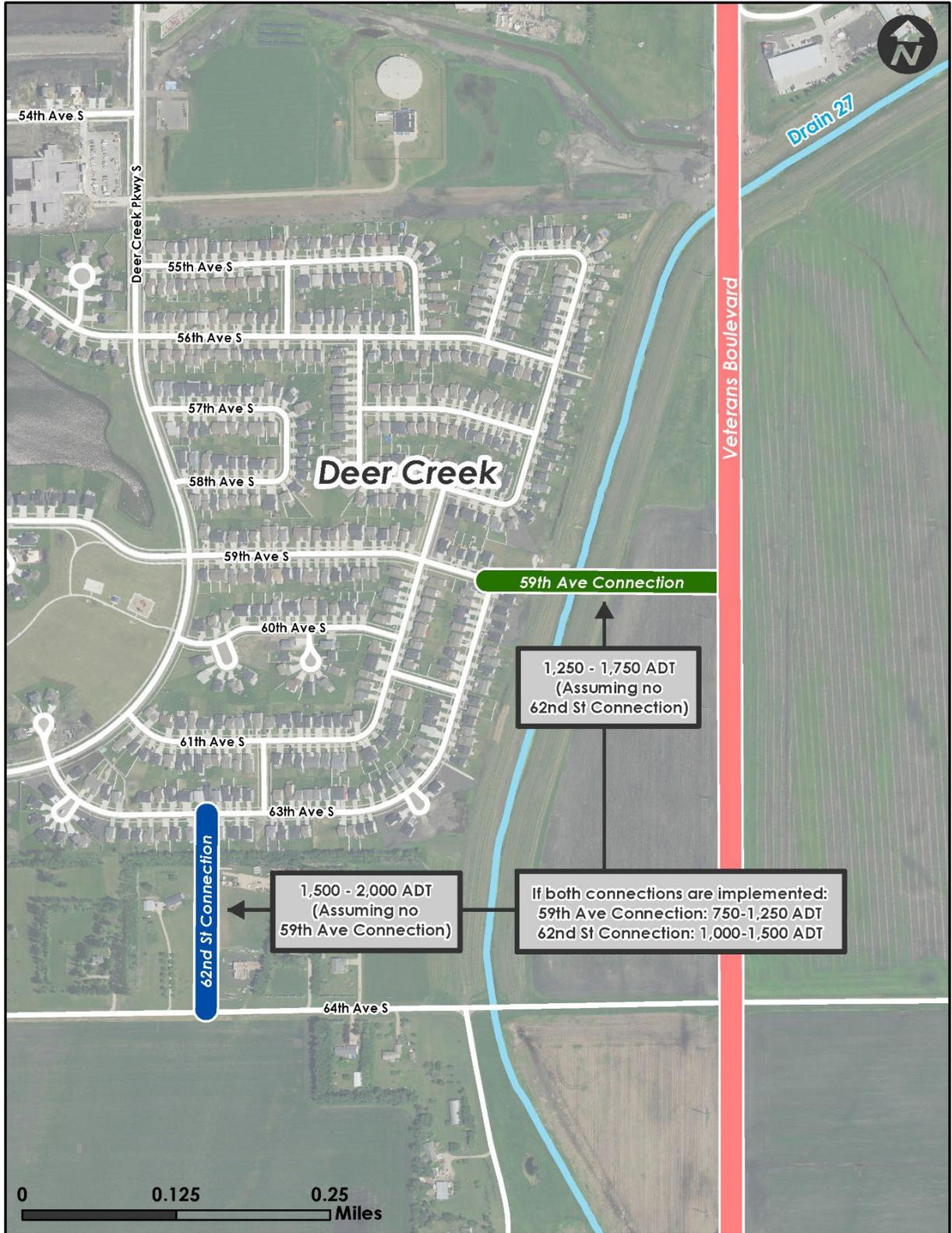


Figure 22: Deer Creek Connection Alternatives Detail

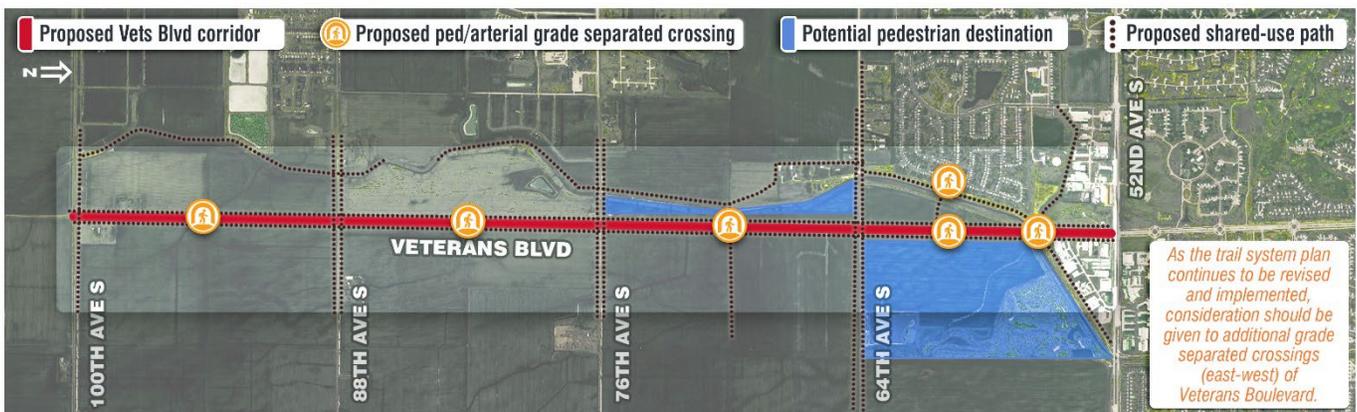


INTEGRATING ACTIVE TRANSPORTATION

Active transportation infrastructure was considered in each of the corridor level options developed for the Veterans Boulevard Corridor Extension. The project team consulted with recent and ongoing planning with in both the City of Fargo and City of Horace when evaluating and developing recommendations for both bicycle and pedestrian facilities.

Beyond corridor level layouts, an area wide strategy plan was developed and shown below. This demonstrates the larger vision for ensuring bicycle and pedestrian mobility throughout the study area. The emphasis is on a regional network of trails and pathways and ensuring grade separated pedestrian crossings along arterials, especially for east-west travel patterns.

Figure 23, Future Bicycle and Pedestrian System Considerations



PUBLIC INPUT

As part of the study’s public engagement effort, community members were asked to provide input on the Veterans Boulevard extension alternatives and the Deer Creek connection alternatives. This phase of public engagement was conducted from June through August 2021, and was hosted on the project website, where participants were able to access project information and respond to a survey regarding the alternatives. In total, 29 unique stakeholders completed the survey.

