



APPENDIX C

PUBLIC ENGAGEMENT SUMMARY

Prepared by SRF Consulting Group, Inc.

March 2023

Bismarck-Mandan Metropolitan Planning Organization



City of Bismarck



Open House and Community Workshop
Meeting Records
and Presentation Slides



Public Meeting Series #1 Summary

SRF No. 14186

Method:	In-person
Client:	Bismarck-Mandan Metropolitan Planning Organization (MPO), City of Bismarck
Meeting Held:	July 14, 2022
Subject:	East Main Avenue Corridor Study – Property and Business Owner Open House & Public Workshop

A community workshop was held to gather input from the public regarding issues and needs along the E Main Ave. corridor from 7th St. to 26th St. in Bismarck. The meeting was held at Bismarck High School Gilbreath Auditorium Commons, 4:30 – 6 pm. A presentation was provided by SRF Consulting, Inc., followed by time for questions and answers. A “create your own cross section” exercise was available, a postcard asking for attendee’s desire for the future of the corridor, in addition to a map of the corridor for attendees to review and place comments. A summary of discussion following the presentation is provided below. The results of the meeting exercises are attached.

Summary of Comments

- A lot of traffic movements on Main Ave. tend to be vehicles using Main Ave. as a through route. Important to maintain traffic flow and capacity of corridor was expressed.
- There was discussion on truck/freight movement through the corridor, and though designated as a level 2 freight route, there is not generally a lot of truck traffic noticed.
 - It was noted that the segment west of 7th St. that is now 3 lane does not really have truck traffic anymore.
 - It was expressed that 26th St. likely has freight movements and could potentially need improvement for truck movements.
- There was concern with parking as it relates to redevelopment.
 - Bismarck does not have parking requirements with redevelopment in the Downtown and they leave it up to the developers to determine parking additions.
 - The downtown parking garages were noted as replacement parking if existing parking lots are converted to development.
- Inclusion of bikes was noted as something to review.
 - Accidents are present on this corridor with bikes and it was asked if these accidents are caused by the bikes or the vehicles.
 - Would the inclusion of bikes within the corridor reduce the safety?
 - Discussion included that one individual who bikes regularly prefers to be on street to increase awareness/visibility to drivers as opposed to being on the sidewalk.
- There are currently pedestrians who cross between airport and 26th (around 24th).

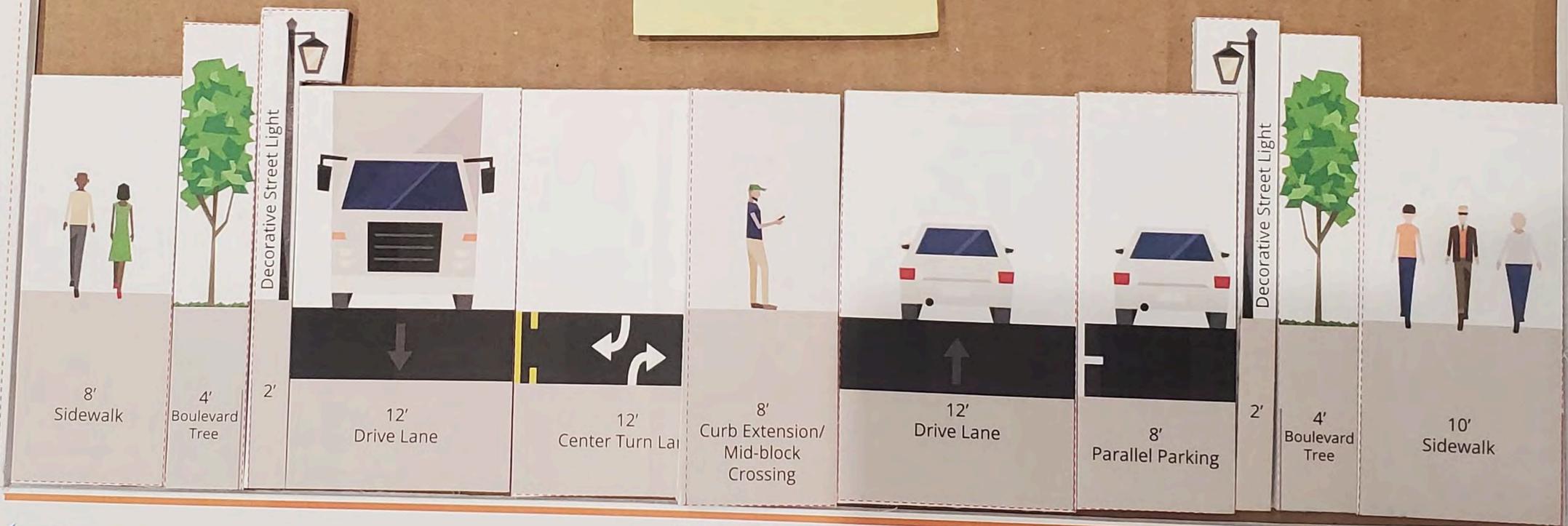


EAST MAIN AVENUE
CORRIDOR STUDY

BUILD YOUR OWN CROSS SECTION



7th-12th St

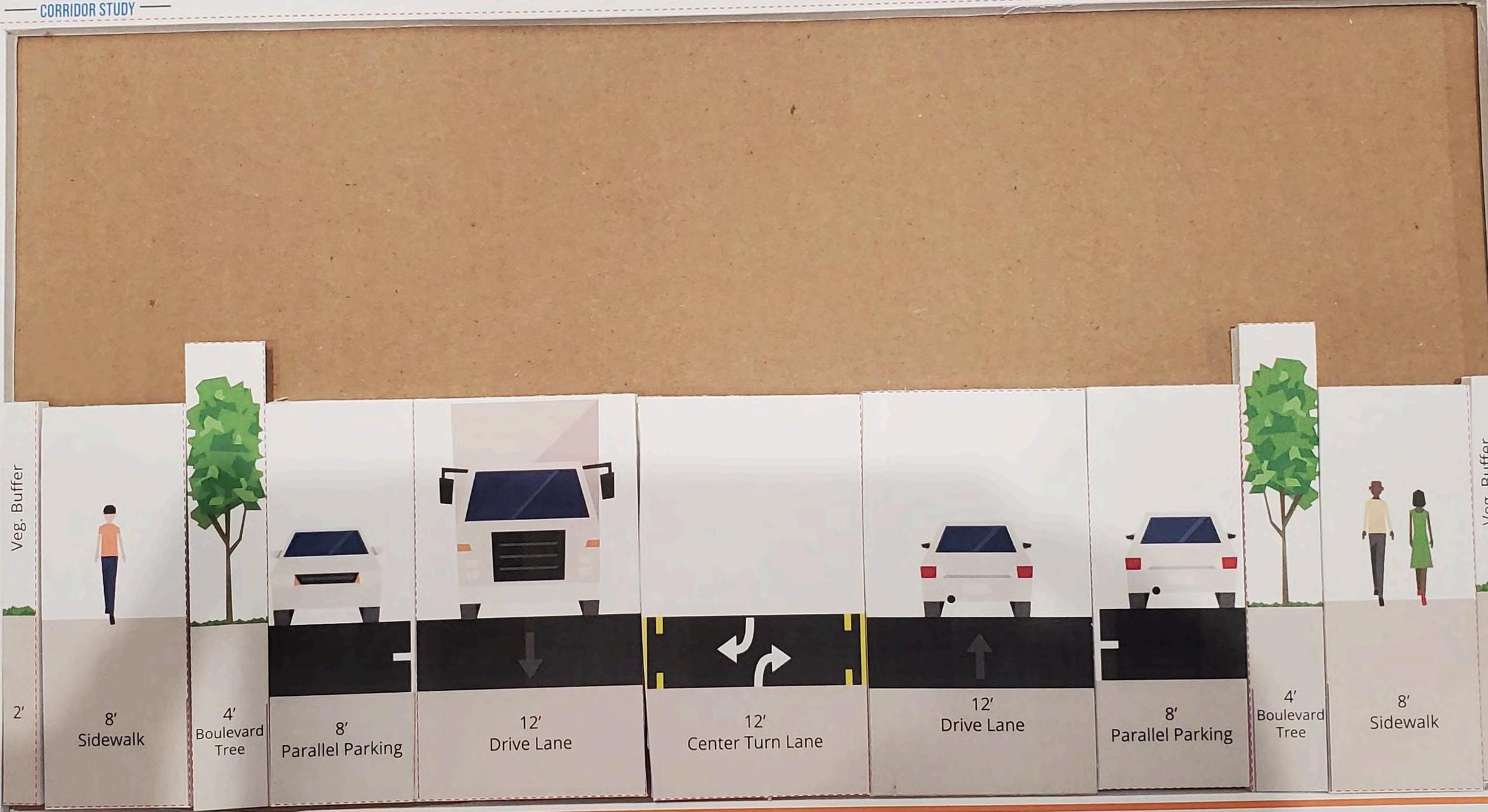


80' RIGHT-OF-WAY

10'
Sidewalk



BUILD YOUR OWN CROSS SECTION



Veg. Buffer

2'

8'
Sidewalk

4'
Boulevard
Tree

8'
Parallel Parking

12'
Drive Lane

12'
Center Turn Lane

12'
Drive Lane

8'
Parallel Parking

4'
Boulevard
Tree

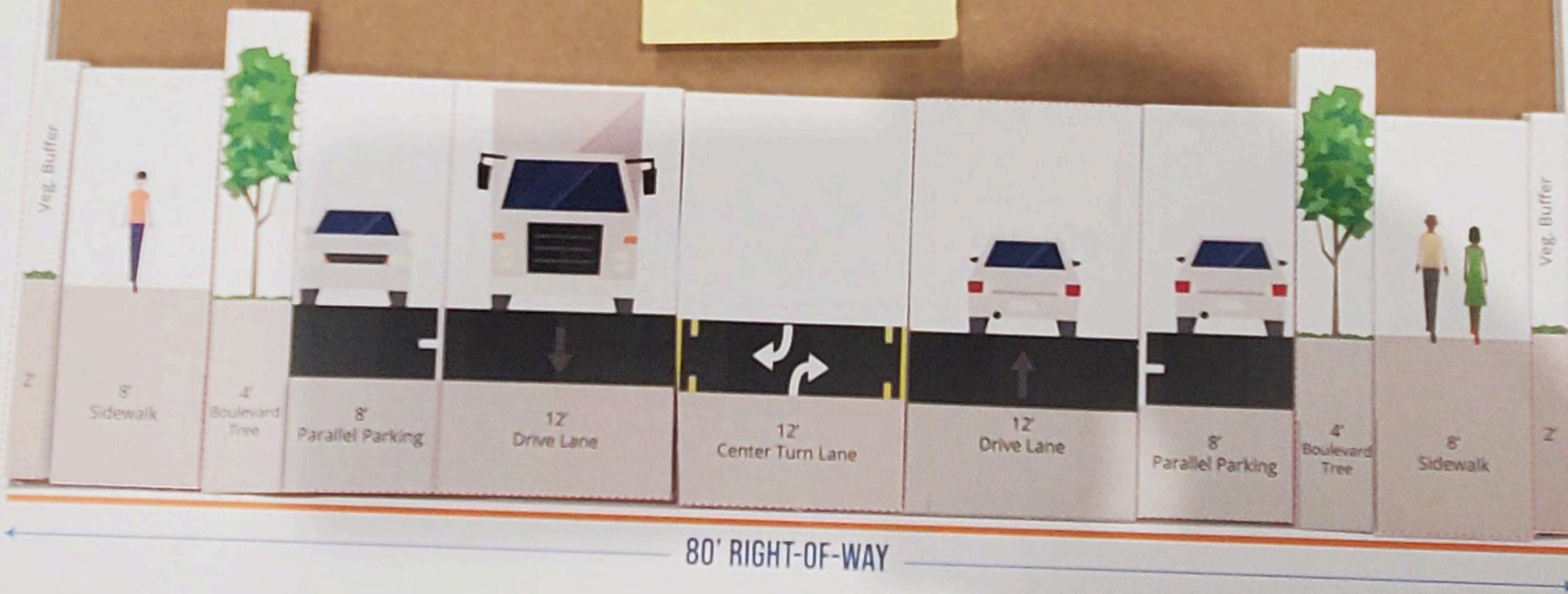
8'
Sidewalk

Veg. Buffer

80' RIGHT-OF-WAY

BUILD YOUR OWN CROSS SECTION

POE AREAS
ADJACENT TO
PARKING



BUILD YOUR OWN CROSS SECTION

- FOR AREAS
WITH BUILDINGS
ADJACENT TO
PROPERTY
LINE



80' RIGHT-OF-WAY

In 2045, East Main Avenue is...

adaptable and context-based, rooted in character and sense of place.



Place
Stamp
Here

what is your vision of East Main Avenue in the future?



Community Workshop Issues & Needs

East Main Avenue Corridor Study

Bismarck-Mandan MPO & City of Bismarck



● Agenda

- Preliminary “Purpose” Statement
- Known Issues:
 - Related Plans
 - Traffic Operations (ATAC Model & VISSIM Results)
 - Safety Analysis
 - Walking and Biking
 - Transit
 - Existing Land Use
 - Environmental Justice Analysis
- Next Steps

● Introductions

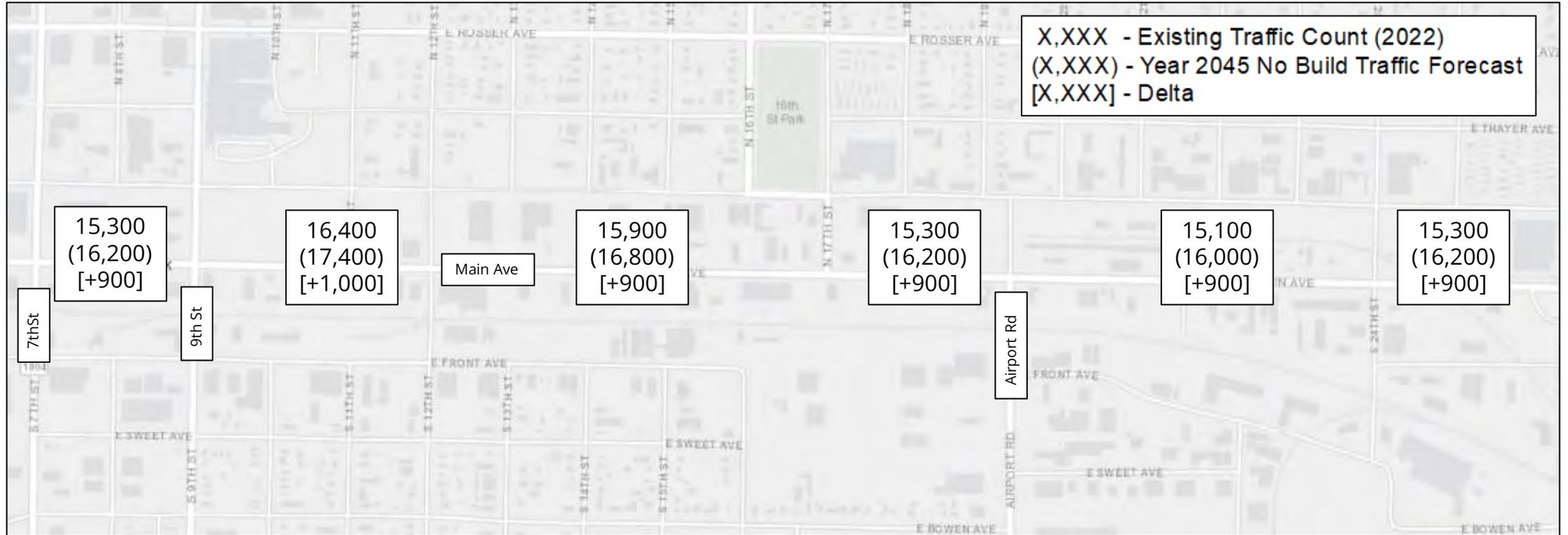
- Project Team
 - SRF Consulting Group, Inc.
 - Scott Harmstead, AICP (Project Manager)
 - Ryan Schuehle, PE
 - Apex Engineering
 - Jason Gullicks, PE (Design Lead)
 - Metropolitan Planning Organization
 - Kim Riepl (Planner)
 - City of Bismarck
 - Michael Mart (Engineer)



● Preliminary Purpose Statement

- The purpose is to achieve the following goals for East Main Avenue, from 7th Street to 26th Street, in the year 2045:
 - Improve the aging corridor pavement
 - Ensure all modes of transportation are safely and comfortably accommodated
 - Support economic development opportunities along the corridor
 - Minimize detrimental impacts to adjacent corridors

Year 2045 No Build Daily Traffic Forecasts

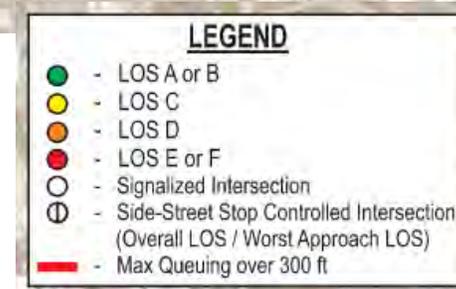


Traffic Modeling Results – Existing Level of Service

East Main Avenue Intersection	A.M. Peak Hour LOS	P.M. Peak Hour LOS
7th Street	B	B
9th Street	B	C
12th Street	B	B
17th Street ⁽¹⁾	A/B	A/B
Airport Road	B	B
24th Street ⁽¹⁾	A/B	A/C
26th Street	B	B

(1) Indicates an unsignalized intersection with side-street stop control, where the overall LOS is shown followed by the worst approach

Traffic Modeling Results – Existing Level of Service

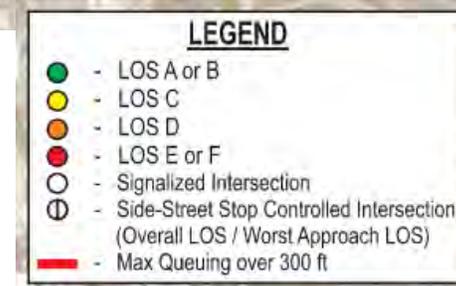


Traffic Modeling Results – Year 2045 No Build Level of Service

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Airport Road	B	B
24th Street ⁽¹⁾	A/C	A/C
26th Street	B	B

(1) Indicates an unsignalized intersection with side-street stop control, where the overall LOS is shown followed by the worst approach

Traffic Modeling Results – Year 2045 No Build Level of Service



Safety Analysis – Heat Map



Safety Analysis - Intersections

Intersection	Total Crashes	Observed Crash Rate	Average Crash Rate	Critical Crash Rate
Main Avenue & 7th Street	114	2.26	0.52	0.79
Main Avenue & 9th Street	132	2.73	0.52	0.80
Main Avenue & 12th Street	38	1.07	0.52	0.84
Main Avenue & 17th Street	2	0.09	0.18	0.43
Main Avenue & Airport Road	39	1.12	0.52	0.85
Main Avenue & 24th Street	19	0.83	0.18	0.44
Main Avenue & 26th Street	31	0.84	0.52	0.84

*Crash rate in Million Entering Vehicles (MEV)

- Main Avenue & 17th Street crash rate below average crash rate
- Main Avenue & 26th Street crash rate above average crash rate but below critical crash rate
- All other intersections above critical crash rate

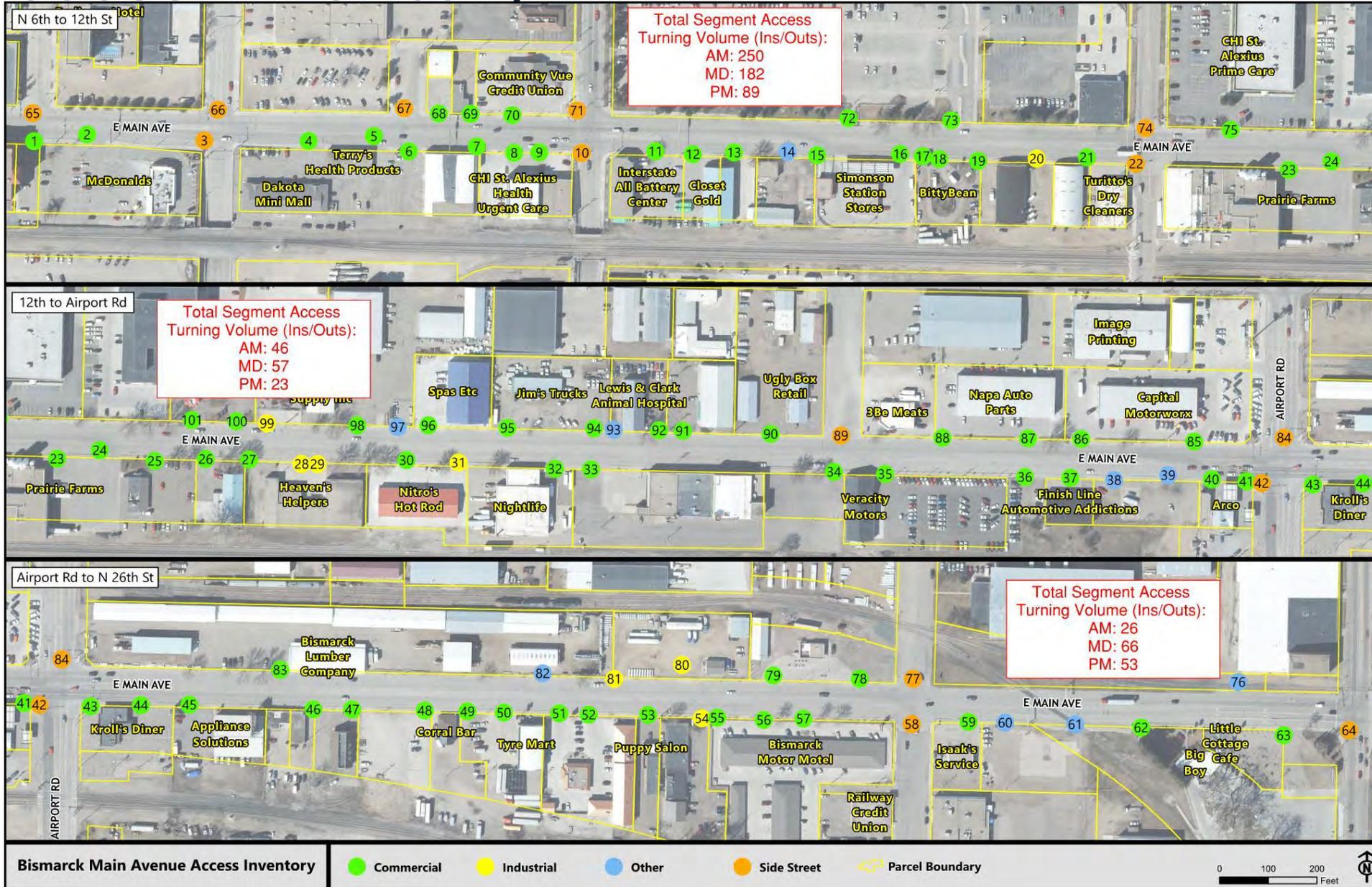
Safety Analysis - Segments

Segment	Total Crashes	Observed Crash Rate	Average Crash Rate	Critical Crash Rate
9th Street to 12th Street	11	1.86	0.76	1.21
12th Street to 17th Street	13	1.46	0.76	1.23
17th Street to Airport Road	14	3.60	0.76	1.25
Airport Road to 26th Street	5	1.57	0.76	1.27
9th Street to 26th Street	55	1.83	0.76	1.24

*Crash rate in Million Entering Vehicles (MEV)

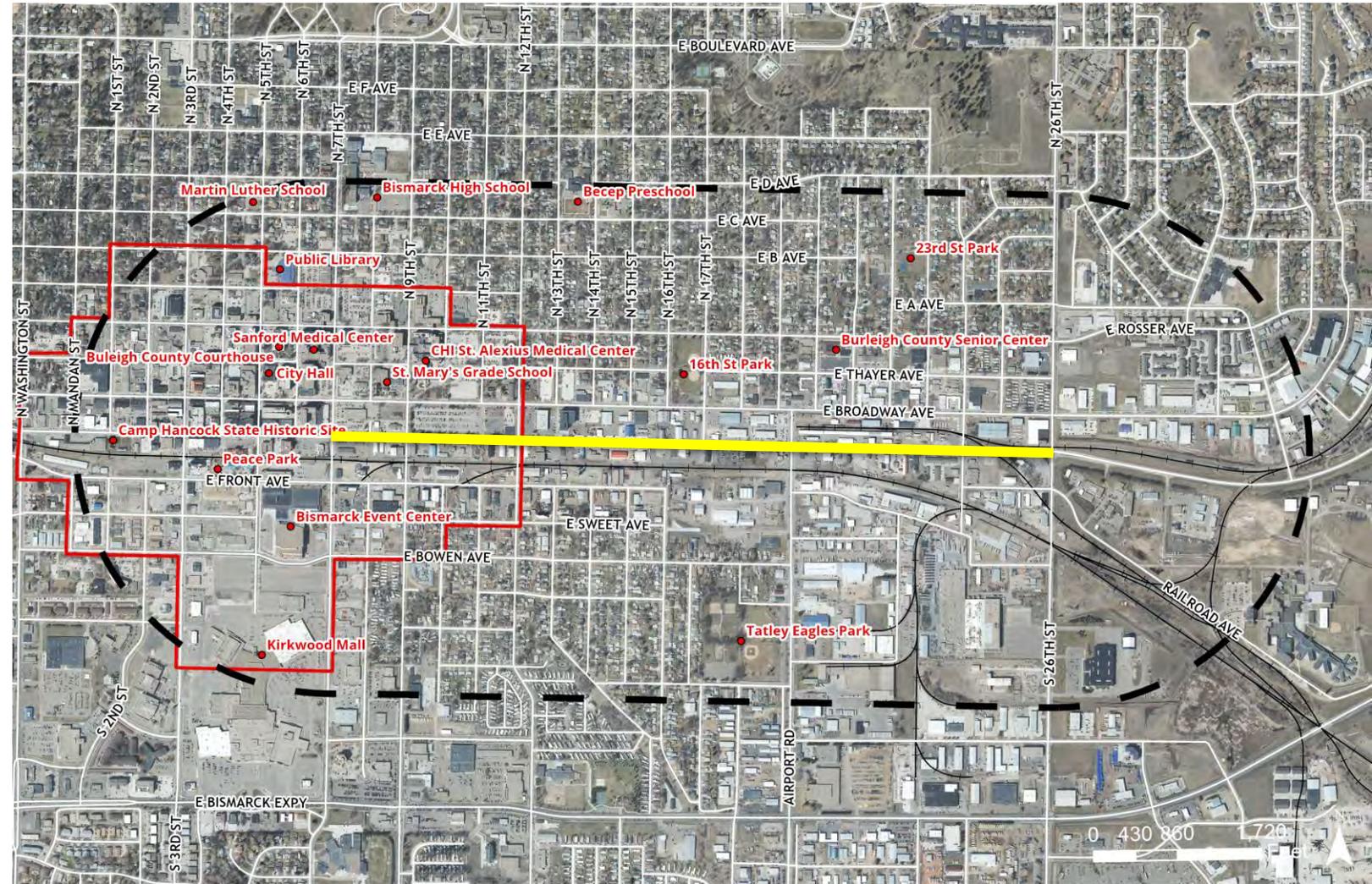
- All segment crash rates are above critical crash rate

Access Inventory



Bike and Ped Generators – ½ mile buffer

- Neighborhoods
- Downtown Bismarck
- Schools (public and private)
- Parks and Recreation
- Kirkwood Mall
- Major Employers
- Social Services (Ministry on the Margins, Heaven's Helpers, etc.)



Legend

- Half-Mile Buffer
- BNSF Railway
- Bike Ped Generators
- Downtown Bismarck

Strava Heat Map

- Active transportation heat map



Legend

 Half-Mile Buffer

 Fewer activities

 More activities

Strava Heat Map



EAST MAIN AVENUE
CORRIDOR STUDY

Sidewalk Network

- Gaps:
 - East side of 7th between E Main Avenue and Front Avenue
 - East side of 12th between E Main Avenue and Front Avenue
 - 17th St between Broadway and E Main Avenue
 - East side of Airport Road between E Main Avenue and Broadway Avenue
 - West side of Airport Road south of Main Avenue
 - 24th St between Broadway and E Main Avenue
 - North side of E Main Avenue between 24th and 26th Street
 - 26th St between Broadway Avenue and Railroad Avenue



Legend

- Existing Sidewalk
- No Sidewalk
- BNSF Railway

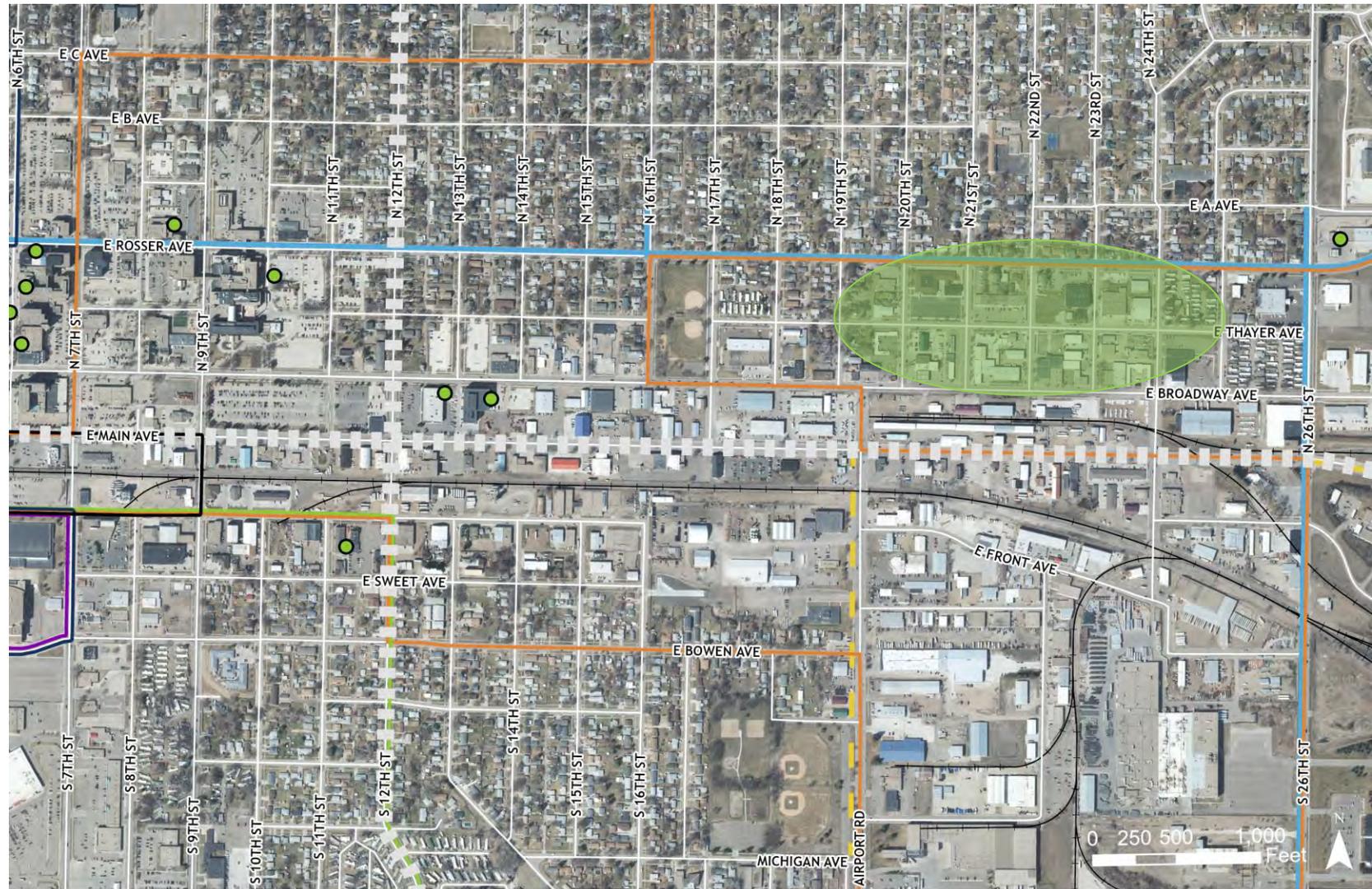
Sidewalks

Walk and Bike Issues

- Sidewalk gaps (no existing sidewalk) in areas along and adjacent to the East Main Avenue corridor
- Private access (more opportunity for pedestrian and vehicular conflicts)
- Safe pedestrian crossing locations from 12th Street and Airport Road (2,820') and Airport Road to 24th Street (1,757')
 - These are significant distances a pedestrian may travel to find a signal with a designated pedestrian crossing
 - May lead to pedestrian frustration and risk-taking when crossing East Main Avenue between designated locations

Transit

- Strong multimodal consideration along East Main Avenue
- Routes 1 and 5 run along the corridor
- Transit access is critical north of East Main Avenue (green oval)
- Bismarck Motor Hotel experiences frequent paratransit use



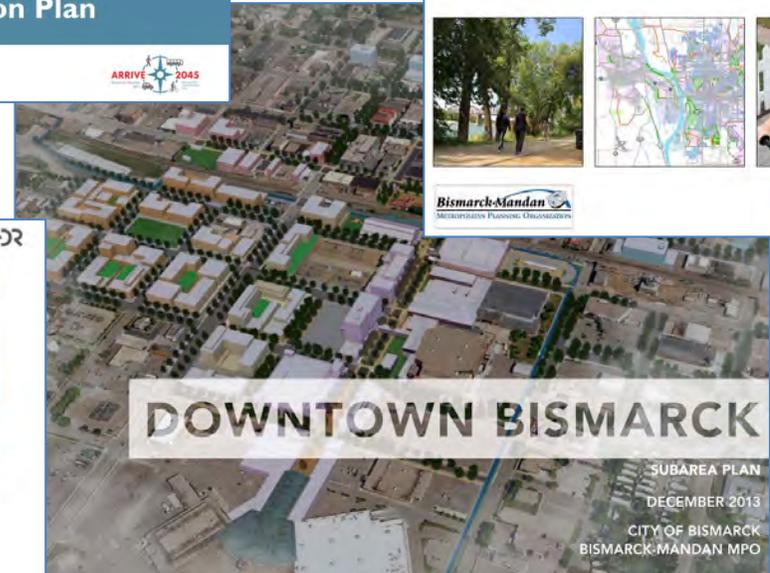
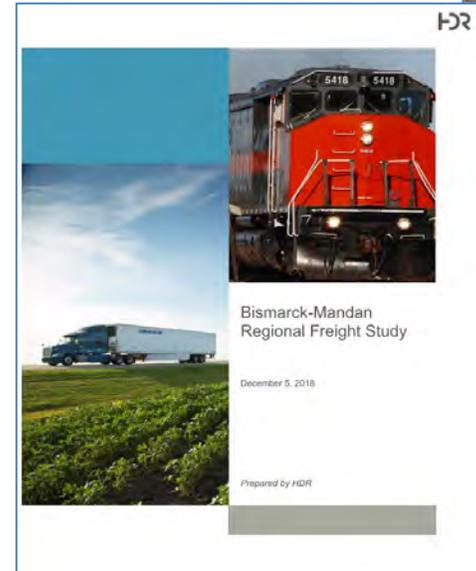
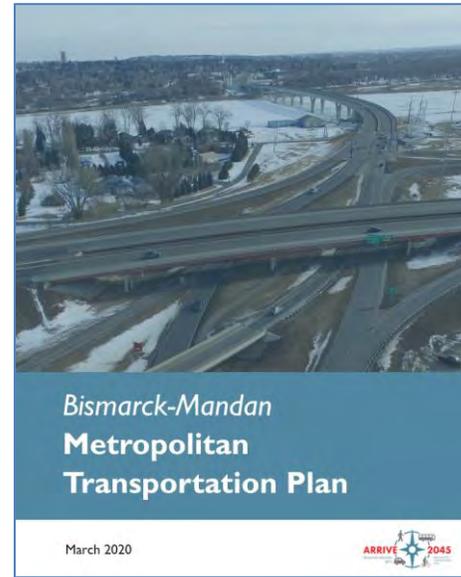
Legend

- Bike Rack
- BicycleLanes_Clip
- Proposed Trail
- Transit Routes
- 1 Black Route
- 2 Blue Route
- 3 Green Route
- 5 Route Orange
- 6 Purple Route
- Bike and Ped Plan Priority Connections

Multimodal Systems

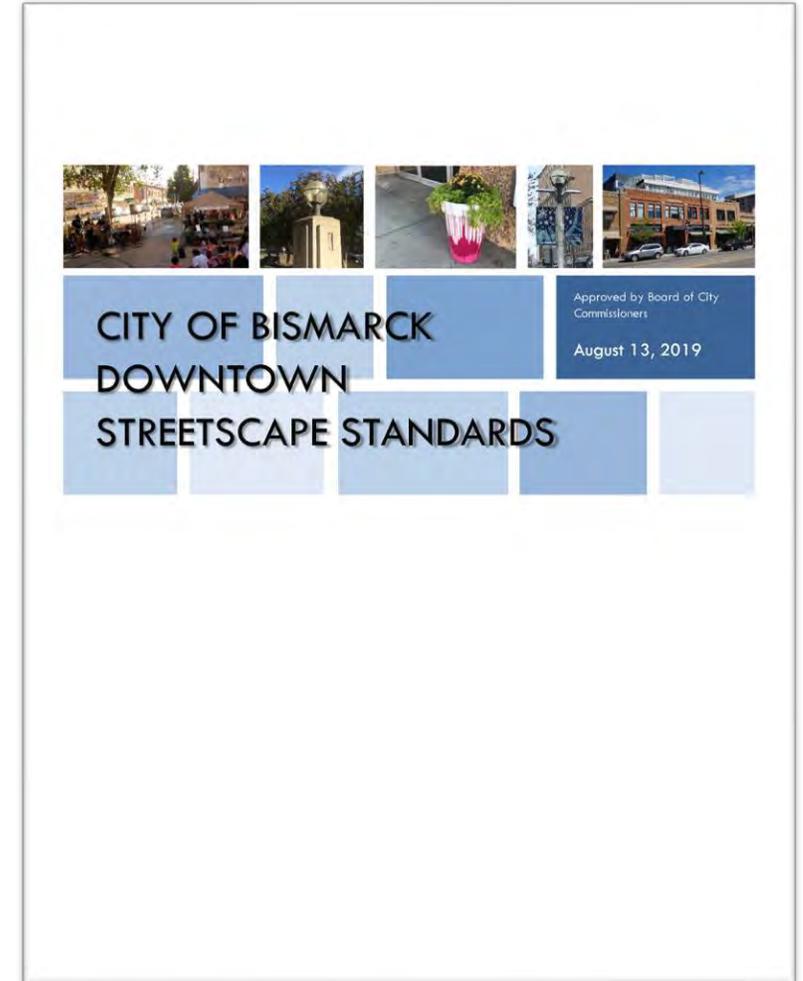
Existing Plans

- Bismarck-Mandan Metropolitan Transportation Plan
- Downtown Bismarck Subarea Plan
- Bismarck-Mandan Bicycle + Pedestrian Plan
- Bismarck-Mandan Regional Freight Study
- In Progress
 - Comprehensive Plan



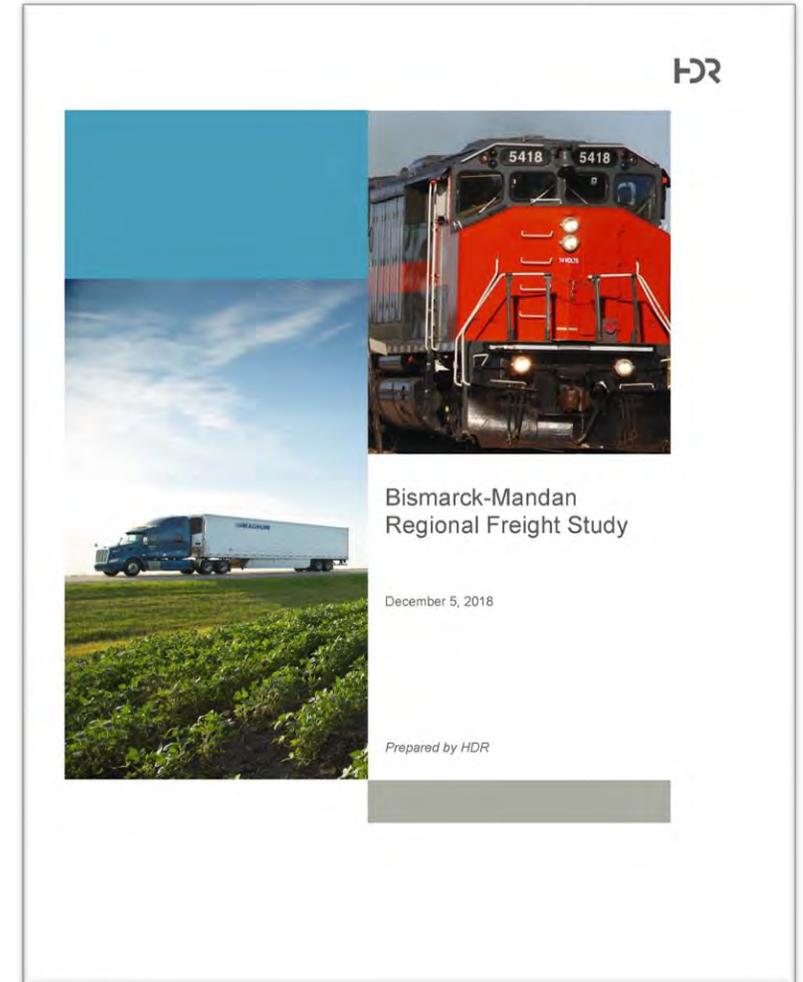
Related Plans

- City of Bismarck Downtown Streetscape Standards (2019)
 - Standards for urban design and pedestrian environment within the public right-of-way for Downtown Bismarck
 - Key takeaways:
 - Between 7th and 9th Street, East Main Avenue is identified as a Signature Street
 - Functions as the epicenter of commercial and entertainment activity, and a public gathering space.
 - Multimodal, balances vehicular travel and significant pedestrian activity
 - Intersects with three Secondary Urban Streets
 - 7th Street, 8th Street, and 9th Street



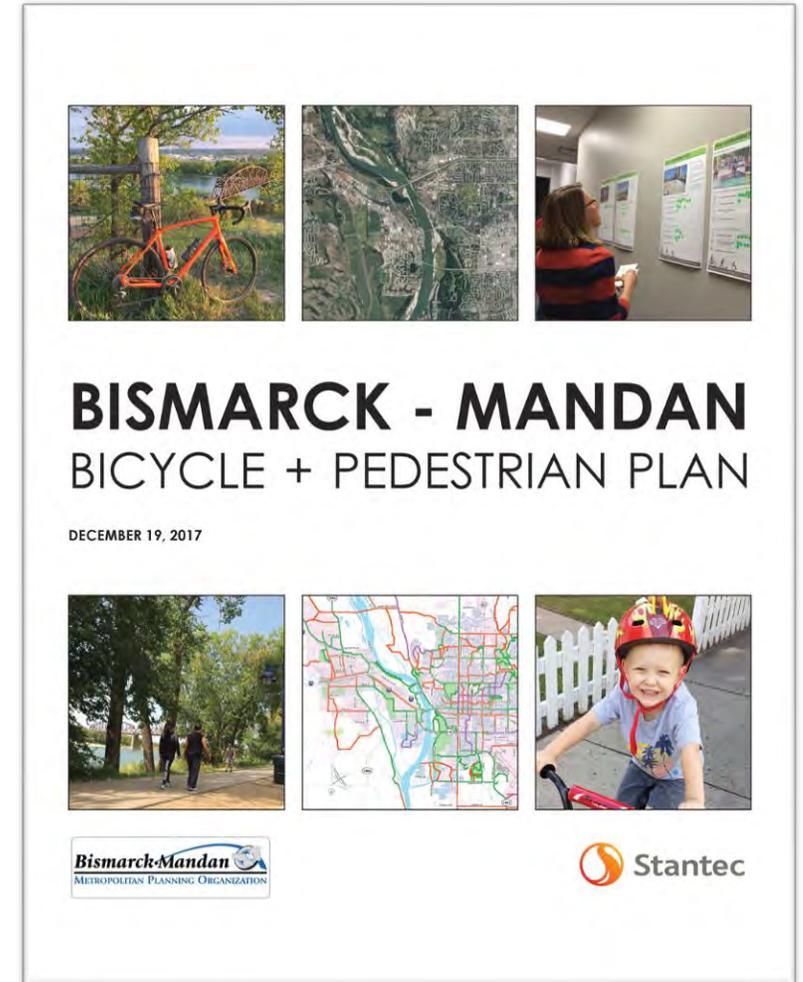
Related Plans

- Bismarck-Mandan Regional Freight Study (2018)
 - Plan to improve freight movement in the region
 - Key takeaways:
 - NDDOT classifies East Main Avenue as a Critical Urban Freight Corridor
 - The corridor is also part of Bismarck's designated truck route for actual or gross vehicle weight of 10,000 pounds or more
 - East Main Avenue also proposed as an Urban Strategic Freight Level 2 (regional/intrastate)
 - No specific project identified for East Main Avenue however, strategies identified in the Freight Study will contribute to the overall recommendations for the freight improvements in the region.



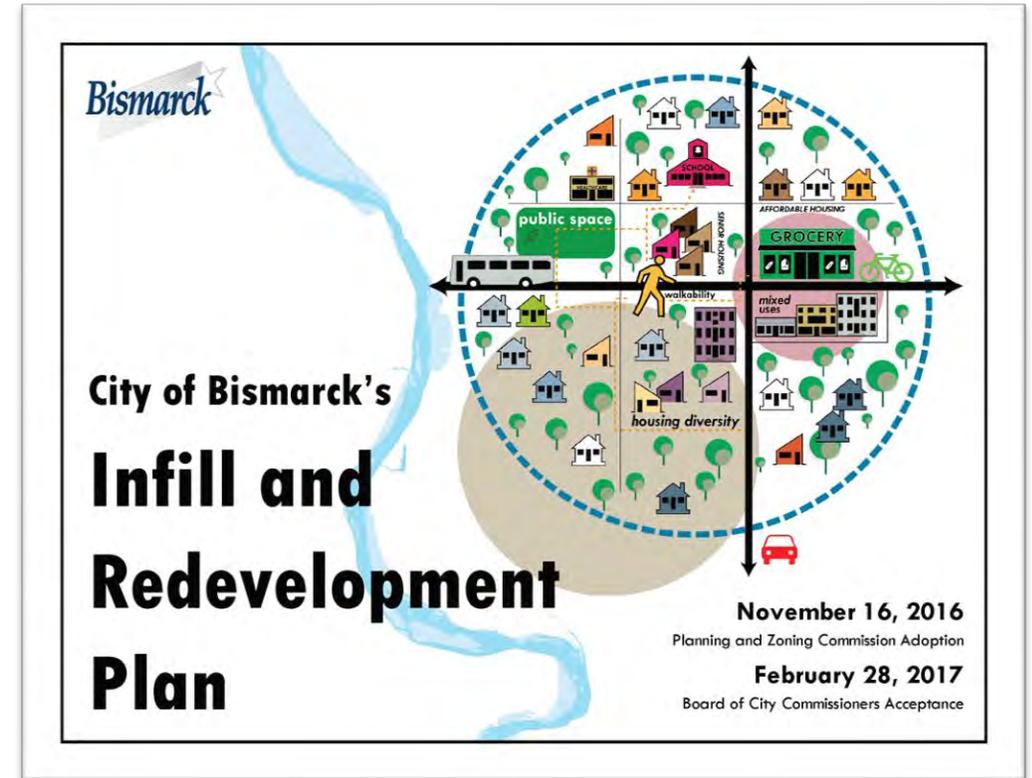
Related Plans

- Bismarck-Mandan Bicycle + Pedestrian Plan (2017)
 - Plan to support, grow, and advance bicycling and walking as a safe, comfortable, and reliable mode of transportation in the region
 - Key takeaways:
 - Increase bike and ped trips
 - Connect biking and walking trips to popular community destinations and transit system
 - Build a safe and comfortable bike and ped system
 - East Main Avenue was identified by the public as a top (second) priority connection
 - 12th Street, which bisects the corridor was also ranked as top priority connection



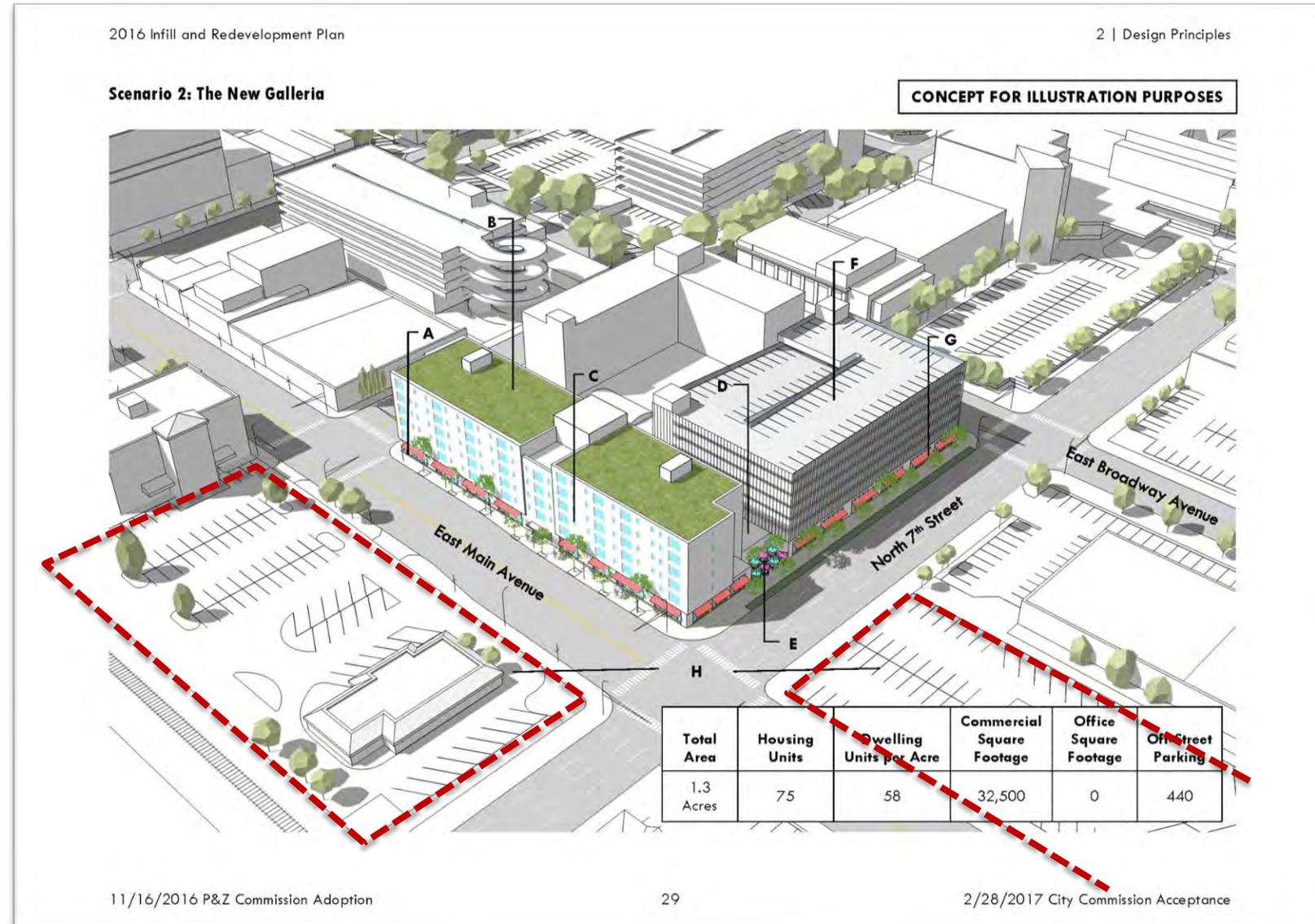
Related Plans

- Bismarck Infill and Redevelopment Plan (2016)
 - Plan addresses growth within Bismarck's existing footprint through (1) infill, the development of vacant or underutilized lands; and (2) redevelopment or the replacing, remodeling, or reusing existing structures/land to accommodate new development
 - Key takeaways:
 - Implementation momentum, “The New Galleria”, a three-story mixed use development, is nearing completion on the northwest corner of 7th Street and East Main Avenue
 - See following slide



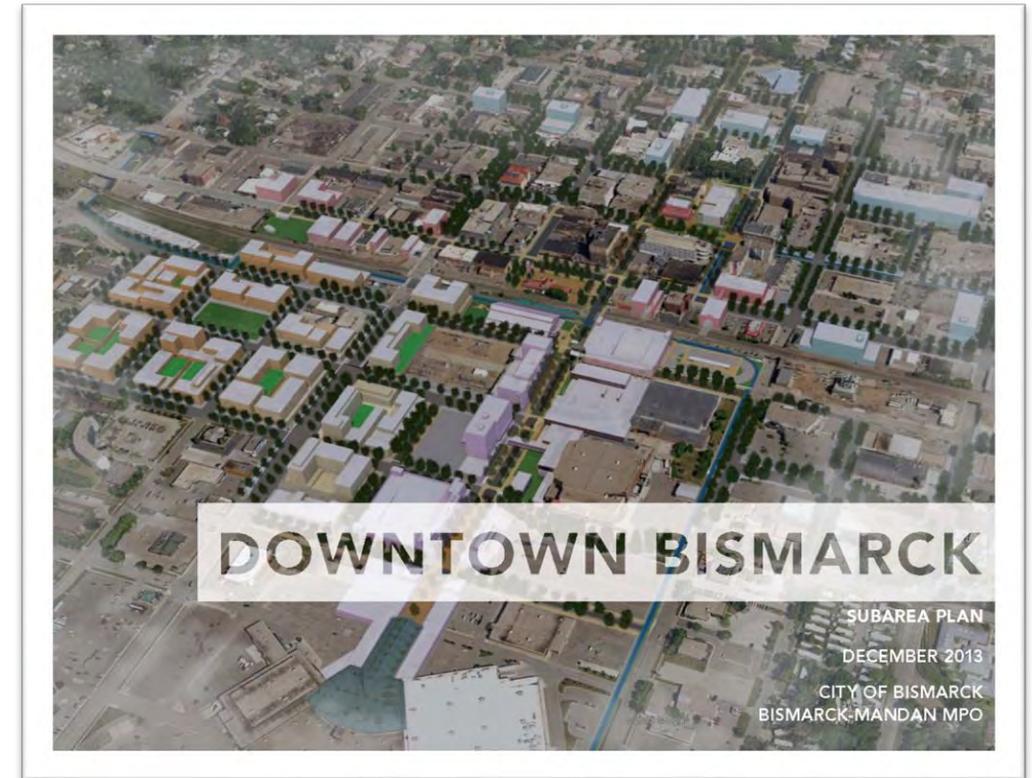
Related Plans

- Bismarck Infill and Redevelopment Plan (2016)
 - The New Galleria (in progress)
 - Callout 'H' identifies:
 - Adjacent parcels to the south and east are underutilized.
 - May be candidates for future redevelopment opportunities.
 - Depends on demand for further downtown development.