Veterans Boulevard Extension Alternatives

For each corridor alternative, participants were asked to rate their degree of preference from “Strongly Oppose” to “Strongly Prefer.” Participants were also invited to submit comments to express their opinions in more detail.

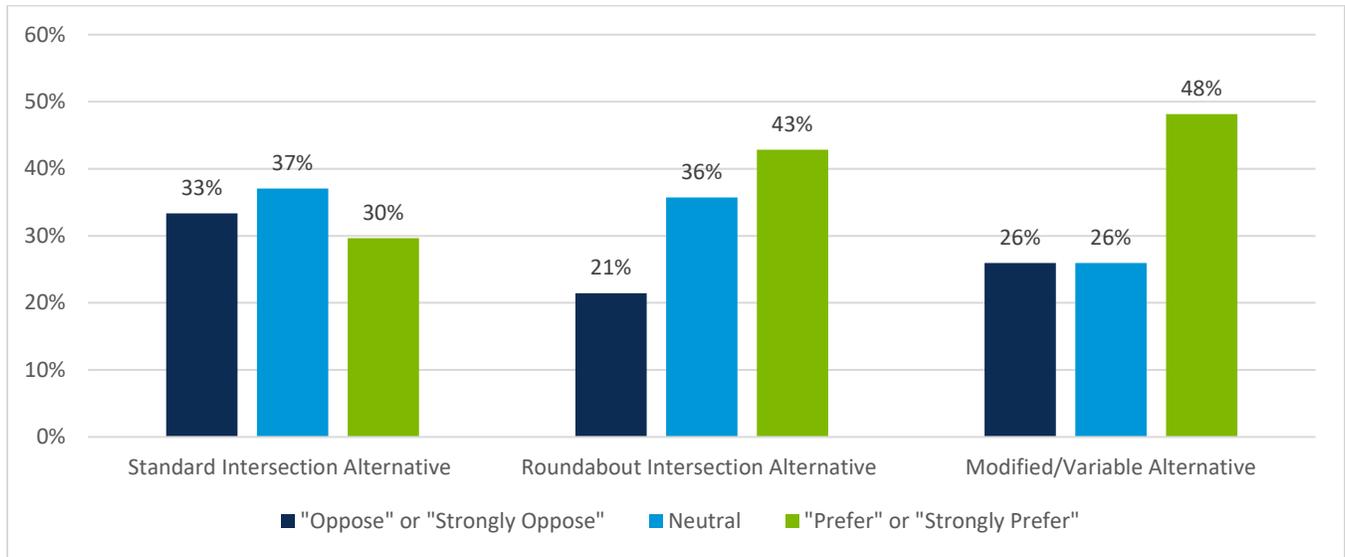
Survey results showed the Modified/Variable Alternative to have the most support among respondents, with 48 percent of participants preferring or strongly preferring this alternative. 43 percent of respondents prefer or strongly prefer the Roundabout Intersection Alternative, while less than a third of respondents prefer or strongly prefer the Standard Intersection Alternative.

Participants expressed the most opposition to the Standard Intersection Alternative, with 33 percent of respondents opposing or strongly opposing this alternative. Over a quarter of respondents oppose or strongly oppose the Modified/Variable Alternative, with just over a fifth of respondents opposing or strongly opposing the Roundabout Intersection Alternative. The Modified/Variable Alternative is the most polarizing option, with considerable degrees of both support and opposition, and the lowest relative portion of respondents having a neutral stance.

Comments submitted by respondents expressed a wide range of opinions on the corridor alternatives. One common theme was opposition to roundabouts due to the perception that they are difficult to use/maneuver and generally not appropriate for the corridor. However, some participants expressed the opinion that roundabouts are an effective choice. Several respondents praised the green space and bike/pedestrian facilities proposed for the Modified/Variable Alternative.

A summary of preference responses is provided in Figure 24.

Figure 24: Comparison of Preference Responses for Corridor Extension Alternatives



Deer Creek Connection Alternatives

For each Deer Creek connection alternative, participants were asked to rate their degree of preference from “Strongly Oppose” to “Strongly Prefer.” Participants were also invited to submit comments to express their views in more detail.

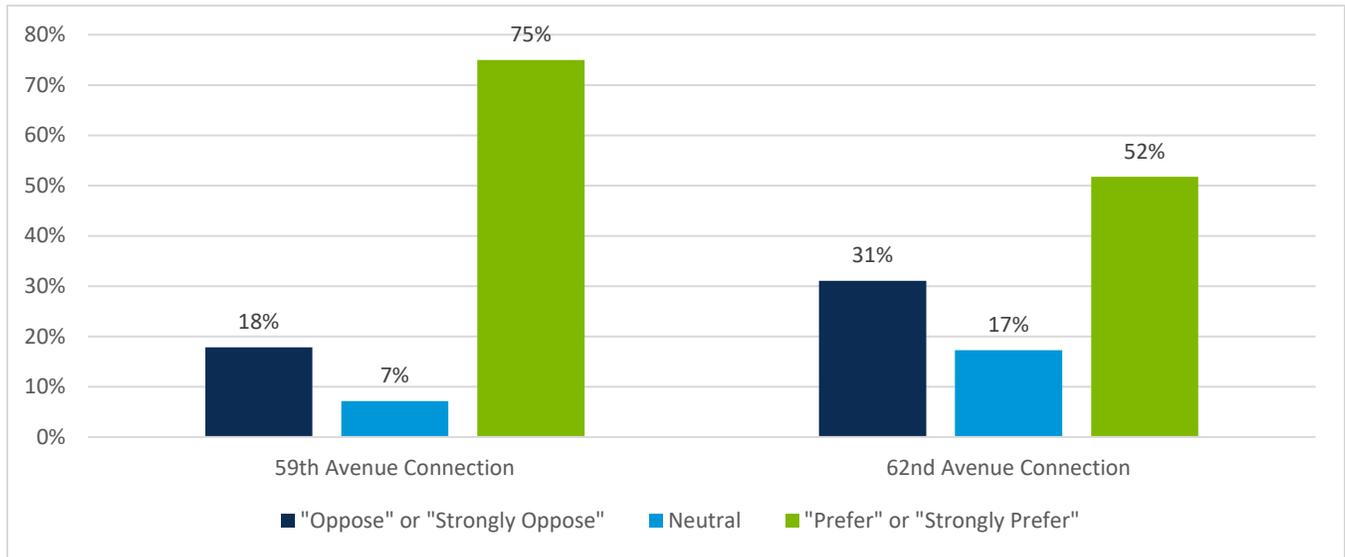
Survey results showed the 59th Avenue Connection to have the most support among respondents, with 75 percent of responses expressing a preference or a strong preference for this alternative. In comparison, 52 percent of respondents indicated a preference or a strong preference for the 62nd Street Connection alternative.

Over 30 percent of respondents oppose or strongly oppose the 62nd Avenue Connection alternative. In contrast, 18 percent of participants oppose or strongly oppose the 59th Avenue Connection alternative.

Comments submitted by respondents expressed roughly even support for the two Deer Creek connection alternatives. Some respondents expressed support for implementing both alternatives. Comments in support of the 62nd Street Connection expressed that this would be the safer option because it would avoid direct traffic from Veterans Boulevard. Comments in support of the 59th Avenue Connection referenced more direct access to Veterans Boulevard and generally shorter travel times to and from the neighborhood.

Postcards soliciting input and survey results were mailed to 550 properties within the Deer Creek neighborhood. All residences east of 63rd Street received postcards, comprising roughly half of Deer Creek neighborhood properties. A summary of preference responses is provided in Figure 25.

Figure 25: Comparison of Preference Responses for Deer Creek Connection Alternatives



COST ESTIMATE SUMMARY

Planning-level cost estimates were developed to aid in the evaluation of alternatives and support future project phasing and implementation. Cost estimates were prepared for the Veterans Boulevard extension alternatives, the Deer Creek connection alternatives, and the improvements to existing Veterans Boulevard intersections from 52nd Avenue to 40th Avenue. Cost estimates are summarized in Table 1.