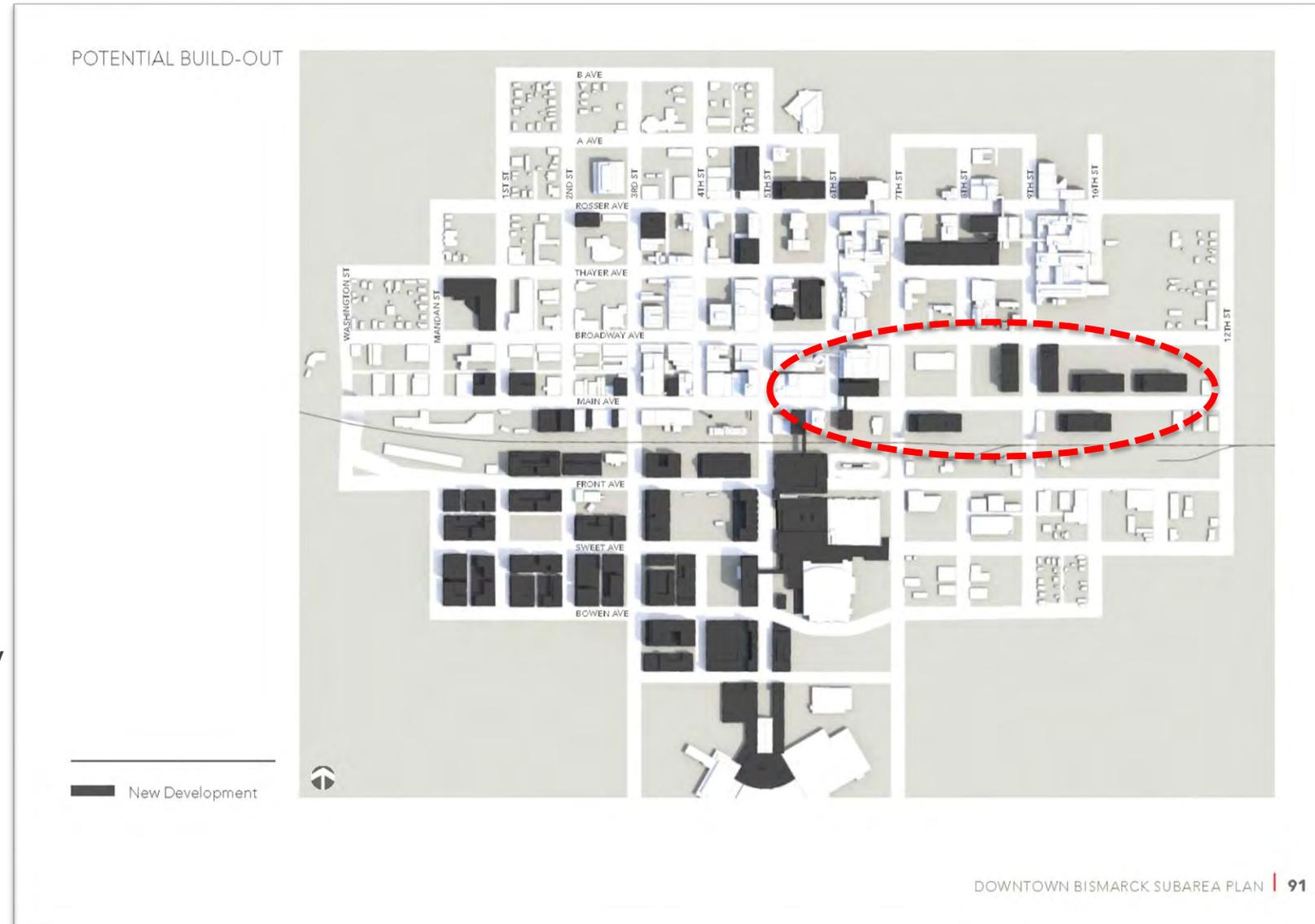
Related Plans

- Downtown Bismarck Subarea Plan (2013)
 - Plan identifies urban design and complete streets frameworks to guide the development and revitalize Bismarck's downtown
 - Emphasis on implementation
 - Key takeaways:
 - Main Avenue construction project from west of Washington St to 7th Street (project complete)
 - Included a road diet, bulb-outs, signals, ADA ramps, and pavement markings
 - Mixed use development recommendation on the northwest corner of 7th Street & East Main Avenue (expanded upon in Infill and Redevelopment Plan)
 - See following slide



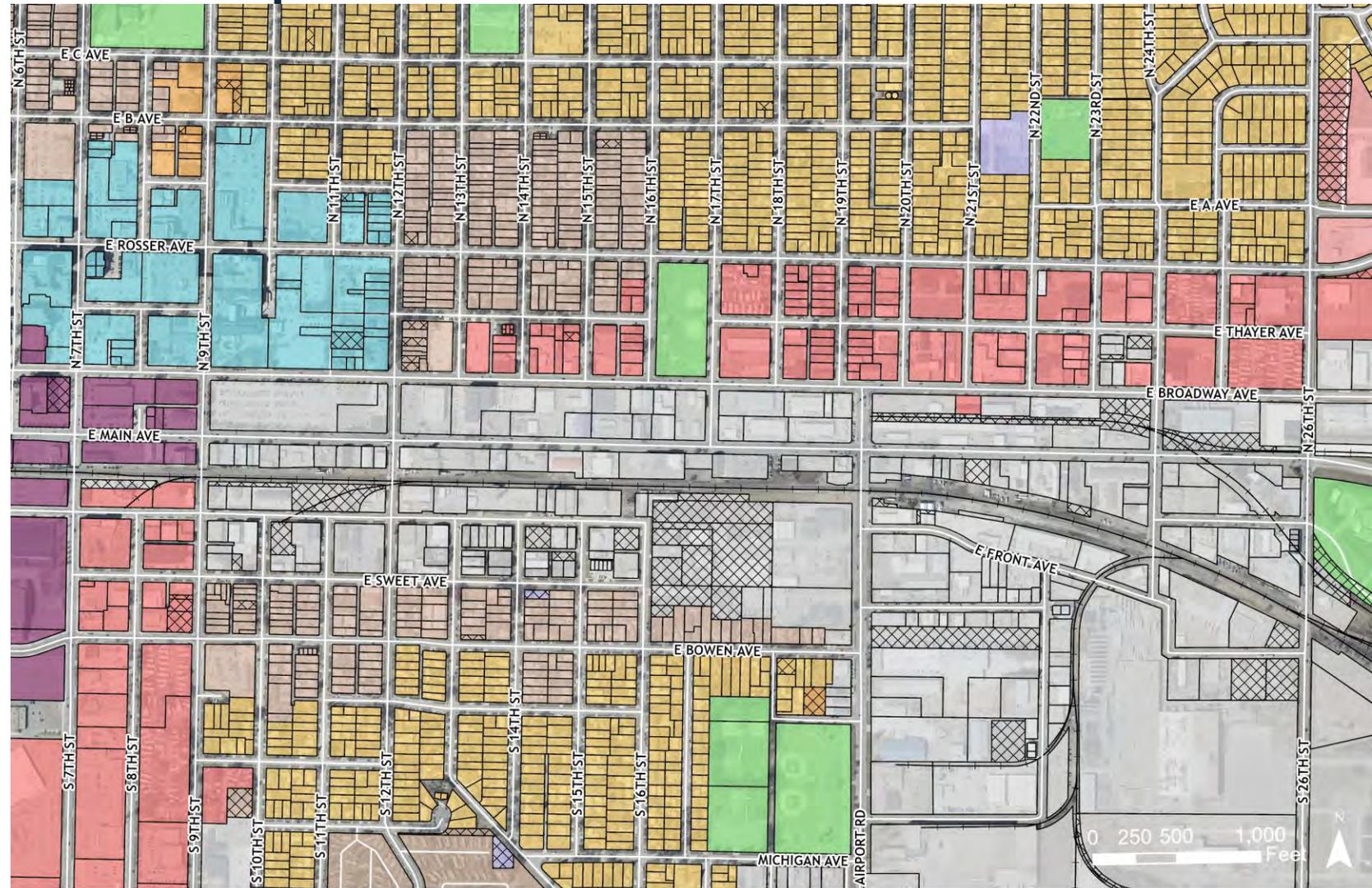
Related Plans

- Downtown Bismarck Subarea Plan (2013)
 - Potential build-out shows several new development opportunities along E Main Avenue near the study area:
 - NW corner of 7th Street and E Main Avenue
 - SE corner of 7th Street and E Main Avenue
 - Along 9th Street between E Main Avenue and Broadway
 - Along E Main Avenue from 9th Street to 12th Street



Zoning & Vacant Properties

- Corridor is made up of two zoning classifications
 - Downtown Core (DC)
 - Light Industrial (MA)



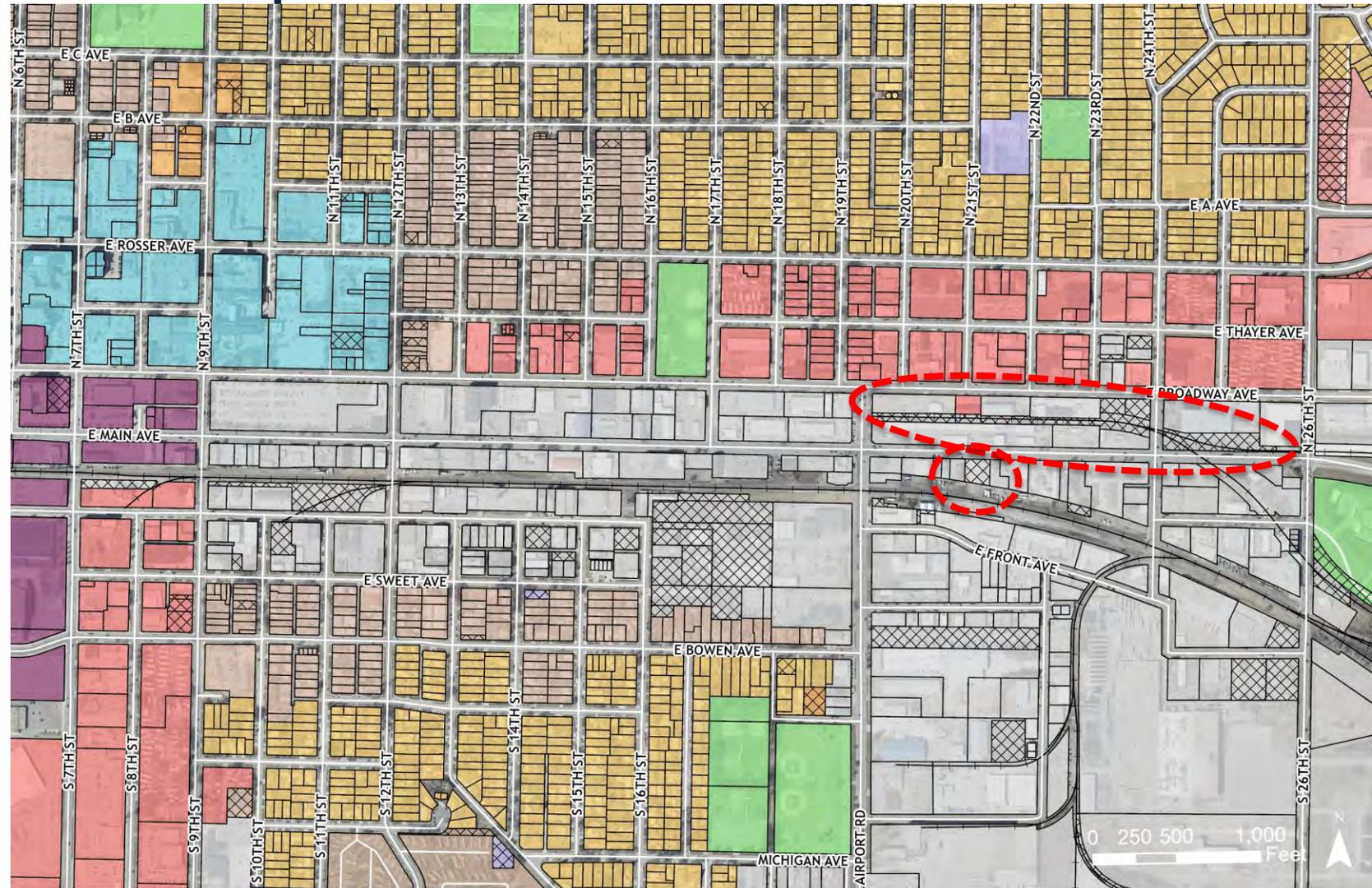
Legend

- | | | | | | | | |
|---|-------------------------|---|------------------|---|-----|---|---------------------------------|
| + | BNSF Railway | ■ | Downtown Core | ■ | N/A | ■ | Multi-Family Residential |
| □ | City Parcels | ■ | Downtown Fringe | ■ | ■ | ■ | Manufactured Home Park |
| ■ | Neighborhood Commercial | ■ | Health-Medical | ■ | ■ | ■ | Office-Multi-Family Residential |
| ■ | Heavy Commercial | ■ | Light Industrial | ■ | ■ | ■ | Vacant |
| | | ■ | | ■ | ■ | ■ | |
| | | ■ | | ■ | ■ | ■ | |
| | | ■ | | ■ | ■ | ■ | |

Zoning and Vacant Property

Zoning & Vacant Properties

- Vacant Properties
 - Soo Line Railroad properties on north side of East Main Avenue near 24th Street (not developable)
 - 2103 East Main Avenue (infill potential)



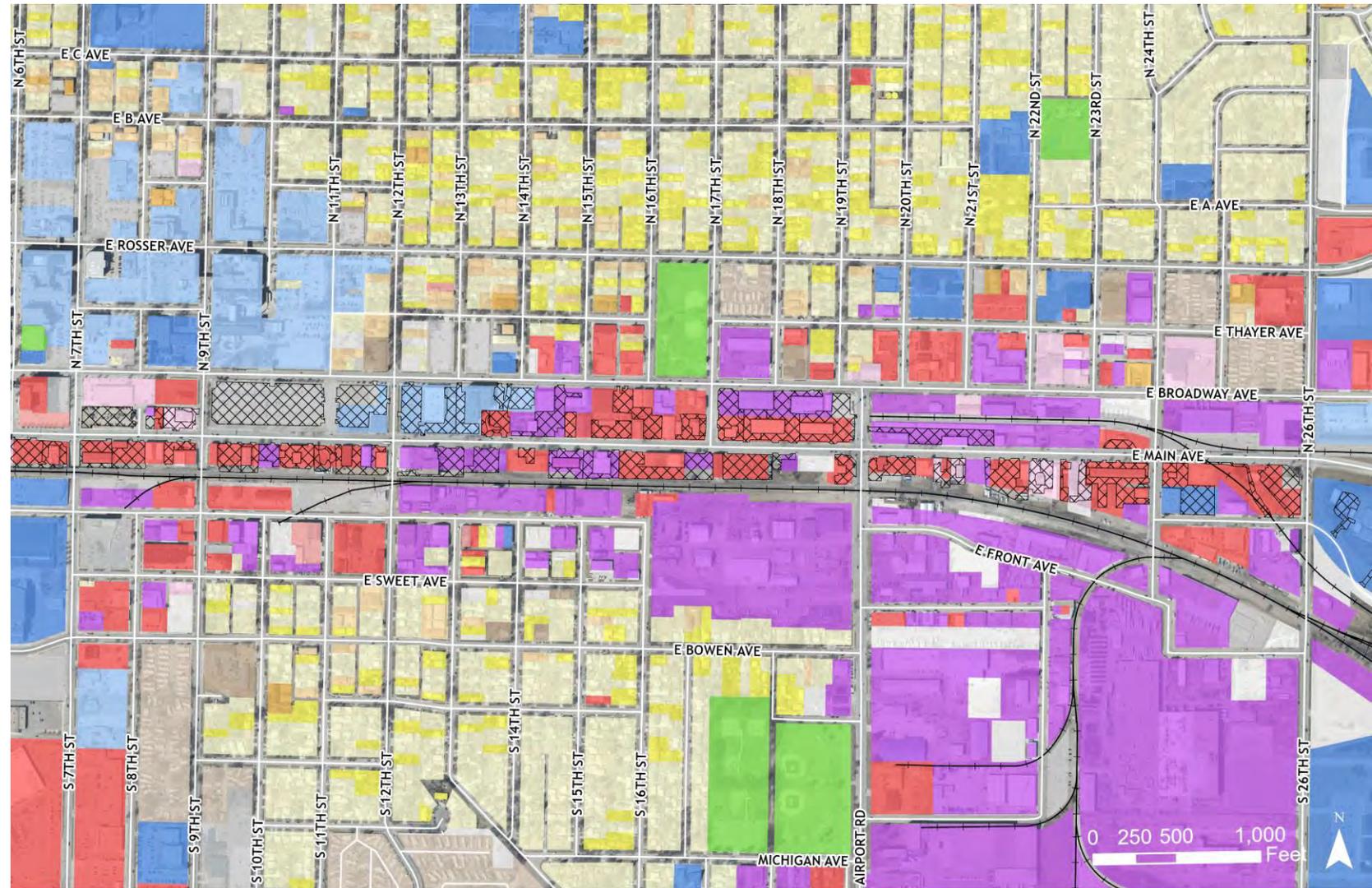
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| + | BNSF Railway | ■ | Downtown Core | ■ | N/A | ■ | Multi-Family Residential |
| □ | City Parcels | ■ | Downtown Fringe | ■ | ■ | ■ | Manufactured Home Park |
| ■ | Neighborhood Commercial | ■ | Health-Medical | ■ | ■ | ■ | Office-Multi-Family Residential |
| ■ | Heavy Commercial | ■ | Light Industrial | ■ | ■ | ■ | Vacant |
| | | | | ■ | ■ | ■ | |
| | | | | ■ | ■ | ■ | |
| | | | | ■ | ■ | ■ | |

Zoning and Vacant Property

Parking Lots and Circulation

- Off-street parking and circulation areas along E Main Avenue
 - Excludes fenced storage areas and vacant properties
 - May represent unfriendly pedestrian environments



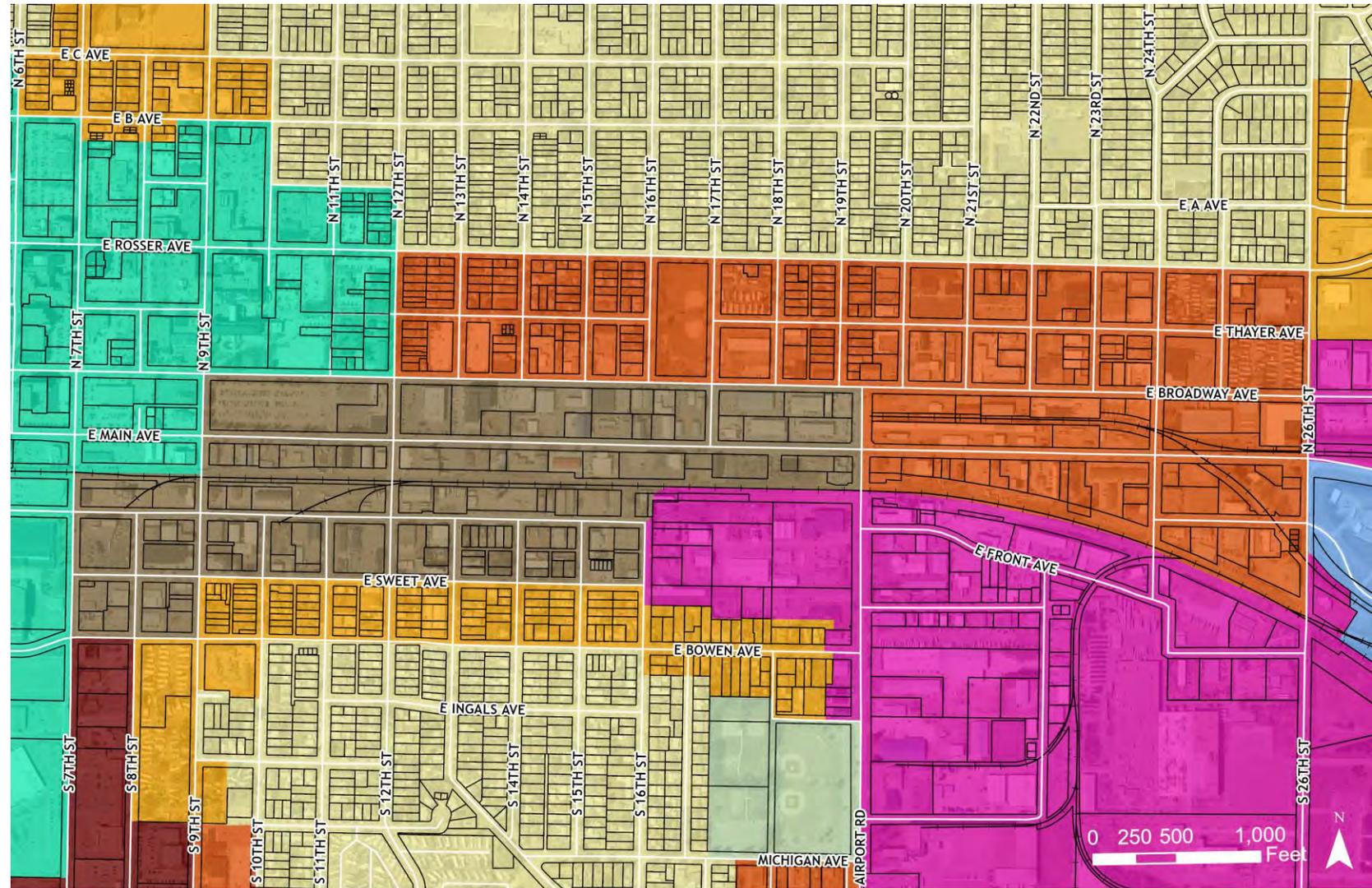
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- | | | | | | | | |
|------------|------------------|--------|---------------------------|--------------|---------------------------------|--------------|------------------------------------|
| + | BNSF Railway | Blue | Institutional | Light Brown | Residential Manufactured | White | Undeveloped |
| Red | Commercial | Green | Leisure | Orange | Residential Medium Density | White with X | Off-Street Parking and Circulation |
| Light Blue | Commercial Mixed | Pink | Office | Yellow | Residential Single Family | | |
| Light Blue | Health & Medical | Orange | Residential High Density | Light Yellow | Residential Two Family | | |
| Purple | Industrial | Brown | Residential Institutional | Grey | Transportation & Infrastructure | | |

Off-Street Parking and Circulation

DRAFT Future Land Use

- Designations in the project area include:
- Downtown
 - Heart of the community, historic center of Bismarck.
- Industrial Mixed Use
 - Vibrant mixed use district, arts and entertainment emphasis.
- Community Mixed Use
 - Places of commerce, employment, and residence.
- Industrial Flex
 - Flexible employment centers for a range of businesses.



Legend

- | | | |
|------------------------------|-----------------------------|-----------------------------|
| — BNSF Railway | Community Mixed Use (CMU) | Industrial Mixed Use (IMU) |
| City_Parcel | Destination Mixed Use (DMU) | Institutional (INS) |
| Urban Neighborhood (UN) | Downtown (DT) | Parks and Open Space (PKOS) |
| Neighborhood Mixed Use (NMU) | Industrial Flex (IF) | |

DRAFT Future Land Use

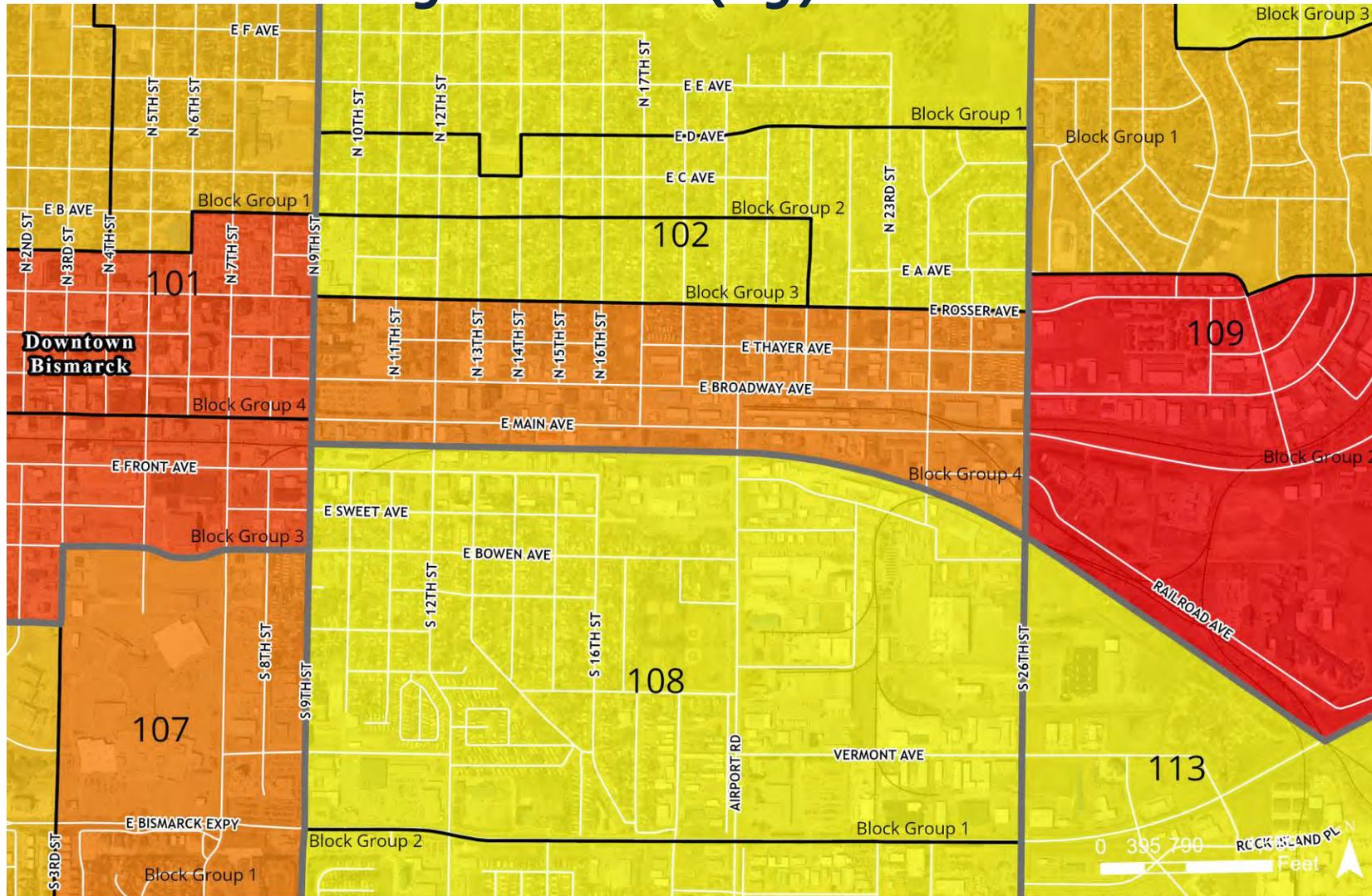
Environmental Justice (EJ)



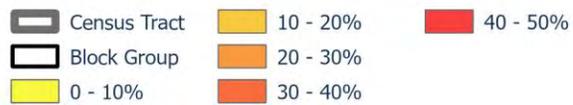
- EJ Populations

- 2016-2020 American Community Survey (ACS) five-year estimates were evaluated to identify areas of:
 - Low-income
 - Minority
 - Senior (65+)
 - Youth (non-driving or younger than 15)
 - Disabled

Environmental Justice (EJ)



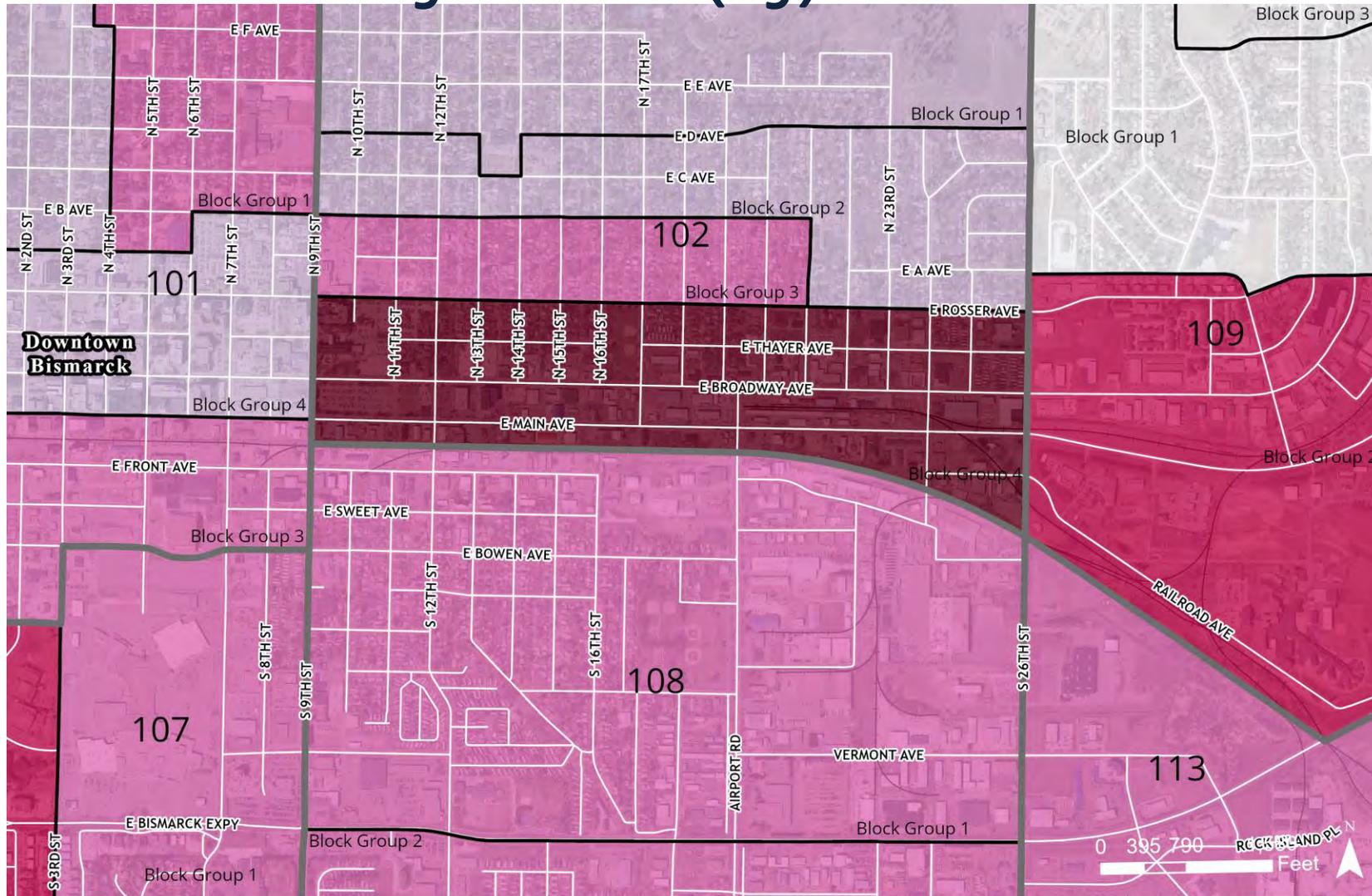
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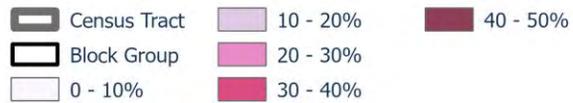
Population Below Poverty



Environmental Justice (EJ)



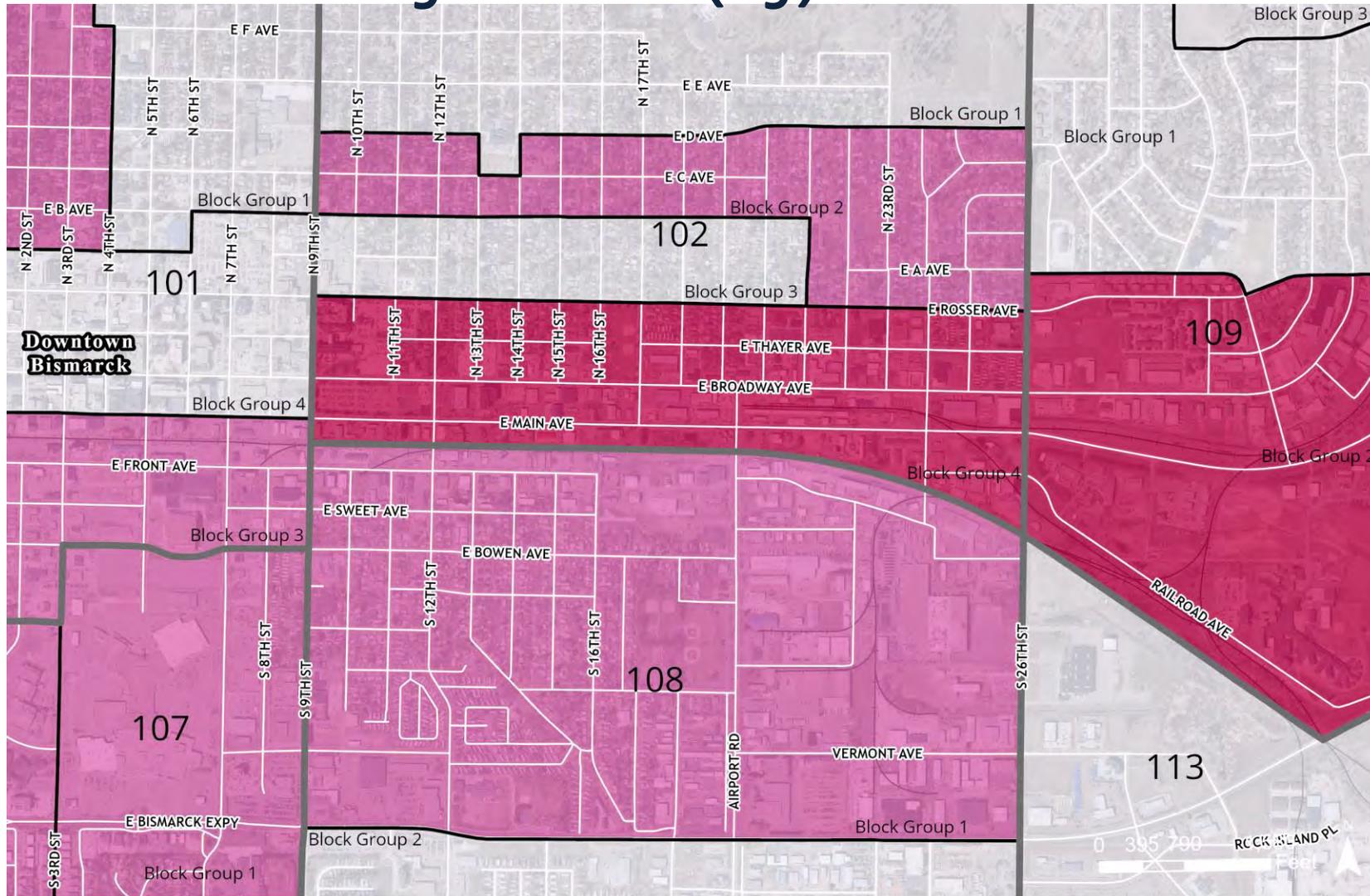
Legend



Non-White Population



Environmental Justice (EJ)



Legend

- Census Tract
- Block Group
- 0 - 10%
- 10 - 20%
- 20 - 30%

Population with Disability



○ Preliminary Issues/Needs

Purpose

The purpose is to achieve the following goals for East Main Avenue, from 7th Street to 26th Street, in the year 2045:

- Improve the aging corridor pavement
- Ensure all modes of transportation are safely and comfortably accommodated
- Support economic development opportunities along the corridor
- Minimize detrimental impacts to adjacent corridors

Need

- ✓ Pavement deterioration
- ✓ Snow control/maintenance
- ✓ Safety concerns throughout corridor – crash history, access, pedestrian, & bike
- ✓ Pedestrians and bikes– gaps & comfort
- ✓ Environmental justice populations – access & mobility needs
- ✓ Maintain freight access
- ✓ Redevelopment accommodation/ economic development pressure

Online Input Welcome!

eastmainstudy.com



INSTRUCTIONS

- 1** ADD your ideas to the map by clicking "Add Comments" to place icons using the menu bar below.
- 2** Describe your comment in the text box that pops up.
- 3** Click Submit.

PROVIDE YOUR INPUT!

COMMENT CATEGORIES

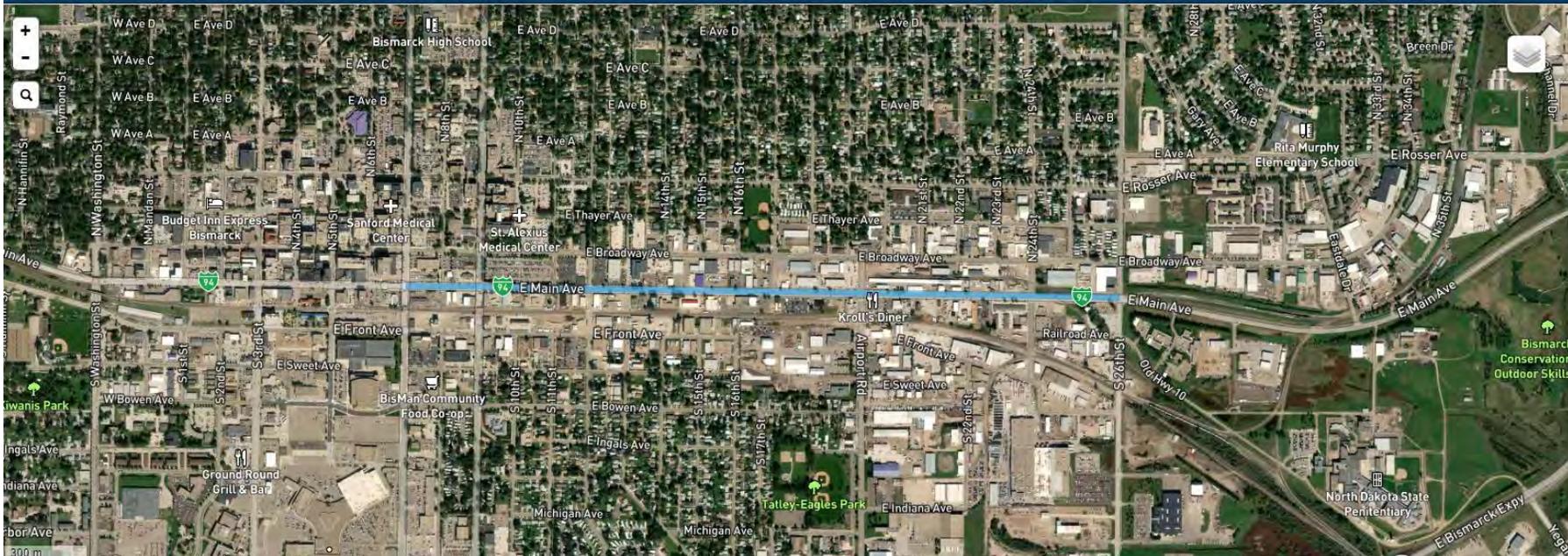


LEGEND

STUDY CORRIDOR

East Main Avenue Corridor Study Welcome

Share 0 Draft Project



Next Steps

Corridor Improvement Alternatives

Analysis of Alternatives

Next Open House –
November 30, Same Place and Time

Early 2023 – Final Study
Recommendations & Community Meeting

Feedback Needed Today



In 2045, East Main Avenue is...



Place
Stamp
Here

what is your vision of East Main Avenue in the future?

www.eastmainstudy.com

Feedback Needed Today

Re-Imagine E Main

Create your
own cross
section

What type of
improvements
are needed?

Corridor Map

Document your
issues with the
corridor

Use post-its,
discuss issues
with us

○ Thank you

Consultant Contact

Scott Harmstead, AICP

SRF Consulting Group, Inc.

Email - sharmstead@srfconsulting.com

Phone - 701-354-2405

Address - 2370 Vermont Ave
Bismarck, ND 58504

- Location(s):** City-County Office Building, First Floor Conference Room, 221 N 5th St., Bismarck, ND (Open Houses) & Bismarck High School, Gilbreath Auditorium Commons, 800 N 8th St., Bismarck, ND (Community Workshop)
- Client:** Bismarck-Mandan Metropolitan Planning Organization (MPO)
- Date(s):** November 29, 2022 (Open Houses) & December 1, 2022 (Community Workshop)
- Subject:** Public Meeting(s) – East Main Avenue Corridor Study Alternatives
- Attendees:** 14 people attended the Open Houses and Community Workshop
Kim Riepl, Bismarck-Mandan Metropolitan Planning Organization
Michael Mart, City of Bismarck Engineering Department
Scott Harmstead, SRF Consulting Group
Luke Champa, SRF Consulting Group
Jason Gullicks, Apex Engineering Group

Purpose of Meetings

The purpose of the meetings was to discuss and gather feedback about East Main Avenue corridor alternatives and analysis criteria. The Open Houses were geared toward business and property owners, and the Community Workshop toward the general public. All meetings were open to the public and ADA accessible. Display boards and roll-plots were used to chat about the project, while surveys were used to collect valuable feedback. The Open Houses had no formal presentation but the Community Workshop did include a brief formal presentation. Discussion from Open House and Community Workshop participants is included in the “Summary of Meeting” section below.

Comments Received

11/29/2022 Open Houses

- Median alternative restricts property access, would U-turns be safer?
- 3-lane alternative would ruin Cruise Night
- West of Airport Road would have to have 5 lanes
- Reducing access affects car business
- Median affects lawn business and mobility in and out
- Intersection safety, 19th St
- Vote for maintain the 5-lane
- Bus transit moved to Broadway. Transit issues.
- Dangerous area - lighting is bad between lumberyard and 26th St. People running across the road, especially early in the morning. Lighting is poor on the south side.

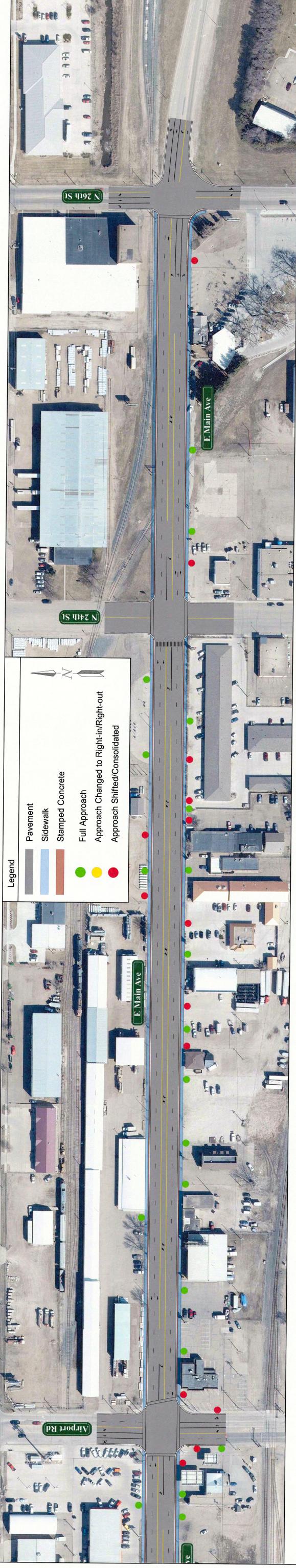
- No problems with homeless population since 1994 but has become an issue more recently (trespassing, broken window)
- Median access criteria should probably be shown as worse than it is in the matrix
- 2-lane on West Main Ave causes bottlenecks at McDonald's
- Maybe 3-lane is appropriate between 7th and 12th Streets
- Great to see the bulb-outs for safety and stuff
- Mid-block crossing would be really nice
- Crosswalk at Bitty Bean/Simonson would be really nice to have
- Snow storage is a big issue, narrow sidewalks are hard to maintain
- Sidewalk in front of Prairie Farms is scary for pedestrians, very narrow
- PM peak traffic is backed up – signal timing improvements, new traffic lights, will be beneficial
- Could see benefit for snow-storage
- User fees instead of special assessment
- Left-hand turns are a nightmare
- Don't change it – should be 5-lane throughout, West Main Ave too
- Not Bismarck residents' problem to appease local businesses (relating to funding issues for road projects on Main Ave)
- 3-lane on Main creates public safety issue for emergency management/evacuation (e.g. train derailment) – 3-lane won't support traffic flow/movement needed
- Main Ave was original interstate, we need to maintain as an east-west thoroughfare as Main is the center of town
- Aside from Main, what are the major east-west roads? Expressway is already clogged up on the south, nothing else goes all the way through until you get to I-94 (it was suggested Rosser extends from east Bismarck to west Bismarck)
- Questions the need/driving force behind the study
- Median wouldn't work for 306-308 East Main Ave
- Freight movements turning south on 24th St
- People crossing to hotel from the soup kitchen, etc.
- 5-lane throughout, drive corridor 20 times a day
- Right-turns into Simonson cause bottlenecks
- Congestion on East Main Ave at 5:00pm everyday
- Supports 5-lane 80% and 3-lane 20%, absolutely no median
- Not opposed to moving access to property, in fact says he asked to do it but was denied (due to utilities, etc.)
- Customers have said it's hard coming out of his lot with the building directly on the west side of the driveway access, obstructed view of on-coming traffic from the west
- Likes the look of center median, thinks it would be bad for snow and emergency vehicles and basically is impractical.
- Pedestrian crossings are needed on the east end of Main
- 3-lane is favorable, timing is great on signals, only take 12 minutes to drive from Veracity to Mandan home or vice versa
- Wants motorists to be able to drive by and see their dream car or truck sitting in his lot

- Needs a maintenance project, not a full reconstruction

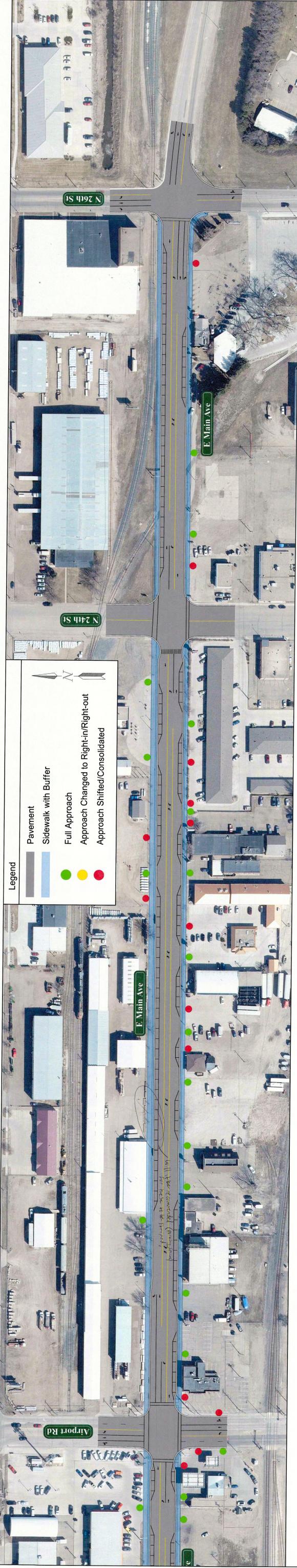
Community Workshop

- Would like to see traffic counts for West Main prior to the conversion to 3-lane
- Would like to see previous traffic projections for West Main and compare to what actually happened – include as justification or validation of the numbers included in the new study

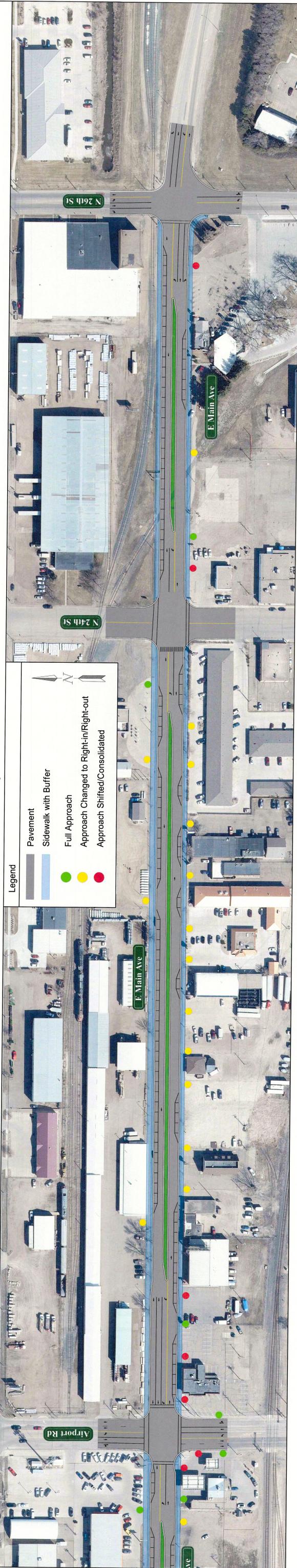
5 Lane - Airport Road to 26th Street



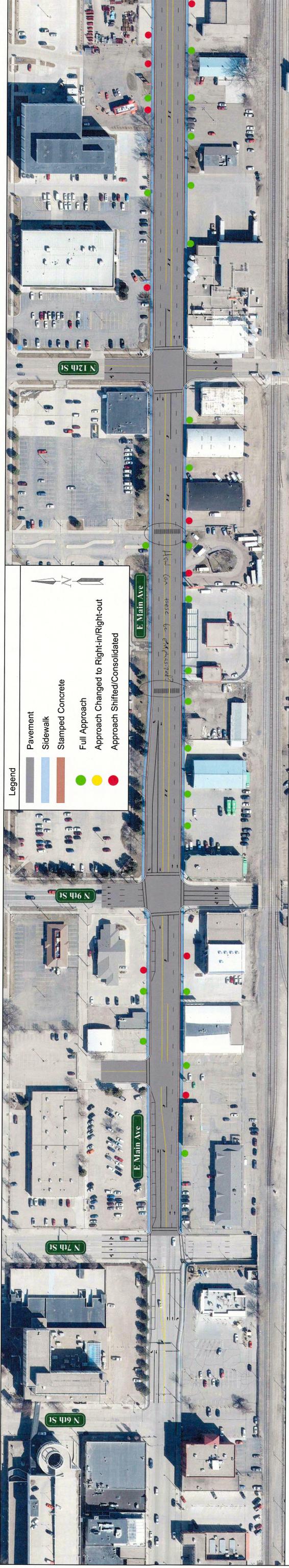
3 Lane - Airport Road to 26th Street



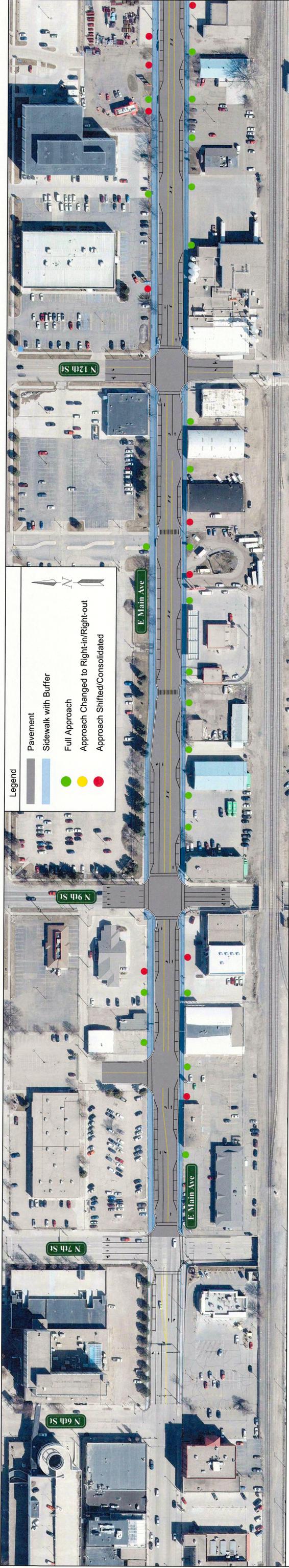
3 Lane Full Median - Airport Road to 26th Street



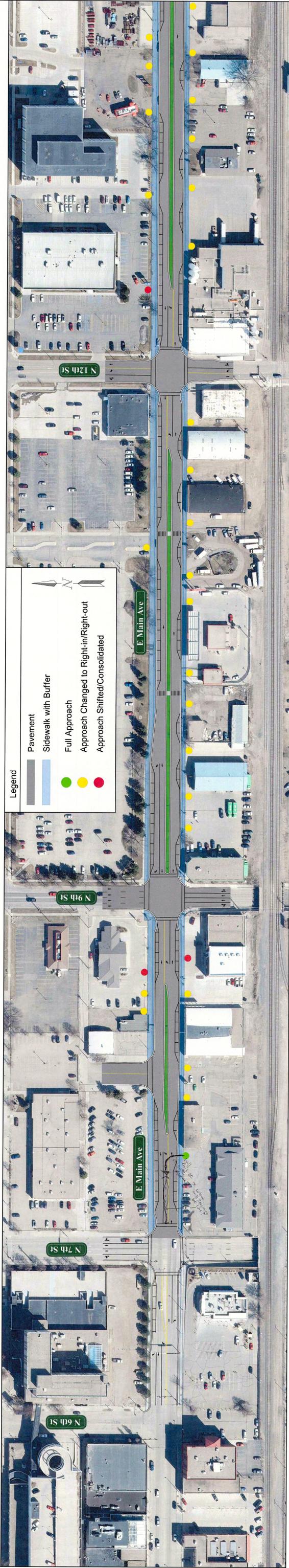
5 Lane - 7th Street to 12th Street



3 Lane - 7th Street to 12th Street



3 Lane Full Median - 7th Street to 12th Street



5 Lane - 12th Street to Airport Road



3 Lane - 12th Street to Airport Road



3 Lane Full Median - 12th Street to Airport Road





EAST MAIN AVENUE
CORRIDOR STUDY

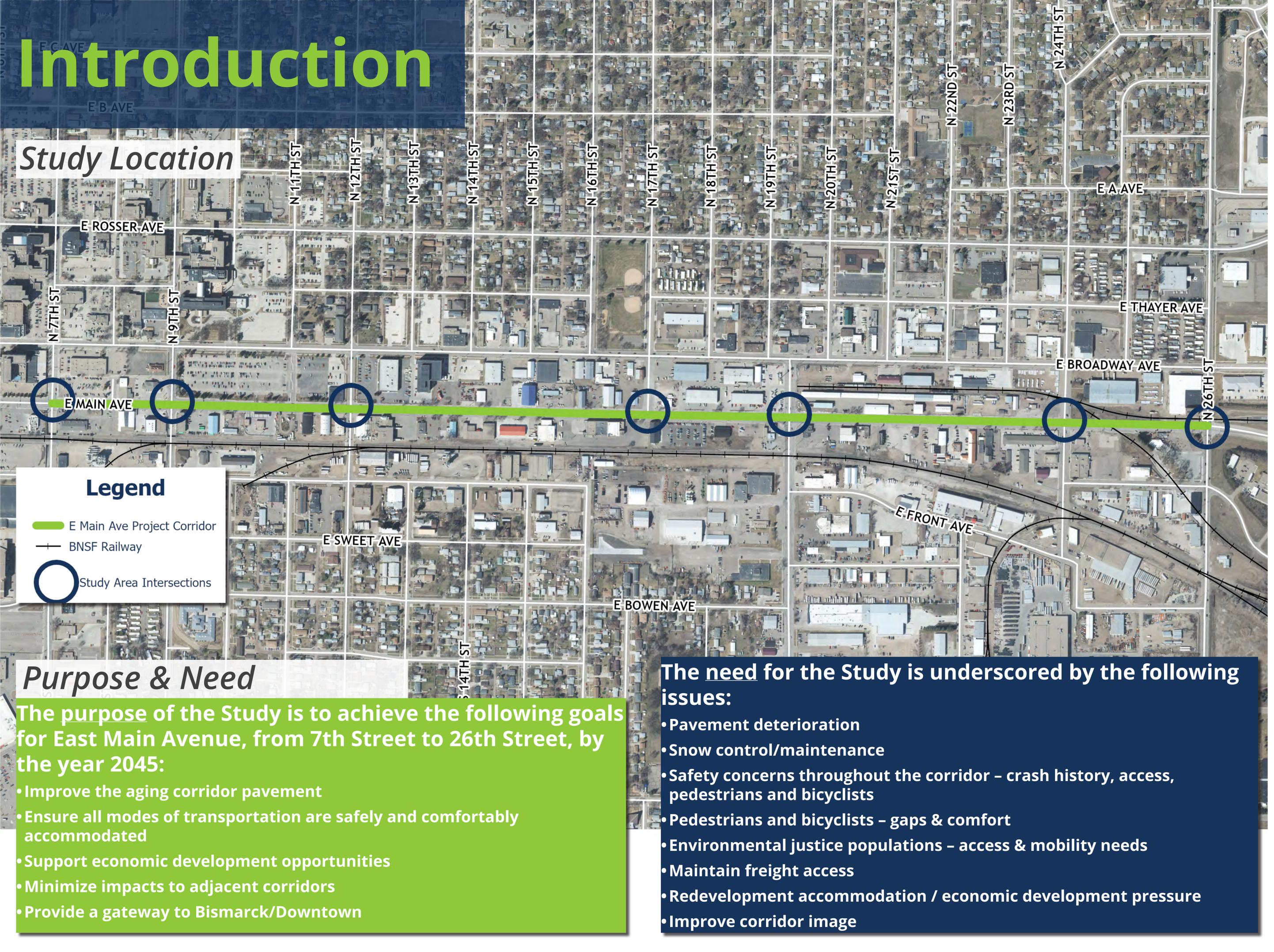
Welcome

Bismarck-Mandan MPO & City of Bismarck



Introduction

Study Location



Legend

-  E Main Ave Project Corridor
-  BNSF Railway
-  Study Area Intersections

Purpose & Need

The purpose of the Study is to achieve the following goals for East Main Avenue, from 7th Street to 26th Street, by the year 2045:

- Improve the aging corridor pavement
- Ensure all modes of transportation are safely and comfortably accommodated
- Support economic development opportunities
- Minimize impacts to adjacent corridors
- Provide a gateway to Bismarck/Downtown

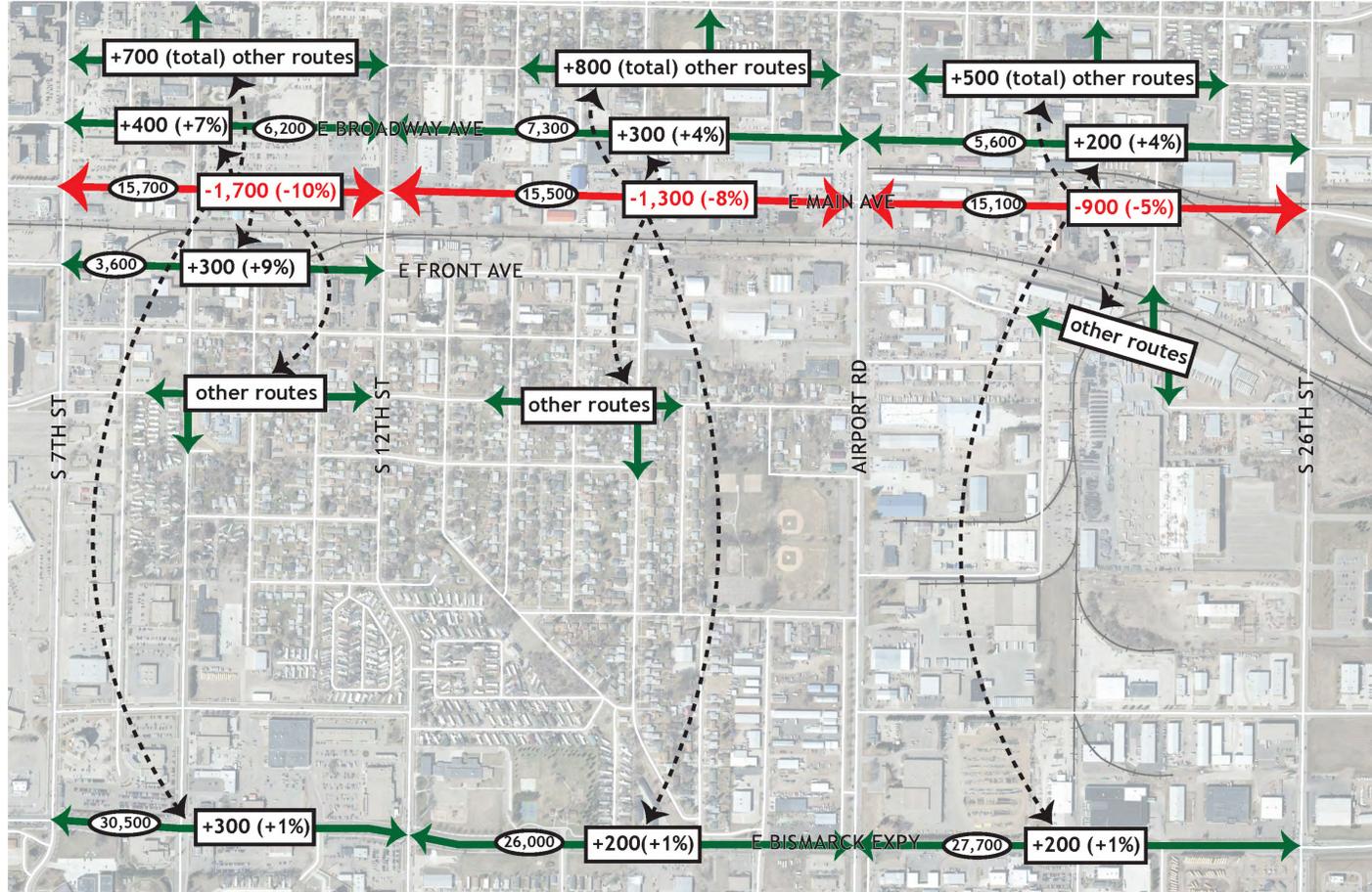
The need for the Study is underscored by the following issues:

- Pavement deterioration
- Snow control/maintenance
- Safety concerns throughout the corridor – crash history, access, pedestrians and bicyclists
- Pedestrians and bicyclists – gaps & comfort
- Environmental justice populations – access & mobility needs
- Maintain freight access
- Redevelopment accommodation / economic development pressure
- Improve corridor image

Vehicular Mobility

2045 Intersection Capacity Analysis

Route Traffic Diversion - 3-Lane



Legend

- VPD (Red arrow)
- +VPD (Green arrow)
- Forecast VPD* (Circle with star)
- Diversion from E Main (Dashed arrow)

*Includes diversion

3-Lane Alternatives Traffic Diversion Map

EAST MAIN AVENUE CORRIDOR STUDY

Based on the results from the Travel Demand Model, if East Main Avenue were to be a 3-lane road in year 2045, a daily diversion ranging between approximately 900 and 1,700 Vehicles Per Day (VPD) from East Main Avenue to parallel routes is expected. Traffic is not expected to divert if East Main Avenue remains a 5-lane in year 2045.

The diversion to the routes shown above will not have a significant impact on the congestion level or how those parallel routes operate on a daily basis.

East Main Avenue Intersection	Level of Service (LOS)					
	AM Peak Hour			PM Peak Hour		
	2045 5-Lane	2045 3-Lane	2045 3-Lane with Median	2045 5-Lane	2045 3-Lane	2045 3-Lane with Median
7 th Street	B	B	B	B	B	C
9 th Street	B	B	B	C	C	C
12 th Street	B	B	B	B	B	A
17 th Street	A	A	A	A	A	A
Airport Road	B	C	C	B	C	C
24 th Street	A	A	A	A	A	A
26 th Street	B	B	B	B	C	C

Under each of the East Main Avenue alternatives, all intersections operate at a LOS C or better during the AM and PM peak hours.

Travel Times

Alternative	Travel Time (minutes)					
	AM Peak Hour			PM Peak Hour		
	Eastbound	Westbound	Average	Eastbound	Westbound	Average
Existing Conditions ¹	3.72	4.03	3.90	3.90	4.40	4.20
Year 2045 5-Lane ²	3.80	4.09	3.90	4.00	4.69	4.30
Year 2045 3-Lane	4.58	4.83	4.70	4.94	4.88	4.90
Year 2045 3-Lane with Median	4.57	4.94	4.80	4.89	4.62	4.80

1|Year 2022. 2|Same as 2045 No Build

Under future year 2045 5-Lane alternative conditions, the travel times increase slightly compared to existing conditions. The 3-Lane alternatives result in a more significant increase in travel time along the corridor.

5-Lane

- All intersections operate at LOS C or better in both the AM and PM peaks
- Average corridor travel times slightly higher than existing in PM peaks

3-Lane

- Diversion to parallel routes of approximately 900 to 1,700 VPD
- All intersections operate at LOS C or better in both the AM and PM peaks
- Average corridor travel times approximately 15% higher than 5-Lane

3-Lane with Median

- Diversion to parallel routes of approximately 900 to 1,700 vpd
- All intersections operate at LOS C or better in both the AM and PM peaks
- Average corridor travel times approximately 12% higher than 5-Lane Alternative

Evaluation Matrix

Vehicular Mobility	Criteria Evaluation Matrix		
	5-Lane	3-Lane	3-Lane with Median
7 th to 12 th Street	Good	Good	Good
12 th Street to Airport Road	Good	Good	Good
Aiport Road to 26 th Street	Good	Good	Good

KEY

- Good; best meets criteria
- Ok; meets criteria well
- Moderate; close to achieving criteria
- Marginal; does not meet criteria
- Poor; fails to meet criteria

Safety & Property Access

Access Impacts by Alternative

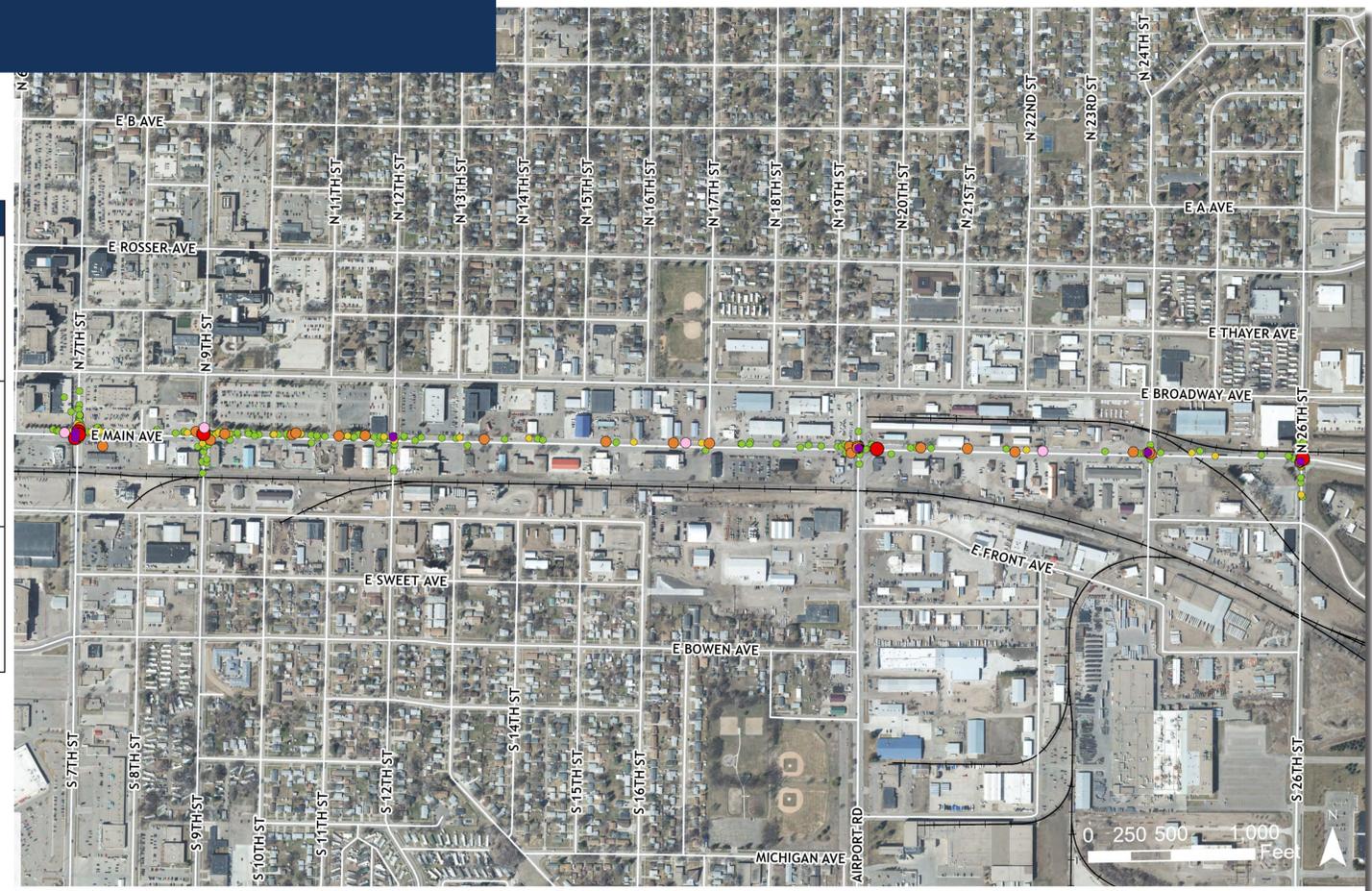
Segments	5-Lane	3-Lane	3-Lane with Median
7 th to 12 th Street	<ul style="list-style-type: none"> 5 full access location closures (access closed completely) No partial access location closures 	<ul style="list-style-type: none"> 5 full access closures No partial access location closures 	<ul style="list-style-type: none"> 2 full access location closures 17 partial access location closures Total of 19 access locations impacted
12 th Street to Airport Road	<ul style="list-style-type: none"> 13 full access location closures (access closed completely) No partial access location closures 	<ul style="list-style-type: none"> 13 full access location closures No partial access location closures 	<ul style="list-style-type: none"> 4 full access location closures 26 partial access location closures Total of 30 access locations impacted
Aiport Road to 26 th Street	<ul style="list-style-type: none"> 14 full access location closures (access closed completely) No partial access location closures 	<ul style="list-style-type: none"> 14 full access location closures No partial access location closures 	<ul style="list-style-type: none"> 6 full access location closures 15 partial access location closures Total of 21 access locations impacted

Most closures of access drives are consolidation of two adjacent access points. Some access closures include moving driveway approaches away from intersections to enhance safety.

Safety Impacts by Alternative

5-Lane	3-Lane	3-Lane with Median
<ul style="list-style-type: none"> 32 access location closures along the corridor resulting in a decrease in conflict points 6' sidewalk and 2' stamped concrete buffer on both sides of East Main Avenue to improve pedestrian safety Curb extensions Signal timing improvements 	<ul style="list-style-type: none"> 32 access location closures along the corridor resulting in a decrease in conflict points 10' – 15' sidewalk buffer on both sides of East Main Avenue to improve pedestrian safety Curb extensions On-street parking Lane reduction Less through-lanes for left-turns to cross Less queuing Signal timing improvements 	<ul style="list-style-type: none"> 12 access location closures and 58 partial access location closures along the corridor resulting in a decrease in conflict points 10' – 14' sidewalk with buffer on both sides of East Main Avenue to improve pedestrian safety Curb extensions On-street parking Lane reduction Construction of median Less through-lanes for left-turns to cross Less queuing Signal timing improvements

Each alternative reduces the number of access points along the corridor, therefore reducing conflict points and improving safety. Access reduction is a proven countermeasure for rear-end crashes, the most prevalent crash type along the corridor.



Legend

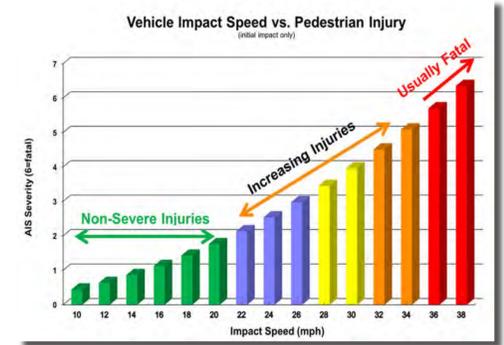
Crash Severity

- Incapacitating Injury (Red circle)
- Non-incapacitating injury (Orange circle)
- PDO (Green circle)
- Possible Injury (Yellow circle)

Non-Motor-Vehicle Crash

- Bicycle (Purple circle)
- Pedestrian (Pink circle)

Crash Severity



Source: FHWA

Other improvements such as on-street parking, curb extensions, lane reduction or reduction of curb-to-curb width, and construction of a median are known vertical deflection traffic calming measures. Traffic calming measures are safety countermeasures proven to reduce vehicle speeds and are typically installed to support the livability and vitality of residential and commercial areas.

Evaluation Matrix

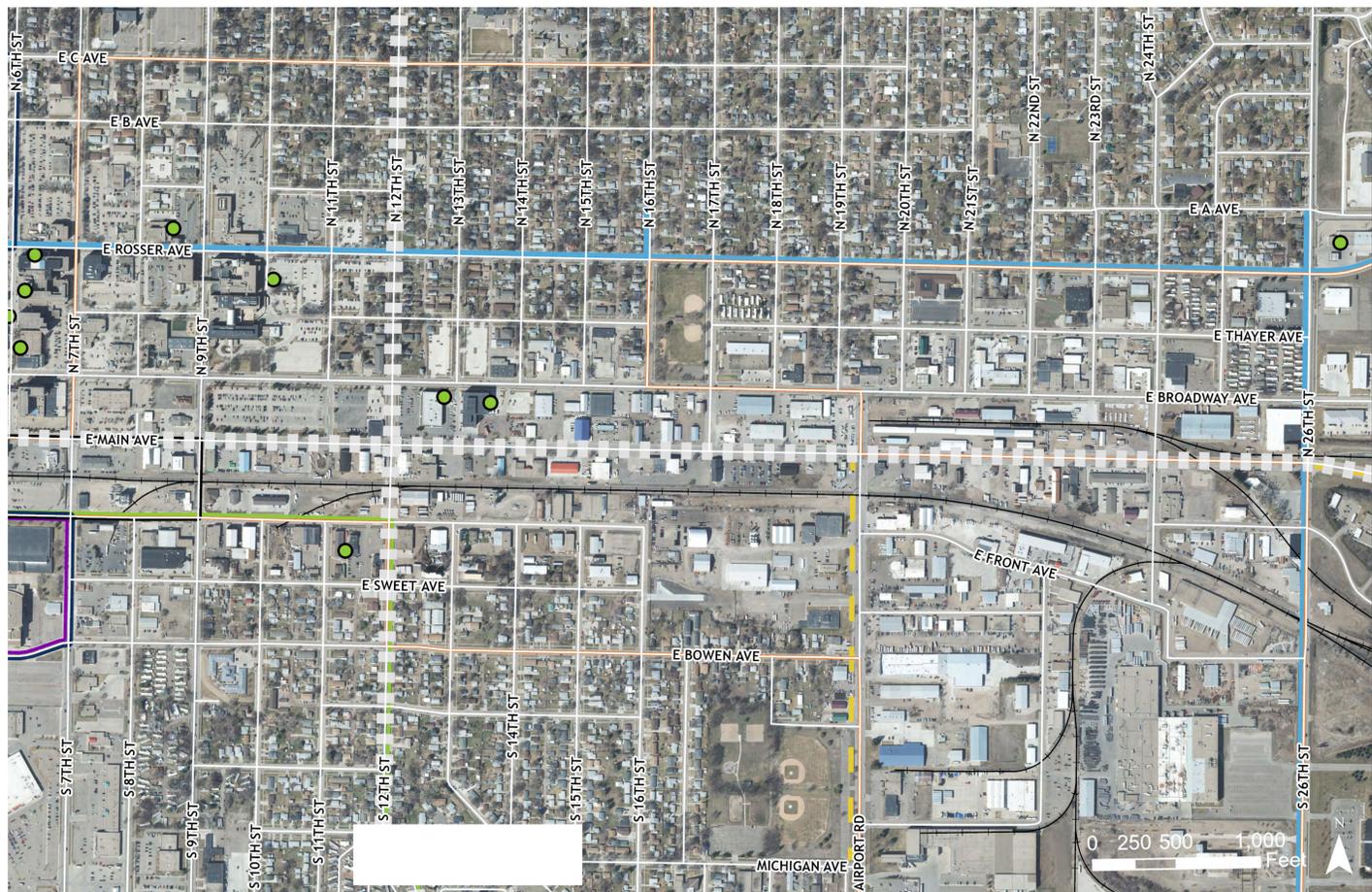
Property Access Criteria Evaluation Matrix			
Segment	5-Lane	3-Lane	3-Lane with Median
7 th to 12 th Street			
12 th Street to Airport Road			
Aiport Road to 26 th Street			

Safety Criteria Evaluation Matrix			
Segment	5-Lane	3-Lane	3-Lane with Median
7 th to 12 th Street			
12 th Street to Airport Road			
Aiport Road to 26 th Street			

KEY

- Good; best meets criteria (Green)
- Ok; meets criteria well (Light Green)
- Moderate; close to achieving criteria (Yellow)
- Marginal; does not meet criteria (Orange)
- Poor; fails to meet criteria (Red)

Pedestrians/Bicyclists/Transit



Legend

- Bike Rack
- Bicycle Lanes
- Proposed Trail
- Bike and Ped Plan Priority Connections

Figure 13 | Multimodal Systems

- Transit Routes**
- 1 Black Route
- 2 Blue Route
- 3 Green Route
- 5 Route Orange
- 6 Purple Route



Evaluation Matrix

KEY

- Good; best meets criteria
- Ok; meets criteria well
- Moderate; close to achieving criteria
- Marginal; does not meet criteria
- Poor; fails to meet criteria

Pedestrian Access & Mobility Criteria Evaluation Matrix

Segment	5-Lane	3-Lane	3-Lane with Median
7 th to 12 th Street			
12 th Street to Airport Road			
Aiport Road to 26 th Street			

Bike Access & Mobility Criteria Evaluation Matrix

Segment	5-Lane	3-Lane	3-Lane with Median
7 th to 12 th Street			
12 th Street to Airport Road			
Aiport Road to 26 th Street			

Transit Criteria Evaluation Matrix

Segment	5-Lane	3-Lane	3-Lane with Median
7 th to 12 th Street	N/A	N/A	N/A
12 th Street to Airport Road	N/A	N/A	N/A
Aiport Road to 26 th Street			

Transit

A potential transit stop area was evaluated near the northeast corner of E Main and 24th Street, given the location is included as a timing point in the fixed route bus schedule (i.e. where a bus says it will be at a given time). 5-Lane and 3-Lane alternatives improve transit mobility but the 3-Lane provides greater feasibility for a new stop area.



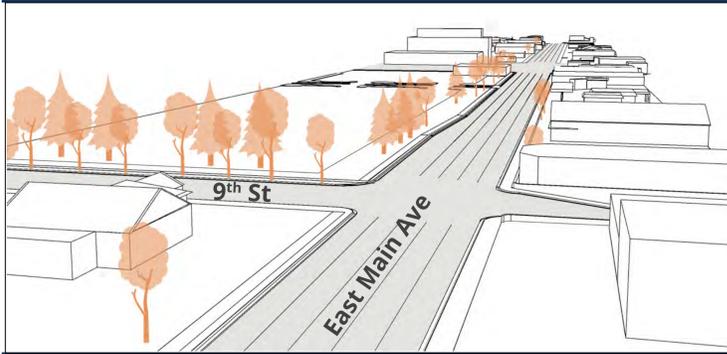
Bicyclist Access & Mobility

Dedicated bike facilities are not included in any East Main Avenue alternative, but that does not mean that alternatives would not improve accessibility and mobility for bicyclists. Most of the pedestrian considerations are also applicable to bicyclists who bike off-street. No on-street bike facilities are proposed in the alternatives. Bicycling is allowed on sidewalks except in Downtown Bismarck (7th to 12th Street segment), where it is illegal. Wider sidewalks in the 3-Lane alternatives may indirectly benefit bicyclists.

Redevelopment Opportunity

Redevelopment Scenarios

Existing Condition



- No change

5-Lane



- 210,000 sq.ft. of new commercial on north frontage (one 2-story building and three 1-story buildings)
- 339,000 sq.ft. in parking structures (two 5-story buildings)
- generates \$11.55 million of estimated property tax revenue over 20 years.

3-Lane



- 373,000 sq.ft. in new multiuse on north frontage (three 3-story buildings and one 2-story building)
- 154,000 sq.ft. in new multiuse on south frontage (two 2-story buildings)
- 339,000 sq.ft. in parking structures (two 5-story buildings)
- generates \$28.75 million of estimated property tax revenue over 20 years.

Redevelopment is possible in each alternative, but the opportunity for development is assumed to be greater under the 3-Lane alternative. Lane reductions are demonstrated to improve walkability, slow traffic, and help create a sense of place that is attractive to residents and businesses. In conversations with area development stakeholders, there appears to be more interest in redevelopment under the 3-Lane alternative. Property tax revenue estimates were derived from similar development case studies in Bismarck and Fargo.



Comprehensive Plan Guidance



A city-wide analysis of redevelopment potential was performed in 2021 to support Bismarck's updated comprehensive plan, *Together 2045*. The City's analysis shows that redevelopment potential is moderate to high between 7th and 12th Street on East Main Avenue, particularly on the south frontage. The parking lot for CHI St. Alexis Health, on the north frontage between 9th and 12th Street was not assigned a redevelopment score, but is presumed to have redevelopment potential given the lack of improvements on the site.

Evaluation Matrix

Segment	Safety Criteria Evaluation Matrix		
	5-Lane	3-Lane	3-Lane with Median
7 th to 12 th Street			
12 th Street to Airport Road			
Aiport Road to 26 th Street			

KEY

- Good; best meets criteria
- Ok; meets criteria well
- Moderate; close to achieving criteria
- Marginal; does not meet criteria
- Poor; fails to meet criteria

Evaluation Matrix (All Criteria)

Evaluation Matrix

KEY

- Good; best meets criteria
- Ok; meets criteria well
- Moderate; close to achieving criteria
- Marginal; does not meet criteria
- Poor; fails to meet criteria

East Main Avenue Alternatives Evaluation Matrix																																													
Criteria	7 th Street to 12 th Street									12 th Street to Airport Road									Airport Road to 26 th Street																										
	5-Lane			3-Lane			3-Lane with Median			5-Lane			3-Lane			3-Lane with Median			5-Lane			3-Lane			3-Lane with Median																				
Vehicular Mobility	Ok			Moderate			Moderate			Ok			Moderate			Moderate			Ok			Moderate			Moderate																				
Property Access	Good			Good			Moderate			Good			Good			Moderate			Good			Good			Moderate																				
Safety	Marginal			Moderate			Good			Marginal			Moderate			Good			Marginal			Moderate			Good																				
Freight	Moderate			Ok			Marginal			Moderate			Ok			Marginal			Moderate			Ok			Marginal																				
On-Street Parking	Marginal			Good			Ok			Poor			Good			Ok			Poor			Good			Ok																				
Planning-Level Cost	TBD			TBD			TBD			TBD			TBD			TBD			TBD			TBD			TBD																				
Pedestrian Access & Mobility	Marginal			Ok			Good			Marginal			Moderate			Ok			Marginal			Moderate			Ok																				
Environmental Justice	Moderate			Ok			Good			Moderate			Ok			Good			Moderate			Ok			Good																				
Bike Access & Mobility	Moderate			Ok			Ok			Moderate			Ok			Ok			Moderate			Ok			Ok																				
Transit	N/A			N/A			N/A			N/A			N/A			N/A			Moderate			Good			Good																				
Snow Control/Maintenance	Moderate			Good			Marginal			Moderate			Good			Marginal			Moderate			Good			Marginal																				
Corridor Image	Marginal			Ok			Good			Marginal			Ok			Good			Marginal			Ok			Good																				
Agency/Public Input	TBD			TBD			TBD			TBD			TBD			TBD			TBD			TBD			TBD																				
Redevelopment Opportunity	Marginal			Good			Good			Marginal			Ok			Ok			Marginal			Ok			Ok																				
Criteria Total by Evaluation Rating	1	1	4	5	0	4	5	2	0	0	5	2	2	2	0	1	1	4	4	1	3	5	3	0	0	3	4	2	2	0	1	1	5	3	1	4	5	3	0	0	4	4	2	2	0
	5-Lane			3-Lane			3-Lane with Median			5-Lane			3-Lane			3-Lane with Median			5-Lane			3-Lane			3-Lane with Median																				
	7 th Street to 12 th Street									12 th Street to Airport Road									Airport Road to 26 th Street																										

Public Engagement Summary

Summer Engagement

July 13th & 14th Meetings

- Property and Business Owner Open House
- Community Workshop

Individual Interviews

- In-Person
- Phone Calls/Zoom

Interest Group Interviews

Online Wikimap/Mapping Input

July Meetings

Notification

- Traditional
- Postcard
- Flyer
- Social Media

Presentation

Activities - map with post-its and “build your own cross section” activity

9 Attendees



Interviews

Timeframe: June 27th - August 23rd

11 individual owner interviews

- Bitty Bean
- Simonson
- Spa's Etc.
- Sanford
- St. Alexius
- Davis Group
- Threefold
- Window & Door Store
- Big Boy
- Ministry on the Margins
- Prairie Farms



2 Interest Groups

- Missouri Valley Coalition for Homeless People - Unmet Needs Committee
- Downtown area development interest group



WikiMap

EAST MAIN AVENUE CORRIDOR STUDY

INSTRUCTIONS

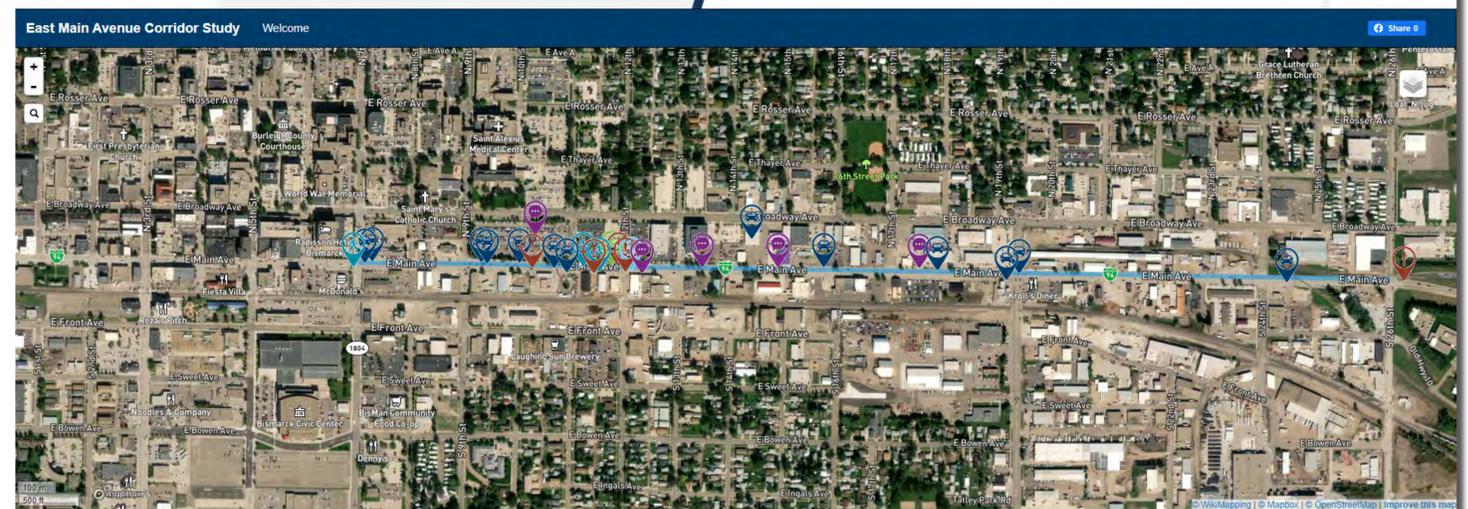
- 1 ADD your ideas to the map by clicking “Add Comments” to place icons using the menu bar below.
- 2 Describe your comment in the text box that pops up.
- 3 Click Submit.

PROVIDE YOUR INPUT!

COMMENT CATEGORIES

LEGEND

— STUDY CORRIDOR



Interview & WikiMap Themes

- High Vehicular Speeds*
- Vehicular Safety**
- Need for beautification*
- Redevelopment Potential**
- Importance to disadvantaged*
- Need operational and intersection improvements**
- Corridor image*
- Freight access*
- Queuing (west side)*
- Snow maintenance*



Corridor Improvement Alternatives

East Main Avenue Corridor Study

Bismarck-Mandan MPO & City of Bismarck



● Agenda

- Corridor Overview
- Study Update/Corridor Analysis
- Summer Feedback
- Alternatives Analysis Summary
- Input Opportunities
- Next Steps

○ Study Purpose & Need

Purpose

The purpose is to achieve the following goals for East Main Avenue, from 7th Street to 26th Street, in the year 2045:

- Improve the aging corridor pavement
- Ensure all modes of transportation are safely and comfortably accommodated
- Support economic development opportunities
- Minimize detrimental impacts to adjacent corridors
- Image as a gateway to Bismarck/Downtown

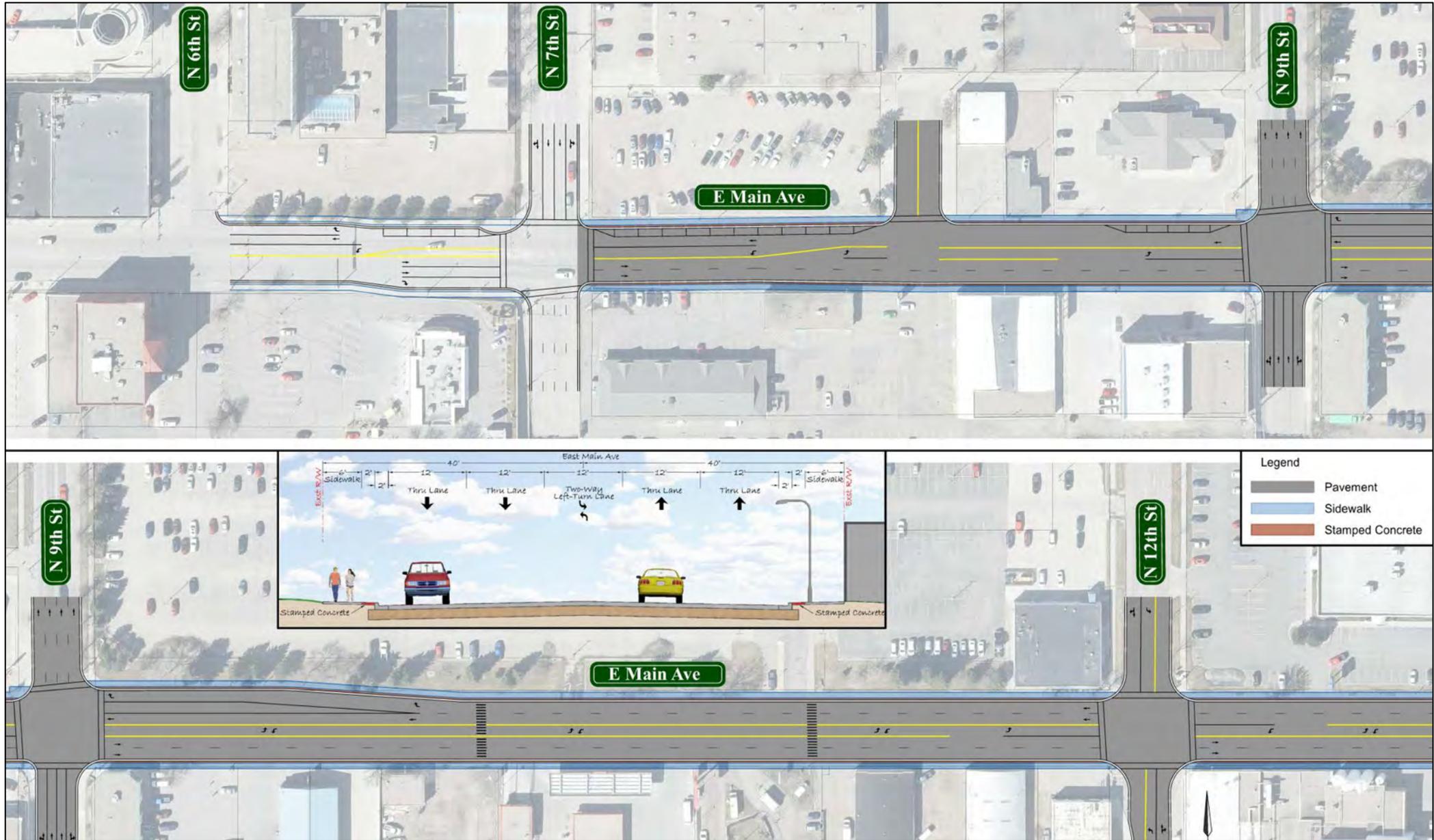
Need

- ✓ Pavement deterioration
- ✓ Snow control/maintenance
- ✓ Safety concerns throughout corridor – crash history, access, pedestrian, & bike
- ✓ Pedestrians and bikes– gaps & comfort
- ✓ Environmental justice populations – access & mobility needs
- ✓ Maintain freight access
- ✓ Redevelopment accommodation/ economic development pressure
- ✓ Improve corridor image

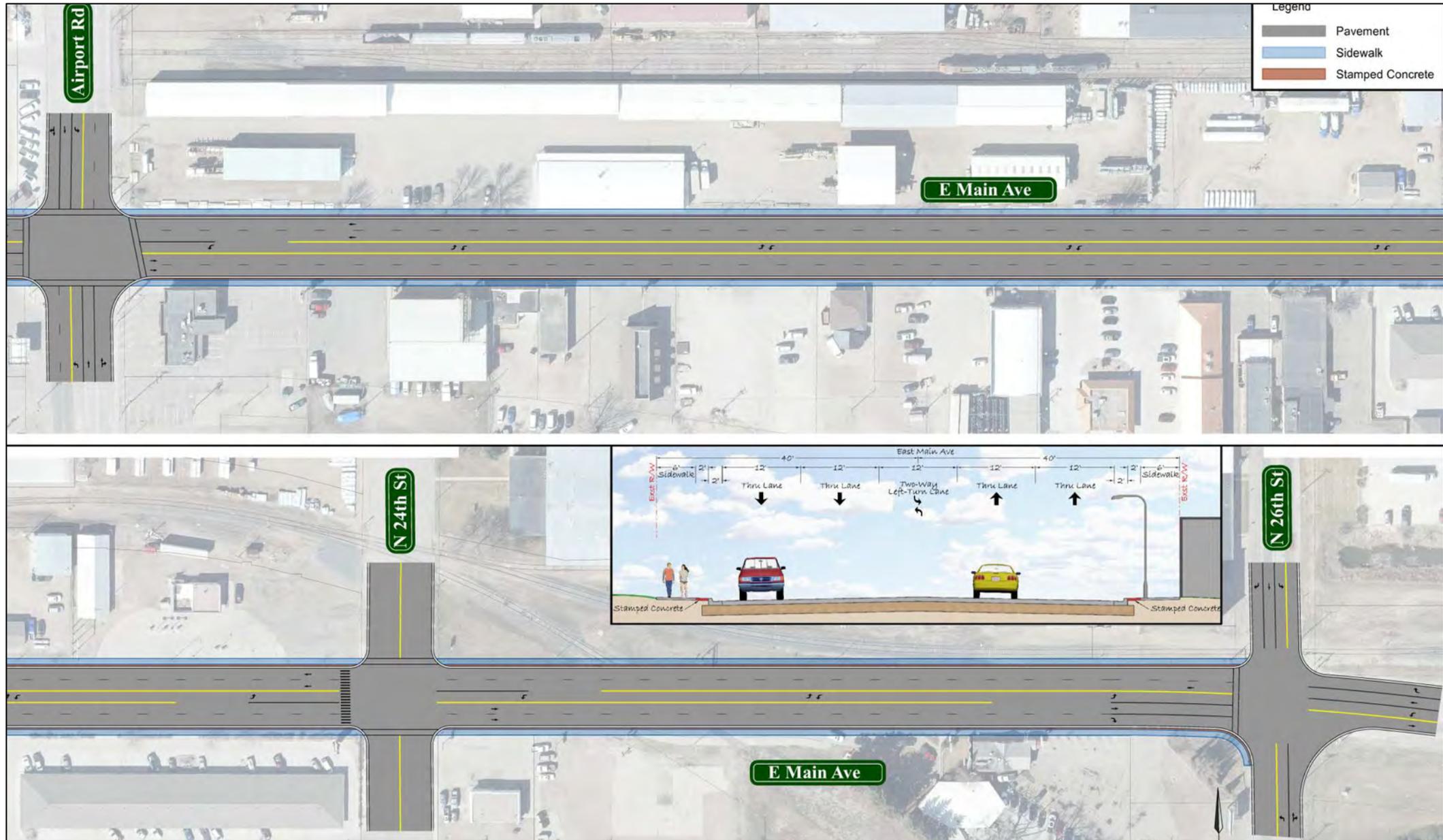


Corridor Segments

7th Street – 12th Street



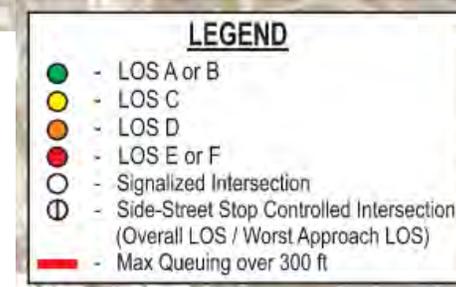
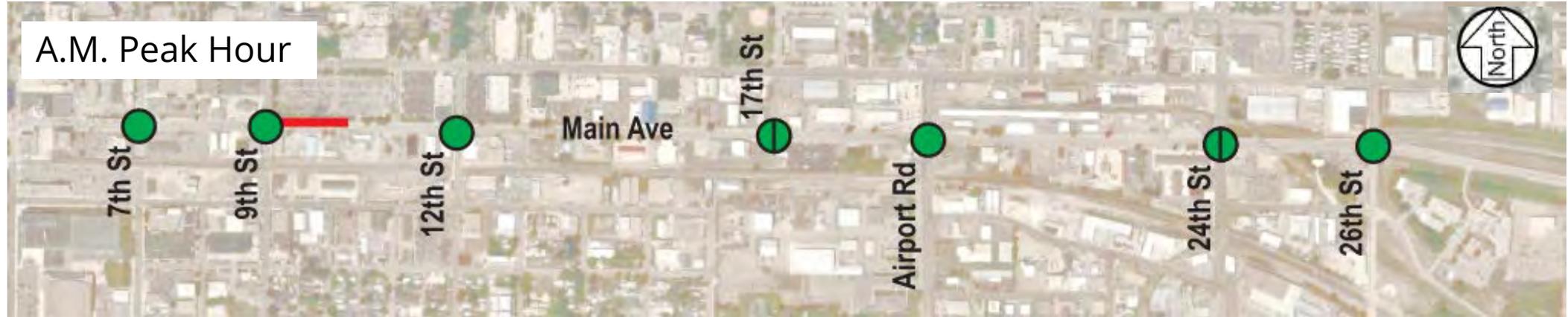
Airport Road – 26th Street



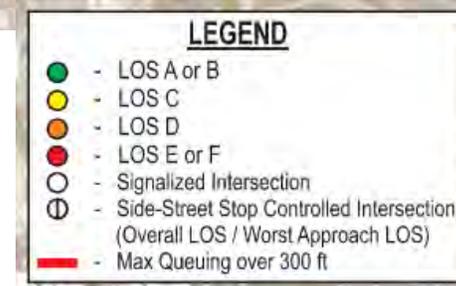


Corridor Analysis

Traffic Simulation – Existing Level of Service



Traffic Simulation– Year 2045 No Build Level of Service

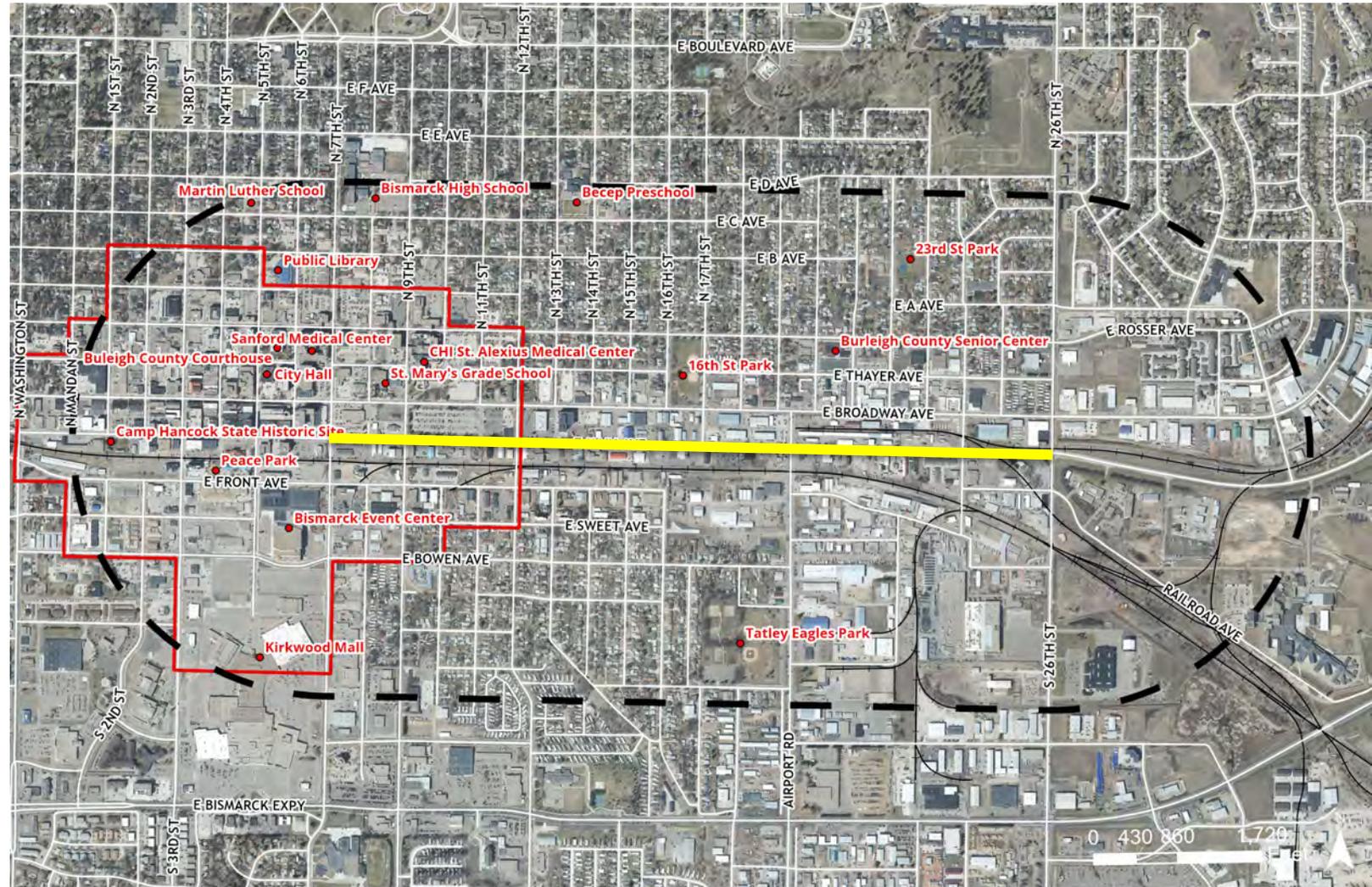


Safety Analysis – Heat Map



Bike and Ped Generators – ½ mile buffer

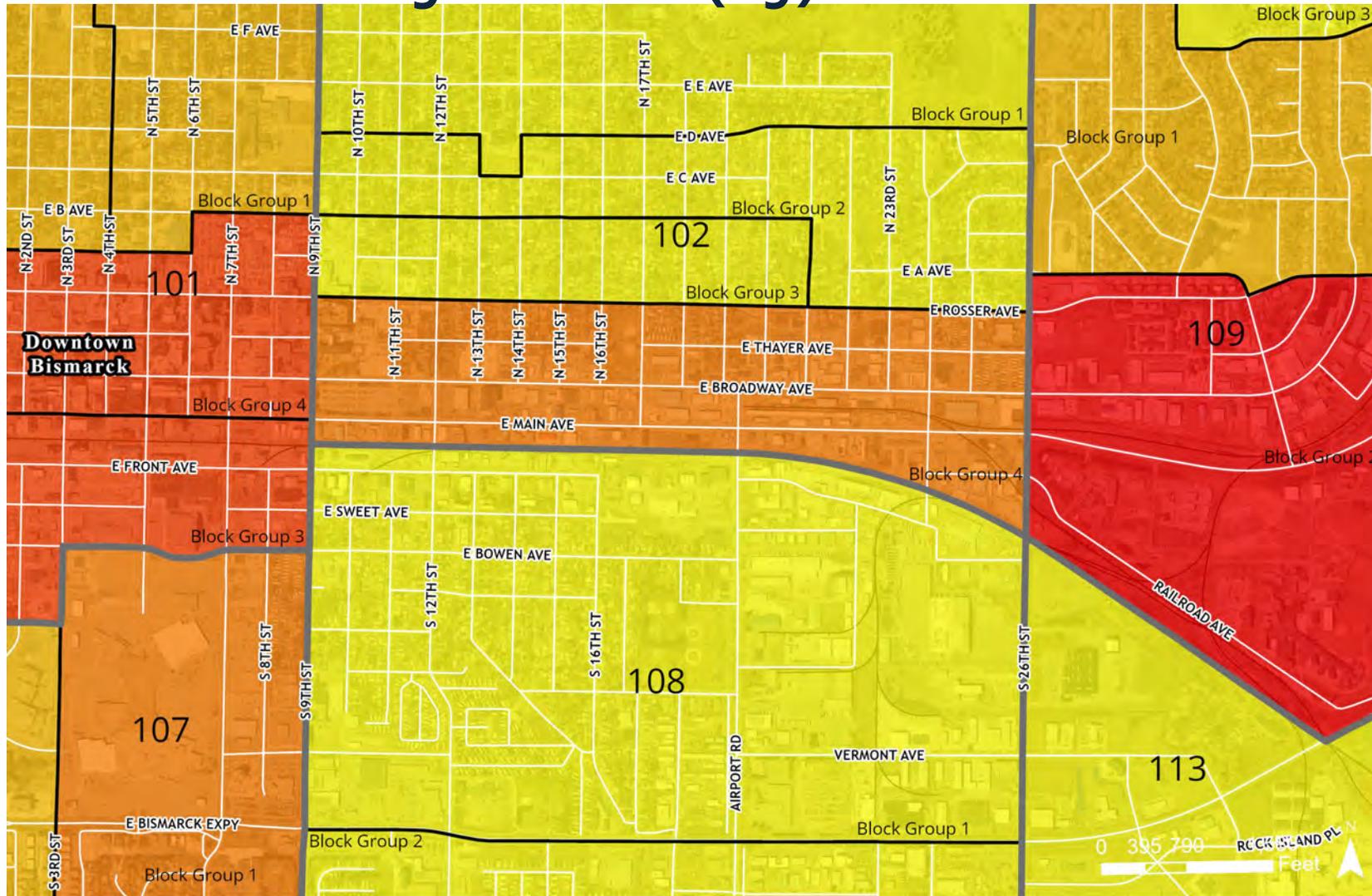
- Neighborhoods
- Downtown Bismarck
- Schools (public and private)
- Parks and Recreation
- Kirkwood Mall
- Major Employers
- Social Services (Ministry on the Margins, Heaven's Helpers, etc.)