Table 1: Planning-Level Cost Estimates

Veterans Boulevard - 100th Avenue to 52nd Avenue			
Roadway Segment/Intersection	Alternative		
	Standard	Roundabout	Modified/Variable
100th to 88th	\$ 8,660,000	\$8,590,000	\$8,450,000
88th Ave Intersection	\$1,816,000	\$ 1,410,000	\$ 1,500,000
88th to 76th	\$ 8,130,000	\$8,040,000	\$12,640,000
76th Ave Intersection	\$2,133,000	\$ 2,080,000	\$ 1,780,000
76th to 64th	\$ 8,080,000	\$7,740,000	\$8,250,000
64th Ave Intersection	\$2,041,000	\$ 1,990,000	\$ 2,100,000
64th to 52nd	\$11,920,000	\$11,590,000	\$11,440,000
Total	\$42,780,000	\$41,440,000	\$46,160,000

Veterans Boulevard - 52nd Avenue to 40th Avenue Intersection Revisions			
Intersection	Roundabout Revisions		Turn Lane Addition
	150' Diameter	180' Diameter	
51st Ave	\$566,000	\$899,000	NA
48th Ave	\$657,000	\$981,000	NA
44th Ave	\$521,000	\$1,064,000	NA
40th Ave	NA	NA	\$374,000

Deer Creek Connections	
59th Ave Extension	\$3,638,000
62nd Street Extension	\$598,000

IMPLEMENTATION ANALYSIS BACKGROUND

Following the completion of the initial phase of the Veterans Boulevard Corridor Extension Study, Metro COG approved additional analysis to support more detailed implementation planning and phasing for the Veterans Boulevard Corridor Extension study area. This additional phase of analysis was focused on understanding a detailed implementation plan for improvements along both a future extension of Veterans Boulevard and adjacent study corridors through the year 2035. This memorandum is a summary of the analysis and resulting recommendations.

The goal of these 2035 Implementation Plan model scenarios was to better understand how various programmed or committed roadway segments influence traffic volumes along several study area corridors. The focus was on understanding a series of best fit investments through the year 2035 to compliment a series of shorter term programmed or committed projects planned in the study area.

The Implementation Plan focuses specifically on Sheyenne Street, CR 17, 76th Avenue, 45th Street, and 64th Avenue. Emphasis was put on determining the level of investment needed both for the extension of Veterans Boulevard south of 52nd Avenue, and for the two additional miles of Veterans Boulevard south of 64th Avenue to support study area development trends and projected travel patterns.

IMPLEMENTATION ANALYSIS

Using 2035 build condition model results, an implementation analysis was completed for a series of corridors within relative proximity to the Veterans Boulevard Corridor. The analysis develops an infrastructure phasing plan both for Veterans Boulevard as well as several interrelated corridors within the general study area.

A set of corridor level planning recommendations are developed for the following corridors:

- » Veterans Boulevard – 52nd Avenue to 88th Avenue
- » Sheyenne Street/County Road 17 – 40th Avenue to 88th Avenue
- » 45th Street – 52nd Avenue to 76th Avenue
- » 64th Avenue – I-29 to Country Road 17
- » 76th Avenue – I-29 to Veterans Boulevard
- » 88th Avenue – Veterans Boulevard to County Road 17

Figure 26: Implementation & Phasing Strategy



To: Transportation Technical Committee
From: Cindy Gray, Executive Director
Date: March 4, 2022
Re: **Future Needs for Metro COG Studies and Plans**

Attachment 1 is an updated list of projects that have been suggested in the past as well as one or two new projects for MPO required plans such as our Metropolitan Transportation Plan, which is due for an update by fall of 2024. Since estimates for the 2023 budget will be prepared in the spring, followed by the 2023-2024 Unified Planning Work Program (UPWP) during the summer for adoption in the fall of 2022, it is important that we revisit this list to identify new project needs and to prioritize projects for inclusion in future UPWPs.

At the March 10 meeting, I will present a list of project requests/suggestions that I receive from local jurisdiction. So far, I have only received a couple of suggestions. Your input on priorities for future studies will be important as I work to stretch our staffing and CPG funds to fund as many projects as possible in 2023 and 2024.

Attachment 2 to this memo is a document that summarizes the planning emphasis areas of the IIJA. They include:

- Tackling the Climate Crisis – Transition to a Clean Energy, Resilient Future
- Equity and Justice⁴⁰ in Transportation Planning
- Complete Streets
- Public Involvement
- Strategic Highway Network (STRAHNET)/U.S. Department of Defense (DOD) Coordination
- Federal Land Management Agency (FLMA) Coordination
- Planning and Environment Linkages (PEL)
- Data in Transportation Planning

We will be learning more about the specific intent of each of these emphasis areas in the near future. As we plan for future projects, it will be important that we address and incorporate the IIJA Planning Emphasis Areas.

Requested Action: Prioritize future study and plan needs.

**2022 Solicitation for Future Transportation Planning Project Needs
in the Fargo-Moorhead Metropolitan Planning Area**



Suggested Year	Project Name	Location	Description	Juris-dictions	Probable Cost Range	Relevant Planning Factors	Suggested By:
Not Programmed							
2023-2024	Metropolitan Transportation Plan - 2050	Metro Area	The 2050 update of the Metropolitan Transportation Plan	All	\$350,000	All	Metro COG
2023-2024	Clay County Heartland Trail Alignment Analysis	Moorhead to Hawley	The Clay Co Heartland Trail Task for has been working on planning of the Heartland Trail since 2014. With a planned trail alignment already proposed, the next step is to conduct in-depth analysis of the planned alignment in order to (a) determine any obstacles associated with the alignment, (b) determine efforts to overcome the obstacles, and (c) determine easements needed to construct the trail. This study would analyze the trail between Moorhead/Dilworth and Hawley.	Clay County, Moorhead, Dilworth, Glyndon, Hawley	\$100,000 to \$200,000, depending upon extent of study	A, E, J	Metro COG
2023 or 2024	TDM Review Study	Metro Area	Thorough technical review of the TDM	Metro COG	Cost range needed.	F, G, I (all factors to some extent)	Consultant
2024	Regional Traffic Signal System Master Plan	Metro Area	Description needed. Develop scope of work after completion of ITS Regional Architecture Plan if this project moves forward.	All	Cost range needed.	B, D, E, G	HDR (MTP Consultant)
2023	Electric Vehicle Readiness Study	Metro Area	Outline steps the region can take to support and encourage electric vehicle adoption	Metro COG	Cost range needed.	A, D, E, F, G, I, J	Metro COG
2024	Traffic Calming Alternatives Study	Moorhead - 4th Street and 5th Street from Main Avenue to 22nd Avenue S	The purpose of this study would be to review traffic calming alternatives along 4th Street S and 5th Street S in Moorhead. The roadways currently have a varied cross section width, which encourages faster vehicular speeds on the northerly blocks just south of Main Avenue. Alternatives would look at pedestrian mobility, safety, reducing the need for enforcement, safety improvements, and bicycle accommodations, and potential for transit improvements. Citizens have already met during a meeting organized by walkability advocates to discuss these roadways and potential future configurations.	Moorhead	\$200,000	B, E, F, G, H, I	Metro COG
2023 or 2024	East Dilworth / Moorhead N/S Arterial Corridor	I-94 to Clay Co Rd. 83	Planning Study to review alignment for north/south corridor between Highway 336 and 14th Street. Includes need and feasibility of RR grade separation and I-94 connection.	Dilworth, Moorhead, Clay Co,	\$200,000	A, B, D, E, F, G	Metro COG
2024	Vehicular Bridge Crossing Feasibility Study	Metro Area	Building on work completed over 20 years ago, conduct a feasibility study of additional vehicular bridge crossings between 100th Ave S (Fargo) to 76th Ave N/Cass Co 22 to determine regional priorities, impacts, current opportunities and constraints, and planning level cost estimates associated with various crossing alignments in developed and currently undeveloped areas. A study of this nature should also look at regional connectivity to existing or planned corridors.	Fargo, Moorhead, Cass and Clay Counties	Cost range needed.	A, B, C, D, E, F, G, J	Metro COG

Beyond 2024?	Rails to Trails Study - Moorhead to Kragnes	Moorhead to Kragnes	The rail line from north Moorhead to Kragnes is abandoned. This presents an opportunity for a rails-to-trails project. This study would look at the costs, feasibility, and coordination necessary for a potential trail between Moorhead and Kragnes utilizing the abandoned rail alignment.	Moorhead, Clay County	\$100,000 - \$200,000	A, B, D, E, F, J	Moorhead
2024 or 2025	15th Street / I-94 / Sheyenne Diversion Overpass Study	West Fargo / Cass County	The purpose of this study would be to study the costs, benefits, impacts, implementation, and other attributes associated with an overpass that would span I-94 and the Sheyenne Diversion just west of West Fargo. Per the 13th Avenue Corridor Study, this overpass would be located in the vicinity of 13th Ave W and CR 28 (15th St NW). This study could also look at roadway connectivity and a future roadway network on the southwest side of I-94/Sheyenne Diversion.	West Fargo, Cass County, NDDOT	\$75,000 - \$200,000	A, B, D, E, F, G, J	HDR, West Fargo
	Regional Pavement Management Study	UZA or subset of streets within UZA		Could be any or all cities			Metro COG
	Access to Downtown from Interstate Highways	From I-94 and I-29	Planning study to examine alternatives for improved access and way-finding from Interstate Highway system to downtown. Could this be added to the interstate study due to potential relationship with interstate access?				

Recently Programmed or Under Contract

2020-21	Veterans Blvd Corridor Study Programmed for 2020. In 2021, project scope expanded to study at Sheyenne Street and 64th Ave S.	Veterans Blvd south of 40th Avenue S. Sheyenne Street south of 40th Avenue S. and 64th Avenue S from Sheyenne Street to 45th Street S	The purpose of this study would be to take a more detailed look at the transportation needs along the Veterans Blvd section line as it extends south of 52nd Avenue S and into Fargo's future growth area. Some of the unique challenges along this corridor include a drain crossing, future regional stormwater pond, and potential joint jurisdiction with Horace south of 64th Avenue S. We anticipate development pressures in this area in the not too distant future, and this may be an area that warrants some additional attention at some point.	City of Fargo, City of Horace, Cass County, West Fargo	\$150,000 - \$200,000 \$60,000	A, D, E, G	Fargo Planning Department
2021-2022	Red River Greenway Study - scoped for 2021-2022	Fargo	Drawing upon the results of the Bike Gap Study, and based on significant ped/bike input as part of the MTP, study and plan wayfinding, public improvements along the river including extensions of the existing trail, improved connectivity both within the greenway and to nearby neighborhoods and attractions, access to open space, and connectedness to nature and potential sites for human restoration and recreation.	Fargo	\$155,000 + \$15,000 from Fargo Park District	A, E, F, J	Metro COG (based on Fargo's request in 2018)
2021	TH 10 - Scheduled for 2022	34th St through Dilworth	Planning Study in preparation for reconstruct in 2027.	Dilworth, MNDOT	\$160,000	A, D, E, G	MNDOT
2021-22-23	Metro Bike and Ped Plan Update - Under contract for 2021	Metro Wide	The metropolitan area bike and ped plan was last completed inhouse in 2016 and will be due for an update in 2021. We could consider hiring a consultant for all or portions of the update.	All	\$175,000	A, B, D, E, F, H, J	Metro COG