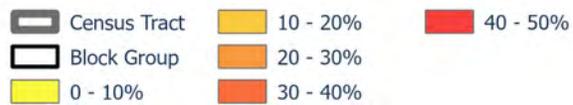
Legend

- Half-Mile Buffer
- BNSF Railway
- Bike Ped Generators
- Downtown Bismarck

Environmental Justice (EJ)



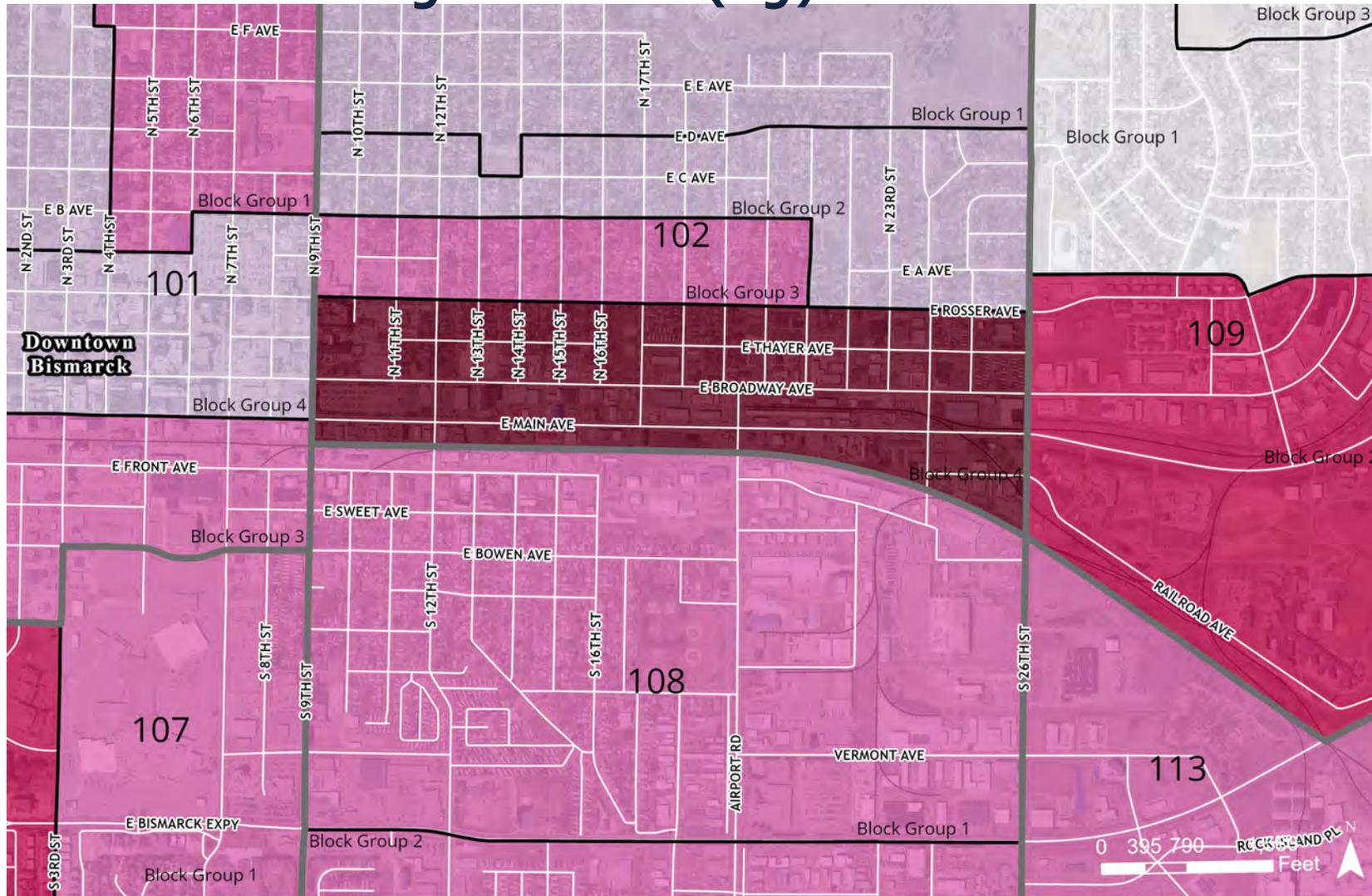
Legend



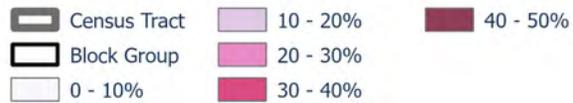
Population Below Poverty



Environmental Justice (EJ)



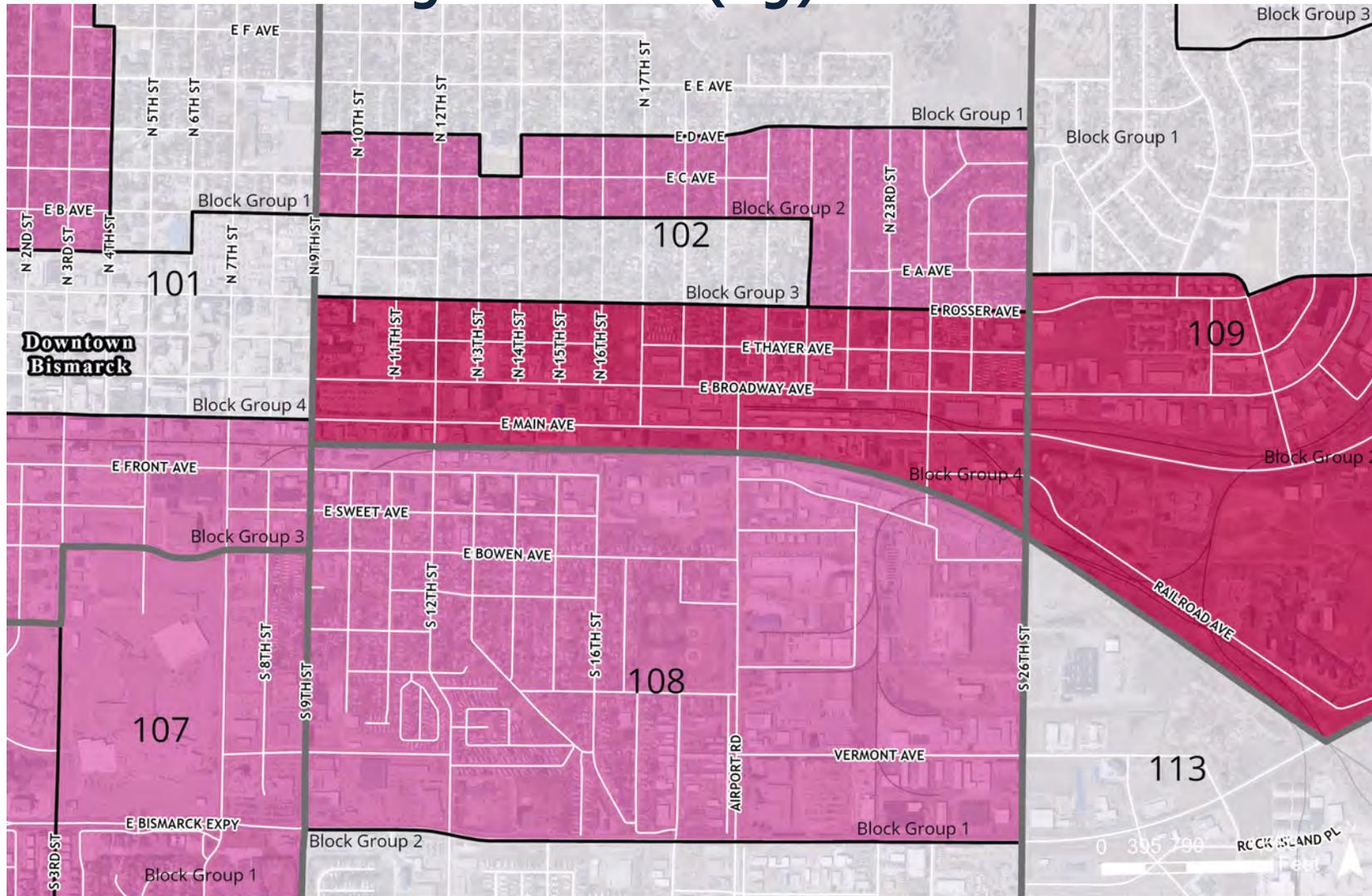
Legend



Non-White Population



Environmental Justice (EJ)



Legend

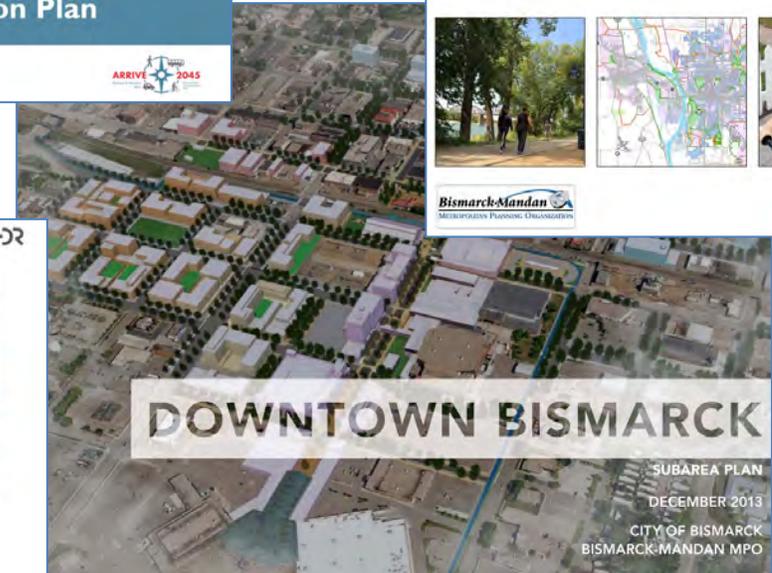
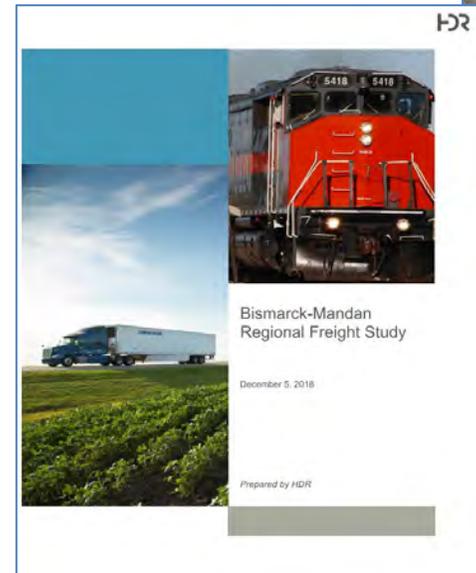
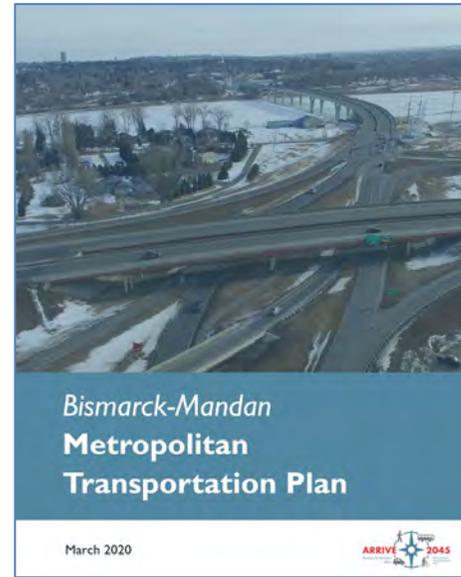
-  Census Tract
-  Block Group
-  0 - 10%
-  10 - 20%
-  20 - 30%

Population with Disability



Existing Plans

- Bismarck-Mandan Metropolitan Transportation Plan
- Downtown Bismarck Subarea Plan
- Bismarck-Mandan Bicycle + Pedestrian Plan
- Bismarck-Mandan Regional Freight Study
- In Progress
 - Comprehensive Plan

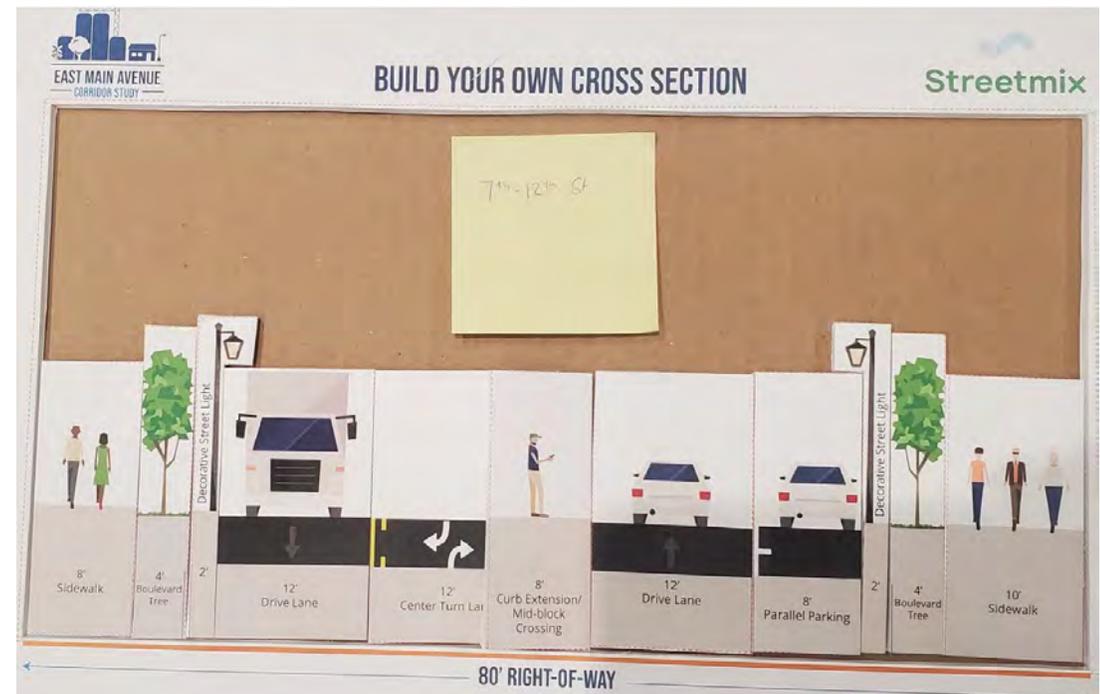




Feedback Received

Feedback To-date

- Property & Business Owner Open House
- Community Workshop
- Stakeholder Interviews
- Online Input Map

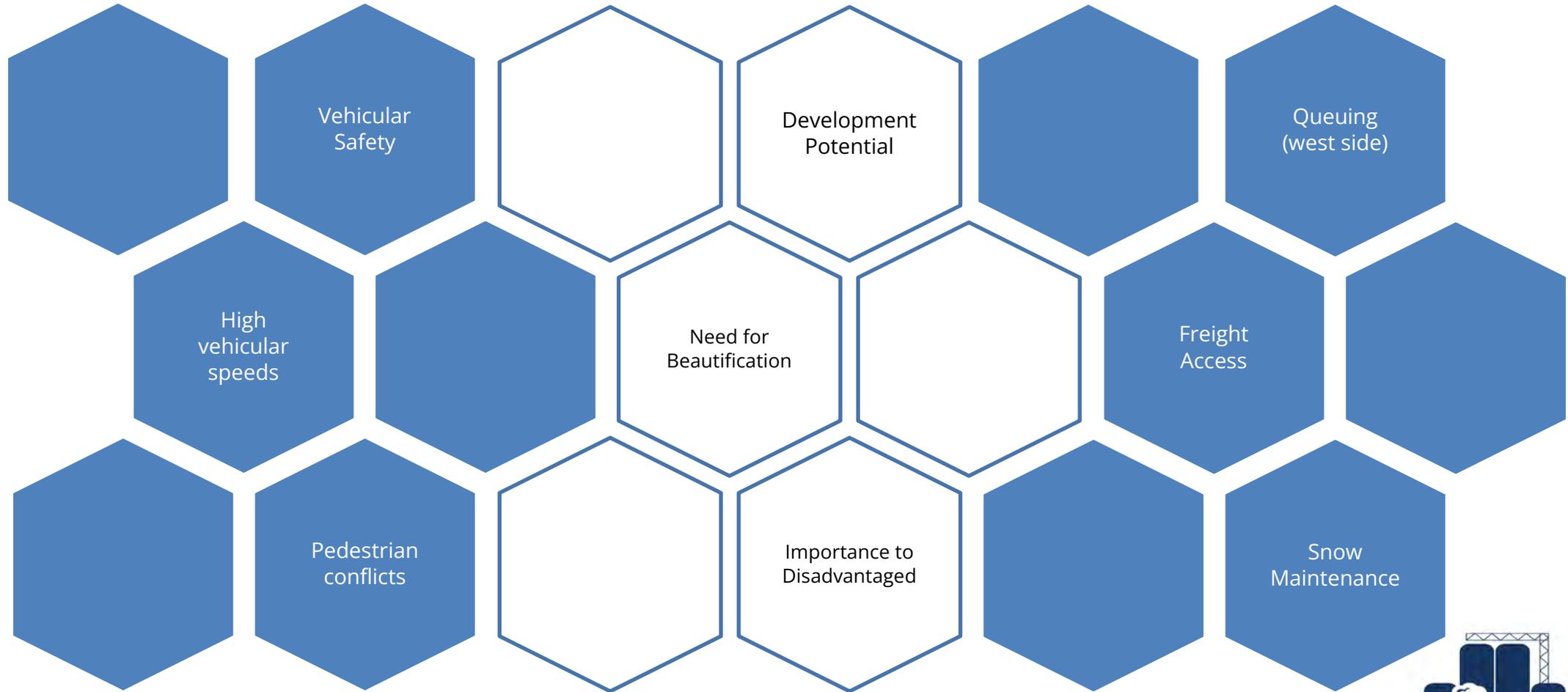


Online Map Input

- July 27 – September 5
- Categories: driving (16), safety (7), biking (1), accessibility (1), other (5)
- Other issues noted: 3 vs. 5 lane, poor biking/scooter mobility, snow storage, aesthetics, pedestrian crossings



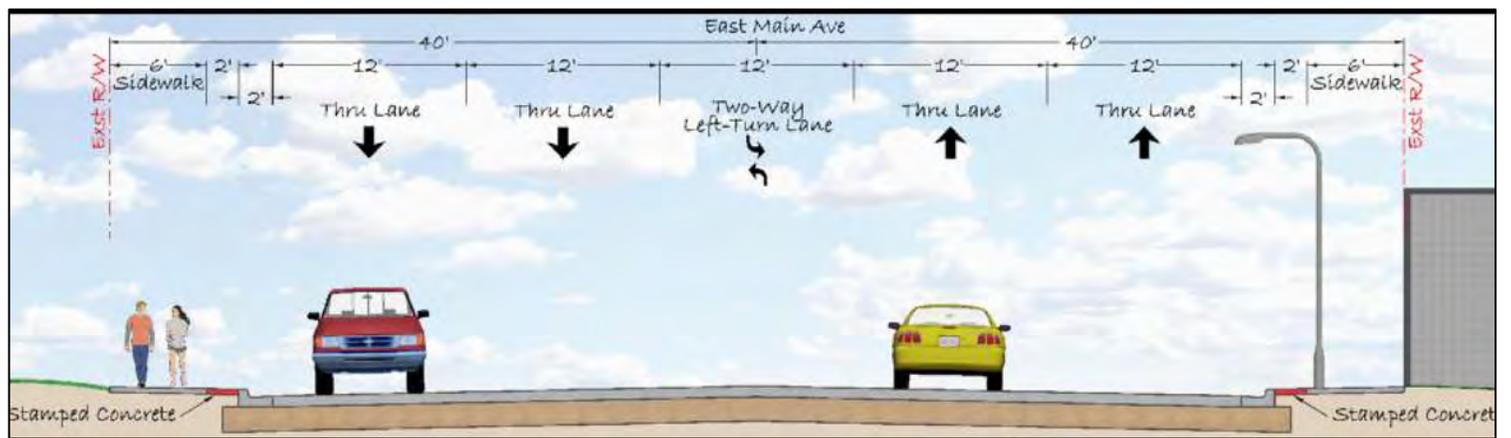
Themes from Recent Input



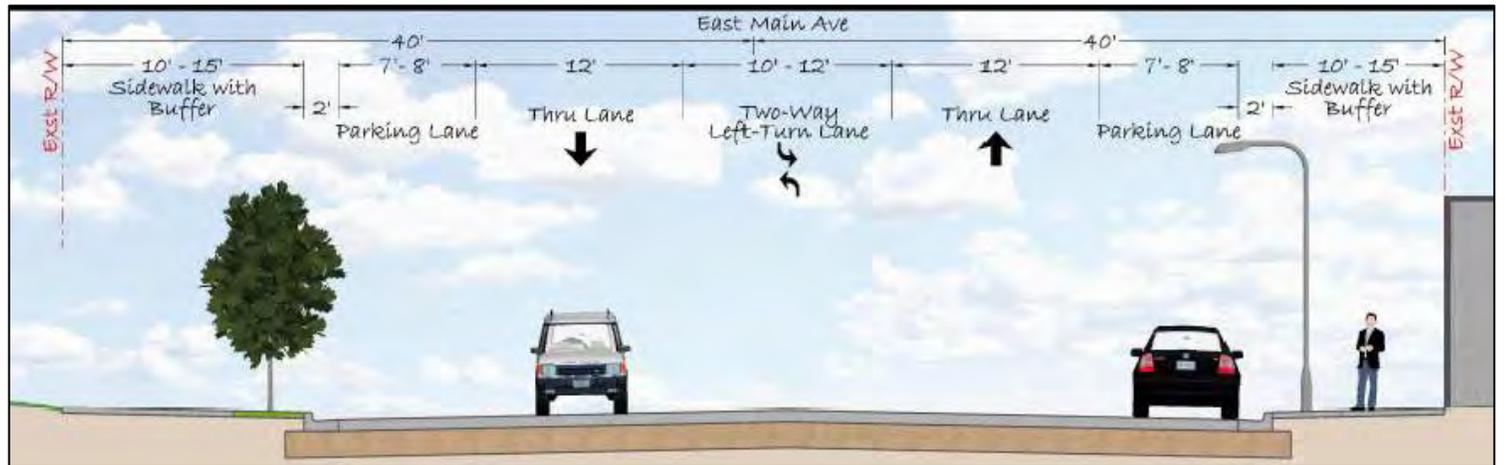


Segment Alternatives

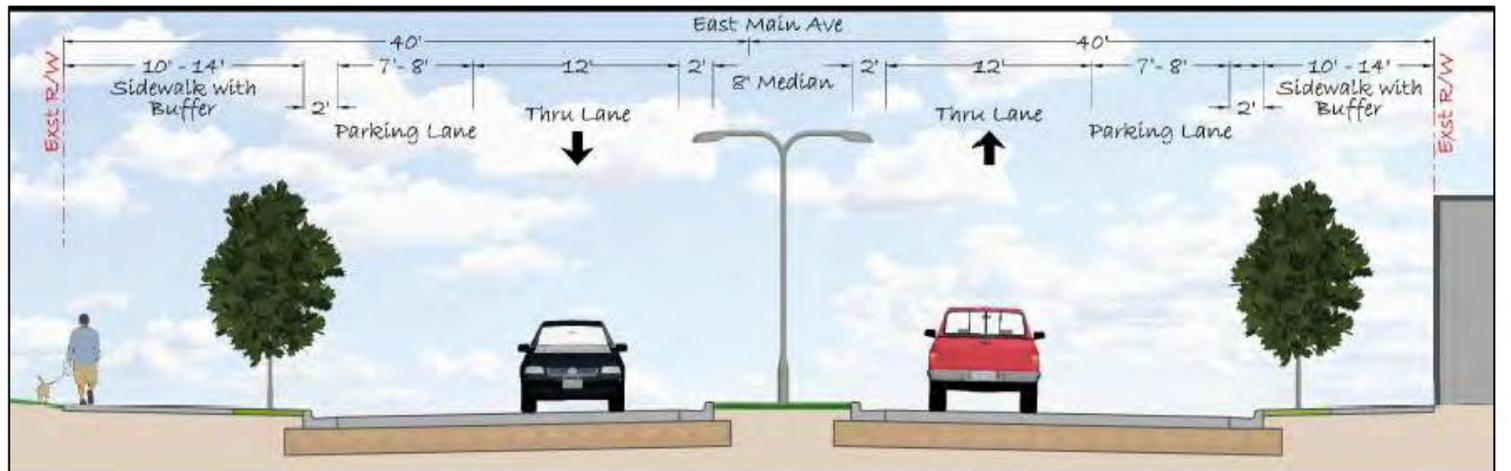
5 Lanes/
6' Sidewalk/
2' Buffer



3 Lanes/
10-15' Sidewalk & Buffer
On-street Parking



3 Lanes with Median/
10-14' Sidewalk & Buffer
On-street Parking

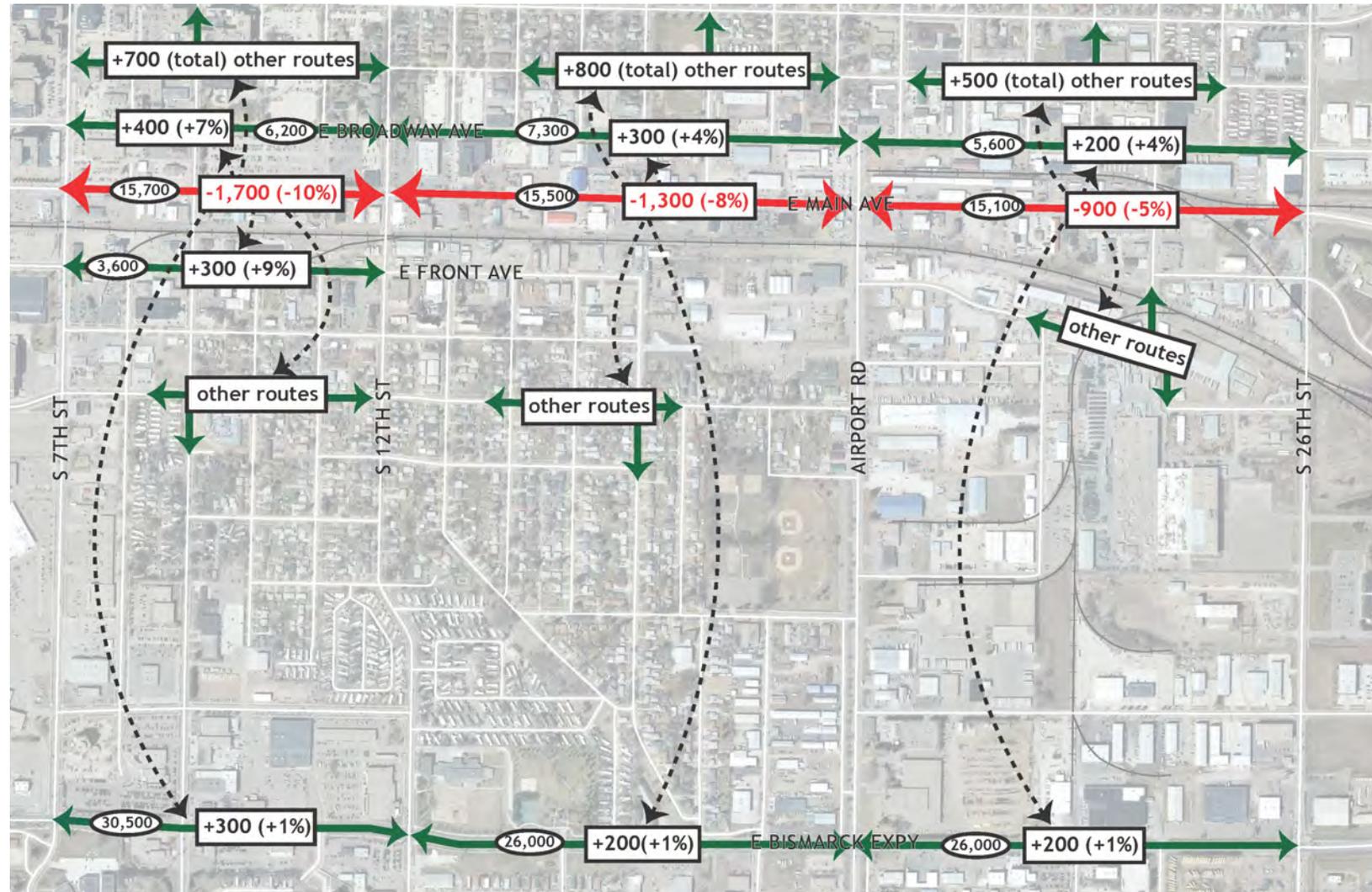


Alternatives Analysis - Criteria

- Vehicular Mobility
- Property Access
- Safety
- Freight
- On-street Parking
- Pedestrian Access & Mobility
- Environmental Justice
- Bike Access & Mobility
- Transit
- Snow Control/Maintenance
- Corridor Image
- Redevelopment Opportunities
- *Agency/Public Input*
- *Planning-Level Cost*

Vehicular Mobility

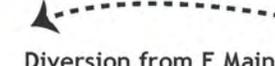
- Traffic diversion impacts from potential 3-lane
- Diversion to other routes listed above will not significantly impact congestion levels or how those roads operate**



Legend



*Includes diversion



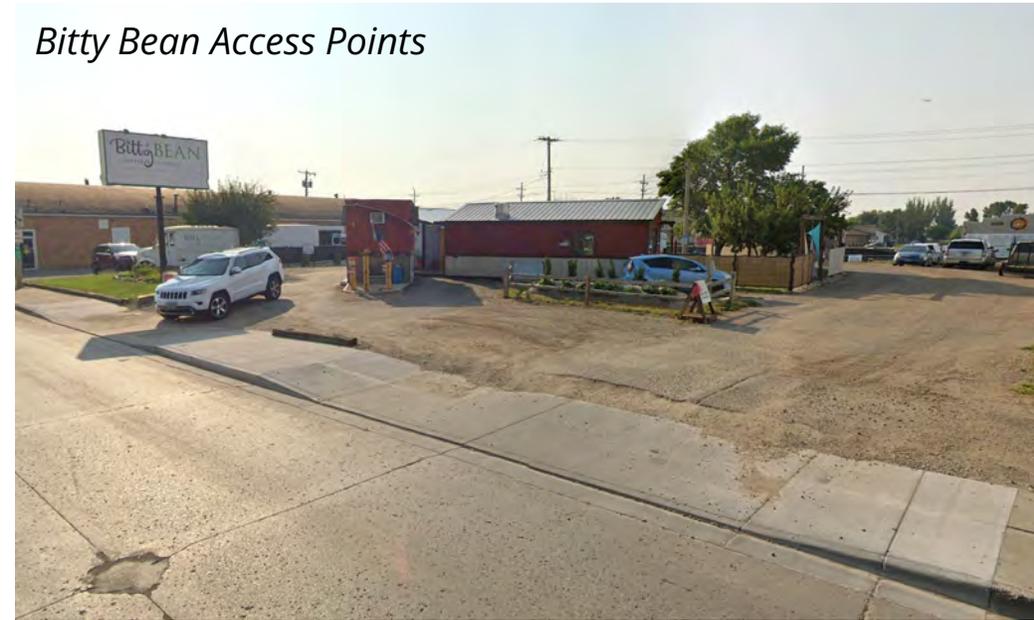
Diversion from E Main

3-Lane Alternatives Traffic Diversion Map

Property Access

- 86 private access points
- 5-lane & 3-lane: 32 shifts/consolidations, no changes to right-in/right-out
- 3-lane with median: 12 shifts/consolidations, 58 changes to right-in, right-out
- Consolidations usually include joining of two nearby access points
- Some shifts and consolidations include moving driveway approaches away from intersections

Bitty Bean Access Points

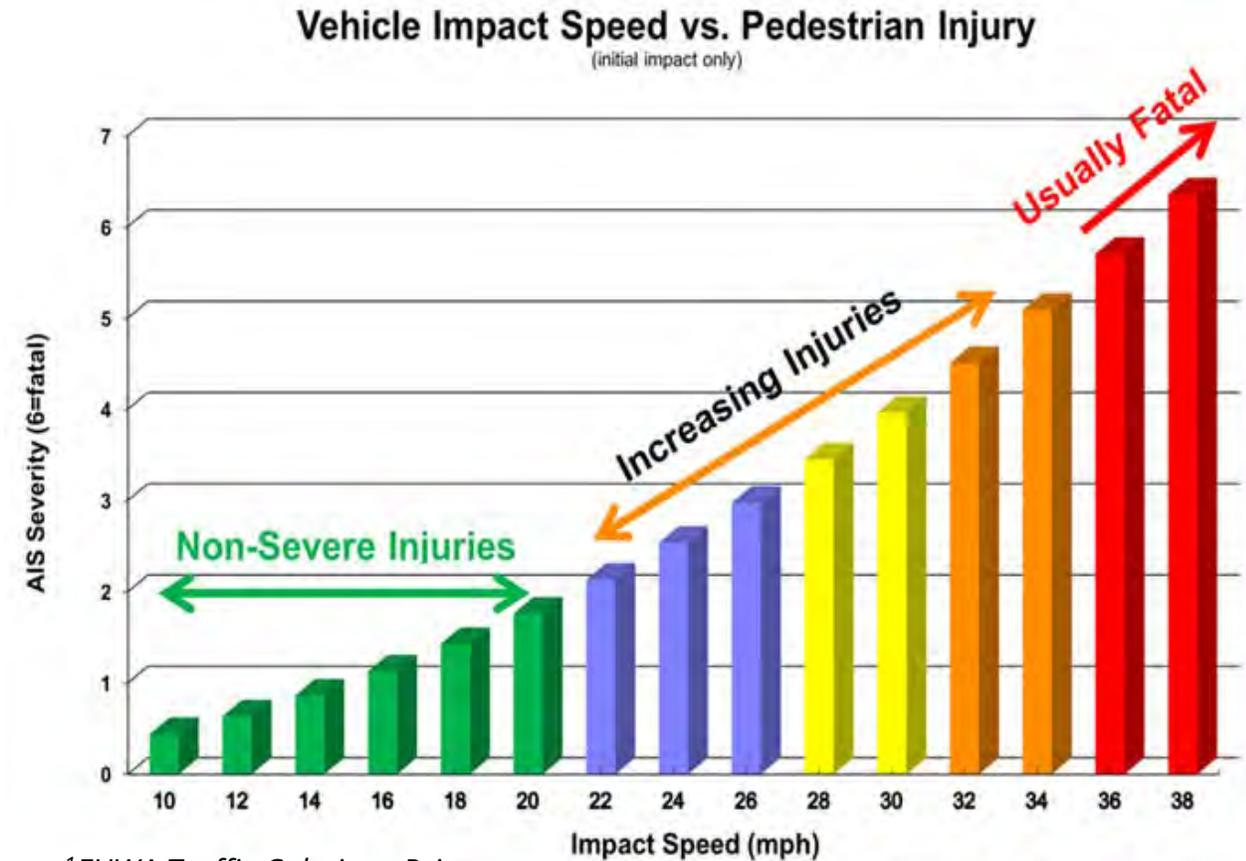


Arco Access Points



Safety

- Access Management
 - Rear-end crashes
- Traffic Calming¹
 - On-street parking
 - Lane/street width reduction
 - Median
 - Curb extensions
- Other Proven Countermeasures
 - Signal timing
 - Queuing
 - Left-turn lane offsets & # of lanes crossing when turning



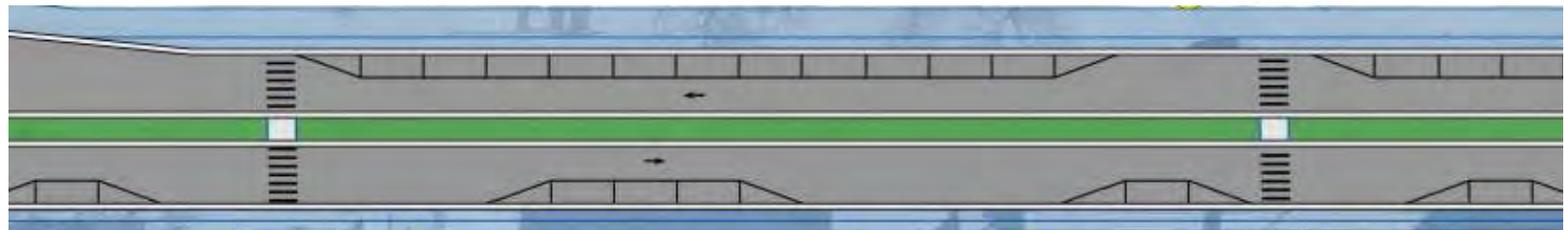
¹FHWA Traffic Calming ePrimer

Other Forms of Transportation

- Transit
 - Potential stop between 24th St and 26th St
 - 3 lane alternatives provide most available space for a protected stop
- Pedestrians
 - All alternatives make improvements
 - 3 lane alternatives provide greatest opportunities for comfort and safety
- Bicyclists
 - Alternatives do not include bike facilities
 - Sidewalks will help in some areas
 - Parallel routes encouraged



Mid-block crossing options with median refuge between 9th and 12th Street



Redevelopment Opportunity

- Considered only from 7th to 12th St

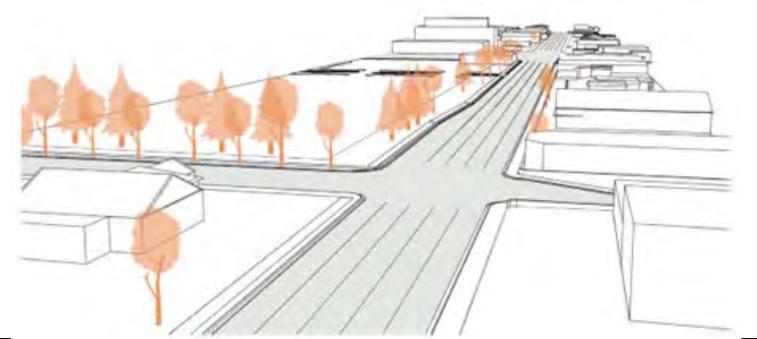


Legend

-  Parcel Boundary
-  Redevelopment Analysis Area

Redevelopment Analysis Area

Redevelopment Scenarios vs. Existing Conditions

Existing Condition	
	<ul style="list-style-type: none">• No change
Five-Lane	
	<ul style="list-style-type: none">• 210,000 sf in new commercial on north frontage (one 2-story building and three 1-story buildings)• 339,000 sf in parking structures (two 5-story buildings)
Three-Lane	
	<ul style="list-style-type: none">• 373,000 sf in new multiuse on north frontage (three 3-story buildings and one 2-story building)• 154,000 sf in new multiuse on south frontage (two 2-story buildings)• 339,000 sf in parking structures (two 5-story buildings)

Feedback Needed Today

Segment Maps

Document your thoughts

Use post-its, discuss issues with us

Survey

Thoughts on improvement elements

Questions? Comments?

We are available to discuss

Visit Issue Boards

Online Feedback Welcome!

eastmainstudy.com

Survey

Presentation
Recording

Other
Meeting
Materials

Study
Background

Next Steps for the Study



Next Steps for E Main Ave





Questions?

○ Thank you

Consultant Contact

Scott Harmstead, AICP

Email - sharmstead@srfconsulting.com

Phone - 701-354-2405

Address - 2370 Vermont Ave
Bismarck, ND 58504

SIGN-IN SHEET

EAST MAIN AVENUE CORRIDOR STUDY - Property and Business Owner Open Houses

Page 1 of 2LPA/Consultant/Transit
Bismarck-Mandan Metropolitan Planning Organization

Meeting Location 221 N 5th Street, Bismarck, ND 58506	Meeting Type Open House	Meeting Date 11/30/2022
Project Number		PCN
Project Description East Main Avenue Corridor Study - between 7th Street and 26th Street		
Name (Please print) James H. Bashus	Title/Representing Bashus Inc.	
Address 1500 E. Main	City Bismarck	State ND
Email Address		ZIP Code 58501
Telephone Number		

Name (Please print) James T Bashus	Title/Representing Bashus ENT	
Address 1500 E Main	City Bismarck	State ND
Email Address jims cars. jtb@midconetwork.com		ZIP Code 58501
Telephone Number 701-223-1057		

Name (Please print) Caleb Hauff	Title/Representing Threefold	
Address 1125 E Main Ave	City Bismarck	State ND
Email Address caleb@threefold.tv		ZIP Code 58501
Telephone Number 701-214-9588		

Name (Please print) Keenan Hauff	Title/Representing Threefold	
Address 1125 E Main Ave	City Bismarck	State ND
Email Address Keenan@threefold.tv		ZIP Code 58501
Telephone Number 701-426-0893		

Name (Please print) Tom Newton	Title/Representing	
Address 5223 FLATROCK LOOP	City BISMARCK	State ND
Email Address tnewton397@gmail.com		ZIP Code 58503
Telephone Number		

Name (Please print) Jody Mosbeucker	Title/Representing Veeacity Motors	
Address 1701 E. Main Ave	City Bismarck	State ND
Email Address jody@veeacitymotors.com		ZIP Code 58501
Telephone Number 701-258-2277		

Name (Please print) Chris Ebertz	Title/Representing Private Citizen	
Address 1751 Hamburg Dr	City Bismarck	State ND
Email Address cjebertz@hotmail.com		ZIP Code 58504
Telephone Number 701-426-2456		

SIGN-IN SHEET

EAST MAIN AVENUE CORRIDOR STUDY - Property and Business Owner Open Houses

LPA/Consultant/Transit
Bismarck-Mandan Metropolitan Planning Organization

Meeting Location 221 N 5th Street, Bismarck, ND 58506	Meeting Type Open House	Meeting Date 11/30/2022
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Project Number	PCN
----------------	-----

Project Description East Main Avenue Corridor Study - between 7th Street and 26th Street

Name (Please print) <i>Clay Perman</i>	Title/Representing <i>owner</i>		
Address <i>2308 E Main</i>	City <i>Bis</i>	State <i>ND</i>	ZIP Code <i>58501</i>
Email Address	Telephone Number <i>701 425 6726</i>		

Name (Please print)	Title/Representing		
Address	City	State	ZIP Code
Email Address	Telephone Number		

Name (Please print)	Title/Representing		
Address	City	State	ZIP Code
Email Address	Telephone Number		

Name (Please print)	Title/Representing		
Address	City	State	ZIP Code
Email Address	Telephone Number		

Name (Please print)	Title/Representing		
Address	City	State	ZIP Code
Email Address	Telephone Number		

Name (Please print)	Title/Representing		
Address	City	State	ZIP Code
Email Address	Telephone Number		

Name (Please print)	Title/Representing		
Address	City	State	ZIP Code
Email Address	Telephone Number		

SIGN-IN SHEET

EAST MAIN AVENUE CORRIDOR STUDY - Community Workshop

LPA/Consultant/Transit
Bismarck-Mandan Metropolitan Planning Organization

Meeting Location 800 N 8th Street, Bismarck, ND 58501	Meeting Type Community Workshop	Meeting Date 12/01/2022
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Project Number	PCN
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Project Description
East Main Avenue Corridor Study - between 7th Street and 26th Street

Name (Please print) BEN BEHRETT	Title/Representing CITY OF BISMARCK COMMUNITY DEVELOPMENT		
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Address 221 W 5th	City BISMARCK	State ND	ZIP Code
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Email Address behrett@bismarcknd.gov	Telephone Number 701-355-1842
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Name (Please print) CHARLES HARMSTEAD	Title/Representing SELF		
--	----------------------------	--	--

Address 518 CONSTITUTION DR.	City BISMARCK	State ND	ZIP Code 58501
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Email Address CHARMSTEAD@GMAIL.COM	Telephone Number 619-475-9161
---------------------------------------	----------------------------------

Name (Please print) SUSAN DINGEL	Title/Representing me		
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Address 700 N Mandan St	City Bismarck	State ND	ZIP Code 58501
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Email Address suzsaid@hotmail.com	Telephone Number 701/214-9348
--------------------------------------	----------------------------------

Name (Please print) KARE HENZOO	Title/Representing Downtowners		
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Address P.O. Box 521	City Bismarck	State ND	ZIP Code 58501
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Email Address KAB@DowntownBismarck.com	Telephone Number 701-223-4958
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Name (Please print) David Witham	Title/Representing DENZEN PARTNERS		
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Address PO BOX 513	City BISMARCK	State ND	ZIP Code 58502
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Email Address David.Witham@DENZEN.PARTNERS	Telephone Number 701-989-5943
---	----------------------------------

Name (Please print) Andrew Stranne	Title/Representing SELF		
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Address 114 E Ave E	City B.S	State ND	ZIP Code 58501
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Email Address andrewstranne@gmail.com	Telephone Number 701 340 3317
--	----------------------------------

Name (Please print)	Title/Representing		
---------------------	--------------------	--	--

Address	City	State	ZIP Code
---------	------	-------	----------

Email Address	Telephone Number
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Location(s): City-County Office Building, First Floor Conference Room, 221 N 5th St., Bismarck, ND

Client: Bismarck-Mandan Metropolitan Planning Organization (MPO)

Date: March 6, 2023

Subject: Final Public Meeting – East Main Avenue Corridor Study Recommendations

Attendees: 5 people attended the Public Meeting
Kim Riepl, Bismarck-Mandan Metropolitan Planning Organization
Michael Mart, City of Bismarck Engineering Department
Scott Harmstead, SRF Consulting Group
Jason Gullicks, Apex Engineering Group

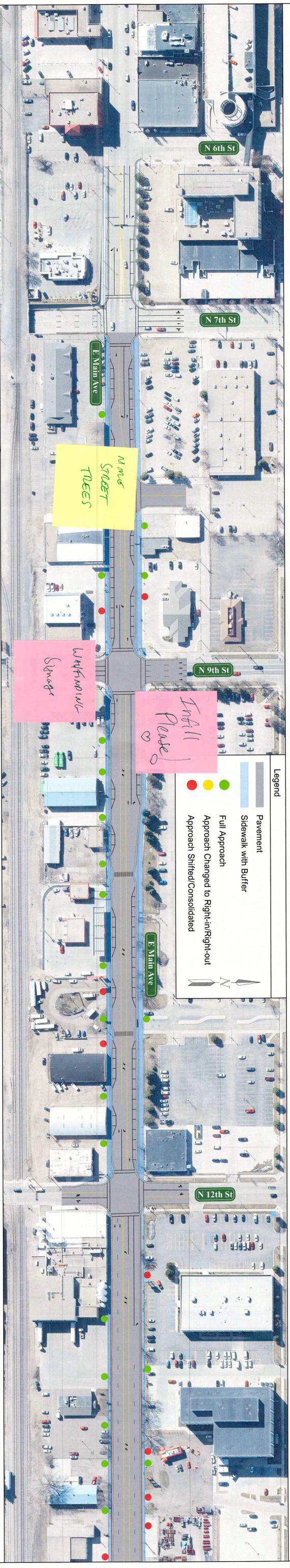
Purpose of Meeting

The purpose of the meeting was to discuss and gather feedback about East Main Avenue corridor study final recommendations. The meeting was open to the public and ADA accessible. Display boards and roll-plots were used to chat about the project. While a presentation was prepared for the meeting, the few attendees desired to discuss the project informally. No presentation was provided. Discussion from meeting participants is included in the “Summary of Meeting” section below, and is also provide on the comment card attached.

Comments Received

- Supports locally recommended alternative.
- 3 lanes with pedestrian improvements supports redevelopment closer to Downtown.
- 5 lanes further east makes sense for more truck traffic and different use of the corridor.

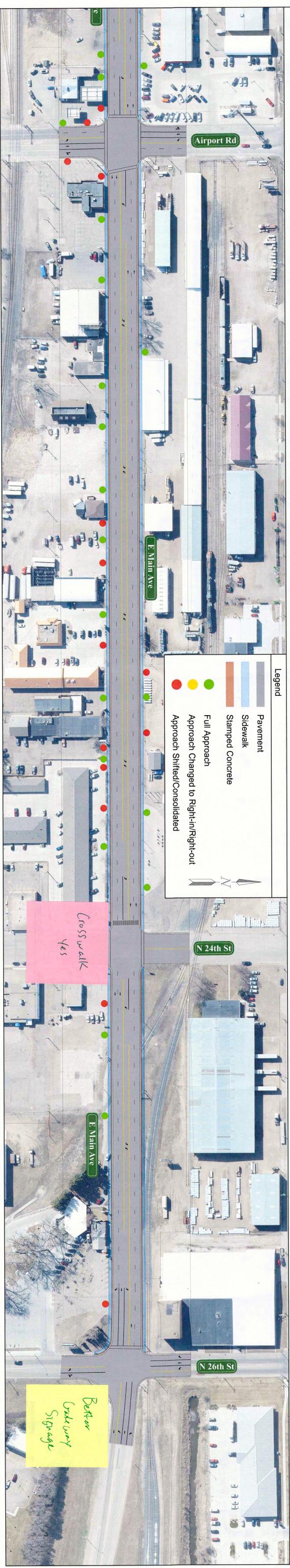
3 Lane - 7th Street to 12th Street



5 Lane - 12th Street to Airport Road



5 Lane - Airport Road to 26th Street





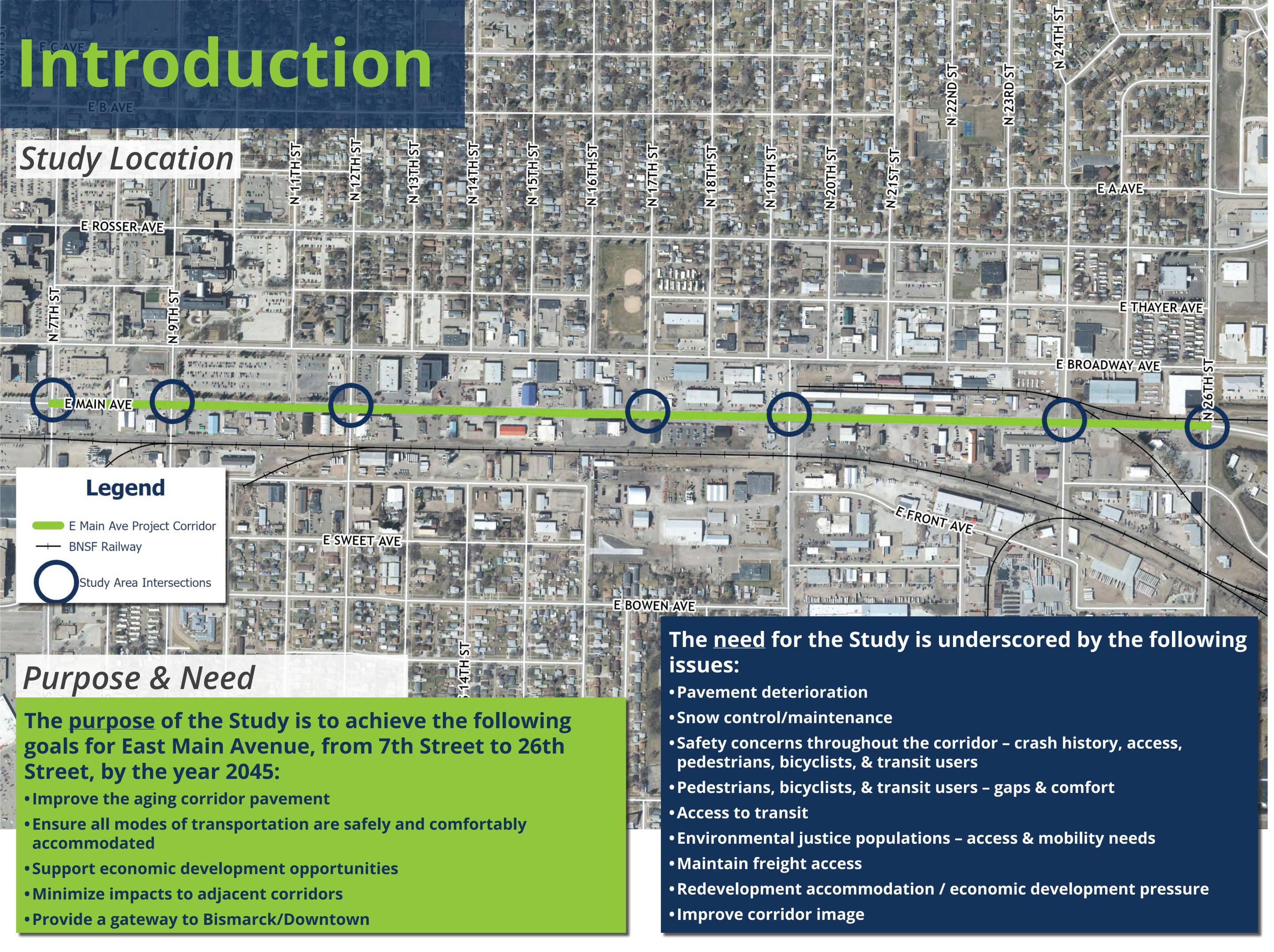
Welcome

*Bismarck-Mandan MPO
& City of Bismarck*



Introduction

Study Location



Legend

-  E Main Ave Project Corridor
-  BNSF Railway
-  Study Area Intersections

Purpose & Need

The purpose of the Study is to achieve the following goals for East Main Avenue, from 7th Street to 26th Street, by the year 2045:

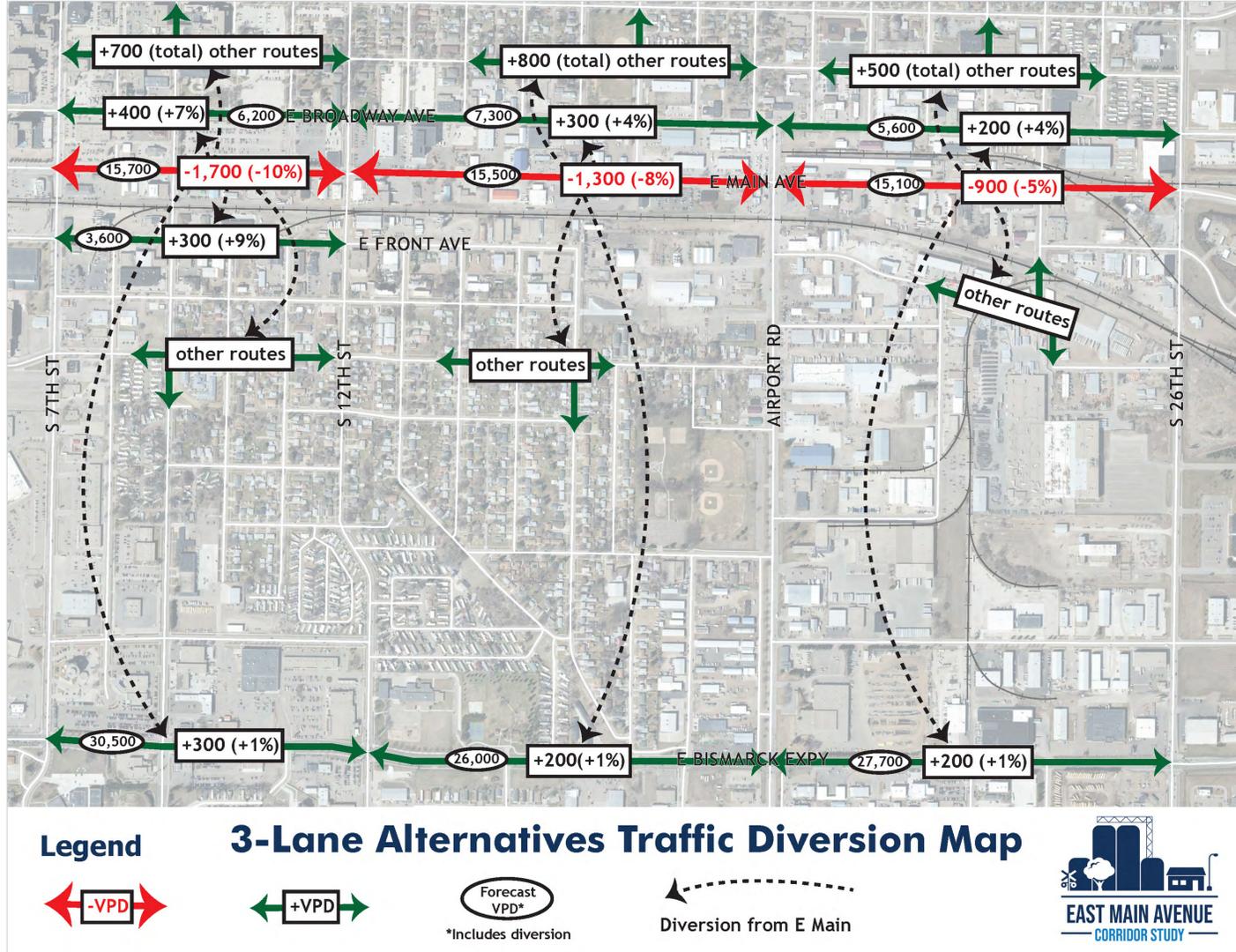
- Improve the aging corridor pavement
- Ensure all modes of transportation are safely and comfortably accommodated
- Support economic development opportunities
- Minimize impacts to adjacent corridors
- Provide a gateway to Bismarck/Downtown

The need for the Study is underscored by the following issues:

- Pavement deterioration
- Snow control/maintenance
- Safety concerns throughout the corridor – crash history, access, pedestrians, bicyclists, & transit users
- Pedestrians, bicyclists, & transit users – gaps & comfort
- Access to transit
- Environmental justice populations – access & mobility needs
- Maintain freight access
- Redevelopment accommodation / economic development pressure
- Improve corridor image

Vehicular Mobility

Route Traffic Diversion - 3-Lane



Based on the results from the Travel Demand Model, if East Main Avenue were to be a 3-lane road in year 2045, a daily diversion ranging between approximately 900 and 1,700 Vehicles Per Day (VPD) from East Main Avenue to parallel routes is expected. Traffic is not expected to divert if East Main Avenue remains a 5-lane in year 2045.

The diversion to the routes shown above such as Broadway Avenue and Bismarck Expressway will not have a significant impact on the congestion level or how those parallel routes operate on a daily basis.

Evaluation Matrix

Criteria Evaluation Matrix			
Vehicular Mobility	5-Lane	3-Lane	3-Lane with Median
7 th to 12 th Street	Good	Good	Good
12 th Street to Airport Road	Good	Good	Good
Airport Road to 26 th Street	Good	Marginal	Marginal

KEY	
Good	Good; best meets criteria
Ok	Ok; meets criteria well
Moderate	Moderate; close to achieving criteria
Marginal	Marginal; does not meet criteria
Poor	Poor; fails to meet criteria

2045 Intersection Capacity Analysis

East Main Avenue Intersection	Level of Service (LOS)					
	AM Peak Hour			PM Peak Hour		
	2045 5-Lane	2045 3-Lane	2045 3-Lane with Median	2045 5-Lane	2045 3-Lane	2045 3-Lane with Median
7 th Street	B	B	B	B	B	C
9 th Street	B	B	B	C	B	B
12 th Street	B	B	B	B	B	A
Airport Road	B	C	C	B	B	B
26 th Street	B	B	B	B	C	C

Under each of the East Main Avenue alternatives, all intersections operate at a LOS C or better during the AM and PM peak hours.

Travel Times

Alternative	Travel Time (minutes)					
	AM Peak Hour			PM Peak Hour		
	Eastbound	Westbound	Average	Eastbound	Westbound	Average
Existing Conditions ¹	3.72	4.03	3.90	3.90	4.40	4.20
Year 2045 5-Lane ²	3.80	4.09	3.90	4.00	4.69	4.30
Year 2045 3-Lane	4.24	4.66	4.40	4.67	4.74	4.70
Year 2045 3-Lane with Median	4.32	4.69	4.50	4.71	4.54	4.60

1|Year 2022. 2|Same as 2045 No Build

Under future year 2045 5-Lane alternative conditions, the travel times increase slightly compared to existing conditions. The 3-Lane alternatives result in a greater increase in travel time along the corridor as compared to the 5-Lane.