2021	Interstate Operations Study (Update to 2011)	I-94 and I-29 throughout Metro Area	Study and provide detailed recommendations for short-term and long-term improvement needs (capacity, system management, etc.) on the Interstate system. Potentially could include some TSMO strategies. MNDOT has expressed concern for I-94 lane configuration through Moorhead. 2028-2029 Reconstruction in Minnesota. Include study of ring route (reliever route) around outside of FM Diversion in Cass County.	NDDOT, MnDOT, Fargo, Moorhead, West Fargo	\$400,000	A, B, C, D, E, F, G, H, I	NDDOT, MnDOT, HDR (MTP Consultant)
2021-22	Fargo Transportation Plan - under contract for 2021	Within City and ETA	Deep dive into future transportation network, focusing on policy and planning for an efficient, connected and continuous network of transportation facilities for all modes of transportation. This could be done as part of an overall comp plan update for the City of Fargo.	City of Fargo	\$200,000	A, D, E, F, I, J	Fargo Engineering
2022-23	US-81 Corridor Study (University Drive & 10th Street)	Fargo	Study and provide detailed recommendations for short-, mid-, and long-term improvement needs (capacity, system management, etc.) primarily on the one-way pair system. Could include feasible network design alternatives.	Fargo	\$275,000	A, B, C, D, E, F, G, [(?)]	Metro COG
2024	25th Street S Corridor Study	32nd Ave S to 58th Ave S	25th St S from 32nd Ave S to 58th Ave S - The health of the asphalt section will need major work in the near future and peak hour capacity issues are occurring.	City of Fargo	\$150,000 - 200,000	A, B, D, E, G	Fargo Engineering

IJA Planning Emphasis Areas

- Tackling the Climate Crisis - Transition to a Clean Energy, Resilient Future
- Equity and Justice40 in Transportation Planning
- Complete Streets
- Public Involvement
- Strategic Highway Network (STRAHNET)/U.S. Department of Defense (DOD) Coordination
- Federal Land Management Agency (FLMA) Coordination
- Planning and Environmental Linkages (PEL)
- Data in Transportation Planning

FAST Act Planning Factors

- A. support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency;
- B. increase the safety of the transportation system for motorized and nonmotorized users;
- C. increase the security of the transportation system for motorized and nonmotorized users;
- D. increase the accessibility and mobility of people and for freight;
- E. protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local
- F. enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;
- G. promote efficient system management and operation;
- H. emphasize the preservation of the existing transportation system;
- I. improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation; and
- J. enhance travel and tourism.



U.S. Department
of Transportation
**Federal Highway
Administration**

Office of the Administrator

1200 New Jersey Ave., SE
Washington, D.C. 20590

Federal Transit
Administration

December 30, 2021

Attention: FHWA Division Administrators
FTA Regional Administrators

Subject: 2021 Planning Emphasis Areas for use in the development of Metropolitan and Statewide Planning and Research Work programs.

With continued focus on transportation planning the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) Offices of Planning are jointly issuing updated Planning Emphasis Areas (PEAs). The PEAs are areas that FHWA and FTA field offices should emphasize when meeting with the metropolitan planning organizations, State departments of transportation, Public Transportation Agencies, and Federal Land Management Agency counterparts to identify and develop tasks associated with the Unified Planning Work Program and the Statewide Planning and Research Program. We recognize the variability of work program development and update cycles, so we encourage field offices to incorporate these PEAs as programs are updated.

Please note that this letter is intended only to provide clarity regarding existing requirements. It is not binding and does not have the force and effect of law. All relevant statutes and regulations still apply.

Sincerely,

Handwritten signature of Nuria Fernandez in blue ink.

Nuria Fernandez
Administrator
Federal Transit Administration

Handwritten signature of Stephanie Pollack in blue ink.