5-Lane

- All intersections operate at LOS C or better in both the AM and PM peaks
- Average corridor travel times slightly higher than existing in PM peaks

3-Lane

- Diversion to parallel routes of approximately 900 to 1,700 VPD
- All intersections operate at LOS C or better in both the AM and PM peaks
- Average corridor travel times approximately 11% longer than 5-Lane

3-Lane with Median

- Diversion to parallel routes of approximately 900 to 1,700 VPD
- All intersections operate at LOS C or better in both the AM and PM peaks
- Average corridor travel times approximately 10% longer than 5-Lane Alternative

Safety & Property Access

Access Impacts by Alternative

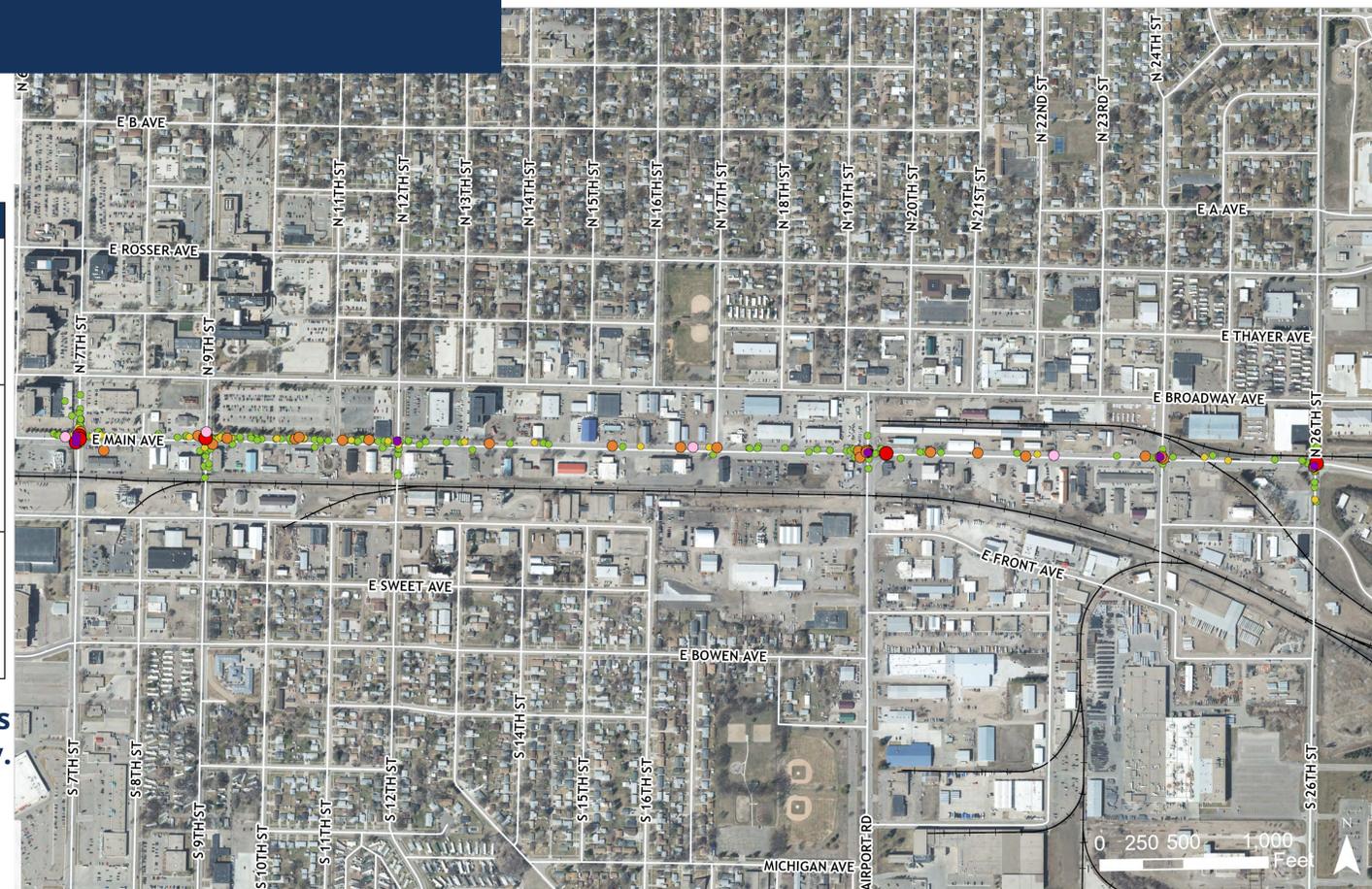
Segments	5-Lane	3-Lane	3-Lane with Median
7th to 12th Street	<ul style="list-style-type: none"> 5 full access shifts/consolidations No right-in/right-out recommendations 	<ul style="list-style-type: none"> 5 full access shifts/consolidations No right-in/right-out recommendations 	<ul style="list-style-type: none"> 2 access shifts/consolidations 17 right-in/right-out recommendations Total of 19 access locations recommended for change
12th Street to Airport Road	<ul style="list-style-type: none"> 13 access shifts/consolidations No right-in/right-out recommendations 	<ul style="list-style-type: none"> 13 access shifts/consolidations No right-in/right-out recommendations 	<ul style="list-style-type: none"> 4 access shifts/consolidations 26 right-in/right-out recommendations Total of 30 access locations recommended for change
Airport Road to 26th Street	<ul style="list-style-type: none"> 14 access shifts/consolidations No right-in/right-out recommendations 	<ul style="list-style-type: none"> 14 access shifts/consolidations No right-in/right-out recommendations 	<ul style="list-style-type: none"> 6 access shifts/consolidations 15 right-in/right-out recommendations Total of 21 access locations recommended for change

Most changes to access drives are consolidation of two adjacent access points. Some changes include moving driveway approaches away from intersections to enhance intersection safety.

Safety Impacts by Alternative

5-Lane	3-Lane	3-Lane with Median
<ul style="list-style-type: none"> 32 full access shifts/consolidations along the corridor resulting in a decrease in conflict points 6' sidewalk and 2' stamped concrete buffer on both sides of East Main Avenue to improve pedestrian safety Curb extensions Signal timing improvements 	<ul style="list-style-type: none"> 32 full access shifts/consolidations along the corridor resulting in a decrease in conflict points 10' – 15' sidewalk buffer on both sides of East Main Avenue to improve pedestrian safety Curb extensions On-street parking Lane reduction Less through-lanes for left-turns to cross Less queuing Signal timing improvements 	<ul style="list-style-type: none"> 12 full access shifts/consolidations and 58 right-in/right-out recommendations along the corridor resulting in a decrease in conflict points 10' – 14' sidewalk with buffer on both sides of East Main Avenue to improve pedestrian safety Curb extensions On-street parking Lane reduction Construction of median Less through-lanes for left-turns to cross Less queuing Signal timing improvements

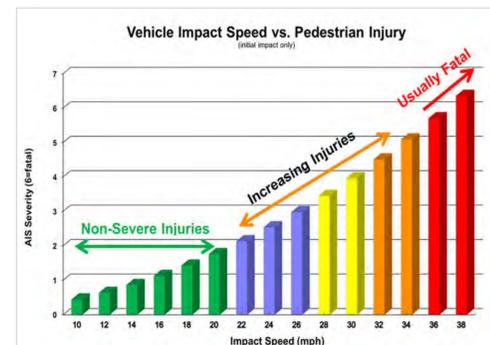
Each alternative reduces the number of access points along the corridor through consolidation of driveways, therefore reducing conflict points and improving safety. Access consolidation is a proven countermeasure for rear-end crashes, the most prevalent crash type along the corridor.



Legend

- Crash Severity**
 - Red circle: Incapacitating Injury
 - Orange circle: Non-incapacitating injury
 - Green circle: PDO
 - Yellow circle: Possible Injury
- Non-Motor-Vehicle Crash**
 - Purple circle: Bicycle
 - Pink circle: Pedestrian

Crash Severity



Source: FHWA

Other improvements such as on-street parking, curb extensions, lane reduction or reduction of curb-to-curb width, and construction of a median are known vertical deflection traffic calming measures. Traffic calming measures are safety countermeasures proven to reduce vehicle speeds and are typically installed to support the livability and vitality of residential and commercial areas.

Evaluation Matrix

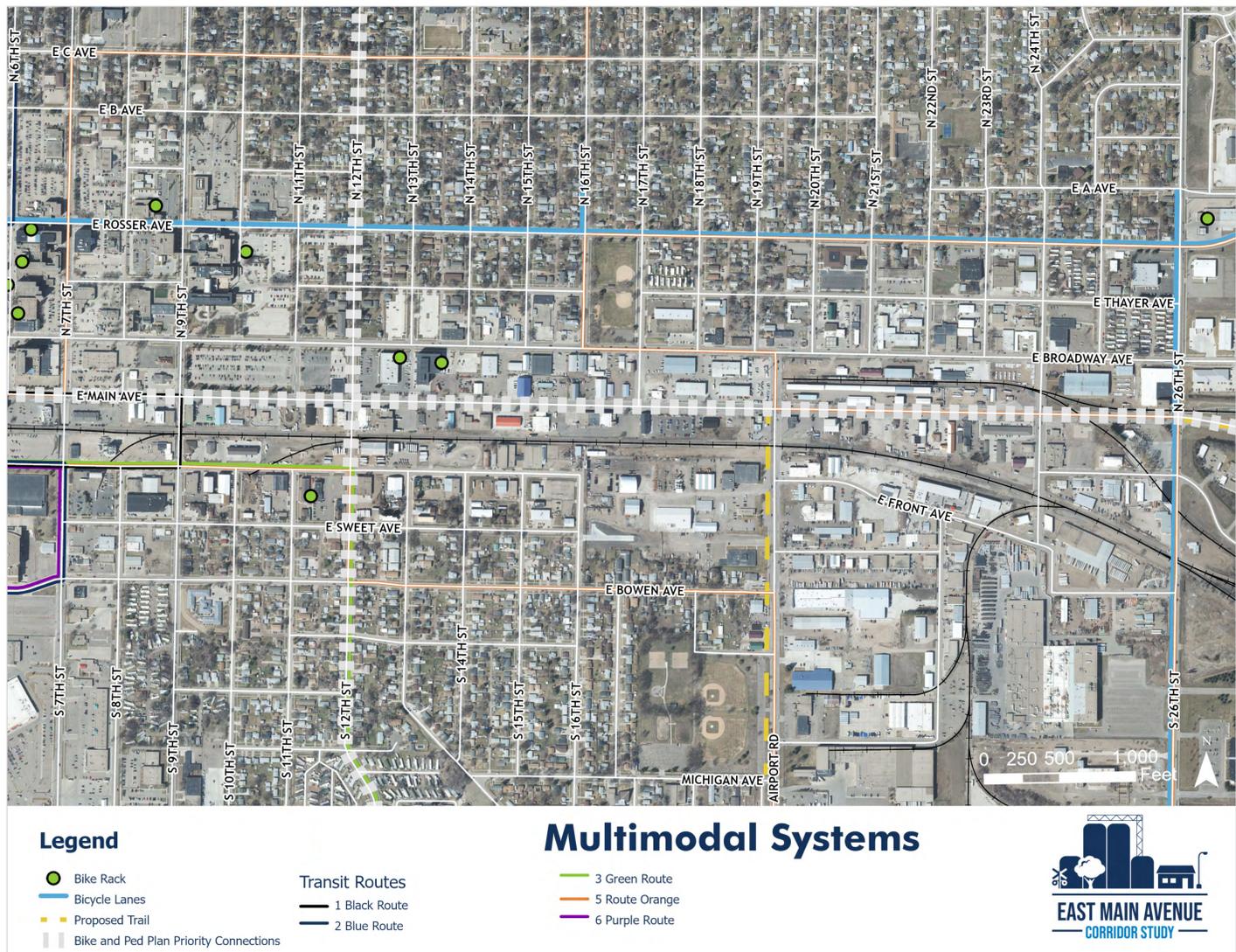
Property Access Criteria Evaluation Matrix			
Segment	5-Lane	3-Lane	3-Lane with Median
7th to 12th Street	Good	Good	Marginal
12th Street to Airport Road	Good	Good	Marginal
Airport Road to 26th Street	Good	Good	Marginal

Safety Criteria Evaluation Matrix			
Segment	5-Lane	3-Lane	3-Lane with Median
7th to 12th Street	Marginal	Marginal	Good
12th Street to Airport Road	Marginal	Marginal	Good
Airport Road to 26th Street	Marginal	Marginal	Good

KEY

- Green: Good; best meets criteria
- Light Green: Ok; meets criteria well
- Yellow: Moderate; close to achieving criteria
- Orange: Marginal; does not meet criteria
- Red: Poor; fails to meet criteria

Pedestrians/Bicyclists/Transit



Evaluation Matrix

KEY

- Good; best meets criteria
- Ok; meets criteria well
- Moderate; close to achieving criteria
- Marginal; does not meet criteria
- Poor; fails to meet criteria

Segment	5-Lane	3-Lane	3-Lane with Median
7 th to 12 th Street	Moderate	Ok	Good
12 th Street to Airport Road	Moderate	Marginal	Ok
Airport Road to 26 th Street	Moderate	Marginal	Ok

Segment	5-Lane	3-Lane	3-Lane with Median
7 th to 12 th Street	Moderate	Ok	Good
12 th Street to Airport Road	Moderate	Ok	Good
Airport Road to 26 th Street	Moderate	Ok	Good

Segment	5-Lane	3-Lane	3-Lane with Median
7 th to 12 th Street	N/A	N/A	N/A
12 th Street to Airport Road	N/A	N/A	N/A
Airport Road to 26 th Street	Moderate	Good	Good

Transit

A potential transit stop area was evaluated near the northeast corner of E Main and 24th Street, given the location is included as a timing point in the fixed route bus schedule (i.e. where a bus says it will be at a given time). 5-Lane and 3-Lane alternatives improve transit mobility but the 3-Lane provides greater feasibility for a new stop area.



Bicyclist Access & Mobility

Dedicated bike facilities are not included in any East Main Avenue alternative, but that does not mean that alternatives would not improve accessibility and mobility for bicyclists. Most of the pedestrian considerations are also applicable to bicyclists who bike off-street. No on-street bike facilities are proposed in the alternatives. Bicycling is allowed on sidewalks except in Downtown Bismarck (7th to 12th Street segment), where it is illegal. Wider sidewalks in the 3-Lane alternatives may indirectly benefit bicyclists.

Redevelopment Opportunity

Redevelopment Scenarios

Existing Condition



- No change

5-Lane



- 210,000 sq.ft. of new commercial on north frontage (one 2-story building and three 1-story buildings)
- 339,000 sq.ft. in parking structures (two 5-story buildings)
- generates \$11.55 million of estimated property tax revenue over 20 years.

3-Lane



- 373,000 sq.ft. in new multiuse on north frontage (three 3-story buildings and one 2-story building)
- 154,000 sq.ft. in new multiuse on south frontage (two 2-story buildings)
- 339,000 sq.ft. in parking structures (two 5-story buildings)
- generates \$28.75 million of estimated property tax revenue over 20 years.

Redevelopment is possible in each alternative, but the opportunity for development is assumed to be greater under the 3-Lane alternative. Lane reductions are demonstrated to improve walkability, slow traffic, and help create a sense of place that is attractive to residents and businesses. In conversations with area development stakeholders, there appears to be more interest in redevelopment under the 3-Lane alternative. Property tax revenue estimates were derived from similar development case studies in Bismarck and Fargo.



Comprehensive Plan Guidance



A city-wide analysis of redevelopment potential was performed in 2021 to support Bismarck's updated comprehensive plan, Together 2045. The City's analysis shows that redevelopment potential is moderate to high between 7th and 12th Street on East Main Avenue, particularly on the south frontage. The parking lot for CHI St. Alexis Health, on the north frontage between 9th and 12th Street was not assigned a redevelopment score, but is presumed to have redevelopment potential given the lack of improvements on the site.

Evaluation Matrix

Redevelopment Criteria Evaluation Matrix			
Segment	5-Lane	3-Lane	3-Lane with Median
7 th to 12 th Street			
12 th Street to Airport Road			
Airport Road to 26 th Street			

KEY

- Good; best meets criteria
- Ok; meets criteria well
- Moderate; close to achieving criteria
- Marginal; does not meet criteria
- Poor; fails to meet criteria

Locally Recommended Alternative & Implementation

Evaluation Matrix

KEY

- Good; best meets criteria
- Ok; meets criteria well
- Moderate; close to achieving criteria
- Marginal; does not meet criteria
- Poor; fails to meet criteria

East Main Avenue Locally Recommended Alternative Evaluation Matrix			
Criteria	7 th St. to 12 th St.	12 th St. to Airport Rd.	Airport Rd. to 26 th St.
	3-Lane	5-Lane	5-Lane
Vehicular Mobility			
Property Access			
Safety			
Freight			
On-Street Parking			
Pedestrian Access & Mobility			
Environmental Justice			
Bike Access & Mobility			
Transit	N/A	N/A	
Snow Control/Maintenance			
Corridor Image			
Redevelopment Opportunity			
	3-Lane	5-Lane	5-Lane
	7 th Street to 12 th	12 th St. to Airport Rd.	Airport Rd. to 26 th St.

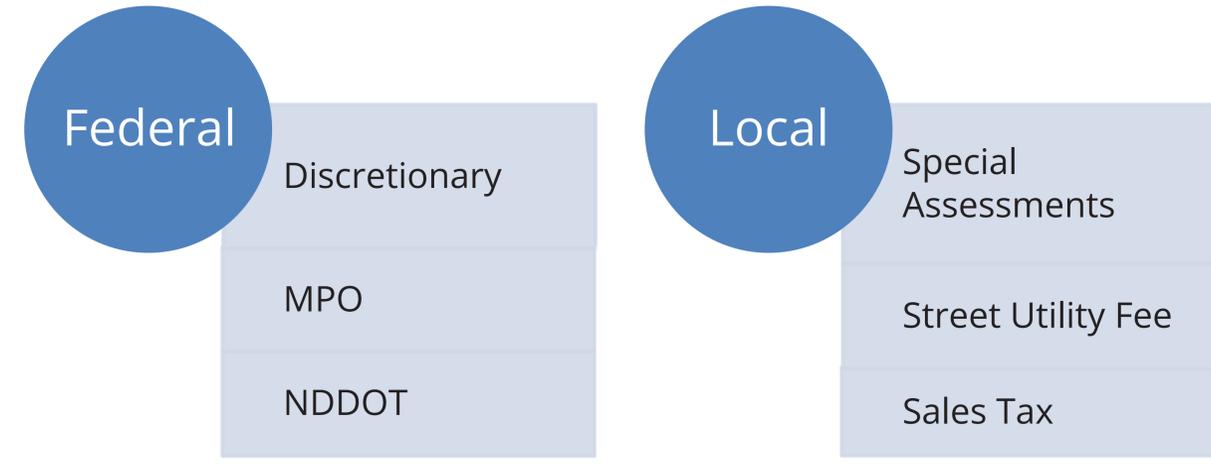
Implementation

Next Steps

- Phasing
- Costs

Segment	No Build Alternative	Build/Reconstruction Alternatives			
	Concrete Pavement Repair (CPR)	3-Lane	3-Lane w/ Median	5-Lane	Recommended Alternative
7th Street to 12th Street	N/A	\$7,479,000	\$7,929,000	\$7,854,000	\$7,479,000
12th Street to Airport Road		\$11,062,000	\$11,726,000	\$11,615,000	\$11,615,000
Airport Road to 26th Street		\$11,022,000	\$11,684,000	\$11,573,000	\$11,573,000
Total Cost (2022 Dollars)	\$4,556,000	\$29,563,000	\$31,339,000	\$31,042,000	\$30,667,000

Funding Opportunities



Implementation Considerations

- Maintenance
 - Sidewalks
- Public Utilities
 - Sanitary Sewer
 - Watermain
 - Stormwater



Summer '22 Public Feedback

Summer Engagement

July 13th & 14th Meetings

- Property and Business Owner Open House
- Community Workshop

Individual Interviews

- In-Person
- Phone Calls/Zoom

Interest Group Interviews

Online WikiMap/Mapping Input

July Meetings

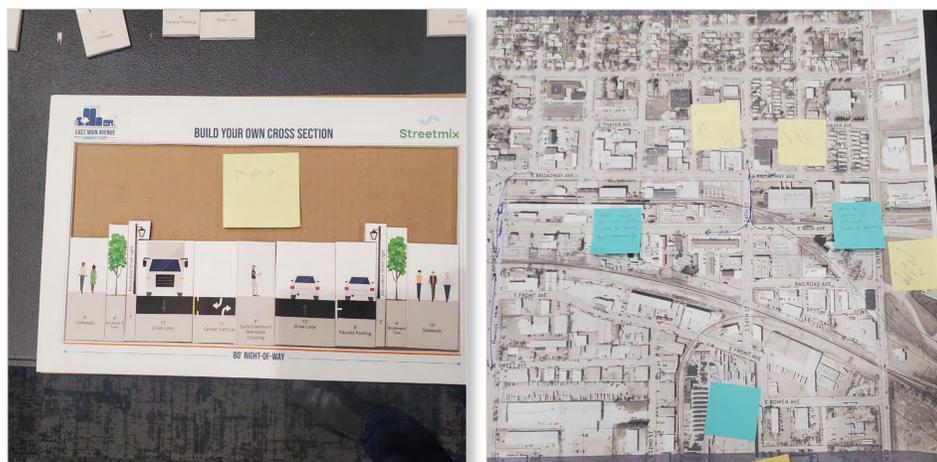
Notification

- Traditional
- Postcard
- Flyer
- Social Media

Presentation

Activities - map with post-its and “build your own cross section” activity

9 Attendees



Interviews

Timeframe: June 27th - August 23rd

11 individual owner interviews

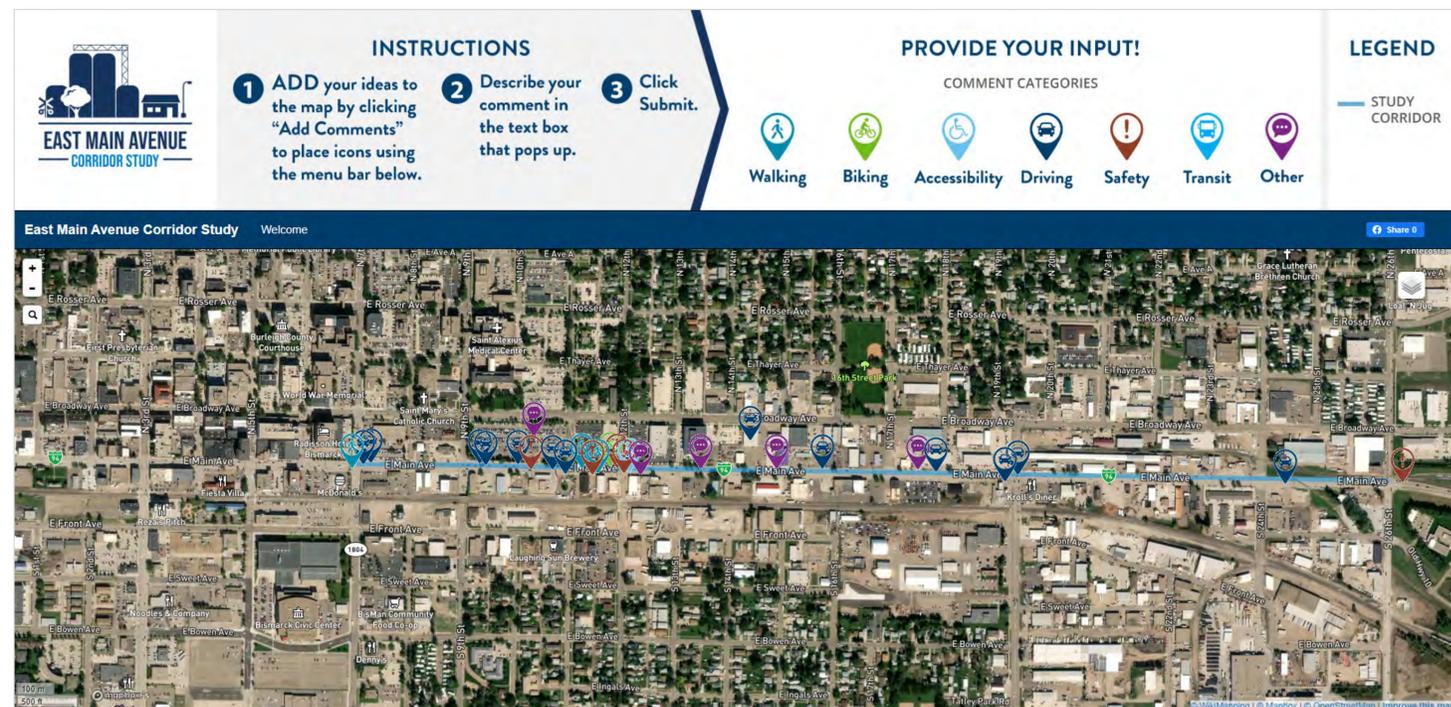
- Bitty Bean
- Simonson
- Spa's Etc.
- Sanford
- St. Alexius
- Davis Group
- Threefold
- Window & Door Store
- Big Boy
- Ministry on the Margins
- Prairie Farms



2 Interest Groups

- Missouri Valley Coalition for Homeless People - Unmet Needs Committee
- Downtown area development interest group

WikiMap



Interview & WikiMap Themes

- High Vehicular Speeds
- Vehicular Safety
- Pedestrian Conflicts
- Need for beautification
- Redevelopment Potential
- Importance to disadvantaged
- Need operational and intersection improvements
- Corridor image
- Queuing (west side)
- Freight access
- Snow maintenance

Fall/Winter '22-'23 Public Feedback

Fall/Winter Engagement

November 29th & December 1st Meetings

- Property and Business Owner Open House
- Community Workshop
- Outreach to Nearby Social Service Organizations

Survey on Alternatives

Fall/Winter Meetings



Survey Results

174 Surveys Completed

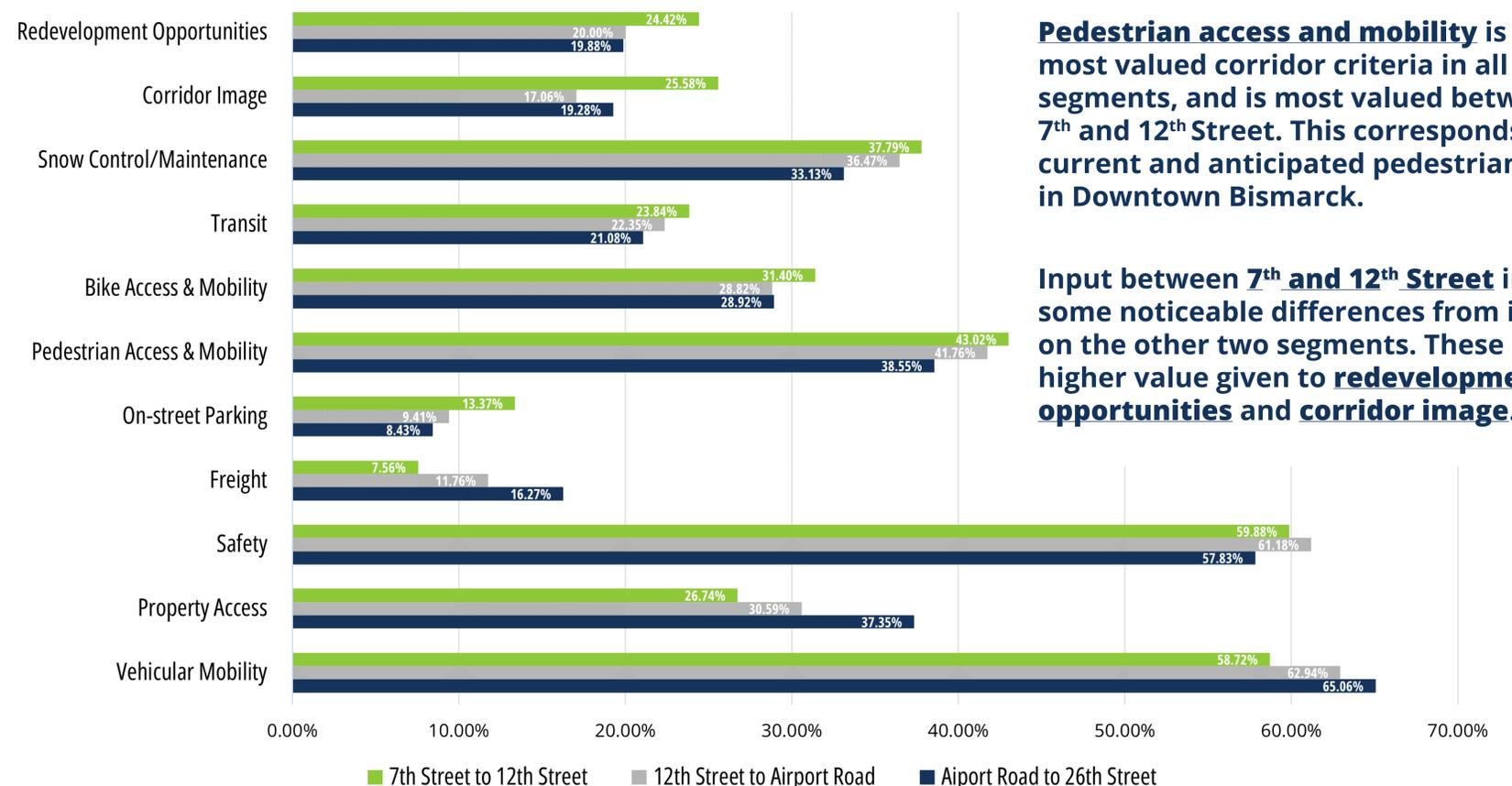
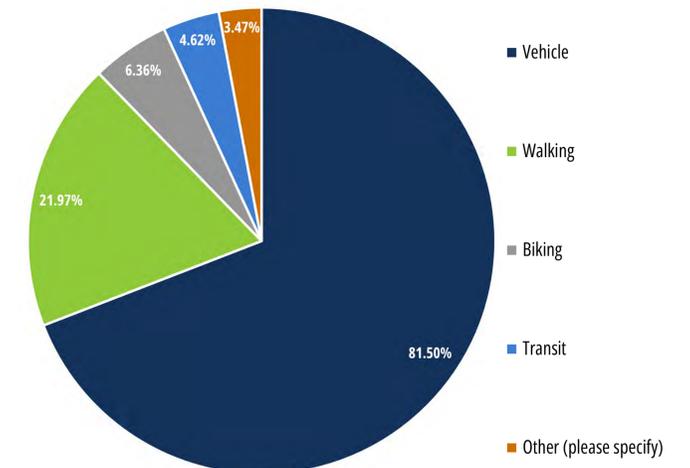
- 100 completed online
- 74 completed at meetings and outreach to social service organizations

The two most highly valued corridor criteria include **vehicular mobility** and **safety**. Vehicular mobility is highly valued across the corridor but increases in importance going east.

Other important trends to note include increasing preference for **freight** and **property access** going east.

Group	Primary Interests
Corridor Business Owners & Employees	<ul style="list-style-type: none"> • Vehicular Mobility • Property Access • Freight • Snow Control
Commuters	<ul style="list-style-type: none"> • Vehicular Mobility • Safety
Social Service Organization Clients	<ul style="list-style-type: none"> • Safety • Pedestrian Access & Mobility • Bike Access & Mobility

Transportation Modes Along East Main Avenue



Pedestrian access and mobility is the third-most valued corridor criteria in all three segments, and is most valued between 7th and 12th Street. This corresponds with current and anticipated pedestrian volumes in Downtown Bismarck.

Input between 7th and 12th Street includes some noticeable differences from input on the other two segments. These include higher value given to redevelopment opportunities and corridor image.

SIGN-IN SHEET

EAST MAIN AVENUE CORRIDOR STUDY - Community Workshop

Meeting Location 221 N 5th St Bismarck ND 58506 300 N 9th Street, Bismarck, ND 58501		LPA/Consultant/Transit Bismarck-Mandan Metropolitan Planning Organization	
Meeting Type Community Workshop		Meeting Date 03/06/2023	
Project Number		PCN	
Project Description East Main Avenue Corridor Study - between 7th Street and 26th Street			

Name (Please print) <i>Kate Herzog</i>		Title/Representing <i>Downtowners</i>	
Address <i>607 N ANDERSON ST</i>		City <i>Bis.</i>	State <i>ND</i>
Email Address <i>Kate@downtownbismarck.com</i>		ZIP Code <i>58501</i>	Telephone Number <i>701-226-3407</i>

Name (Please print) <i>Dan Schriock</i>		Title/Representing <i>Assistant County Engineer / Burleigh County</i>	
Address <i>8100 43rd Ave NE</i>		City <i>Bismarck</i>	State <i>ND</i>
Email Address <i>dschriock@nd.gov</i>		ZIP Code <i>58503</i>	Telephone Number <i>701 2017743</i>

Name (Please print) <i>Mark Berg</i>		Title/Representing	
Address <i>7501 Northwood Dr</i>		City <i>Bis</i>	State <i>ND</i>
Email Address <i>mberg@bismarcknd.gov</i>		ZIP Code	Telephone Number

Name (Please print) <i>Dawn Kopp</i>		Title/Representing <i>CEO Downtowners</i>	
Address <i>601 N. 16th St.</i>		City <i>Bismarck</i>	State <i>ND</i>
Email Address <i>dawn@downtownbismarck.com</i>		ZIP Code <i>58501</i>	Telephone Number <i>701.226.6818</i>

Name (Please print) <i>BEN BEKRETH</i>		Title/Representing <i>COMMUNITY DEVELOPMENT DEPARTMENT</i>	
Address <i>221 NTH 5th ST</i>		City <i>BISMARCK</i>	State <i>ND</i>
Email Address <i>bekreth@bismarcknd.gov</i>		ZIP Code <i>58501</i>	Telephone Number <i>701-355-1842</i>

Name (Please print)		Title/Representing	
Address		City	State
Email Address		ZIP Code	Telephone Number

Name (Please print)		Title/Representing	
Address		City	State
Email Address		ZIP Code	Telephone Number

Study Review Committee
Meeting Records
and Presentation Slides



Location: SRF Bismarck Office Conference Room/Zoom

Client: Bismarck-Mandan Metropolitan Planning Organization (MPO)

Date: April 21, 2022

Subject: East Main Avenue Corridor Study – SRC #1

Attendees: Kim Riepl, Bis-Man MPO
Mark Berg, City of Bis. Engineering
Wayne Zacher, NDDOT
Deidre Hughes, Bis-Man Transit
Ranae Tunison, Region 8, FTA
Glen Hellebust, Prairie Farms Dairy, Inc.
Jason Gullicks, Apex Engineering
Scott Harmstead, SRF Consulting Group

Daniel Nairn, Bis-Man MPO
Michael Mart, City of Bis. Engineering
Dean Schloss, NDDOT
Dawn Kopp, Bismarck Downtowners
Kristen Sperry, FHWA
Matt Pacyna, TC2
Sara Schmidt, SRF Consulting Group

Purpose of Meeting:

The purpose of this meeting was to introduce the Bismarck East Main Avenue Corridor Study Study Review Committee (SRC) to the project. The topics covered are shown below and attached in the PowerPoint that was presented at the meeting. Discussion from meeting participants is included in the “Summary of Meeting” section.

1. Introductions
2. Ice Breaker
3. Project Overview and Approach
4. Public Involvement Plan
5. Website
6. Preliminary Data Insights
7. Existing Plans
8. Next Steps

Summary of Meeting

Biggest Concerns

- M. Berg: have extra capacity for vehicular traffic, but don't address pedestrians; change from an industrial area to commercial
- D. Hughes: does not have adequate ped access along or to cross for transit access
- W. Zacher: Big Boy drive-thru conflicts spilling back onto the corridor; bicyclists use the shoulder
- K. Riepl: diversity of the corridor as it changes from west to east; how to accommodate future economic development and incorporate all modes
- D. Schloss: efficiency of the intersections
- D. Kopp: walkability and mobility for all; how does the walkability influence land use/economic development
- K. Sperry: nothing to add
- J. Gullicks: access is a concern and safety conflicts
- G. Hellebust: ped and bike facilities improvements, make it less stressful for others; freight movements near 12th Street and conflicts with peds/bikes; some landscaping impacts on visibility; train impacts on the corridor
- M. Mart: concerns about peds
- D. Nairn: ped safety/limited facilities; looking at more high-intensity development in areas

Corridor Vision

- M. Berg: need to understand impacts of changes on Main Avenue to other corridors, such as Broadway Avenue; should on-street parking be utilized?
- D. Hughes: dedicated stops/areas for Transit
- W. Zacher: nothing to add, but mentioned MPO did add a project to remove the railroad track crossing East Main Avenue by Big Boy
- K. Riepl: see the question as a big picture - wants to embrace and enhance the diversity of the corridor (a harmonious and efficient mixed-use corridor)
- D. Schloss: nothing to add
- D. Kopp: wants enhanced safety and mobility for all users
- K. Sperry: enhanced safety and visibility
- J. Gullicks: not the most visionary; figuring out what the future wants to be
- G. Hellebust: concerned about the Big Boy area
- M. Mart: maintain operations
- D. Nairn: comprehensive plan process – infill development potential from developers; some differing opinions from developers

Existing Conditions

- M. Berg: suggested to keep the 7th Street and 9th Street intersections separate for the crash analysis, given those intersections skew things as they are on the NDDOT's high crash list

- W. Zacher: access usage and how it is presented to the business (referenced Minot study – how they had data and referenced routing/mobility; have good data to show the businesses the data)
 - o ACTION: count driveways, short-duration pulse counts
- D. Nairn: has heard concerns about drag racing on the corridor
- D. Kopp: concerns about shifting issues to Broadway Avenue and removing signals
- M. Berg: can we overlay the zoning/land use on the Access Management Graphic?
 - o ACTION: Update graphics accordingly

Concerns Revisited

- G. Hellebust: access to the property near 12th Street and 13th Street for freight movements; tried to get a private crossing of BNSF
- BNSFs future plans, what are they? Want to add a second line?

Actions Needed

Actions Needed	Responsibility
Count driveways, short-duration pulse counts	SRF Consulting Group
Update Access Management Graphic with zoning/land use overlaid on top of parcels	SRF Consulting Group



East Main Avenue Corridor Study

Bismarck-Mandan Metropolitan Planning Organization



● Agenda

- Introductions
- Ice Breaker
- Project Overview and Approach
- Public Involvement Plan
- Website
- Preliminary Data Insights
- Existing Plans
- Next Steps

● Introductions

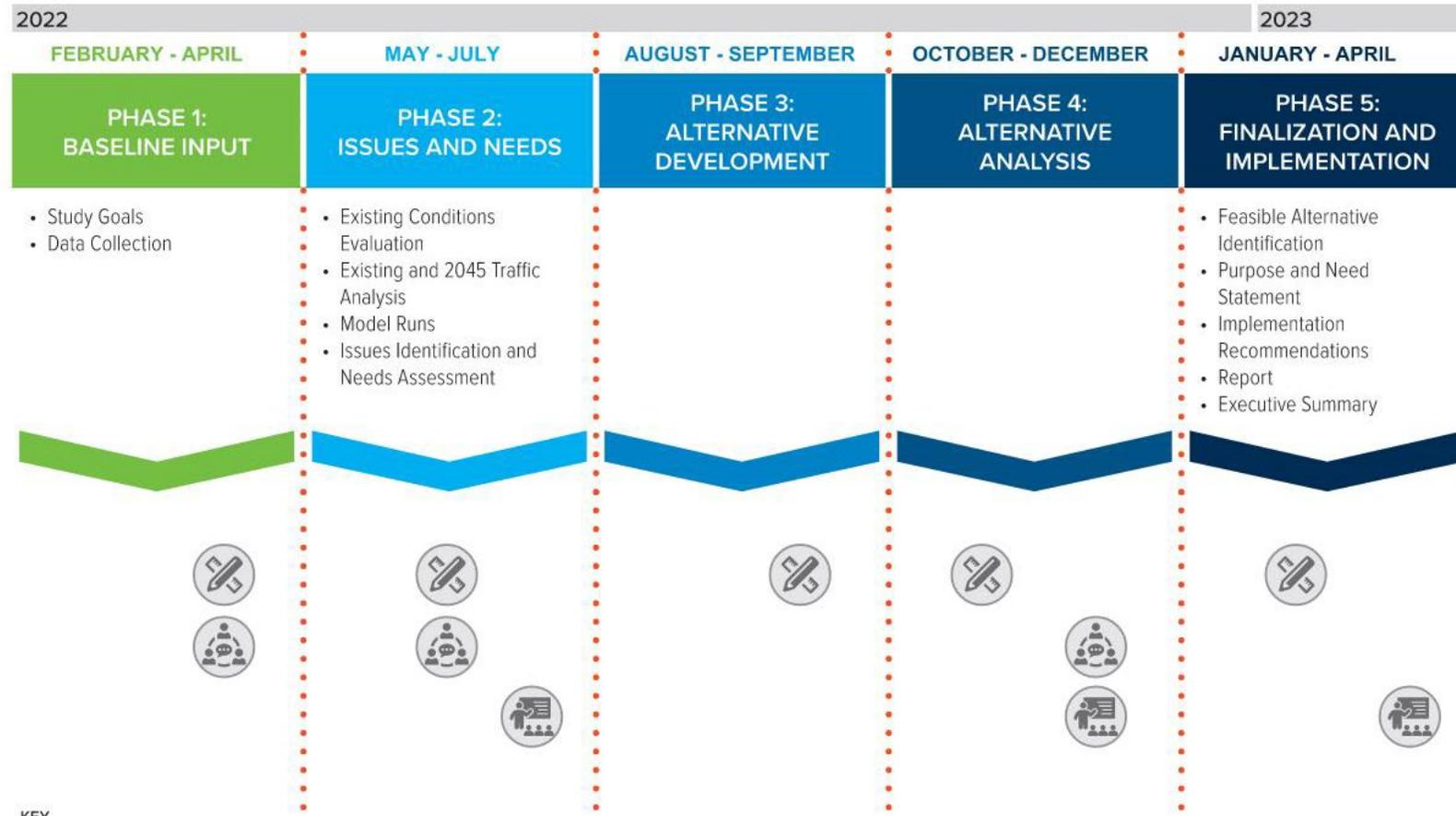
- Project Team
 - SRF Consulting Group, Inc.
 - Scott Harmstead, AICP
 - Sara Schmidt, EIT
 - Transportation Collaborative & Consultants (TC²)
 - Matt Pacyna, PE
 - Apex Engineering
 - Jason Gullicks, PE
 - Advanced Traffic Analysis Center (ATAC)
 - Diomo Motuba, Ph.D



- ✓ Name and affiliation
- ✓ What is your biggest concern with the corridor?
- ✓ Think about - what is the future vision for the corridor?

Ice Breaker

Project Overview and Approach



KEY

✂ Study Review Committee (SRC) 👥 Major Stakeholder Outreach 🗣️ Community Outreach Event

Revised 01.18.2022



Public Involvement Plan



Public Involvement Plan East Main Avenue Corridor Study



Bismark-Mandan Metropolitan Planning
Organization | City of Bismark

Prepared by:



April 2022

SRF No. 14186



Public Involvement Plan



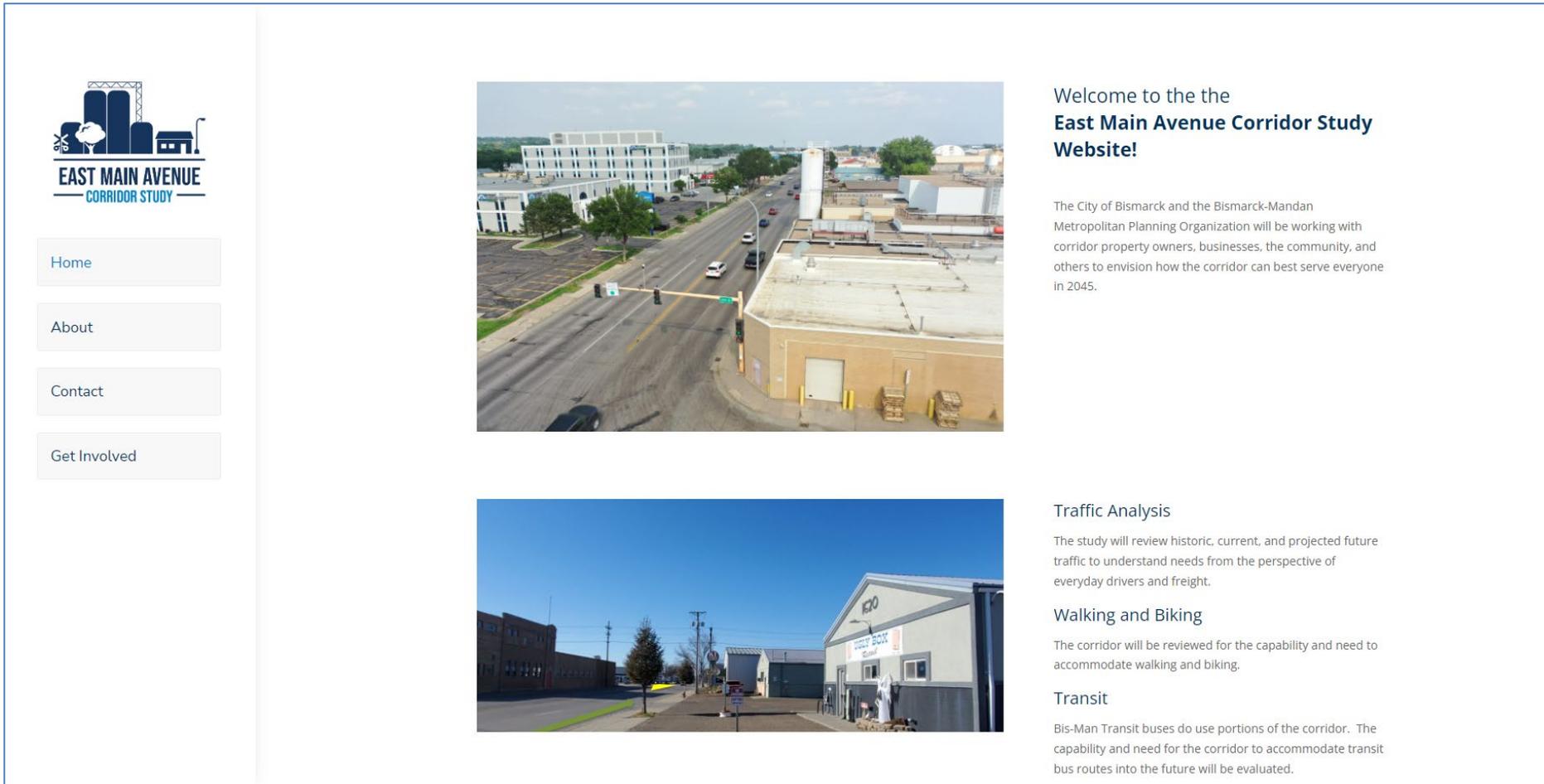
Public Involvement Plan

- Promotion Methods
 - Post card
 - Social Media
 - Door to door
 - Phone calls
 - Newspaper
- Stakeholder Outreach Events
- Community Outreach Events
- Location and times/dates



Website

- <https://www.eastmainstudy.com/>



The screenshot shows the homepage of the East Main Avenue Corridor Study website. On the left is a navigation menu with buttons for Home, About, Contact, and Get Involved. The main content area features two photographs: an aerial view of a street intersection and a street-level view of a building. To the right of the images are sections of text: a welcome message, a paragraph about the study's purpose, and three sub-sections: Traffic Analysis, Walking and Biking, and Transit, each with a brief description of the study's focus.



Home

About

Contact

Get Involved



Welcome to the the East Main Avenue Corridor Study Website!

The City of Bismarck and the Bismarck-Mandan Metropolitan Planning Organization will be working with corridor property owners, businesses, the community, and others to envision how the corridor can best serve everyone in 2045.



Traffic Analysis

The study will review historic, current, and projected future traffic to understand needs from the perspective of everyday drivers and freight.

Walking and Biking

The corridor will be reviewed for the capability and need to accommodate walking and biking.

Transit

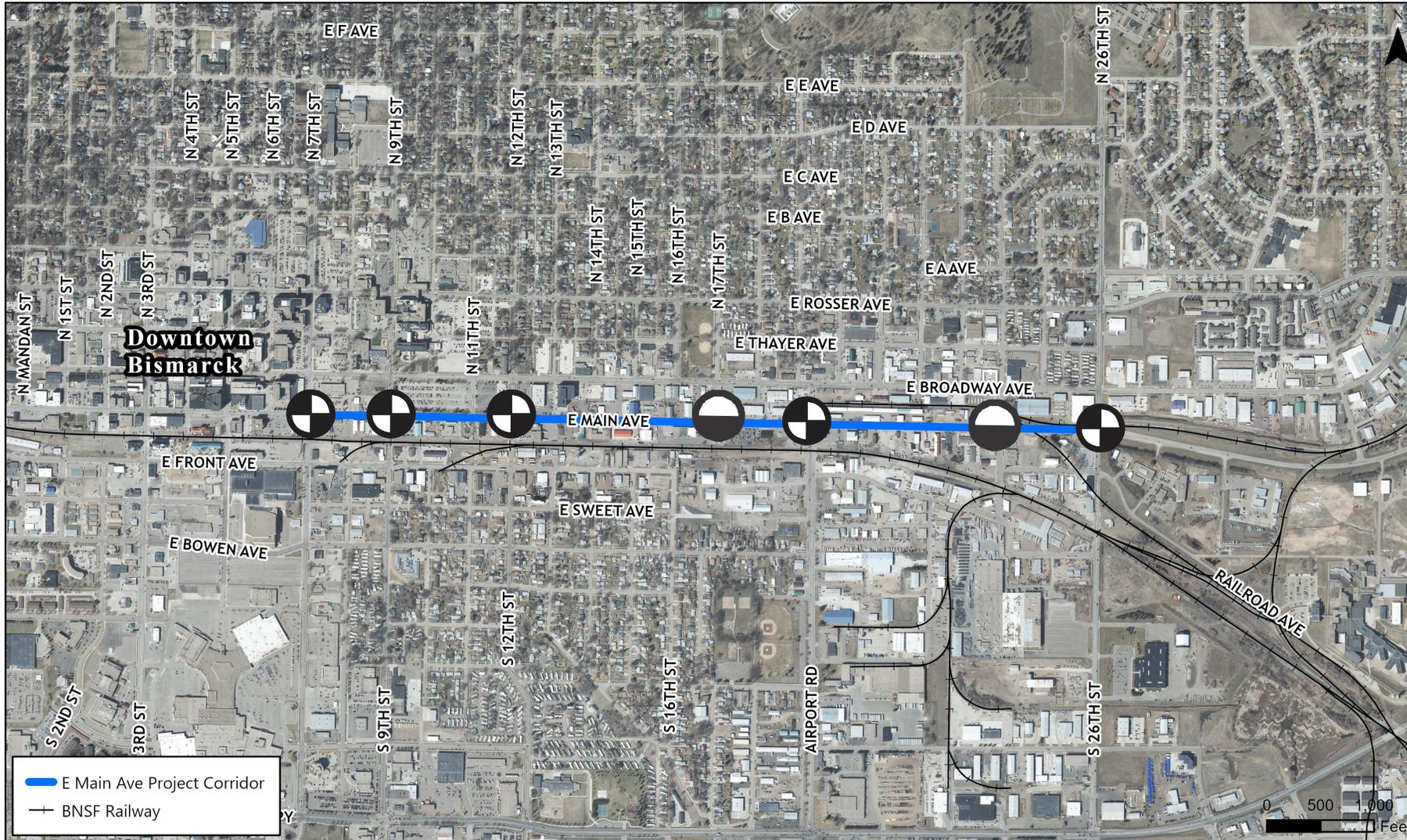
Bis-Man Transit buses do use portions of the corridor. The capability and need for the corridor to accommodate transit bus routes into the future will be evaluated.



● Preliminary Data Insights

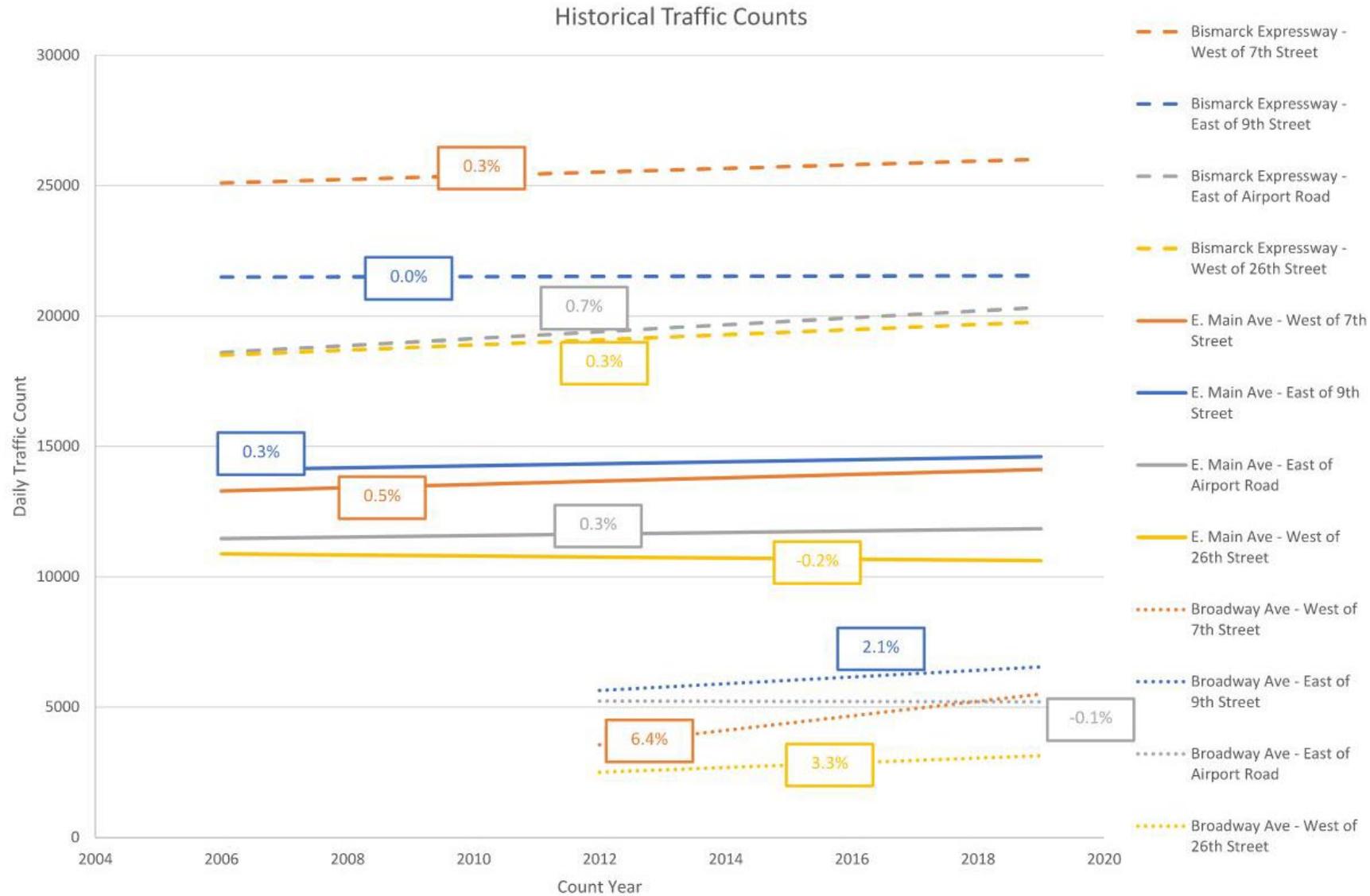
- Existing Conditions
- Historical Traffic Data
- Preliminary Safety Analysis
- Access Inventory

Existing Conditions



-  Signalized Intersection
-  Unsignalized Intersection

Historical Traffic Data



Safety Analysis – Heat Map



● Safety Analysis – Crash Severity

Crash Severity	Number of Crashes	Percentage
Fatal	0	0%
Incapacitating Injury	6	1%
Non-incapacitating injury	51	12%
Possible Injury	58	13%
Property Damage Only (PDO)	329	74%
Total	444	100%

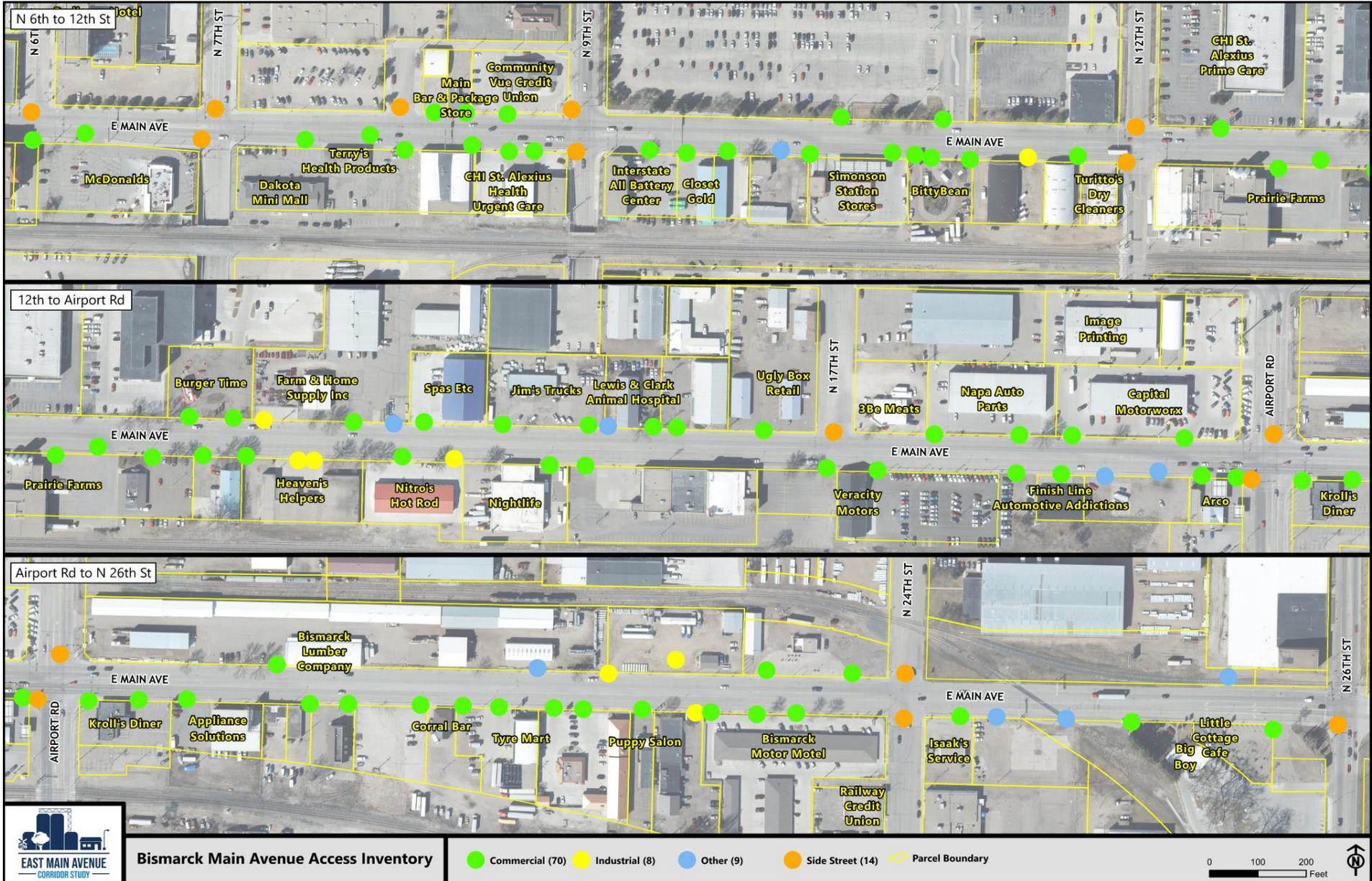
● Safety Analysis – Type of Crash

Crash Description		Number of Crashes	Percentage
Object	Curb	5	1.1%
	Other Fixed Object	2	0.5%
	Traffic Signal Support	2	0.5%
	Utility Post	2	0.5%
MV in Transport	Angle (Not Specific)	161	36.3%
	Cargo Loss or Shift	1	0.2%
	Head On	14	3.2%
	Non-Coll. w/Motor Veh.	1	0.2%
	Rear End	166	37.4%
	Right Angle	1	0.2%
	Sideswipe (opp. dir.)	4	0.9%
	Sideswipe (same dir.)	70	15.8%
Other Non-Collision		2	0.5%
Overturn / Rollover		1	0.2%
Bicycle		7	1.6%
Pedestrian		5	1.1%
Total		444	100%

Access Inventory

- Approximately 90-100 access points
 - 70 commercial
 - 8 industrial
 - 7 side-street/public
 - 8 other (dirt lot)
- Access Management Opportunities
 - Do Nothing
 - Closing
 - Combining
 - Narrowing

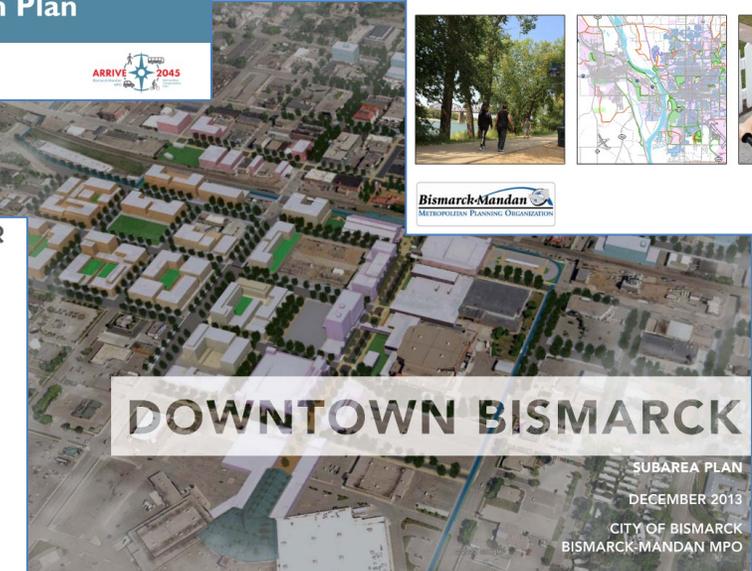
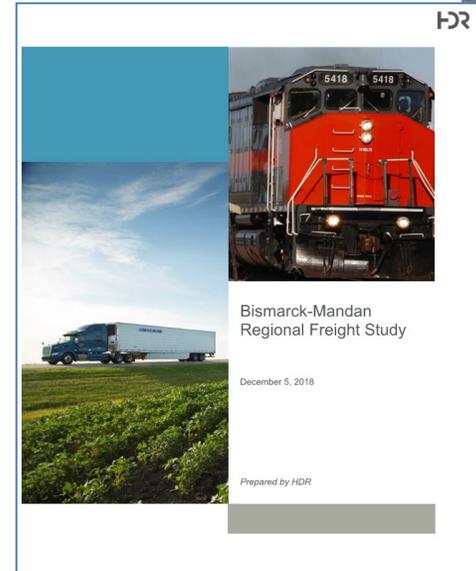
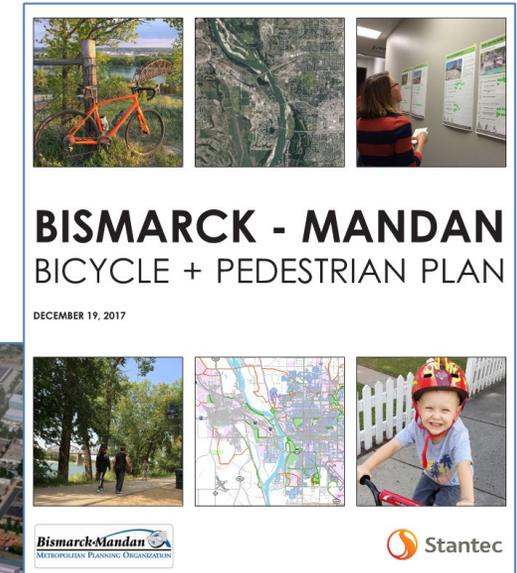
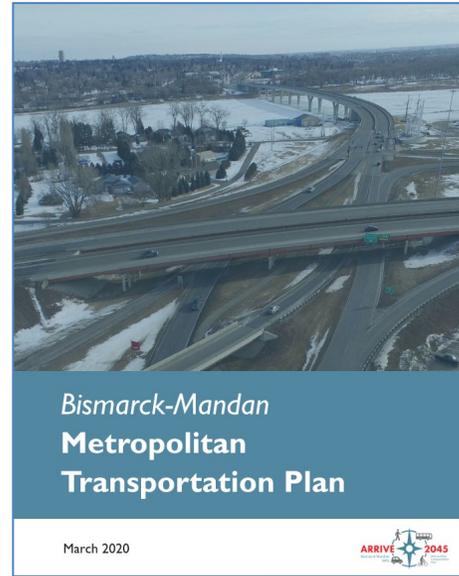
Access Inventory



Existing Plans

- Bismarck-Mandan Metropolitan Transportation Plan
- Downtown Bismarck Subarea Plan
- Bismarck-Mandan Bicycle + Pedestrian Plan
- Bismarck-Mandan Regional Freight Study

- In Progress
 - Comprehensive Plan



- ✓ What is your biggest concern with the corridor?
- ✓ What is the future vision for the corridor?

○ Revisit Ice Breaker

Next Steps

- Existing Conditions Evaluation
- Existing and 2045 Traffic Analysis
- Model Runs
- Issues Identification and Needs Assessment

- Major Stakeholder Outreach #1 – May 2022
- SRC Meeting #2 – June 2022
- Major Stakeholder Outreach #2 – June/July 2022
- Community Outreach Event #1 – July 2022

Summary of Meeting

- K. Riepl: said there is some growth/economic development in the area
- M. Berg: questioned no growth north of Main Avenue
- Big Boy operations: access/pulse counts
 - o ACTION: review driveway/short-duration pulse counts
- M. Berg: distracted driving only coded if drivers admit to it
- M. Berg: asked about breakdown of crash type and severity (referred to in SRC #1 PowerPoint)
- W. Zacher: mentioned FTA/FHWA flex funding opportunities to support multimodal improvements that support transit in the area.
- K. Herzog: said a dance school business moved off the corridor because of no/minimal buffer between roadway and business
- R. Tunison: Complete streets is an important component – USDOT has a working group.
 - o ACTION: Scott Harmstead to send presentation to Renae to share with FTA and US DOT working group
- M. Berg: Broadway Ave to Bowen Ave on 26th Street constructing sidewalks now
- M. Pacyna: stress analysis of multi-modal uses can be performed on VISSIM if needed
 - o ACTION: SRF/TC2 to perform stress analysis of bikes and pedestrians
- M. Mart: Pedestrian activity is important on the corridor and how transit is associated with social services network.
- K. Herzog: Strava heat map is a good resource. Local social services and Public Health could be another resource for ped activity.
- M. Berg: People avoid walking on East Main Ave due to tree planting locations and snow storage in the winter. They use Broadway Ave or walk in street. Current sidewalk design is not user-friendly.
- W. Zacher: Buildings and fences are close to corridor roadway.
- G. Hellebust: Walks carefully near his business too – no good place to go.
- S. Schmidt: Confirmed pedestrian and bike data was collected during the video collection.
- K. Riepl: The MPO’s Bike & Pedestrian subcommittee could provide some insight into bike usage of E Main Ave
 - o ACTION: vet study with subcommittee for insight
- K. Herzog: Bismarck Motor Motel is for sale. CHI St. Alexis Health sites within next 5 years will be getting acquired.
 - o ACTION: remove NDDOT lot as being vacant from the “zoning and vacant property” slides
- S. Harmstead: DRAFT City Comprehensive Plan Future Land Use (LU) is a living document. Industrial Mixed Use takes limited housing opportunities into account.
- D. Nairn: Low-income tracts – CRA funds could be available, Opportunity Zones stretches into the area.

- W. Zacher: verified that postcards will only be sent to properties/businesses on E Main Avenue in study corridor
 - o M. Berg: agreed yes, only send postcards to the property owners
- M. Berg: need to consider truck route traffic/local deliveries
- W. Zacher: new NDDOT counts will be available this fall
- G. Hellebust: make sure other freight needs (other than Prairie Farms) are accounted for, especially east of 12th St.
- K. Herzog: Can ask local/Downtown developers about interest in the E Main Ave corridor. Downtowners did complete a sales gap analysis
 - o **ACTION: K. Herzog sent Scott an email about this**
- K. Riepl: lane configuration will be a key piece moving forward
 - o S. Harmstead: briefly discussed ATAC’s model results from running 3-lane scenario for E Main Ave. More to come at next SRC meeting.

Actions Needed

Actions Needed	Responsibility
Review Big Boy driveway/short-duration pulse counts	SRF/TC2
Send presentation to FTA	SRF
Remove NDDOT lot as being vacant from the “zoning and vacant property” slides	SRF
Gain input from MPO Bike & Pedestrian Subcommittee	K. Riepl

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pn\Documents\Projects\14000\14186\14186\Management\Meetings(year)\MeetingSets\SRC2\Bismarck_E Main Avenue
Corridor Study_SRC #2_Draft Meeting Summary.docx*



Study Review Committee Meeting #2

East Main Avenue Corridor Study

Bismarck-Mandan MPO & City of Bismarck



● Agenda

- Initial “Purpose” Statement
- Issues and Needs Review:
 - Related Plans
 - Traffic Operations (ATAC Model & VISSIM Results)
 - Safety Analysis
 - Walking and Biking
 - Transit
 - Existing Land Use
 - Environmental Justice Analysis
- Public Engagement Update
- Next Steps

● Introductions

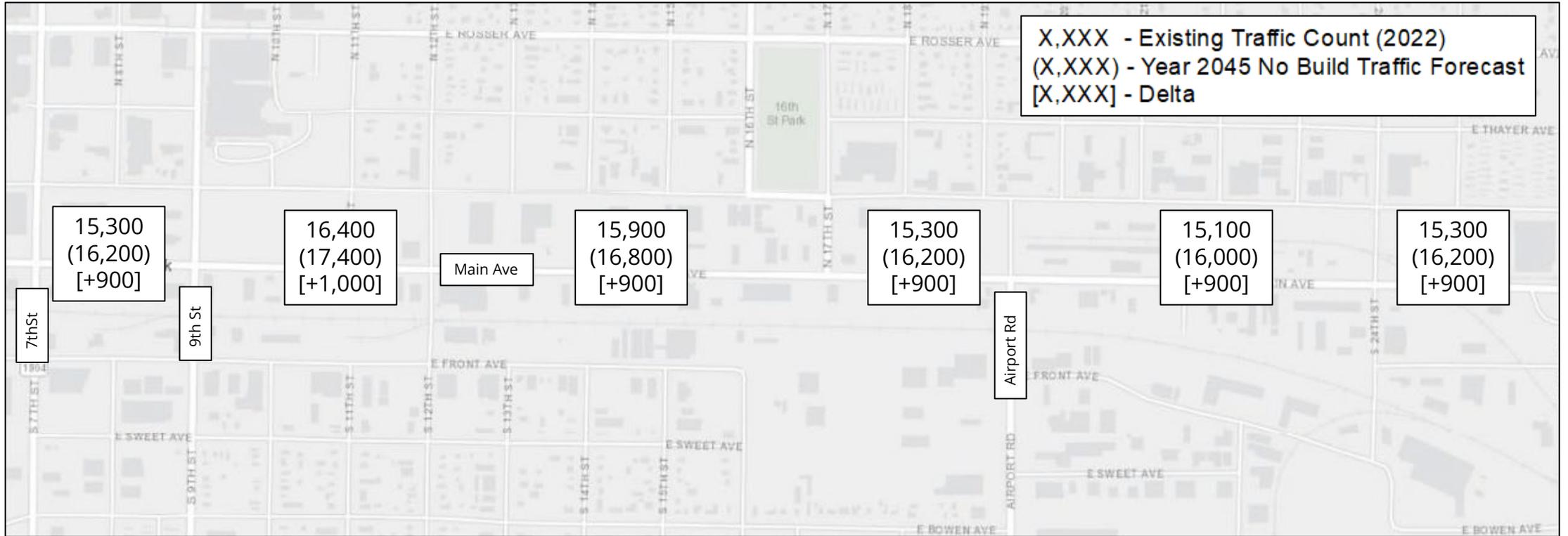
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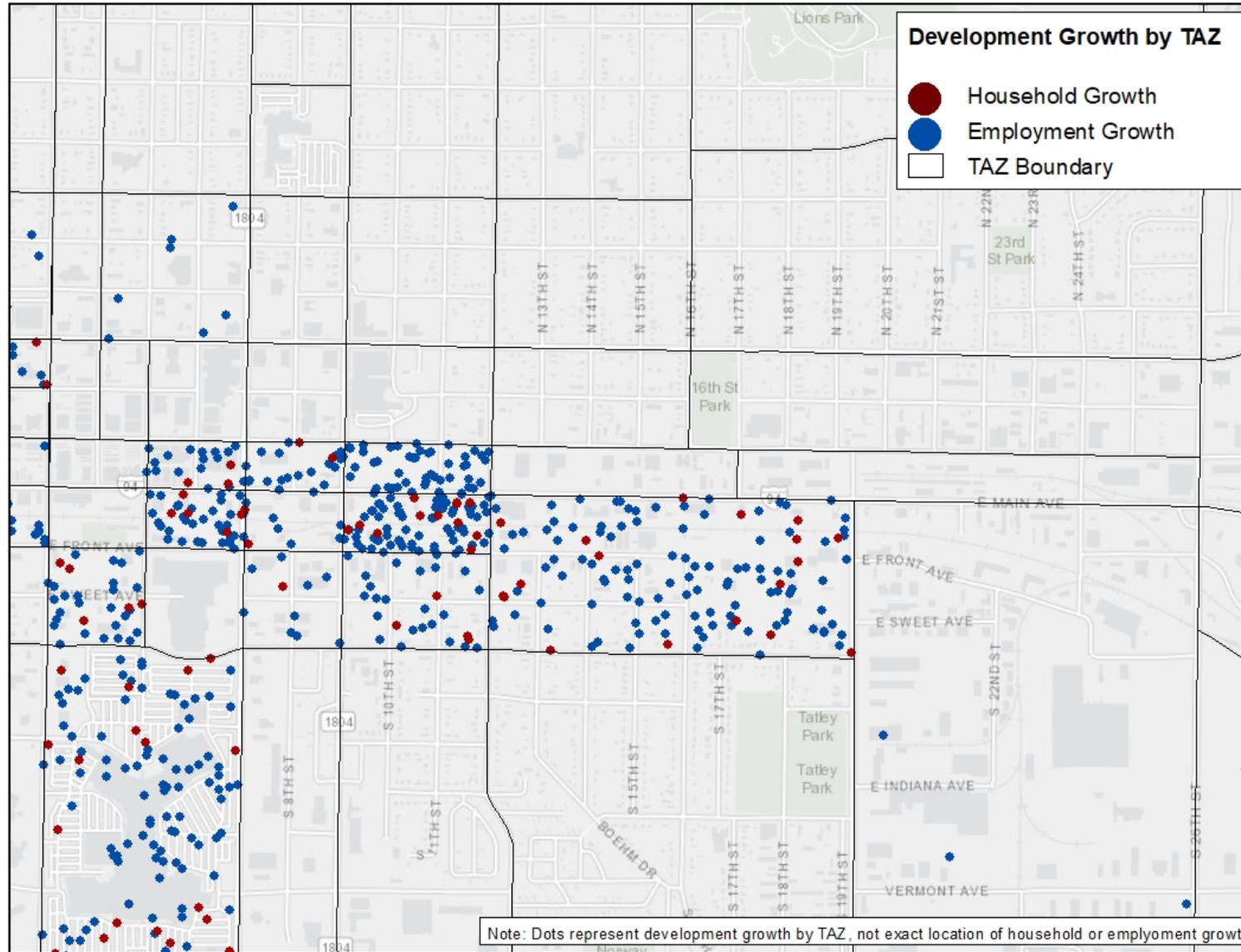
Initial Purpose Statement

- The purpose is to achieve the following goals for East Main Avenue, from 7th Street to 26th Street, in the year 2045:
 - Improve the aging corridor pavement
 - Ensure all modes of transportation are safely and comfortably accommodated
 - Support the highest and best use of property fronting the corridor
 - Minimize detrimental impacts to adjacent corridors

Year 2045 No Build Daily Traffic Forecasts



Growth Areas Along Corridor



VISSIM Model Assumptions

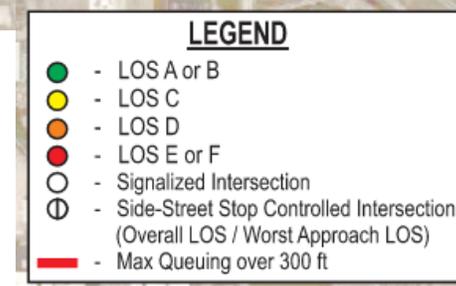
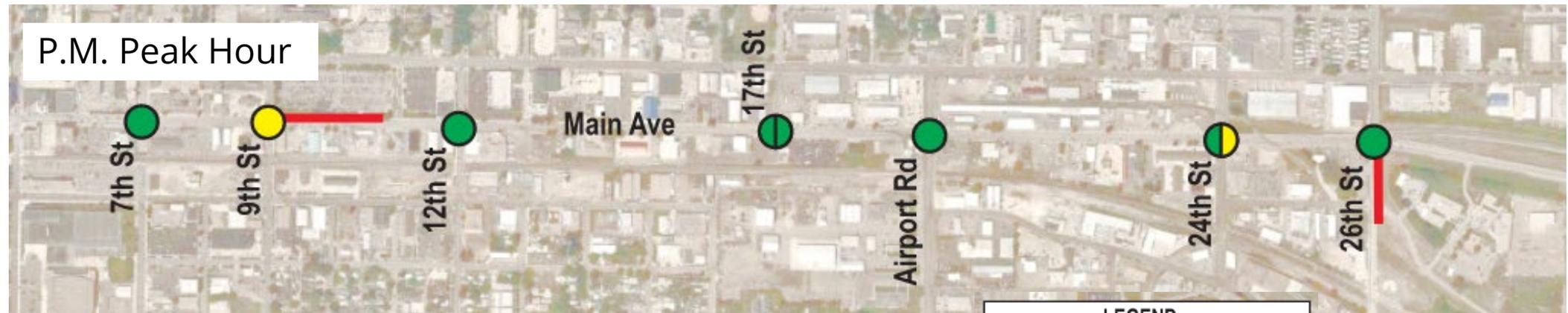
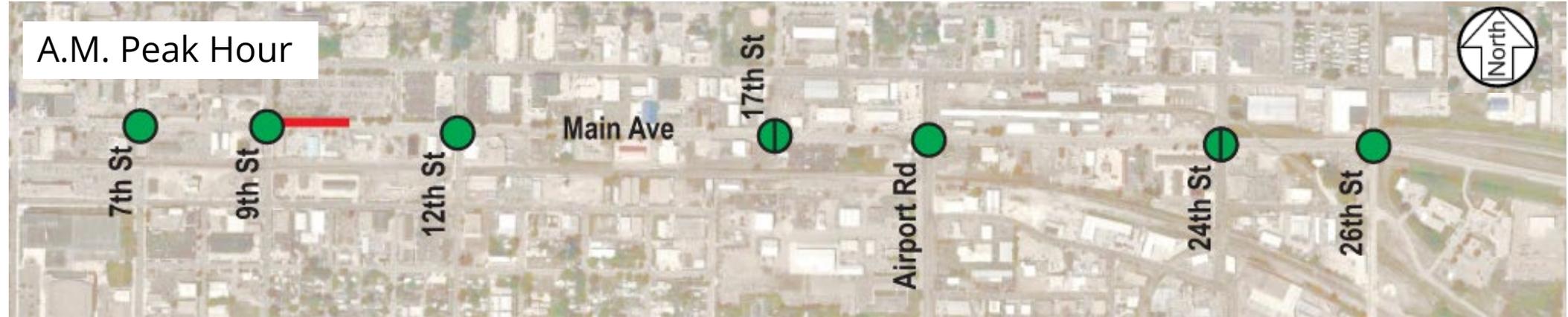
- Traffic data collected in May 2022
- Signal timing information provided by the City of Bismarck from Fall 2020
- Railroad data obtained from the US DOT Federal Railroad Association (FRA)
 - 2019 Reports estimate 5 trains per day between 6 AM and 6 PM
- Reviewed video to verify the time of train events on the day of the data collection
 - 0 train events during the AM Peak Hour (7:30 – 8:30)
 - 1 train event during the PM Peak Hour (4:30 – 5:30)
- Preemption/communication information between signalized intersections and railroad gates provided by the City of Bismarck
- Two intersections with preemption:
 - 12th Street
 - Airport Road

VISSIM Results – Existing Level of Service

East Main Avenue Intersection	A.M. Peak Hour LOS	P.M. Peak Hour LOS
7th Street	B	B
9th Street	B	C
12th Street	B	B
17th Street ⁽¹⁾	A/B	A/B
Airport Road	B	B
24th Street ⁽¹⁾	A/B	A/C
26th Street	B	B

(1) Indicates an unsignalized intersection with side-street stop control, where the overall LOS is shown followed by the worst approach

VISSIM Results – Existing Level of Service

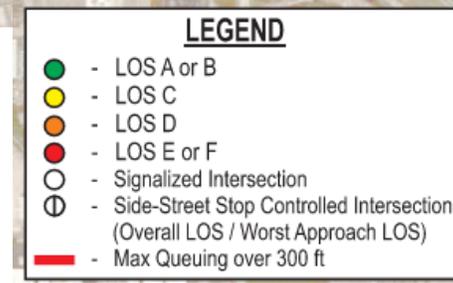
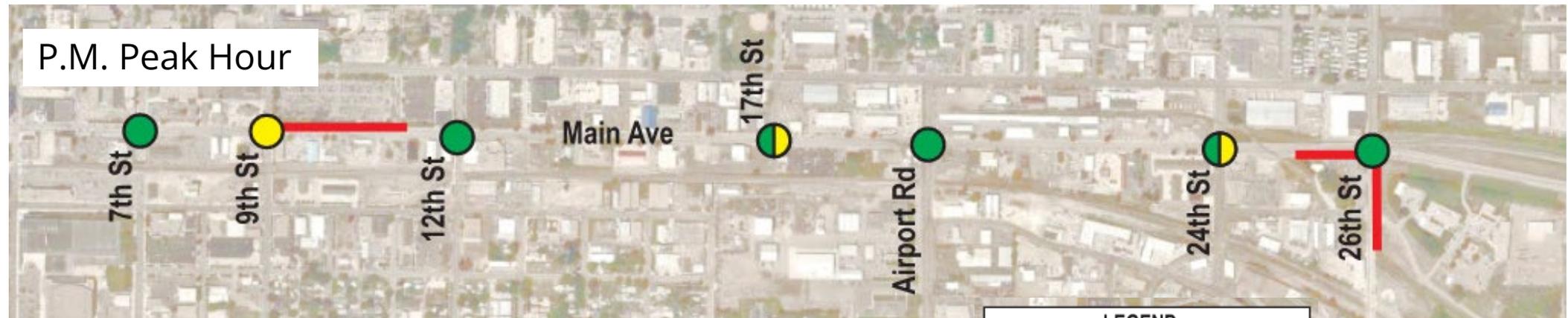
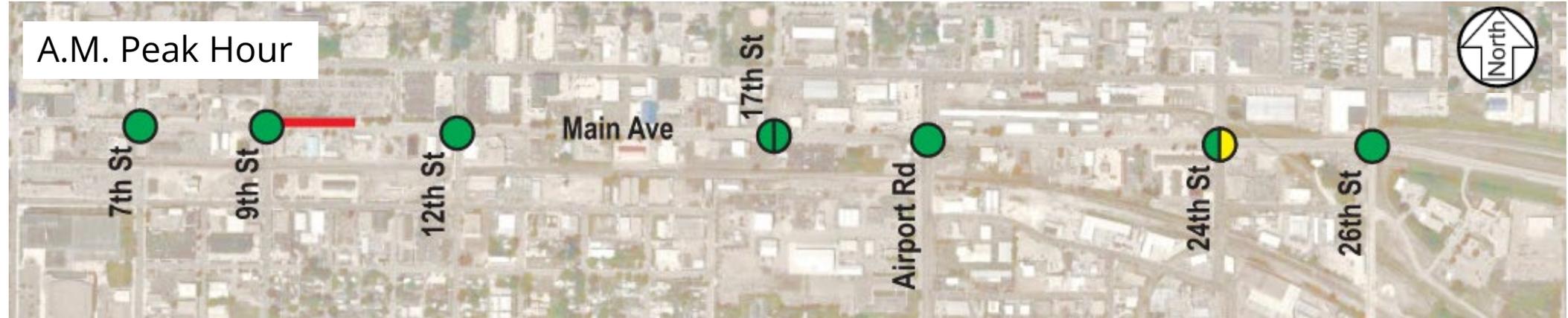


VISSIM Results – Year 2045 No Build Level of Service

East Main Avenue Intersection	A.M. Peak Hour LOS	P.M. Peak Hour LOS
7th Street	B	B
9th Street	B	C
12th Street	B	B
17th Street ⁽¹⁾	A/B	A/C
Airport Road	B	B
24th Street ⁽¹⁾	A/C	A/C
26th Street	B	B

(1) Indicates an unsignalized intersection with side-street stop control, where the overall LOS is shown followed by the worst approach

VISSIM Results – Year 2045 No Build Level of Service



Safety Analysis – Heat Map



Safety Analysis - Intersections

Intersection	Total Crashes	Observed Crash Rate	Average Crash Rate	Critical Crash Rate
Main Avenue & 7th Street	114	2.26	0.52	0.79
Main Avenue & 9th Street	132	2.73	0.52	0.80
Main Avenue & 12th Street	38	1.07	0.52	0.84
Main Avenue & 17th Street	2	0.09	0.18	0.43
Main Avenue & Airport Road	39	1.12	0.52	0.85
Main Avenue & 24th Street	19	0.83	0.18	0.44
Main Avenue & 26th Street	31	0.84	0.52	0.84

*Crash rate in Million Entering Vehicles (MEV)

- Main Avenue & 17th Street crash rate below average crash rate
- Main Avenue & 26th Street crash rate above average crash rate but below critical crash rate
- All other intersections above critical crash rate

Safety Analysis - Segments

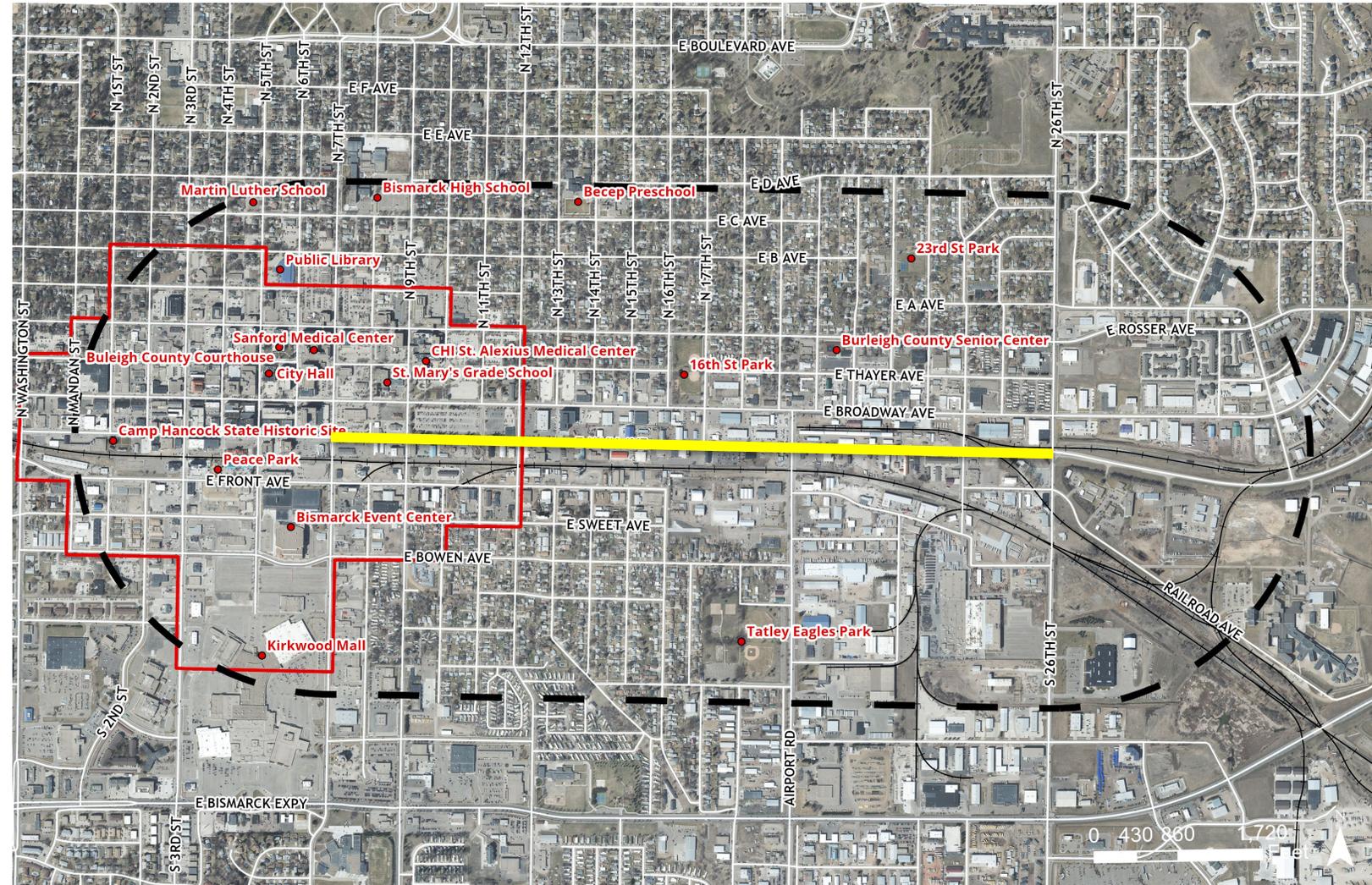
Segment	Total Crashes	Observed Crash Rate	Average Crash Rate	Critical Crash Rate
9th Street to 12th Street	11	1.86	0.76	1.21
12th Street to 17th Street	13	1.46	0.76	1.23
17th Street to Airport Road	14	3.60	0.76	1.25
Airport Road to 26th Street	5	1.57	0.76	1.27
9th Street to 12th Street	55	1.83	0.76	1.24

*Crash rate in Million Entering Vehicles (MEV)

- All segment crash rates are above critical crash rate

Bike and Ped Generators – ½ mile buffer

- Neighborhoods
- Downtown Bismarck
- Schools (public and private)
- Parks and Recreation
- Kirkwood Mall
- Major Employers
- Social Services (Ministry on the Margins, Heaven's Helpers, etc.)



Legend

- Half-Mile Buffer
- BNSF Railway
- Bike Ped Generators
- Downtown Bismarck

Strava Heat Map

- Active transportation heat map



Legend

 Half-Mile Buffer

Fewer activities

More activities

Strava Heat Map

Sidewalk Network

- Gaps:

- East side of 7th between E Main Avenue and Front Avenue
- East side of 12th between E Main Avenue and Front Avenue
- 17th St between Broadway and E Main Avenue
- East side of Airport Road between E Main Avenue and Broadway Avenue
- West side of Airport Road south of Main Avenue
- 24th St between Broadway and E Main Avenue
- North side of E Main Avenue between 24th and 26th Street
- 26th St between Broadway Avenue and Railroad Avenue



Legend

- Existing Sidewalk
- No Sidewalk
- BNSF Railway

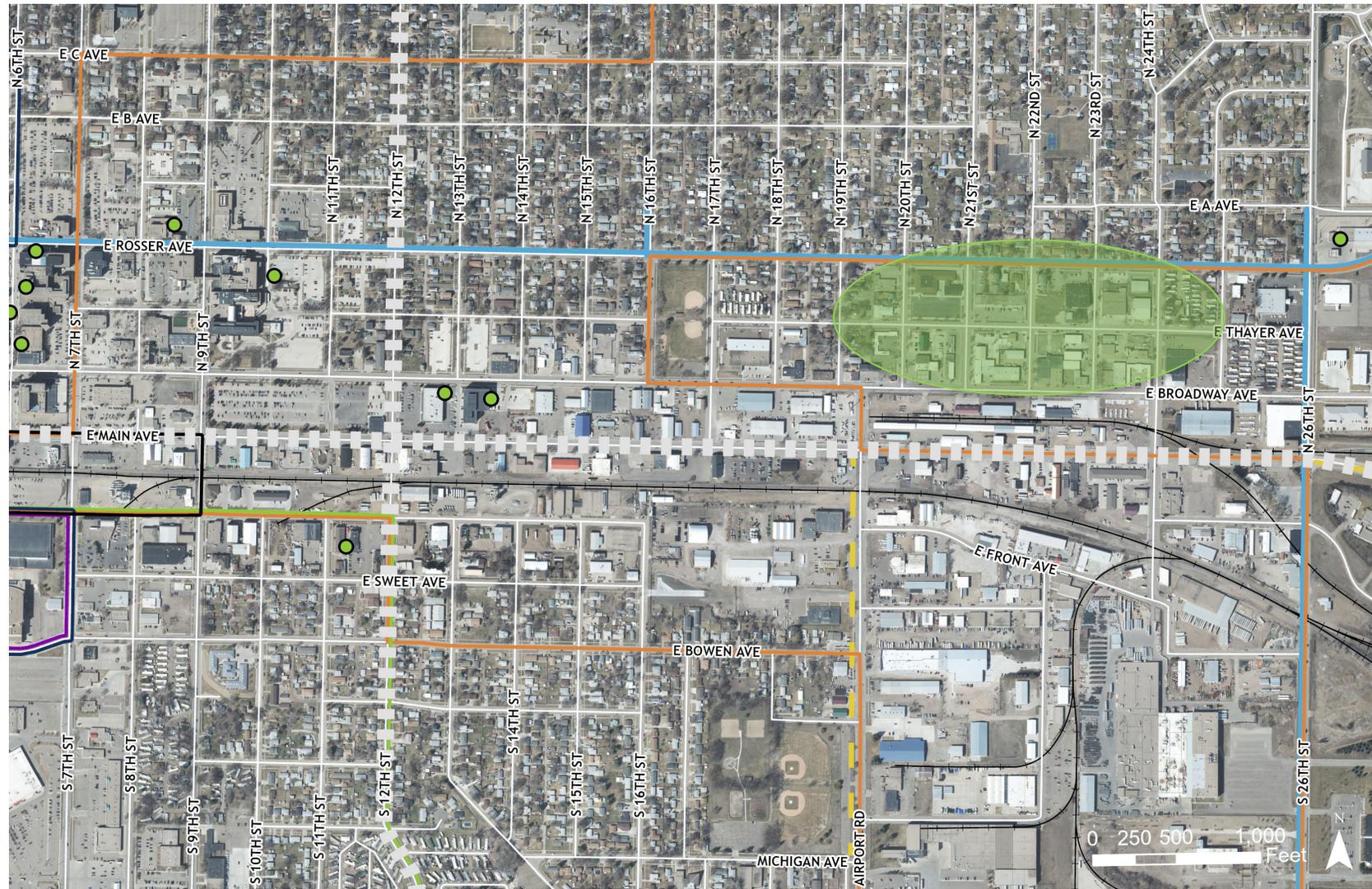
Sidewalks

Walk and Bike Issues

- Sidewalk gaps (no existing sidewalk) in areas along and adjacent to the East Main Avenue corridor
- Private access (more opportunity for pedestrian and vehicular conflicts)
- Safe pedestrian crossing locations from 12th Street and Airport Road (2,820') and Airport Road to 24th Street (1,757')
 - These are significant distances a pedestrian may travel to find a signal with a designated pedestrian crossing
 - May lead to pedestrian frustration and risk-taking when crossing East Main Avenue between designated locations

Transit

- Strong multimodal consideration along East Main Avenue
- Routes 1 and 5 run along the corridor
- Transit access is critical north of East Main Avenue (green oval)
- Bismarck Motor Hotel experiences frequent paratransit use



Legend

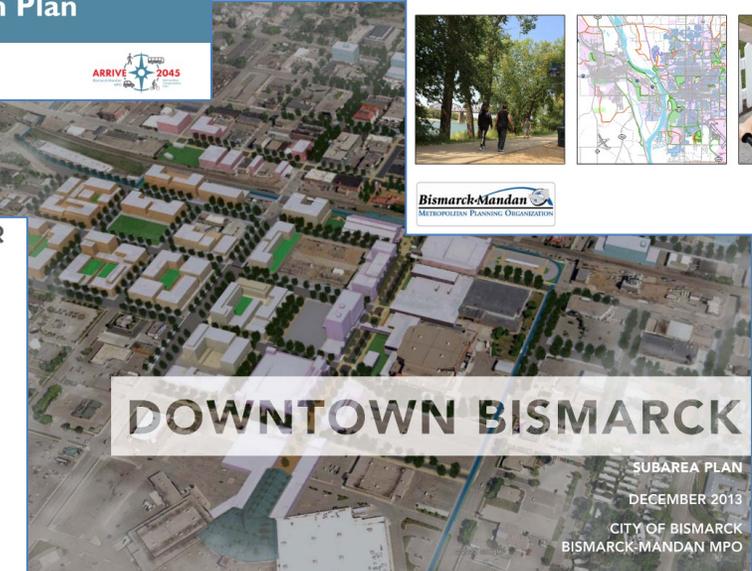
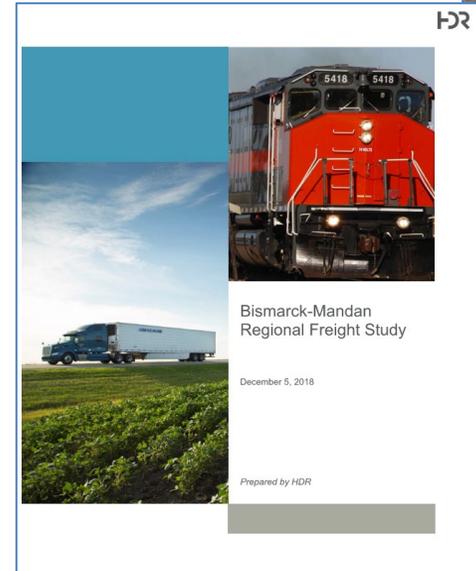
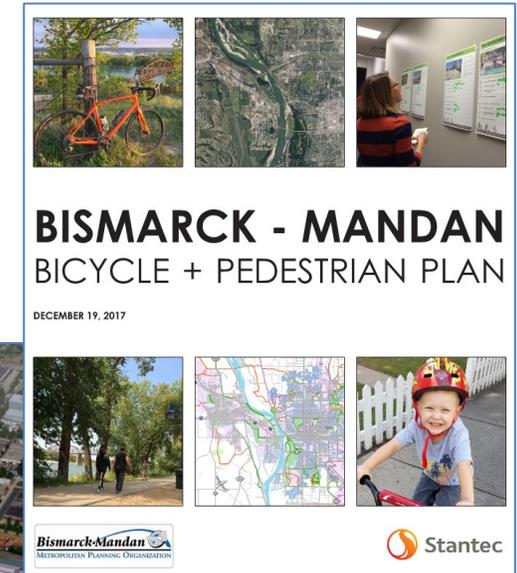
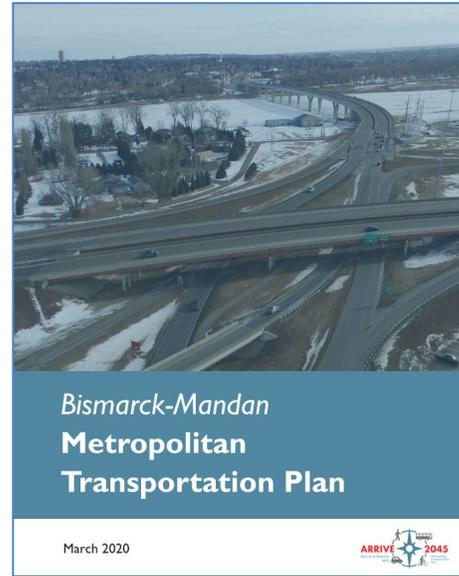
- Bike Rack
- BicycleLanes_Clip
- Proposed Trail
- Transit Routes
- 1 Black Route
- 2 Blue Route
- 3 Green Route
- 5 Route Orange
- 6 Purple Route
- Bike and Ped Plan Priority Connections

Multimodal Systems

Existing Plans

- Bismarck-Mandan Metropolitan Transportation Plan
- Downtown Bismarck Subarea Plan
- Bismarck-Mandan Bicycle + Pedestrian Plan
- Bismarck-Mandan Regional Freight Study

- In Progress
 - Comprehensive Plan



Related Plans

- *Together 2045* – Bismarck Comprehensive Plan (ongoing)
 - Plan will guide future growth and development in Bismarck
 - Continue collaboration
 - East Main Avenue Corridor Study will need to provide more specific direction that fits within the framework of *Together 2045*
 - Anticipated completion date December 2022

Home » Government » Departments » Community Development » Planning » Bismarck Comprehensive Plan "Together 2045"

Advisory Boards and Commissions

Census 2020

Bismarck Comprehensive Plan "Together 2045"

City Zoning Ordinance

Downtown Programs

General Documents

HUD Grant Programs

Land Use/Development Process

Neighborhood Parks and Open Space

TOGETHER 2045
Bismarck's Comprehensive Plan

About

The City of Bismarck Community Development Department is conducting an update of the area's comprehensive plan titled **Together 2045 – Bismarck's Comprehensive Plan**. A comprehensive plan is used by communities as the guiding document for future growth and development of the physical, social, and economic environment of a community. The plan will set forth a variety of goals, policies, and recommendations to guide the present and future development of the Bismarck area.

Together 2045 will address the following elements:

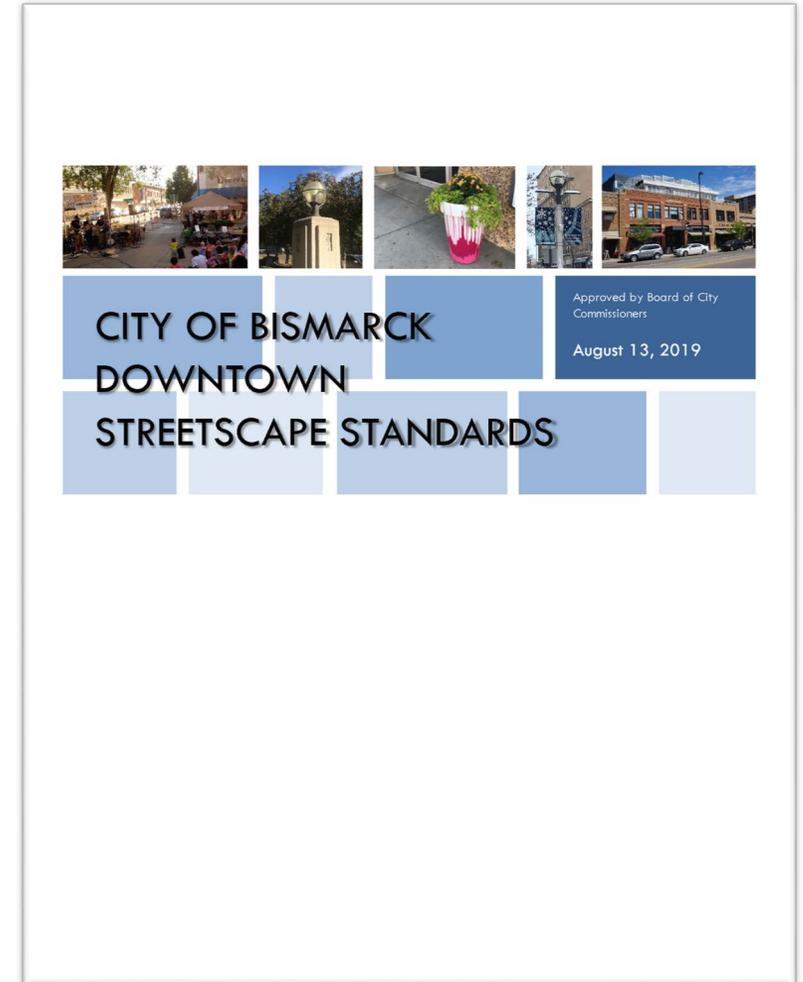
- Bismarck's Growth History
- Community profile
- Land Use and Urban Form (Future Land Use, Existing Neighborhoods, and Downtown)
- Community Facilities (Schools, Parks, Intergovernmental Cooperation)
- Transportation
- Utilities
- Social (Arts and Culture, Recreation, and Governance and Participation)
- Natural Resources
- Natural Hazards
- Growth Management
- Economy
- Housing

www.bismarcknd.gov/together2045



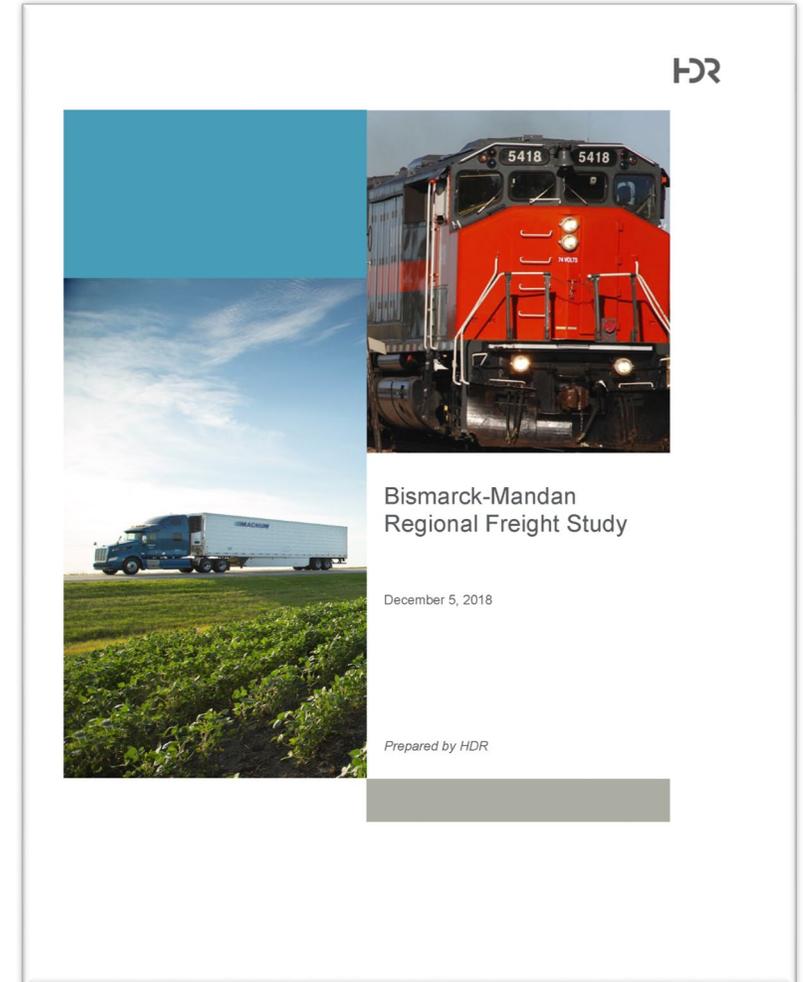
Related Plans

- City of Bismarck Downtown Streetscape Standards (2019)
 - Standards for urban design and pedestrian environment within the public right-of-way for Downtown Bismarck
 - Key takeaways:
 - Between 7th and 9th Street, East Main Avenue is identified as a Signature Street
 - Functions as the epicenter of commercial and entertainment activity, and a public gathering space.
 - Multimodal, balances vehicular travel and significant pedestrian activity
 - Intersects with three Secondary Urban Streets
 - 7th Street, 8th Street, and 9th Street



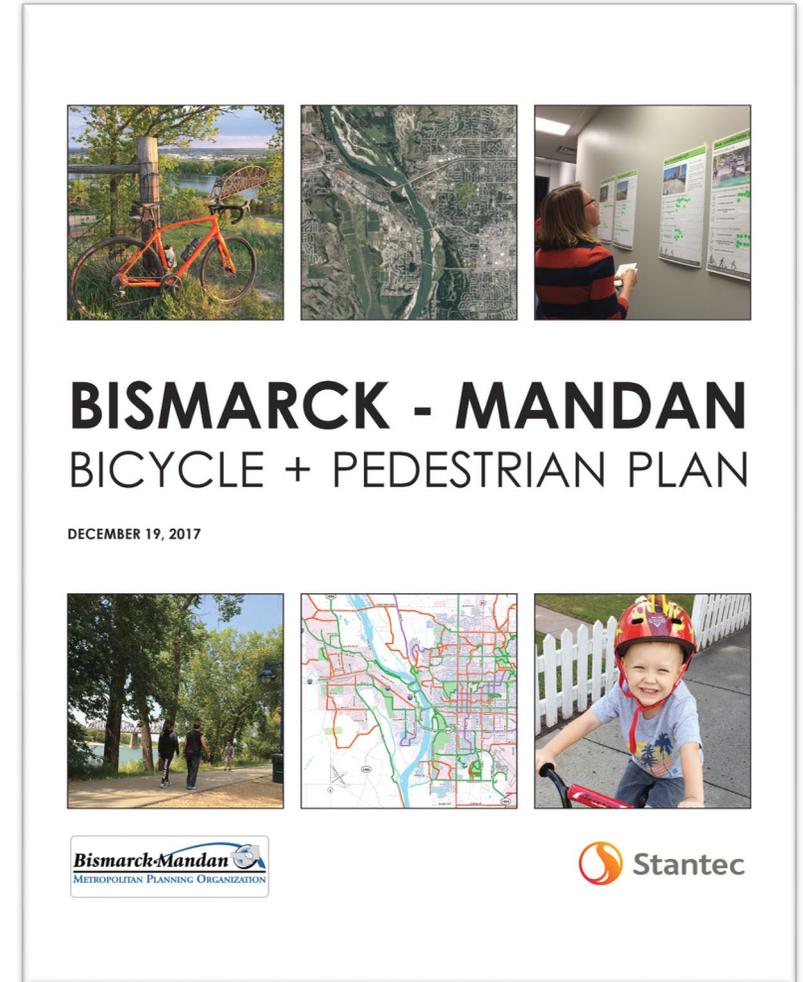
Related Plans

- Bismarck-Mandan Regional Freight Study (2018)
 - Plan to improve freight movement in the region
 - Key takeaways:
 - NDDOT classifies East Main Avenue as a Critical Urban Freight Corridor
 - The corridor is also part of Bismarck's designated truck route for actual or gross vehicle weight of 10,000 pounds or more
 - East Main Avenue also proposed as an Urban Strategic Freight Level 2 (regional/intrastate)
 - No specific project identified for East Main Avenue however, strategies identified in the Freight Study will contribute to the overall recommendations for the freight improvements in the region.