Stephanie Pollack
Deputy Administrator
Federal Highway Administration

Enclosure

2021 Planning Emphasis Areas:

Tackling the Climate Crisis – Transition to a Clean Energy, Resilient Future

Federal Highway Administration (FHWA) divisions and Federal Transit Administration (FTA) regional offices should work with State departments of transportation (State DOT), metropolitan planning organizations (MPO), and providers of public transportation to ensure that our transportation plans and infrastructure investments help achieve the national greenhouse gas reduction goals of 50-52 percent below 2005 levels by 2030, and net-zero emissions by 2050, and increase resilience to extreme weather events and other disasters resulting from the increasing effects of climate change. Field offices should encourage State DOTs and MPOs to use the transportation planning process to accelerate the transition toward electric and other alternative fueled vehicles, plan for a sustainable infrastructure system that works for all users, and undertake actions to prepare for and adapt to the impacts of climate change. Appropriate Unified Planning Work Program work tasks could include identifying the barriers to and opportunities for deployment of fueling and charging infrastructure; evaluating opportunities to reduce greenhouse gas emissions by reducing single-occupancy vehicle trips and increasing access to public transportation, shift to lower emission modes of transportation ; and identifying transportation system vulnerabilities to climate change impacts and evaluating potential solutions. We encourage you to visit FHWA’s [Sustainable Transportation](#) or FTA’s [Transit and Sustainability](#) Webpages for more information.

(See [EO 14008](#) on “Tackling the Climate Crisis at Home and Abroad,” [EO 13990](#) on “Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis.” [EO 14030](#) on “Climate-Related Financial Risk,” See also [FHWA Order 5520](#) “Transportation System Preparedness and Resilience to Extreme Weather Events,” FTA’s “[Hazard Mitigation Cost Effectiveness Tool](#),” FTA’s “[Emergency Relief Manual](#),” and “[TCRP Document 70: Improving the Resilience of Transit Systems Threatened by Natural Disasters](#)”)

Equity and Justice⁴⁰ in Transportation Planning

FHWA Division and FTA regional offices should work with State DOTs, MPOs, and providers of public transportation to advance racial equity and support for underserved and disadvantaged communities. This will help ensure public involvement in the planning process and that plans and strategies reflect various perspectives, concerns, and priorities from impacted areas. We encourage the use of strategies that: (1) improve infrastructure for non-motorized travel, public transportation access, and increased public transportation service in underserved communities; (2) plan for the safety of all road users, particularly those on arterials, through infrastructure improvements and advanced speed management; (3) reduce single-occupancy vehicle travel and associated air pollution in communities near high-volume corridors; (4) offer reduced public transportation fares as appropriate; (5) target demand-response service towards communities with higher concentrations of older adults and those with poor access to essential services; and (6) consider equitable and sustainable practices while developing transit-oriented development including affordable housing strategies and consideration of environmental justice populations.

[Executive Order 13985](#) (*Advancing Racial Equity and Support for Underserved Communities*) defines the term “equity” as the consistent and systematic fair, just, and impartial treatment of all individuals, including individuals who belong to underserved communities that have been denied such treatment, such as Black, Latino, and Indigenous and Native American persons, Asian

Americans and Pacific Islanders and other persons of color; members of religious minorities; lesbian, gay, bisexual, transgender, and queer (LGBTQ+) persons; persons with disabilities; persons who live in rural areas; and persons otherwise adversely affected by persistent poverty or inequality. The term “underserved communities” refers to populations sharing a particular characteristic, as well as geographic communities, that have been systematically denied a full opportunity to participate in aspects of economic, social, and civic life, as exemplified by the list in the preceding definition of “equity.” In addition, [Executive Order 14008](#) and [M-21-28](#) provides a whole-of-government approach to advancing environmental justice by stating that 40 percent of Federal investments flow to disadvantaged communities. FHWA Division and FTA regional offices should work with State DOTs, MPOs, and providers of public transportation to review current and new metropolitan transportation plans to advance Federal investments to disadvantaged communities.

To accomplish both initiatives, our joint planning processes should support State and MPO goals for economic opportunity in disadvantaged communities that have been historically marginalized and overburdened by pollution and underinvestment in housing, transportation, water and wastewater infrastructure, recreation, and health care.

Complete Streets

FHWA Division and FTA regional offices should work with State DOTs, MPOs and providers of public transportation to review current policies, rules, and procedures to determine their impact on safety for all road users. This effort should work to include provisions for safety in future transportation infrastructure, particularly those outside automobiles.

A complete street is safe, and feels safe, for everyone using the street. FHWA and FTA seek to help Federal aid recipients plan, develop, and operate streets and networks that prioritize safety, comfort, and access to destinations for people who use the street network, including pedestrians, bicyclists, transit riders, micro-mobility users, freight delivery services, and motorists. The goal is to provide an equitable and safe transportation network for travelers of all ages and abilities, including those from marginalized communities facing historic disinvestment. This vision is not achieved through a one-size-fits-all solution – each complete street is unique and developed to best serve its community context and its primary role in the network.

Per the National Highway Traffic Safety Administration’s 2019 data, 62 percent of the motor vehicle crashes that resulted in pedestrian fatalities took place on arterials. Arterials tend to be designed for vehicle movement rather than mobility for non-motorized users and often lack convenient and safe crossing opportunities. They can function as barriers to a safe travel network for road users outside of vehicles.