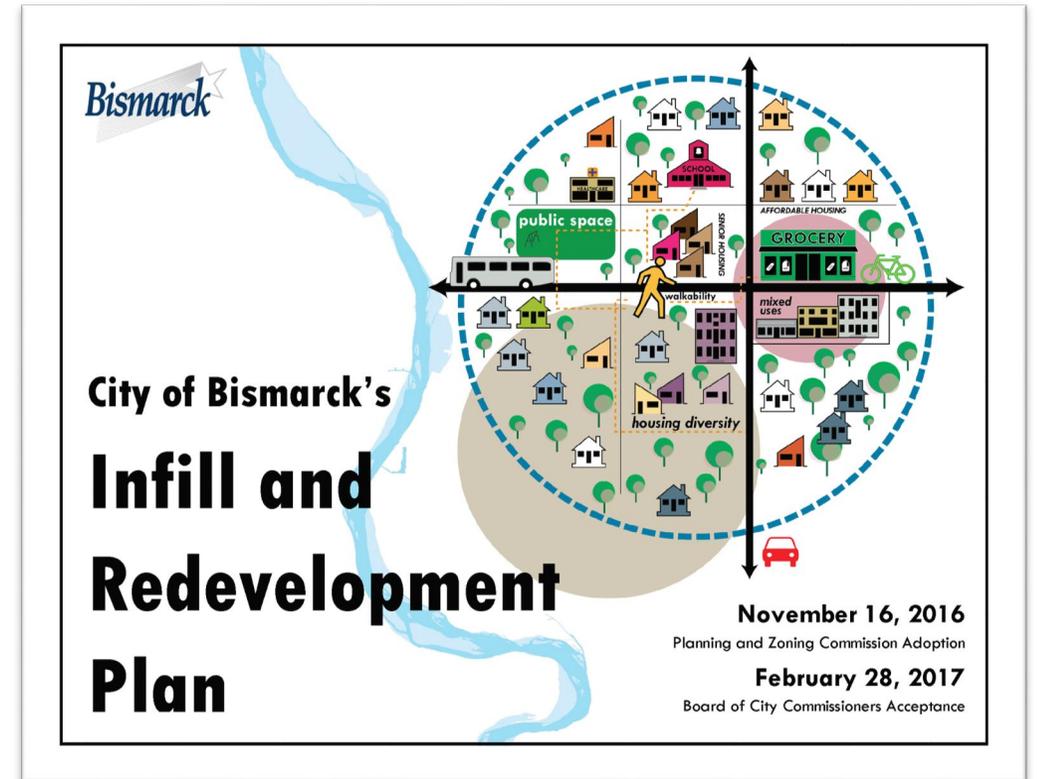
Related Plans

- Bismarck-Mandan Bicycle + Pedestrian Plan (2017)
 - Plan to support, grow, and advance bicycling and walking as a safe, comfortable, and reliable mode of transportation in the region
 - Key takeaways:
 - Increase bike and ped trips
 - Connect biking and walking trips to popular community destinations and transit system
 - Build a safe and comfortable bike and ped system
 - East Main Avenue was identified by the public as a top (second) priority connection
 - 12th Street, which bisects the corridor was also ranked as top priority connection



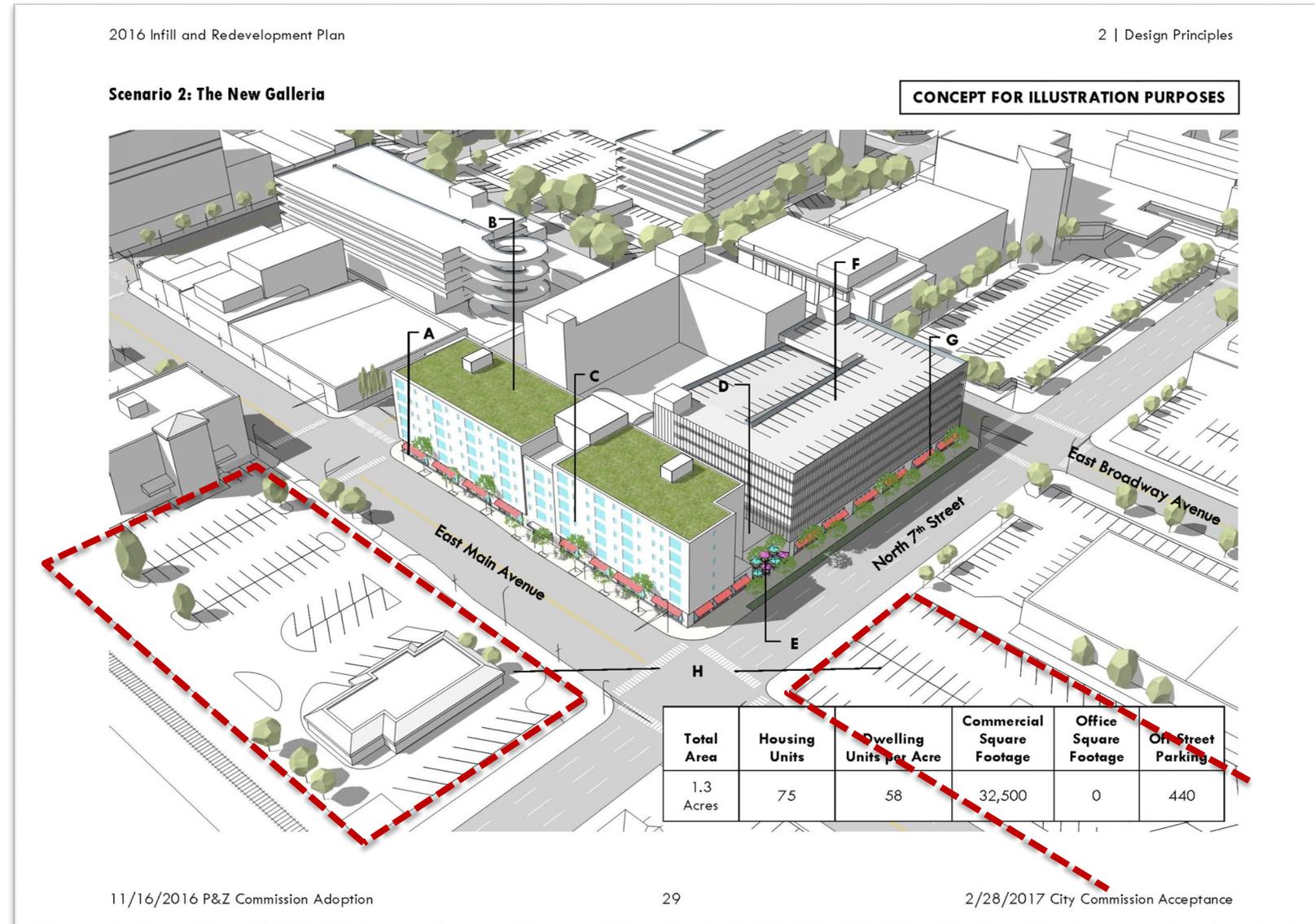
Related Plans

- Bismarck Infill and Redevelopment Plan (2016)
 - Plan addresses growth within Bismarck’s existing footprint through (1) infill, the development of vacant or underutilized lands; and (2) redevelopment or the replacing, remodeling, or reusing existing structures/land to accommodate new development
 - Key takeaways:
 - Implementation momentum, “The New Galleria”, a three-story mixed use development, is nearing completion on the northwest corner of 7th Street and East Main Avenue
 - See following slide



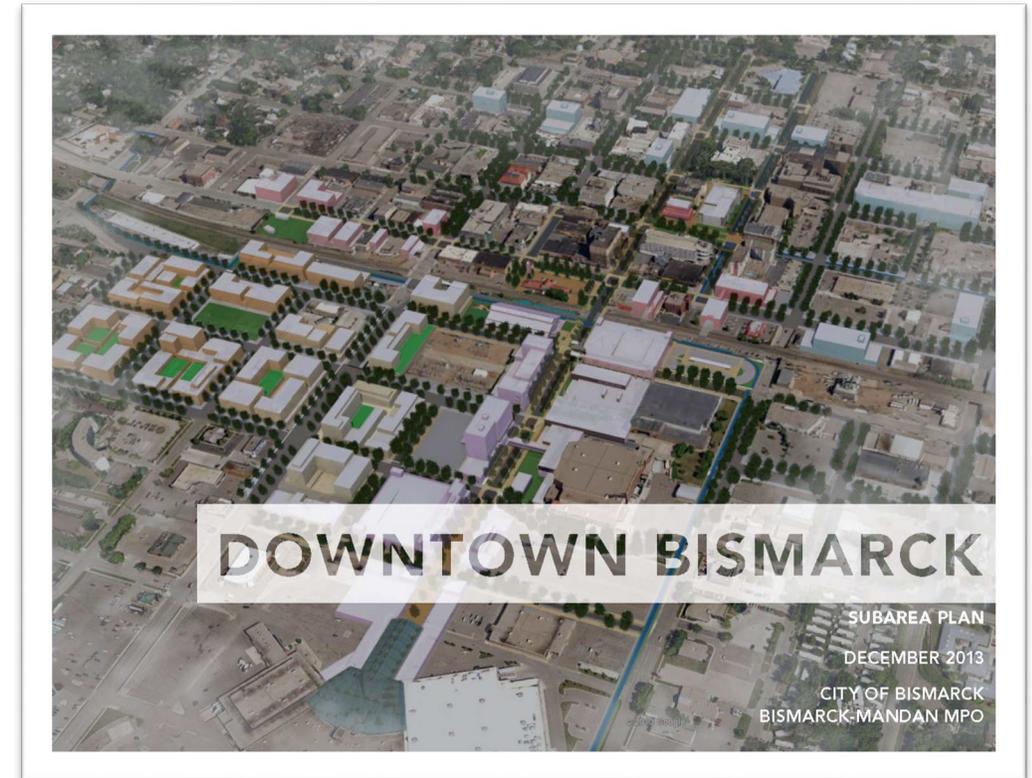
Related Plans

- Bismarck Infill and Redevelopment Plan (2016)
 - The New Galleria (in progress)
 - Callout 'H' identifies:
 - Adjacent parcels to the south and east are underutilized.
 - May be candidates for future redevelopment opportunities.
 - Depends on demand for further downtown development.



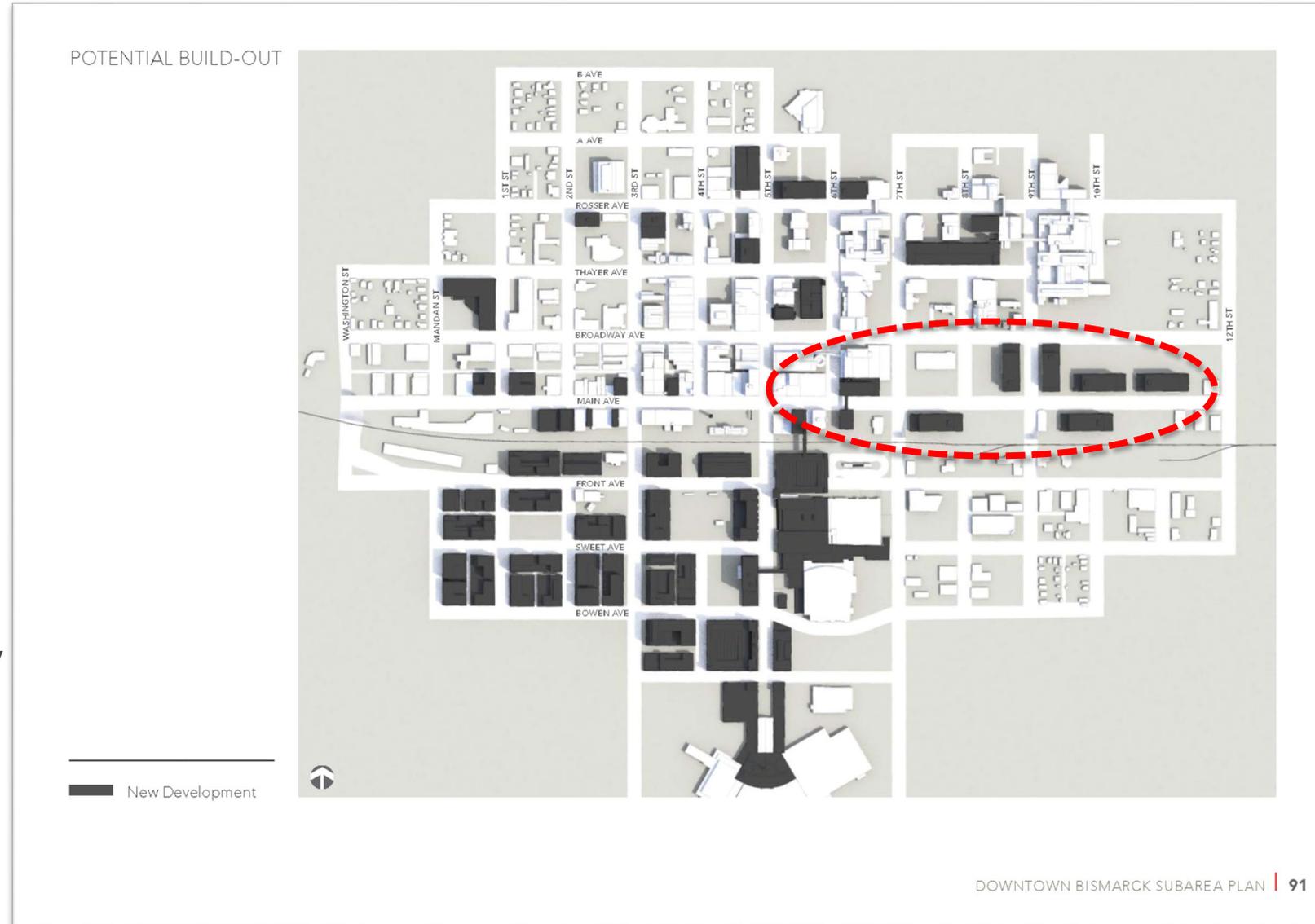
Related Plans

- Downtown Bismarck Subarea Plan (2013)
 - Plan identifies urban design and complete streets frameworks to guide the development and revitalize Bismarck's downtown
 - Emphasis on implementation
 - Key takeaways:
 - Main Avenue construction project from west of Washington St to 7th Street (project complete)
 - Included a road diet, bulb-outs, signals, ADA ramps, and pavement markings
 - Mixed use development recommendation on the northwest corner of 7th Street & East Main Avenue (expanded upon in Infill and Redevelopment Plan)
 - See following slide



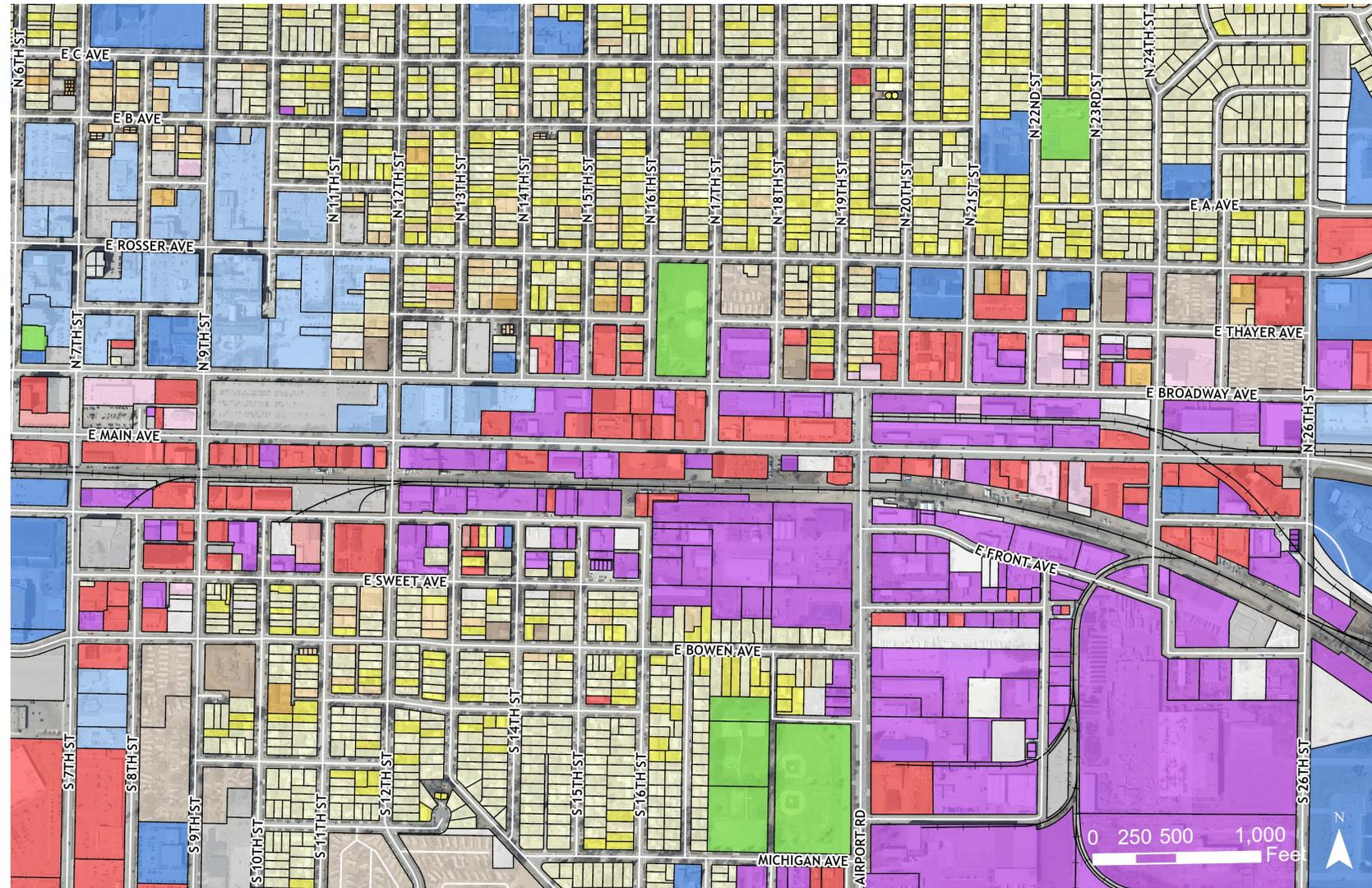
Related Plans

- Downtown Bismarck Subarea Plan (2013)
 - Potential build-out shows several new development opportunities along E Main Avenue near the study area:
 - NW corner of 7th Street and E Main Avenue
 - SE corner of 7th Street and E Main Avenue
 - Along 9th Street between E Main Avenue and Broadway
 - Along E Main Avenue from 9th Street to 12th Street



Land Use

- Corridor is made up of several existing land uses
 - Commercial Mixed
 - Commercial
 - Industrial
 - Office
 - Health and Medical
 - Institutional



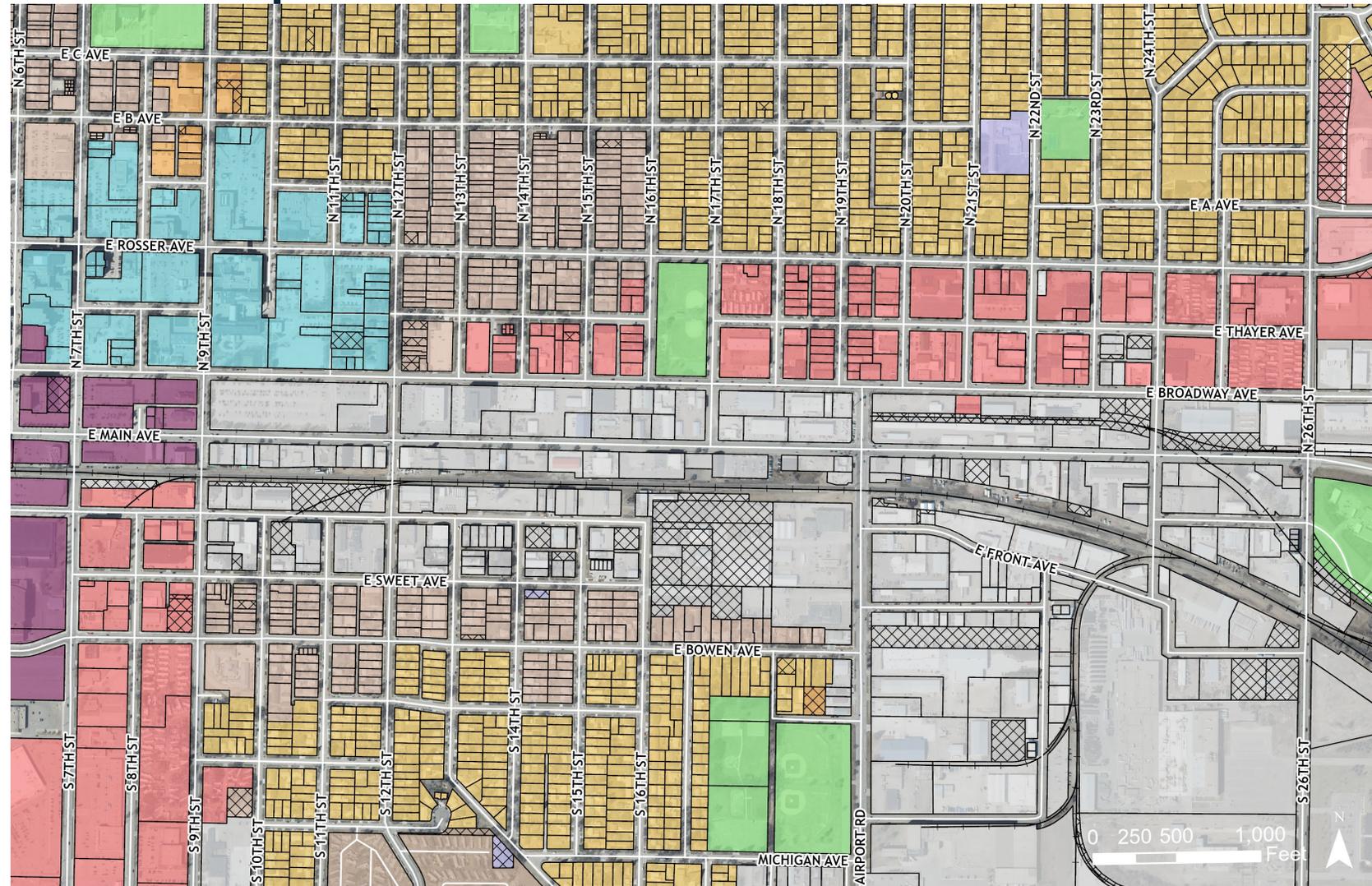
Legend

BNSF Railway	Industrial	Residential Institutional	Transportation & Infrastructure Undeveloped
City Parcels	Institutional	Residential Manufactured	
Commercial	Leisure	Residential Medium Density	
Commercial Mixed	Office	Residential Single Family	
Health & Medical	Residential High Density	Residential Two Family	

Existing Land Use

Zoning & Vacant Properties

- Corridor is made up of two zoning classifications
 - Downtown Core (DC)
 - Light Industrial (MA)



Legend

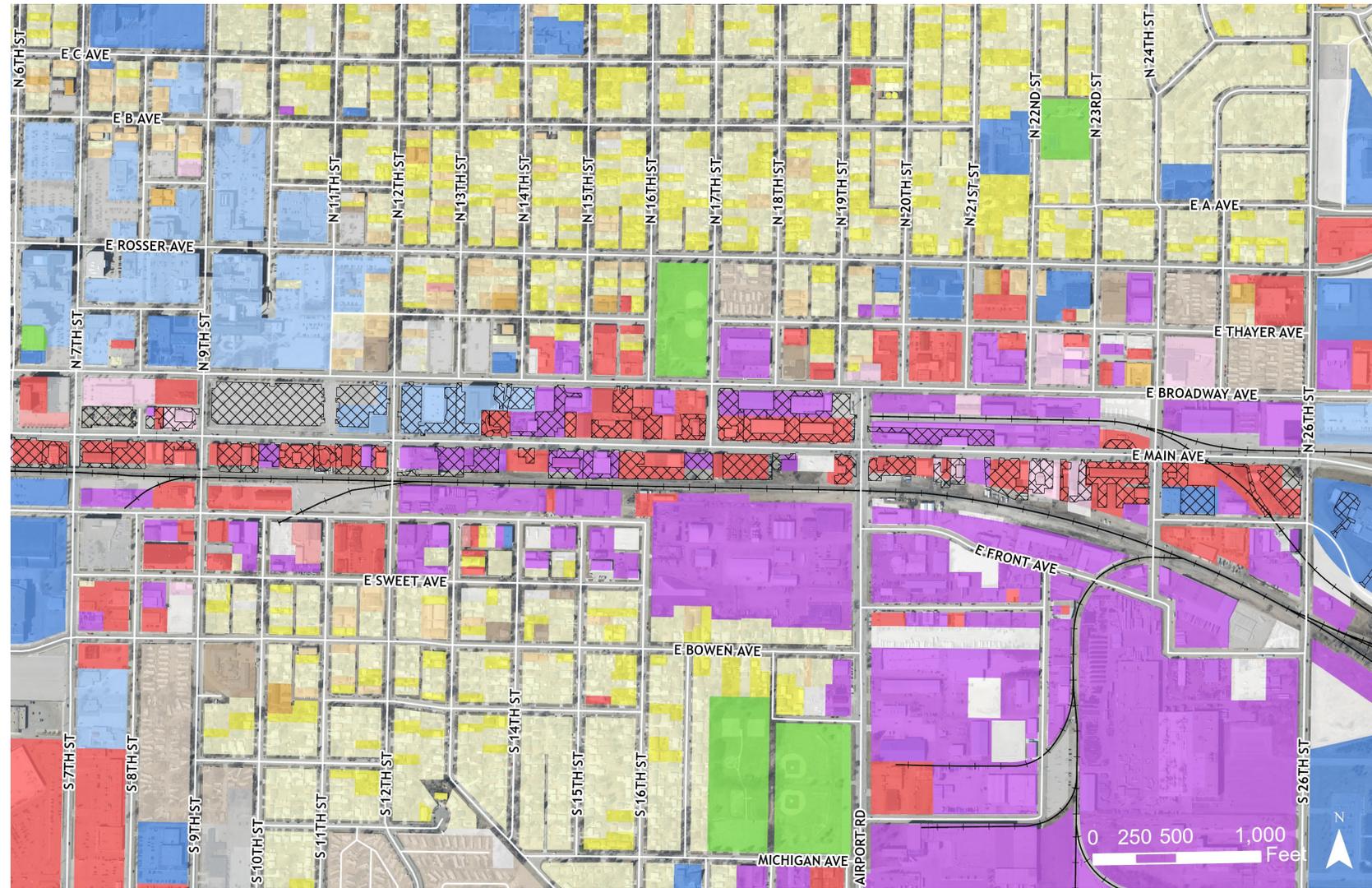
- | | | | | | | | |
|---|-------------------------|---|------------------|---|-----|---|---------------------------------|
| + | BNSF Railway | ■ | Downtown Core | ■ | N/A | ■ | Multi-Family Residential |
| □ | City_Parcels | ■ | Downtown Fringe | ■ | ■ | ■ | Manufactured Home Park |
| ■ | Neighborhood Commercial | ■ | Health-Medical | ■ | ■ | ■ | Office-Multi-Family Residential |
| ■ | Heavy Commercial | ■ | Light Industrial | ■ | ■ | ■ | Vacant |

Zoning and Vacant Property



Parking Lots and Circulation

- Off-street parking and circulation areas along E Main Avenue
 - Excludes fenced storage areas and vacant properties
 - May represent unfriendly pedestrian environments



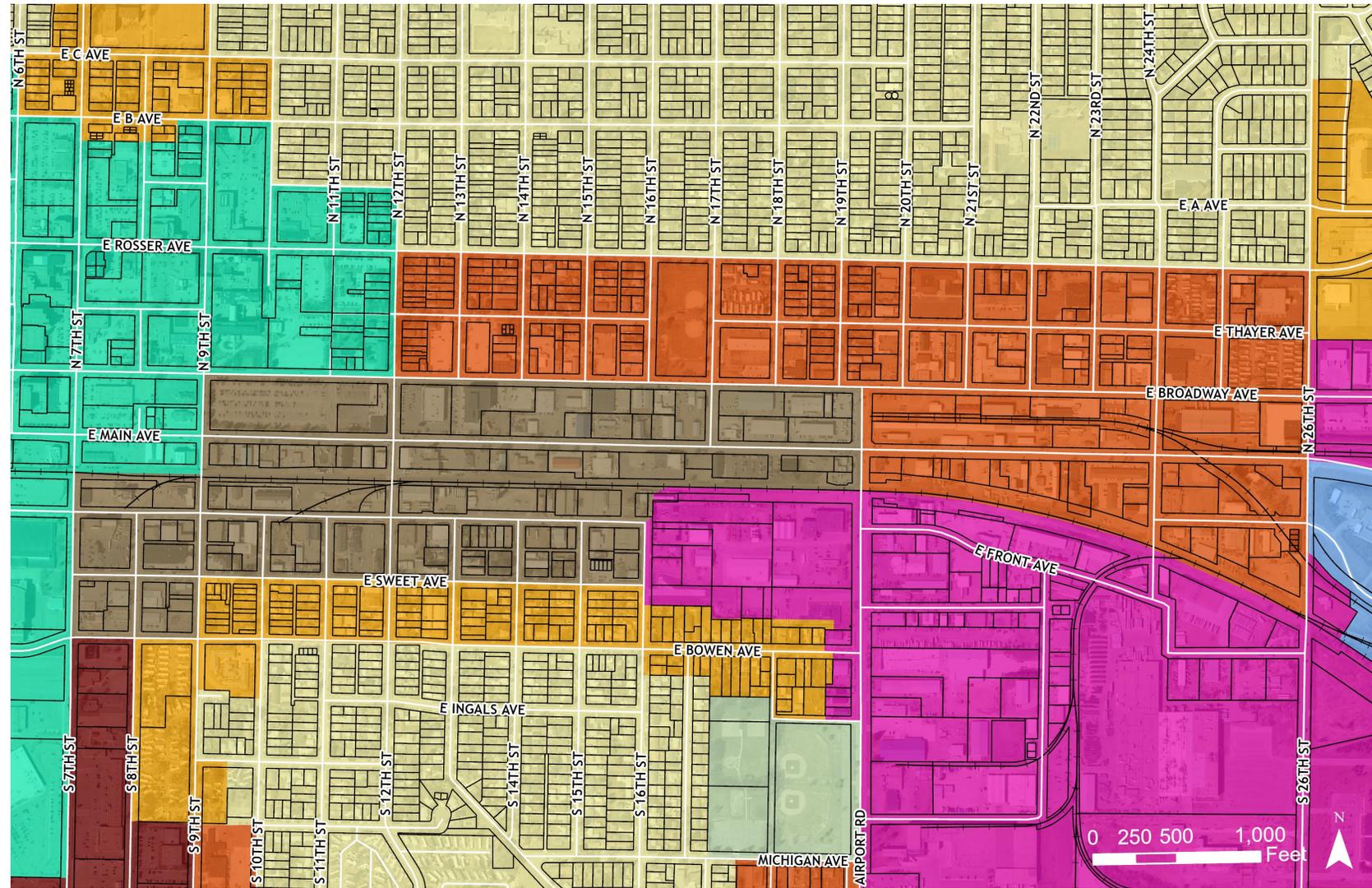
Legend

- | | | | | | | | |
|------------|------------------|--------|---------------------------|-------------|---------------------------------|--------------|------------------------------------|
| + | BNSF Railway | Blue | Institutional | Light Brown | Residential Manufactured | White | Undeveloped |
| Red | Commercial | Green | Leisure | Orange | Residential Medium Density | White with X | Off-Street Parking and Circulation |
| Light Blue | Commercial Mixed | Pink | Office | Yellow | Residential Single Family | | |
| Light Blue | Health & Medical | Orange | Residential High Density | Yellow | Residential Two Family | | |
| Purple | Industrial | Brown | Residential Institutional | Grey | Transportation & Infrastructure | | |

Off-Street Parking and Circulation

DRAFT Future Land Use

- Designations in the project area include:
- Downtown
 - Heart of the community, historic center of Bismarck.
- Industrial Mixed Use
 - Vibrant mixed use district, arts and entertainment emphasis.
- Community Mixed Use
 - Places of commerce, employment, and residence.
- Industrial Flex
 - Flexible employment centers for a range of businesses.



Legend

- | | | |
|------------------------------|-----------------------------|-----------------------------|
| — BNSF Railway | Community Mixed Use (CMU) | Industrial Mixed Use (IMU) |
| City_Parcel | Destination Mixed Use (DMU) | Institutional (INS) |
| Urban Neighborhood (UN) | Downtown (DT) | Parks and Open Space (PKOS) |
| Neighborhood Mixed Use (NMU) | Industrial Flex (IF) | |

DRAFT Future Land Use

Environmental Justice (EJ)



- EJ Populations

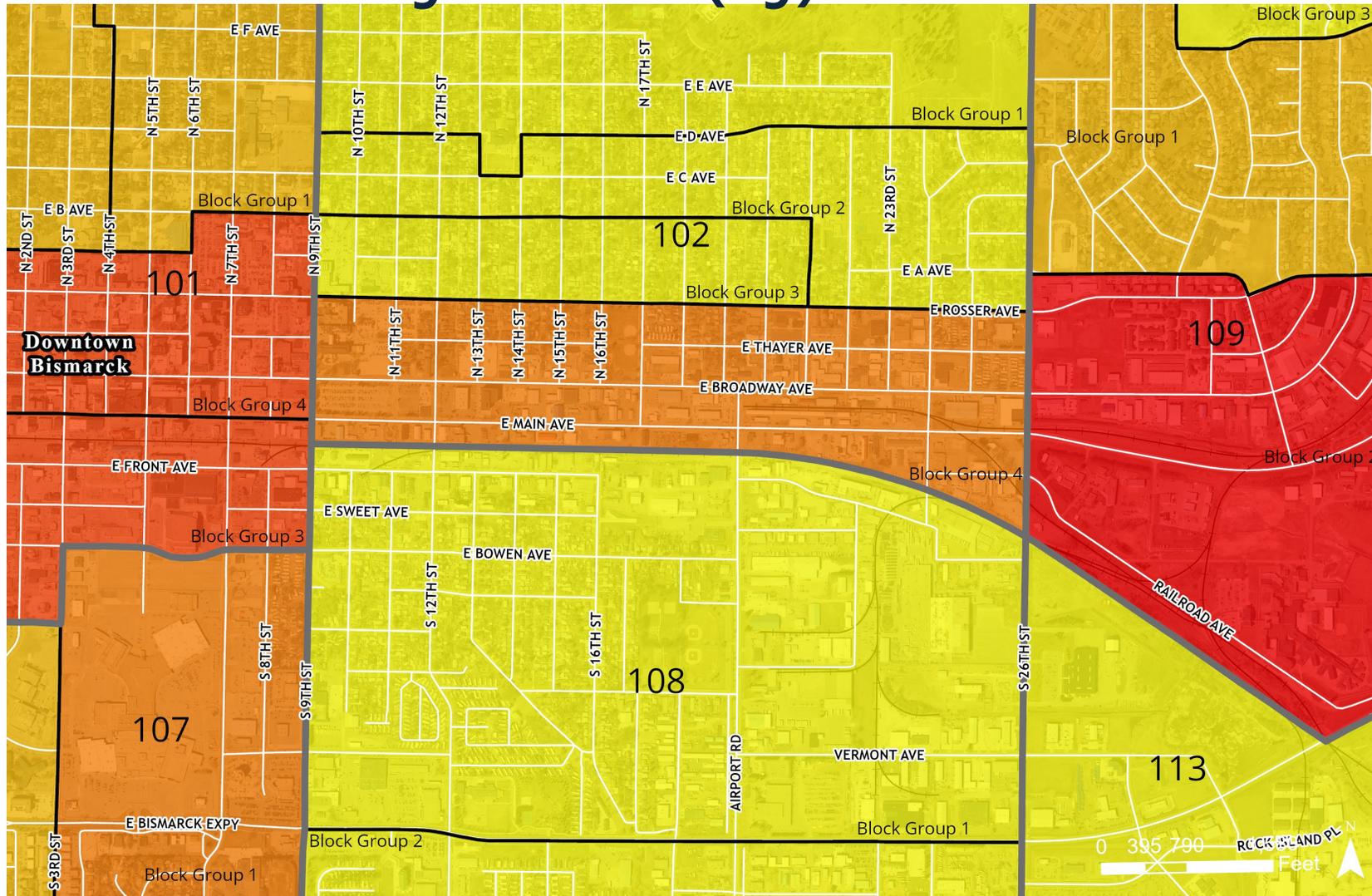
- 2016-2020 American Community Survey (ACS) five-year estimates were evaluated to identify areas of:
 - Low-income
 - Minority
 - Senior (65+)
 - Youth (non-driving or younger than 15)
 - Disabled

Environmental Justice (EJ)

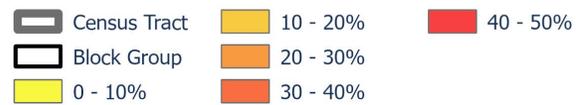


Tract (T) & Block Group (BG)	Pop.	HHs	0-veicle HH	Poverty	% Senior	% Disability	Mean travel time to work (minutes)	% non-white	% Youth
T101, BG1	799	445	1.8%	13.5%	5.5%	2.2%	14.5	20.5%	18.4%
T101, BG2	1,012	395	14.2%	12.7%	18.7%	12.8%	15.0	19.1%	13.0%
T101, BG3	541	435	41.6%	31.5%	19.0%	20.0%	19.1	24.4%	21.3%
T101, BG4	698	552	25.9%	30.3%	14.7%	0.0%	15.4	16.2%	0.0%
T102, BG1	1,792	648	9.3%	4.9%	37.0%	6.8%	15.3	13.6%	6.4%
T102, BG2	1,414	707	0.0%	7.5%	8.4%	17.6%	13.3	16.5%	24.1%
T102, BG3	774	398	6.5%	8.5%	10.5%	3.8%	17.3	20.3%	0.4%
T102, BG4	671	309	3.6%	22.0%	15.6%	24.6%	18.2	41.0%	5.3%
T107, BG1	1,174	533	0.0%	27.4%	12.9%	12.4%	20.9	22.9%	21.0%
T107, BG2	1,102	469	6.4%	14.7%	11.4%	11.8%	11.1	35.8%	8.0%
T107, BG3	1,723	707	1.3%	1.4%	15.0%	10.0%	22.4	8.7%	22.0%
T108, BG1	1,813	990	10.1%	8.2%	17.2%	16.6%	13.4	22.1%	16.6%
T108, BG2	1,743	843	7.4%	4.9%	14.3%	7.3%	18.6	25.3%	18.0%
T109, BG1	1,833	695	1.6%	15.5%	24.5%	7.5%	16.9	8.6%	17.1%
T109, BG2	1,316	278	18.0%	42.4%	7.9%	22.6%	14.8	35.4%	6.3%
T109, BG3	1,877	934	1.8%	1.2%	16.9%	5.3%	27.1	7.6%	23.1%
T113, BG3	1,987	576	5.2%	9.4%	4.8%	2.1%	21.3	22.7%	39.9%

Environmental Justice (EJ)



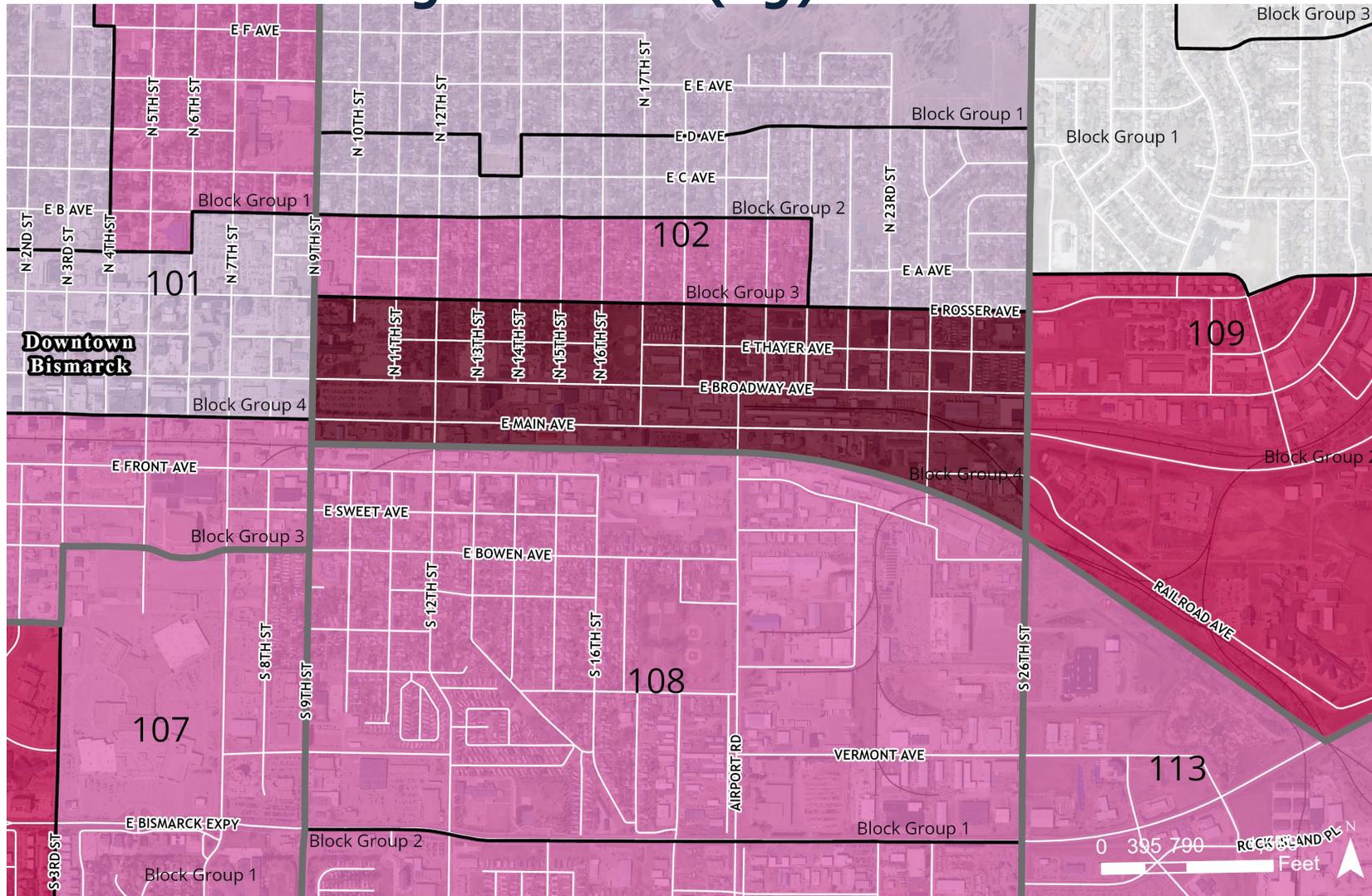
Legend



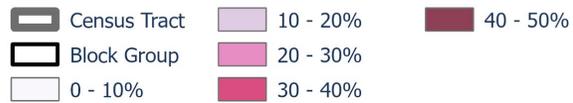
Population Below Poverty



Environmental Justice (EJ)



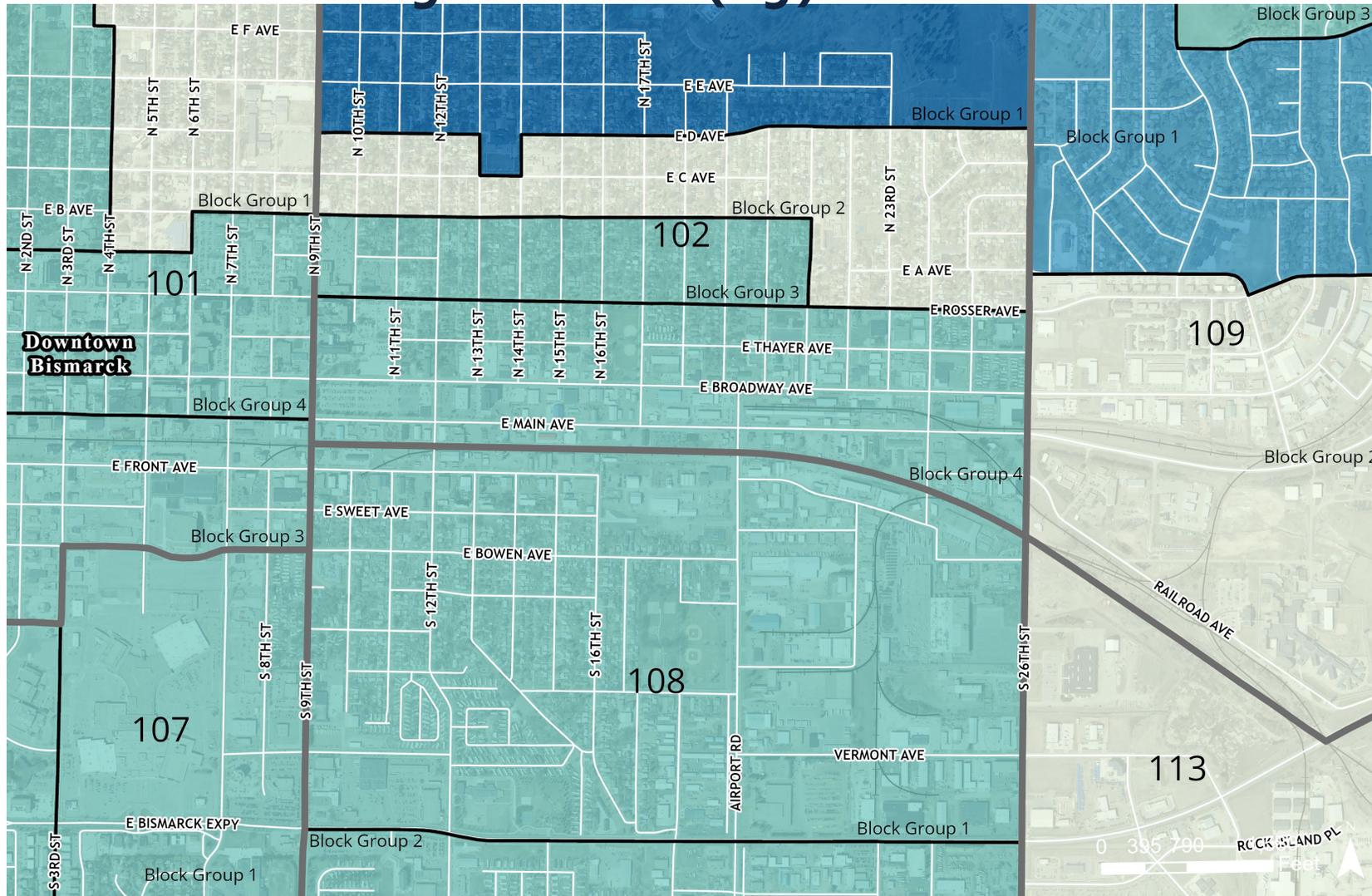
Legend



Non-White Population



Environmental Justice (EJ)



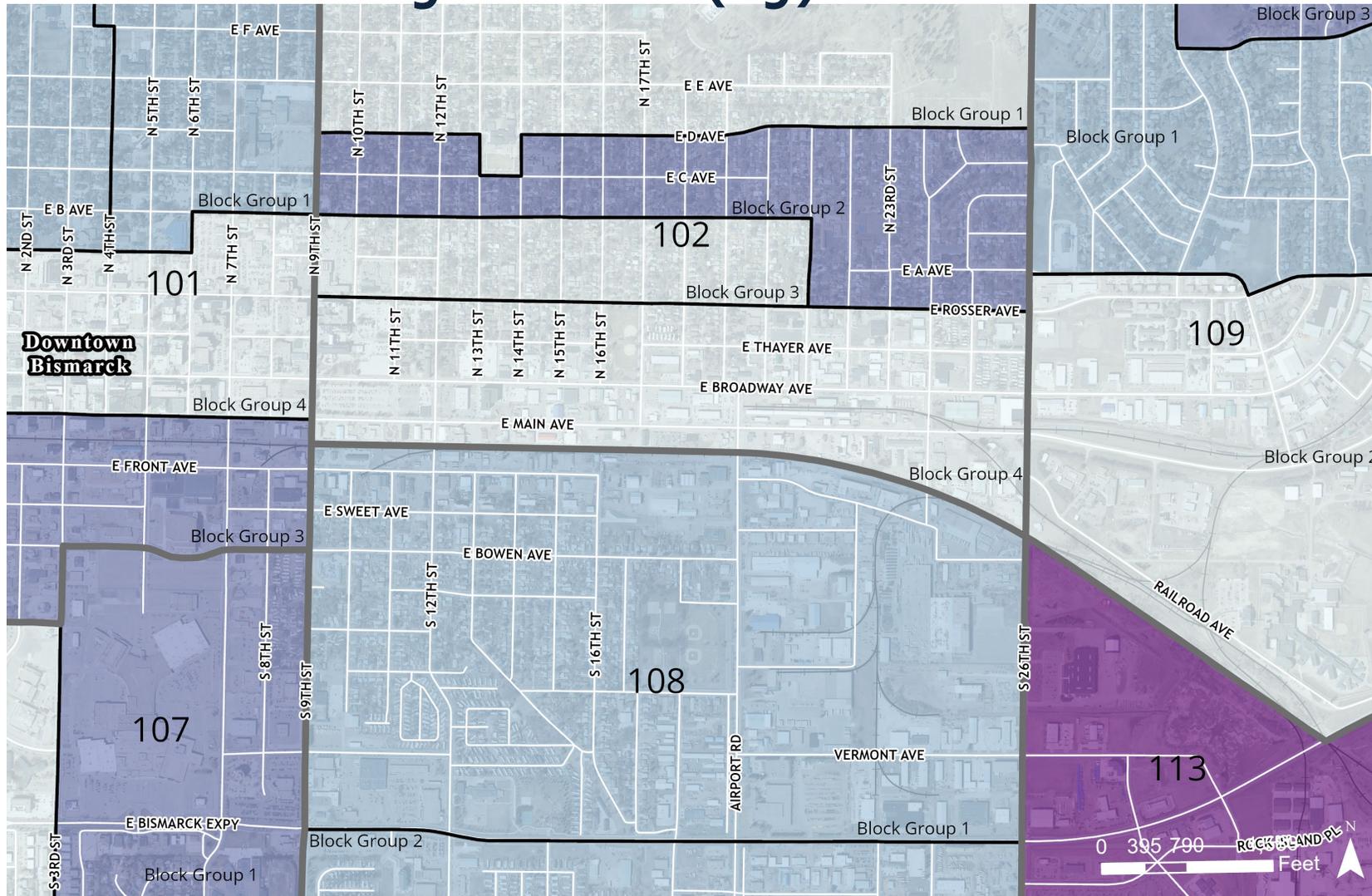
Legend

- | | |
|--------------|----------|
| Census Tract | 10 - 20% |
| Block Group | 20 - 30% |
| 0 - 10% | 30 - 40% |

Population Age 65+



Environmental Justice (EJ)



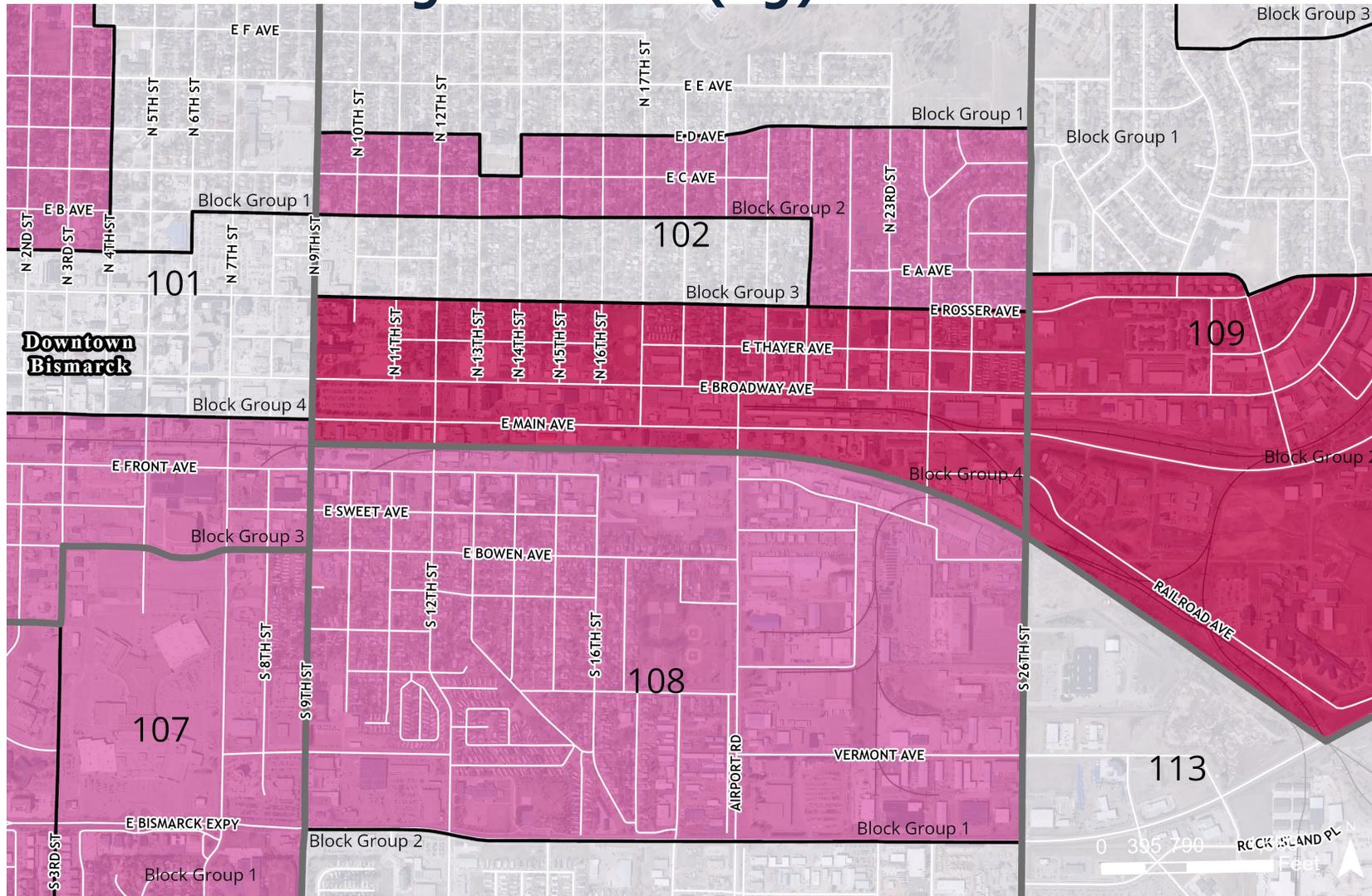
Legend

- | | |
|--------------|----------|
| Census Tract | 10 - 20% |
| Block Group | 20 - 30% |
| 0 - 10% | 30 - 40% |

Population Age ≤15



Environmental Justice (EJ)



Legend

-  Census Tract
-  Block Group
-  0 - 10%
-  10 - 20%
-  20 - 30%

Population with Disability



Summary of Issues/Needs

Purpose

The purpose is to achieve the following goals for East Main Avenue, from 7th Street to 26th Street, in the year 2045:

- Improve the aging corridor pavement
- Ensure all modes of transportation are safely and comfortably accommodated
- Support the highest and best use of property fronting the corridor
- Minimize detrimental impacts to adjacent corridors

Need

- ✓ Pavement deterioration
- ✓ Snow control/maintenance
- ✓ Safety concerns throughout corridor – crash history, access, pedestrian, & bike
- ✓ Pedestrians and bikes– gaps & comfort
- ✓ Environmental justice populations – access & mobility needs
- ✓ Maintain freight access
- ✓ Redevelopment accommodation/ economic development pressure

Public Engagement Update



The Bismarck-Mandan Metropolitan Planning Organization and the City of Bismarck are reaching out to corridor property owners, businesses, the community, and others to envision how the corridor can best serve everyone in 2045. Study topics include traffic, walking, biking, transit, and development opportunities.

SHARE YOUR INPUT!