To be considered complete, these roads should include safe pedestrian facilities, safe transit stops (if present), and safe crossing opportunities on an interval necessary for accessing destinations. A safe and complete network for bicycles can also be achieved through a safe and comfortable bicycle facility located on the roadway, adjacent to the road, or on a nearby parallel corridor. Jurisdictions will be encouraged to prioritize safety improvements and speed management on arterials that are essential to creating complete travel networks for those without access to single-occupancy vehicles.

Public Involvement

Early, effective, and continuous public involvement brings diverse viewpoints into the decisionmaking process. FHWA Division and FTA regional offices should encourage MPOs, State DOTs, and providers of public transportation to increase meaningful public involvement in transportation planning by integrating Virtual Public Involvement (VPI) tools into the overall public involvement approach while ensuring continued public participation by individuals without access to computers and mobile devices. The use of VPI broadens the reach of information to the public and makes participation more convenient and affordable to greater numbers of people. Virtual tools provide increased transparency and access to transportation planning activities and decisionmaking processes. Many virtual tools also provide information in visual and interactive formats that enhance public and stakeholder understanding of proposed plans, programs, and projects. Increasing participation earlier in the process can reduce project delays and lower staff time and costs. More information on VPI is available [here](#).

Strategic Highway Network (STRAHNET)/U.S. Department of Defense (DOD) Coordination

FHWA Division and FTA regional offices should encourage MPOs and State DOTs to coordinate with representatives from DOD in the transportation planning and project programming process on infrastructure and connectivity needs for STRAHNET routes and other public roads that connect to DOD facilities. According to the Declaration of Policy in 23 U.S.C. 101(b)(1), it is in the national interest to accelerate construction of the Federal-aid highway system, including the Dwight D. Eisenhower National System of Interstate and Defense Highways, because many of the highways (or portions of the highways) are inadequate to meet the needs of national and civil defense. The DOD's facilities include military bases, ports, and depots. The road networks that provide access and connections to these facilities are essential to national security. The [64,200-mile STRAHNET system](#) consists of public highways that provide access, continuity, and emergency transportation of personnel and equipment in times of peace and war. It includes the entire 48,482 miles of the Dwight D. Eisenhower National System of Interstate and Defense Highways and 14,000 miles of other non-Interstate public highways on the National Highway System. The STRAHNET also contains approximately 1,800 miles of connector routes linking more than 200 military installations and ports to the primary highway system. The DOD's facilities are also often major employers in a region, generating substantial volumes of commuter and freight traffic on the transportation network and around entry points to the military facilities. Stakeholders are encouraged to review the STRAHNET maps and recent Power Project Platform (PPP) [studies](#). These can be a useful resource in the State and MPO areas covered by these route analyses.

Federal Land Management Agency (FLMA) Coordination

FHWA Division and FTA regional offices should encourage MPOs and State DOTs to coordinate with FLMAs in the transportation planning and project programming process on infrastructure and connectivity needs related to access routes and other public roads and transportation services that connect to Federal lands. Through joint coordination, the State DOTs, MPOs, Tribal Governments, FLMAs, and local agencies should focus on integration of their transportation planning activities and develop cross-cutting State and MPO long range transportation plans, programs, and corridor studies, as well as the Office of Federal Lands

Highway's developed transportation plans and programs. Agencies should explore opportunities to leverage transportation funding to support access and transportation needs of FLMAs before transportation projects are programmed in the Transportation Improvement Program (TIP) and Statewide Transportation Improvement Program (STIP). Each State must consider the concerns of FLMAs that have jurisdiction over land within the boundaries of the State (23 CFR 450.208(a)(3)). MPOs must appropriately involve FLMAs in the development of the metropolitan transportation plan and the TIP (23 CFR 450.316(d)). Additionally, the Tribal Transportation Program, Federal Lands Transportation Program, and the Federal Lands Access Program TIPs must be included in the STIP, directly or by reference, after FHWA approval in accordance with 23 U.S.C. 201(c) (23 CFR 450.218(e)).

Planning and Environment Linkages (PEL)

FHWA Division and FTA regional offices should encourage State DOTs, MPOs and Public Transportation Agencies to implement PEL as part of the transportation planning and environmental review processes. The use of PEL is a collaborative and integrated approach to transportation decisionmaking that considers environmental, community, and economic goals early in the transportation planning process, and uses the information, analysis, and products developed during planning to inform the environmental review process. PEL leads to interagency relationship building among planning, resource, and regulatory agencies in the early stages of planning to inform and improve project delivery timeframes, including minimizing duplication and creating one cohesive flow of information. This results in transportation programs and projects that serve the community's transportation needs more effectively while avoiding and minimizing the impacts on human and natural resources. More information on PEL is available [here](#).

Data in Transportation Planning

To address the emerging topic areas of data sharing, needs, and analytics, FHWA Division and FTA regional offices should encourage State DOTs, MPOs, and providers of public transportation to incorporate data sharing and consideration into the transportation planning process, because data assets have value across multiple programs. Data sharing principles and data management can be used for a variety of issues, such as freight, bike and pedestrian planning, equity analyses, managing curb space, performance management, travel time reliability, connected and autonomous vehicles, mobility services, and safety. Developing and advancing data sharing principles allows for efficient use of resources and improved policy and decisionmaking at the State, MPO, regional, and local levels for all parties.