PROPERTY AND BUSINESS OWNER OPEN HOUSES

★ Wednesday, July 13

8 - 9:30am, 11:30am - 1pm, 4:30 - 6pm

◆ Wednesday, November 30

8 - 9:30am, 11:30am - 1pm, 4:30 - 6pm

City-County Office Building,
First Floor Conference Room

221 N 5th St., Bismarck, ND 58506

*(Enter at 5th St. entrance,
turn to the left and down the hall)*

COMMUNITY WORKSHOPS

★ Thursday, July 14

4:30 - 6pm

◆ Thursday, December 1

4:30 - 6pm

Bismarck High School,
Gilbreath Auditorium Commons

800 N 8th St., Bismarck, ND 58501

*(Use Avenue E entrance from the parking
lot on the north side of the campus)*

★ *Learn and provide feedback on issues and opportunities along the corridor*

◆ *Learn and provide feedback on different corridor improvement alternatives*

CONTACT

Scott Harmstead, AICP
SRF Consulting Group | 701.354.2405
sharmstead@srfconsulting.com

WEBSITE

WWW.EASTMAINSTUDY.COM



Public Engagement Update



INSTRUCTIONS

- 1** ADD your ideas to the map by clicking "Add Comments" to place icons using the menu bar below.
- 2** Describe your comment in the text box that pops up.
- 3** Click Submit.

PROVIDE YOUR INPUT!

COMMENT CATEGORIES



LEGEND



East Main Avenue Corridor Study Welcome Share 0 Draft Project

The map displays the East Main Avenue corridor in Bismarck, North Dakota, highlighted in blue. The corridor runs east-west through the city. Key landmarks and streets visible include Sanford Medical Center, St. Alexius Medical Center, Bismarck High School, Rita Murphy Elementary School, and the North Dakota State Penitentiary. Major roads like I-94 and I-58 are also shown. The map interface includes a search bar, zoom controls, and a scale bar (300m).



Next Steps

- 2045 Traffic Analysis
- Two Memos:
 - Existing Conditions
 - Issues Identification and Needs Assessment
- July 13 & 14 Events

Location: SRF Bismarck Office Conference Room/Zoom

Client: Bismarck-Mandan Metropolitan Planning Organization (MPO)

Date: September 28, 2022

Subject: East Main Avenue Corridor Study – SRC #3

Attendees: Kim Riepl, Bis-Man MPO
Mark Berg, City of Bis. Engineering
Wayne Zacher, NDDOT
Glen Hellebust, Prairie Farms Dairy, Inc.
Jason Gullicks, Apex Engineering
Scott Harmstead, SRF Consulting Group
Matt Pacyna, TC2
Daniel Nairn, City of Bis. Planning
Kate Herzog, Bismarck Downtowners
Dean Schloss, NDDOT
Sara Schmidt, SRF Consulting Group
Michael Mart, City of Bis. Engineering

Purpose of Meeting:

The purpose of this meeting was to review the topics shown below and attached in the PowerPoint that was presented at the meeting. Discussion from meeting participants is included in the “Summary of Meeting” section.

1. Summary of Initial Phase of Stakeholder and Public Engagement
2. Review Preliminary Development Opportunities
3. Review Corridor Alternatives – 5 lane & 3 lane

Summary of Meeting

Development Opportunities Review

- K. Herzog: the 3-lane configuration in Downtown has been successful from a Downtown business perspective.

Corridor Alternatives Review

- G. Hellebust: 3-lane with median would make large truck turns very difficult and rerouting would need to take place.
- M. Berg: Study should look at feasibility to make U-turns around medians at corridor intersections.
- J. Gullicks: U-turns would be difficult at intersections. On-street parking would have to be removed to make U-turns more feasible.

- M. Berg: Pedestrian crossings would need to have signals. Options include rectangular rapid flashing beacons (RRFBs) or overhead/HAWK signals. Signal types would be determined in the design phase. Note that RRFs are planned for Expressway adjacent to Perkins (near S. Washington St.).
- M. Berg: Burger Time may need more than one access point. Look at ways to provide more access for Prairie Farms Dairy.
- M. Berg: what is the number of left-hand turns per business?
- M. Mart: could the option of medians across each entire segment be looked at to maximize the reduction of left-turns and improve safety/maximize access management?
- M. Mart: the City will be installing a pedestrian crossing at 26th Street and E Main Ave.
- M. Berg: along with the Downtown conversion to 3-lanes, the City encouraged truck traffic to Front Ave. as an alternate truck route. This study should also note the need to recommend an alternative truck route for any of the 3-lane alternatives from 7th Street to 12th Street.
- G. Hellebust: why would on-street parking be needed east of 12th Street? Where is the demand?
- K. Herzog: many Downtown stakeholders have some interest in extending 3-lanes east to 12th Street, and leaving the rest of the corridor at 5-lanes.
- D. Nairn: could a minimum of 10' center turn be considered between 7th St. and 12th St.?
- J. Gullicks: alternatives can show a range of lane and sidewalk widths.
- D. Narin: the Downtown Bismarck Subarea Plan supports a 3-lane configuration east to 12th Street, which also supports redevelopment opportunities in this area.
- W. Zacher: we need to look at the complete streets concept (i.e., lane widths, walks, etc. – the widths could/would vary). If the intent is for Broadway Ave. to accommodate other modes, that needs to be addressed at some level.
- K. Riepl: 2016 ped/bike plan says 10' minimum for a shared use path if that is considered in the corridor.

Actions Needed

Actions Needed	Responsibility
FHWA (K. Sperry) needs to be asked to what extent do bikes as a mode need to be accommodated. Are alternative routes sufficient?	SRF
Alternative cross sections need to show some varying widths where possible in sidewalks and lanes.	SRF/Apex
Include truck route change recommendations for 7 th St. to 12 th St. 3-lane alternatives.	SRF
Change the median alternatives to complete/solid medians between signalized intersections.	SRF/Apex



Study Review Committee Meeting #3

East Main Avenue Corridor Study

Bismarck-Mandan MPO & City of Bismarck



● Agenda

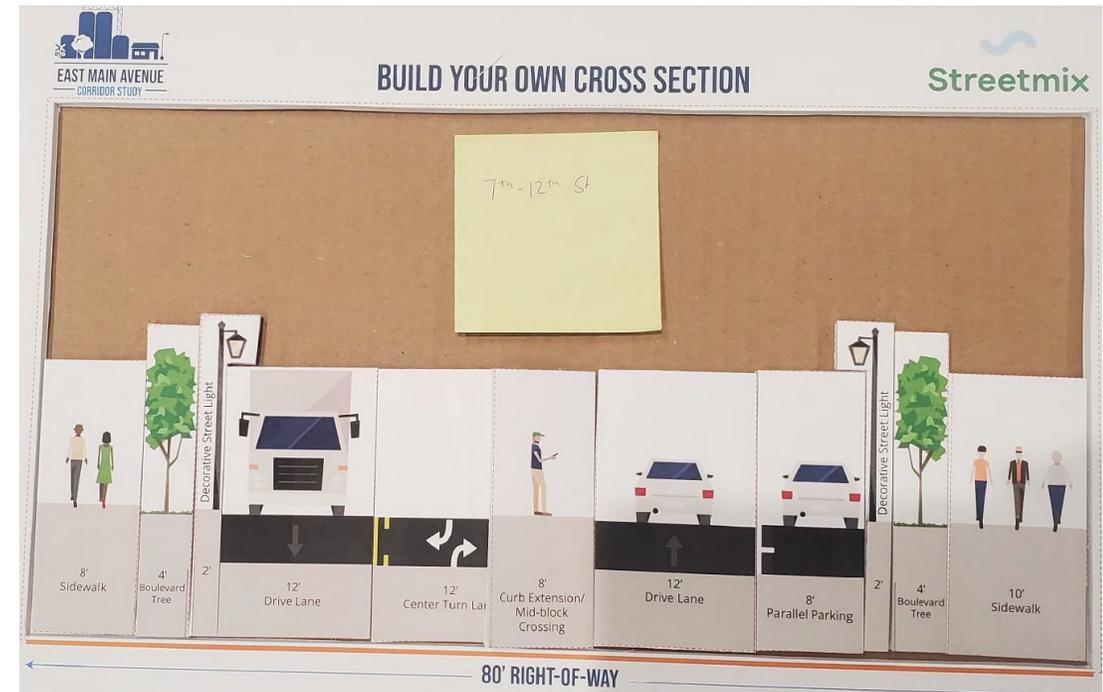
- Summary of Summer Stakeholder & Public Input
- Revisit Purpose & Need
- Review Corridor Alternatives
 - 5 lane
 - 3 lane
 - 3 lane with medians
- Review Preliminary Development Opportunities
- Next Steps

• Summer Engagement Summary

- July 13 & 14 Meetings
 - Property & Business Owner Open House
 - Community Workshop
- Individual Interviews – In-person and Phone/Zoom
- Interest Group Interviews
- Online Wikimap/Mapping Input

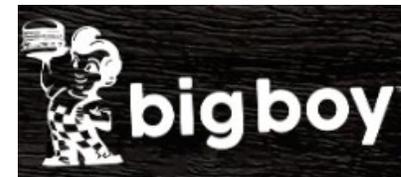
July Meetings

- Notification:
 - Traditional
 - Postcard
 - Flyer
 - Social media
- Presentation
- Activities – map with post-its, “build your own cross section”
- 9 attendees

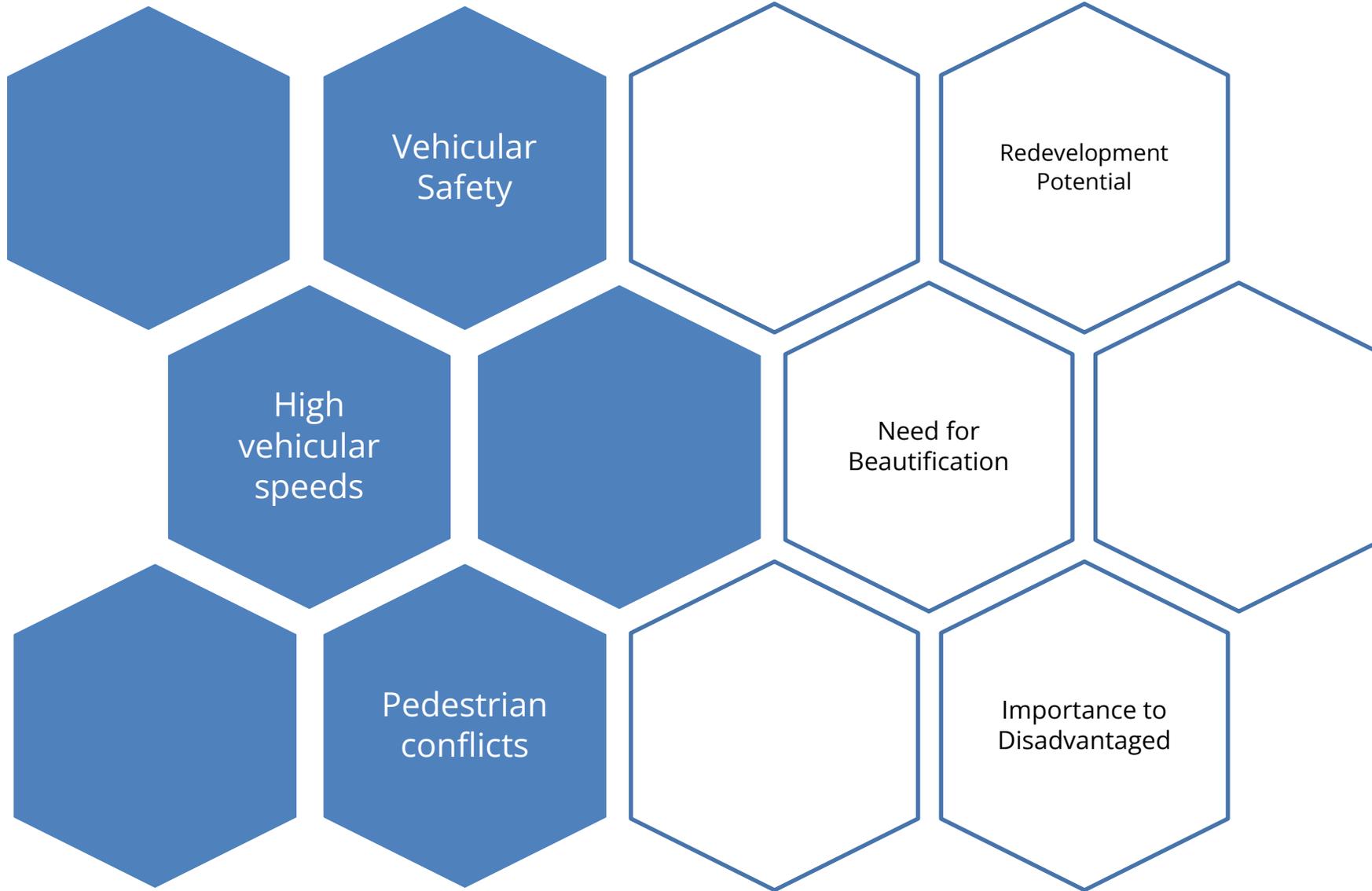


Interviews

- Timeframe: June 27 – August 23
- 11 individual owner interviews
 - Bitty Bean
 - Simonson
 - Spa's Etc.
 - Sanford
 - St. Alexius
 - Davis Group
 - Threefold
 - Window & Door Store
 - Big Boy
 - Ministry on the Margins
 - *Prairie Farms*
- 2 interest groups
 - Missouri Valley Coalition for Homeless People – Unmet Needs Committee
 - Downtown area development interest group



Interview Themes



Wikimap

- July 27 – September 5
- Categories: driving (16), safety (7), biking (1), accessibility (1), other (5)
- Driving and safety themes: **speed, intersection(signal) functionality, driveway conflicts**
- Other issues noted: 3 vs. 5 lane, poor biking/scooter mobility, snow storage, aesthetics, pedestrian crossings





Corridor Alternatives

Segment-by-Segment

Cross Sections
Layouts



Redevelopment Opportunities

7th St. to 12th St.

○ Revisiting Purpose & Need

Purpose

The purpose is to achieve the following goals for East Main Avenue, from 7th Street to 26th Street, in the year 2045:

- Improve the aging corridor pavement
- Ensure all modes of transportation are safely and comfortably accommodated
- Support the highest and best use of property fronting the corridor
- Minimize detrimental impacts to adjacent corridors

Need

- ✓ Pavement deterioration
- ✓ Snow control/maintenance
- ✓ Safety concerns throughout corridor – crash history, access, pedestrian, & bike
- ✓ Pedestrians and bikes– gaps & comfort
- ✓ Environmental justice populations – access & mobility needs
- ✓ Maintain freight access
- ✓ Redevelopment accommodation/ economic development pressure

○ Revisiting Purpose & Need – Alignment with Input

Purpose

The purpose is to achieve the following goals for East Main Avenue, from 7th Street to 26th Street, in the year 2045:

- Improve the aging corridor pavement
- Ensure all modes of transportation are safely and comfortably accommodated
- Support economic development opportunities
- Minimize detrimental impacts to adjacent corridors
- ***Image as a gateway to Bismarck/Downtown***

Need

- ✓ Pavement deterioration
- ✓ Snow control/maintenance
- ✓ Safety concerns throughout corridor – crash history, access, pedestrian, & bike
- ✓ Pedestrians and bikes– gaps & comfort
- ✓ Environmental justice populations – access & mobility needs
- ✓ Maintain freight access
- ✓ Redevelopment accommodation/ economic development pressure
- ✓ **Improve corridor image**

Next Steps

- Analysis of Alternatives & Redevelopment Potential
- SRC Meeting #4 – Early November
- November 30 & December 1 Stakeholder & Public Events

Location: SRF Bismarck Office Conference Room/Zoom

Client: Bismark-Mandan Metropolitan Planning Organization (MPO)

Date: November 16, 2022

Subject: East Main Avenue Corridor Study – SRC #4

Attendees: Kim Riepl, Bis-Man MPO Daniel Nairn, Bis-Man MPO
Mark Berg, City of Bis. Engineering Kate Herzog, Bismarck Downtowners
Wayne Zacher, NDDOT Dean Schloss, NDDOT
Glen Hellebust, Prairie Farms Dairy, Inc. Sara Schmidt, SRF Consulting Group
Jason Gullicks, Apex Engineering Krista Palmer, SRF Consulting Group
Scott Harmstead, SRF Consulting Group Dawn Kopp, Bismarck Downtowners
Deidre Hughes, Bis-Man Transit

Purpose of Meeting:

The purpose of this meeting was to review the Bismarck East Main Avenue Corridor Study initial alternatives analysis results with the Study Review Committee (SRC). The topics covered are shown below and attached in the PowerPoint that was presented at the meeting. Discussion from meeting participants is included in the “Summary of Meeting” section.

1. Alternatives Overview/Reminder
2. Alternatives Analysis Summary
3. Review Approach for Nov. 30th & Dec 1st Meetings
4. Next Steps

Summary of Meeting

- G. Hellebust: on-street parking is not needed between 12th and 26th
- M. Berg: noted that Terry’s Health Food doesn’t let trucks park in the lot, but on the street.
- M. Berg: noted that Interstate Battery has trucks
- M. Berg: noted that ADA cross slope can’t be 5% with driveways
- K. Riepl: noted that a certain group aren’t liking medians
- K. Herzog: commented that the existing one-way pairs have diverted traffic onto Broadway already
- D. Narin: asked if the future volumes take growth into account.

- K. Palmer: clarified that the results shown in the Vehicular Mobility table were weekday peak travel times and LOS. The MPO’s travel demand model was used to run the 3-lane alternative—this include regional growth and even considerations for local growth along the corridor.
- S. Schmidt: noted that there is railroad pre-emption at 7th St. and 9th St. Street signal improvements
- M. Berg: commented that it will be hard to close access at Simonson, and that there is a lot of dead space between the buildings and railroad
- S. Harmstead: commented on moving accesses near intersections and that the key focus would be offsets and turn lanes
- M. Berg: asked how much office space is expected and what type of land use is there a need for?
- K. Riepl: noted that housing is needed.
- M. Berg: commented that street level retail may work.
- D. Kopp: noted that seems reasonable to grow to the west, and commented that there should be a discussion about hospitals and how they are “playing musical chairs currently”
- D. Narin: noted that Bowen Ave. is another parallel route for pedestrians.
- D. Hughes: commented that a lot of people take transit’s Orange Route on the east side of the corridor.
- K Herzog: noted that the Orange Route has a lot of riders going to Broadway to public “help” locations
- M. Berg: noted that he can connect Scott with someone from public works to discuss snow storage.
- M. Berg: asked K. Herzog if she sees a big change in the next 20 years?
- K. Herzog: responded that yes, she anticipates a big change in the next 20 years, but only up to 12th St. (but not east of 12th St.)
- M. Berg: suggested to talk to the fire department about medians and fire hydrants
- W. Zacher: noted that he has heard comments “bashing” downtown and the 3-lane configuration.
- S. Harmstead: noted that the Wikimap has been taken down and the alternatives have not been posted yet.
- W. Zacher: commented that most of the comments received have been between 7th and 12th
- W. Zacher: noted that the pros and cons of the 3-lane alternatives should be discussed at public meetings
- K. Riepl: noted that a lot of the comments were positive except for Facebook; she will pass along the comments to Scott.
- M. Berg: asked if an alternate to the 3-lane configuration has been explored—3 lanes with approximately 18’ wide through lanes, no on-street parking. Some of 26th St. is configured this way and has worked well from an operations perspective.
- M. Berg: cautioned that ADA compliant slopes may not be achievable in the 5-lane alternative as space against buildings and driveways is very tight.

Actions Needed

Actions Needed	Responsibility
Note the counts are weekday peak in the Vehicular Mobility table	SRF



Study Review Committee Meeting #4

East Main Avenue Corridor Study

Bismarck-Mandan MPO & City of Bismarck



● Agenda

- Alternatives Overview/Reminder
- Alternatives Analysis Summary
- Review Approach to Nov. 30th & Dec.1st Meetings
- Next Steps

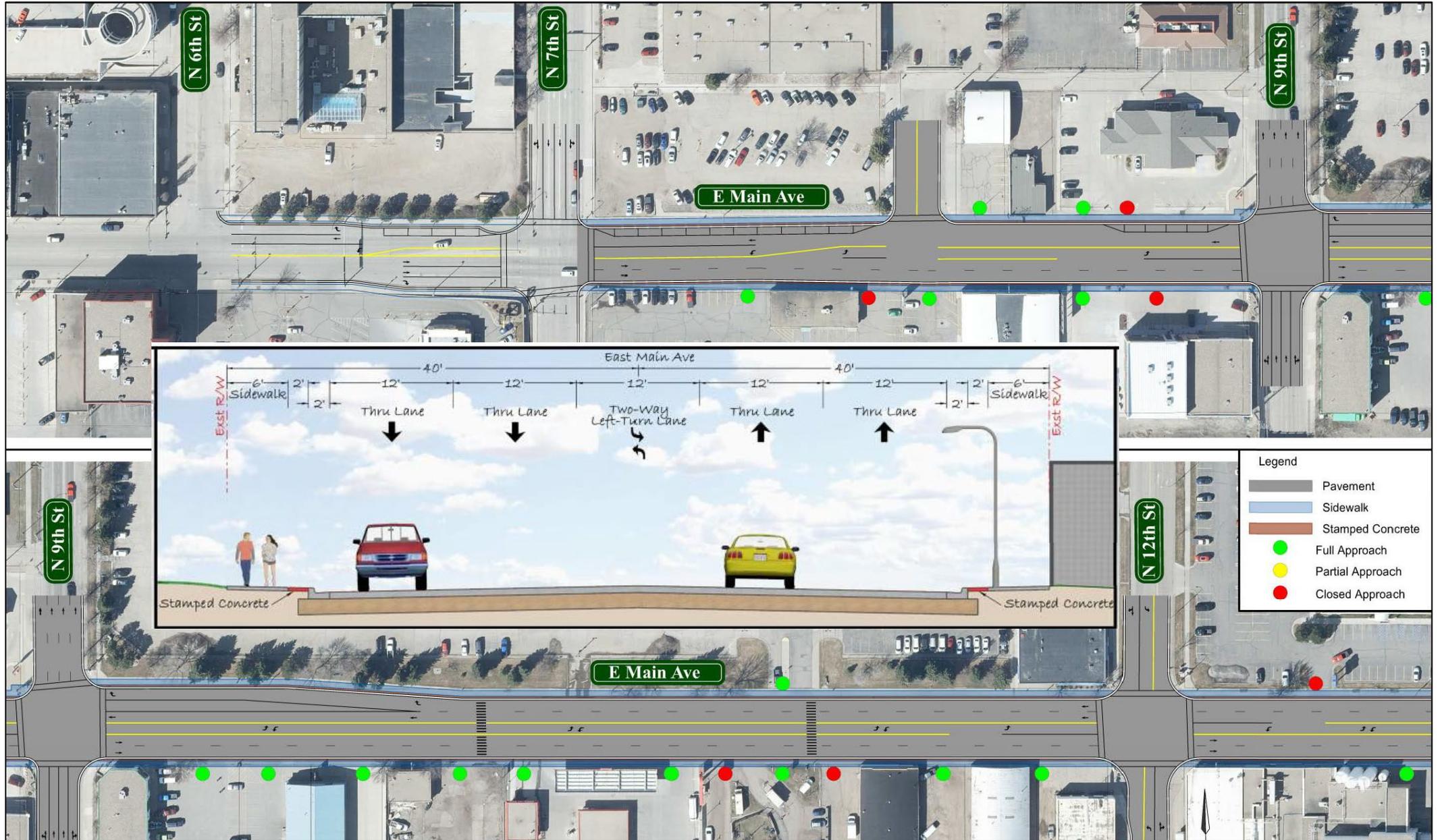


Alternatives Overview

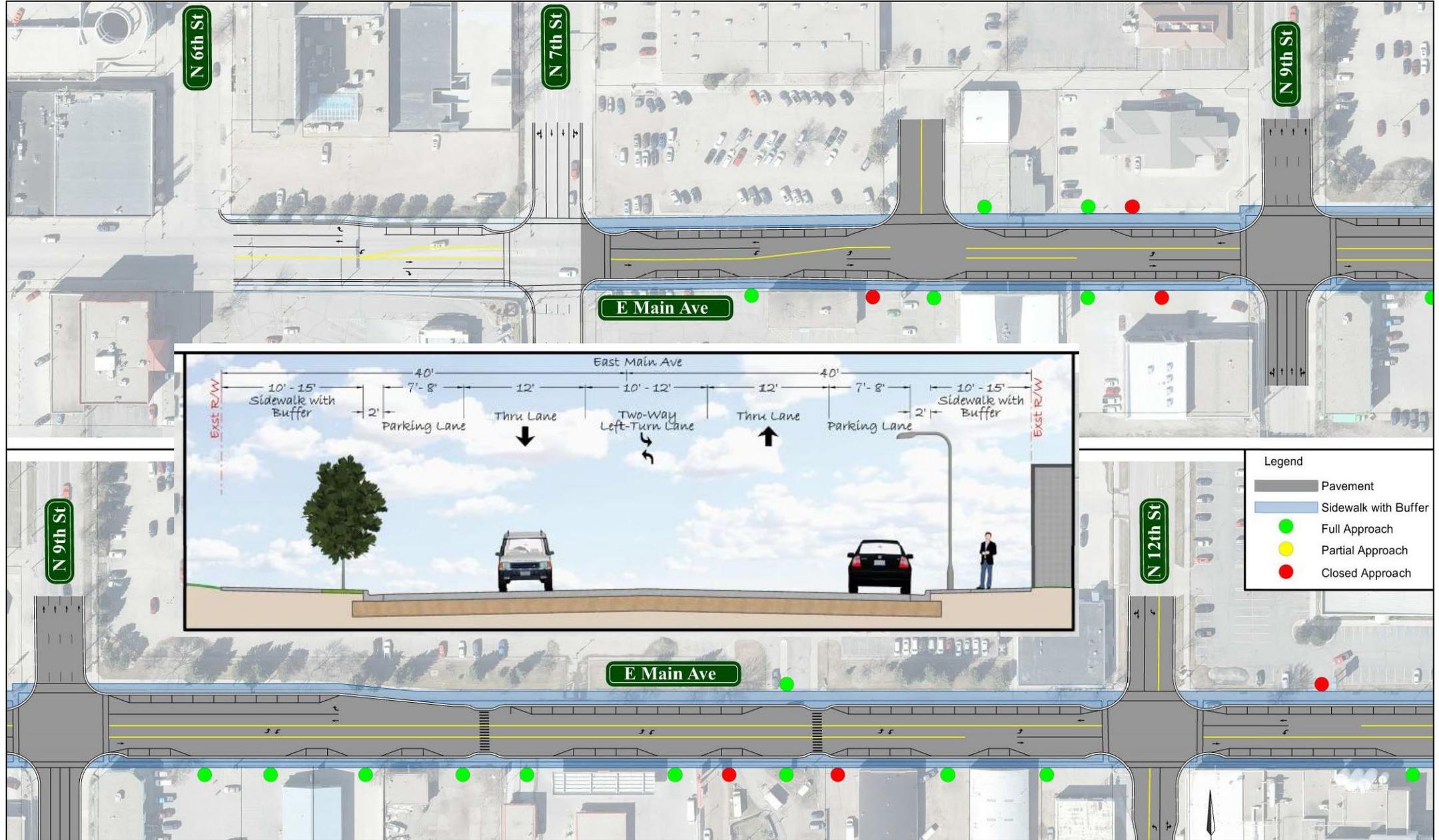
Segment-by-Segment

Cross Sections
Layouts

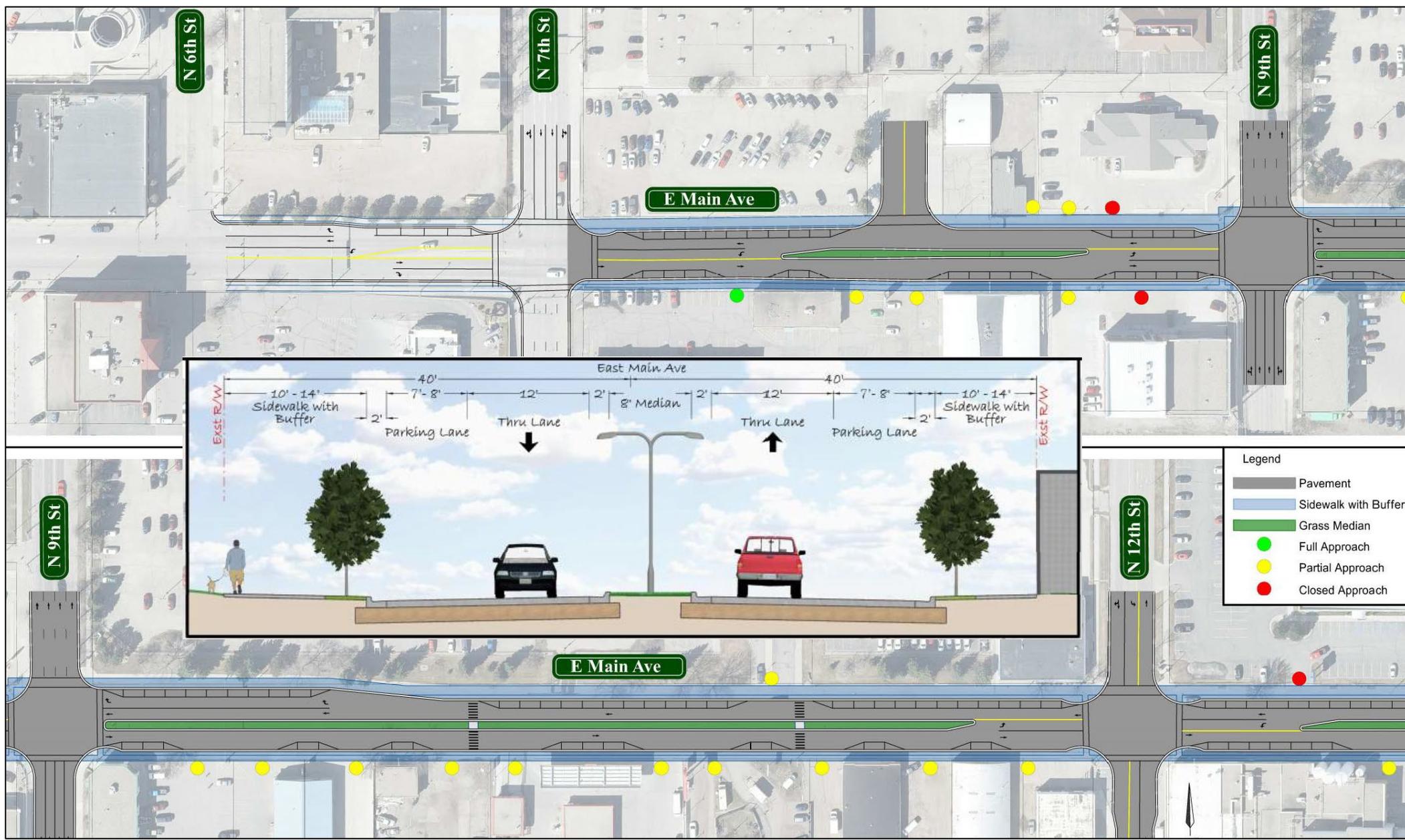
7th Street – 12th Street: 5-Lane



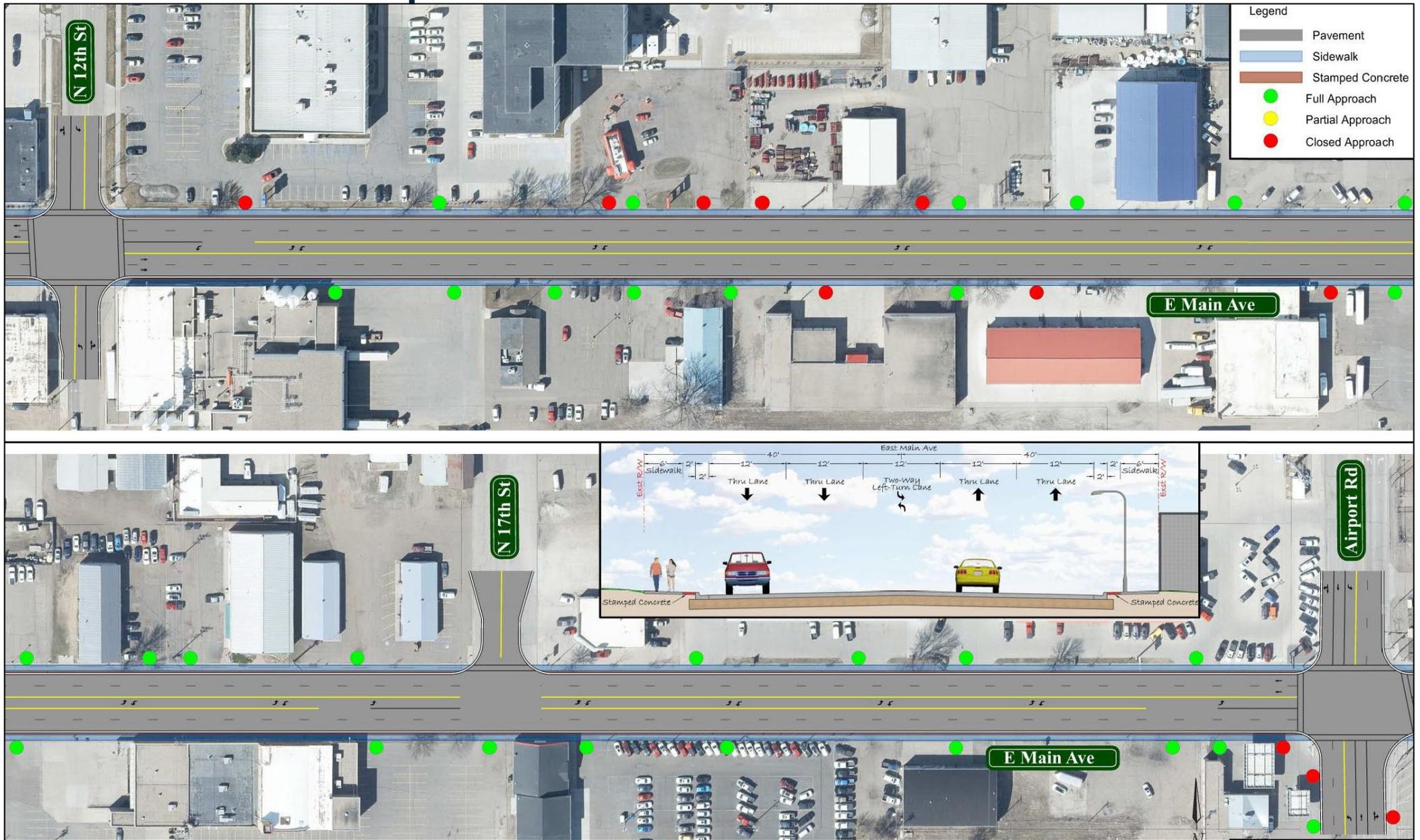
7th Street – 12th Street: 3-Lane



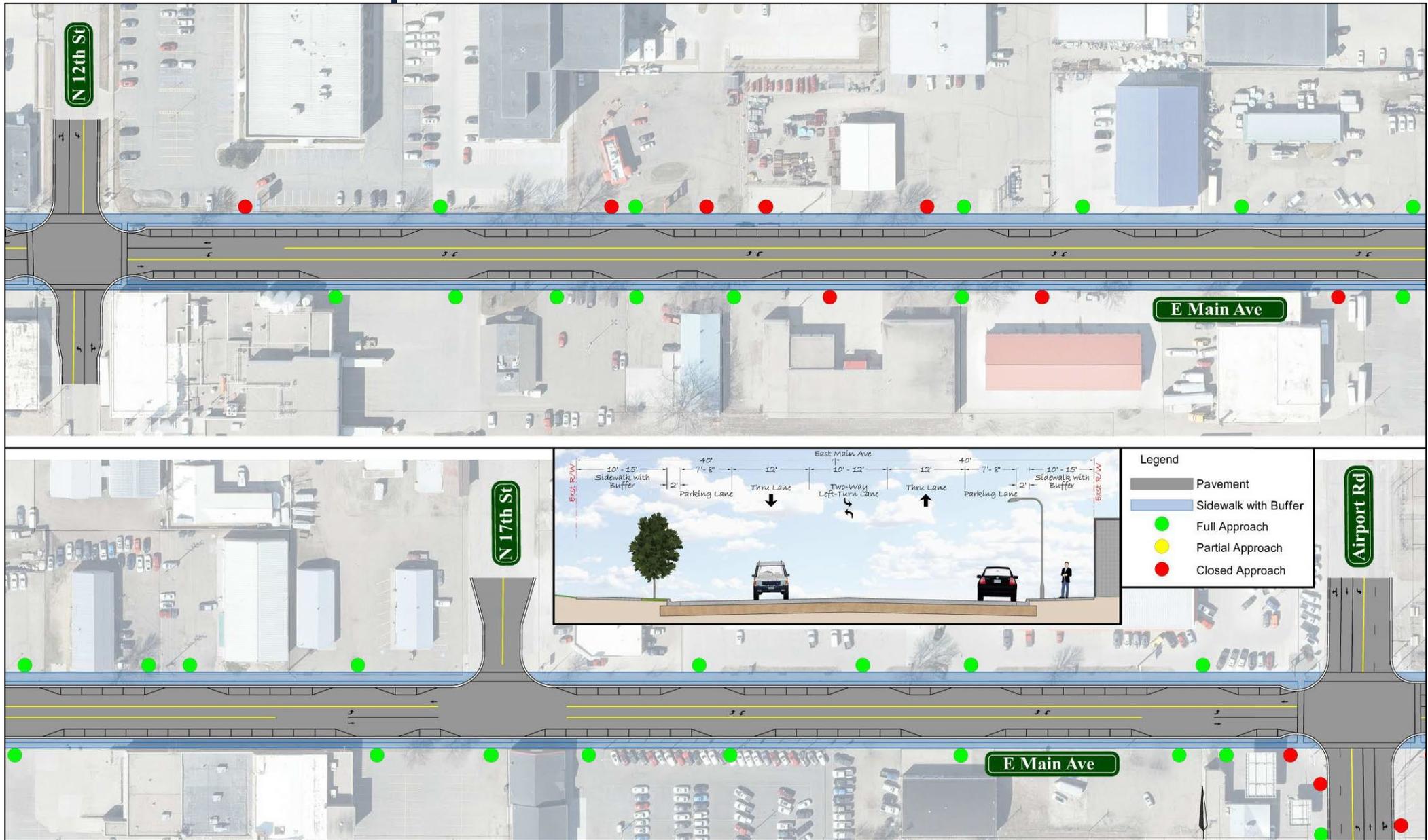
7th Street – 12th Street: 3-Lane with Median



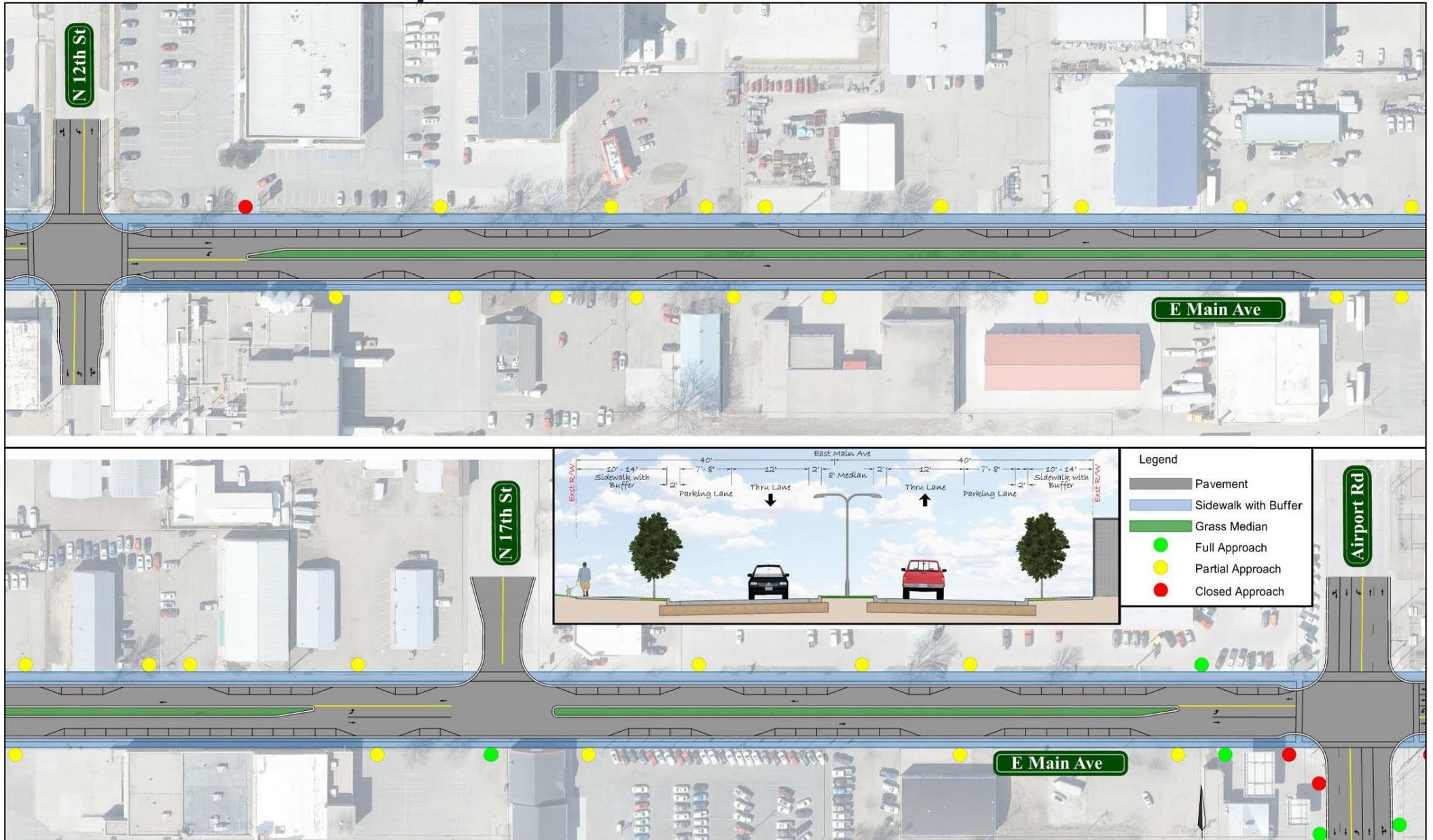
12th Street – Airport Road: 5-Lane



12th Street – Airport Road: 3-Lane



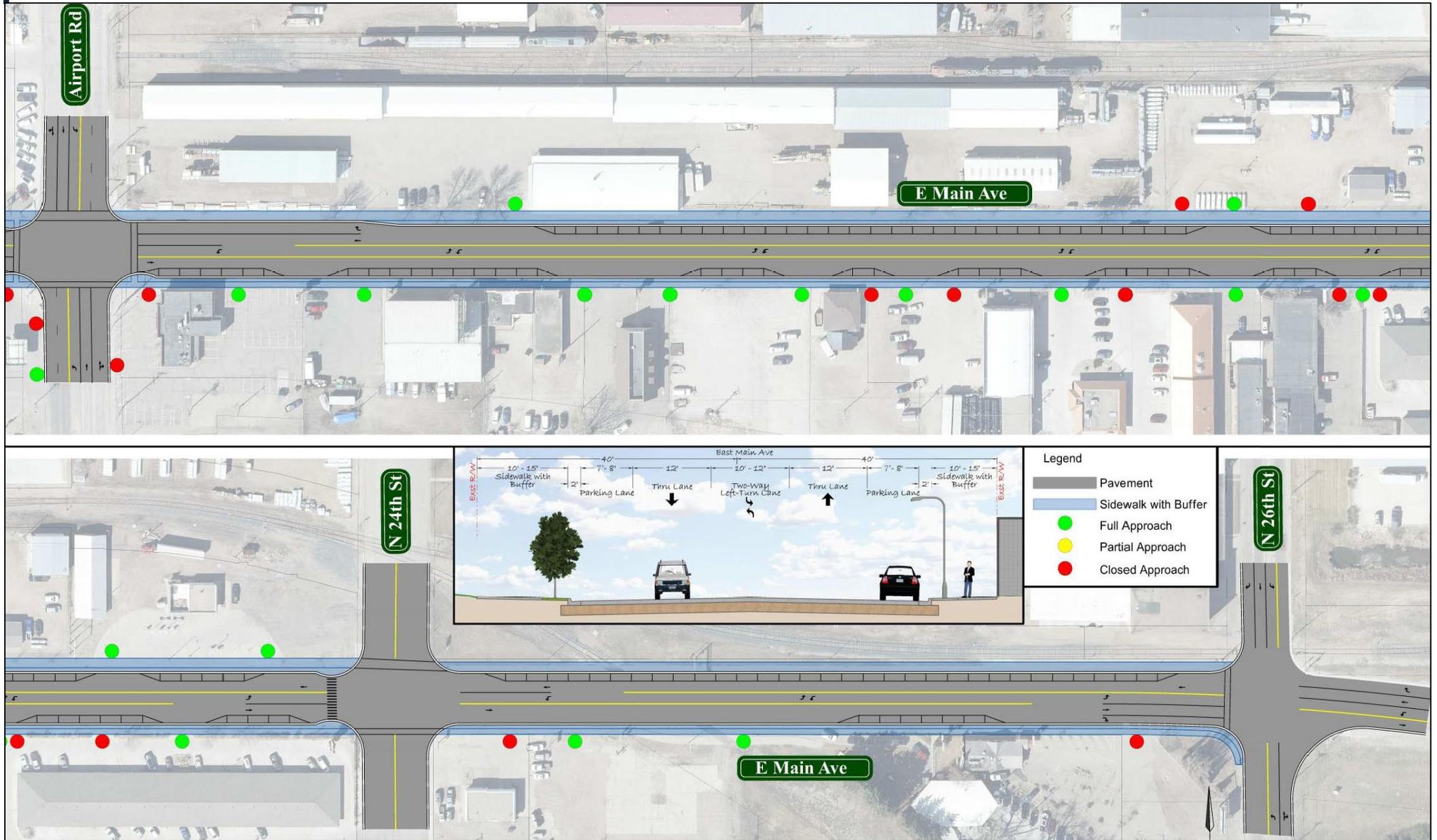
12th Street – Airport Road: 3-Lane with Median



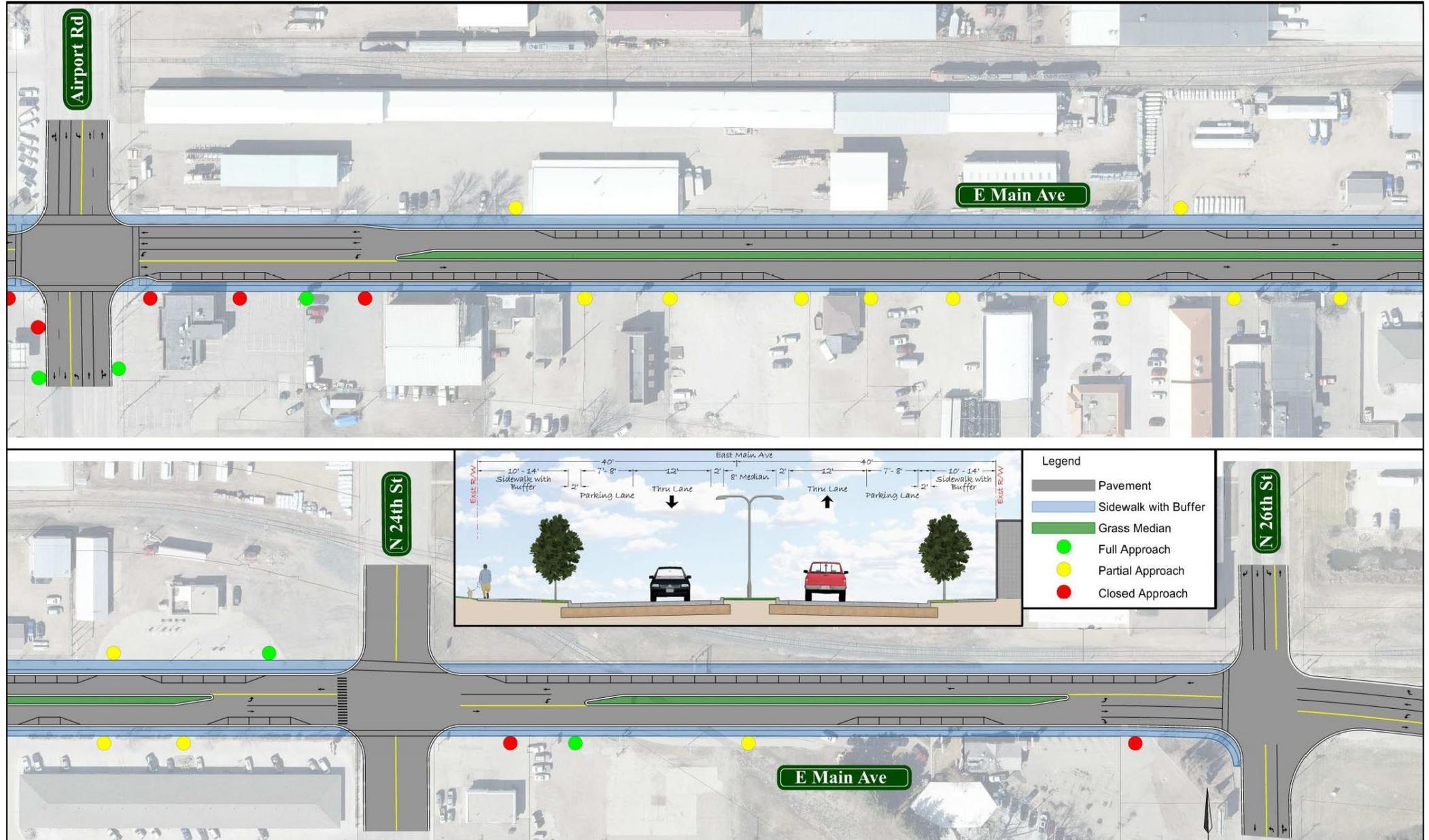
Airport Road – 26th Street: 5-Lane



Airport Road – 26th Street: 3-Lane



Airport Road – 26th Street: 3-Lane with Median



○ Modified Median Alternative

- Allows more full access points
- Requires more turn lanes in the median
- This requires additional room and eliminates opportunity for on-street parking



Alternatives Analysis Summary

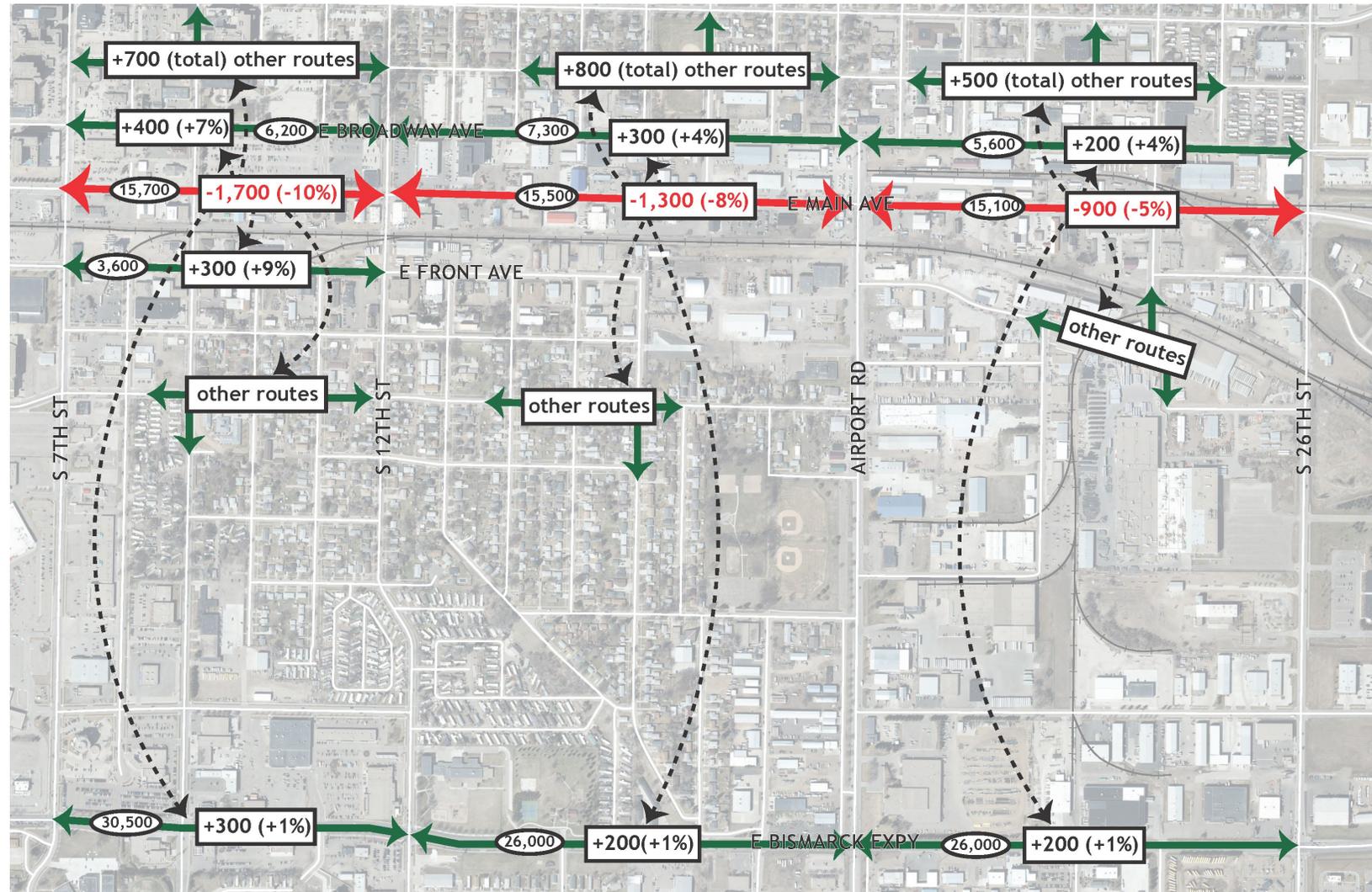
Evaluation Criteria

• Alternatives Analysis - Criteria

- Vehicular Mobility
- Property Access
- Safety
- Freight
- Parking
- *Planning-Level Cost*
- Pedestrian Access
- Environmental Justice
- Bike Access & Mobility
- Transit
- Snow Control/Maintenance
- Corridor Image
- *Agency/Public Input*
- Redevelopment Opportunity

Vehicular Mobility

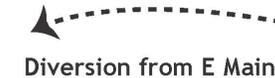
- Traffic diversion impacts from potential 3-lane
- Broadway Ave: +200 to +400 vehicles per day (vpd)
- Front Ave: +300 vpd
- Bismarck Expressway: +200 to +300 vpd
- Other routes: +500 to +800 vpd
- **Diversion to other routes listed above will not significantly impact congestion levels or how those roads operate**



Legend



*Includes diversion



3-Lane Alternatives Traffic Diversion Map

Vehicular Mobility

- All intersections LOS C or better during peak hours
- Average corridor travel times 12-15% higher for 3-lane alternatives vs. 5-lane

Alternative	Travel Time (minutes)					
	AM Peak Hour			PM Peak Hour		
	Eastbound	Westbound	Average	Eastbound	Westbound	Average
Existing Conditions	3.72	4.03	3.90	3.90	4.40	4.20
Year 2045 5-Lane	3.80	4.09	3.90	4.00	4.69	4.30
Year 2045 3-Lane	4.58	4.83	4.70	4.94	4.88	4.90
Year 2045 3-Lane with Median	4.57	4.94	4.80	4.89	4.62	4.80

East Main Avenue Intersection	Level of Service (LOS)					
	AM Peak Hour			PM Peak Hour		
	2045 5-Lane	2045 3-Lane	2045 3-Lane with Median	2045 5-Lane	2045 3-Lane	2045 3-Lane with Median
7 th Street	B	B	B	B	B	C
9 th Street	B	B	B	C	C	C
12 th Street	B	B	B	B	B	A
17 th Street	A	A	A	A	A	A
Airport Road	B	C	C	B	C	C
24 th Street	A	A	A	A	A	A
26 th Street	B	B	B	B	C	C

Property Access

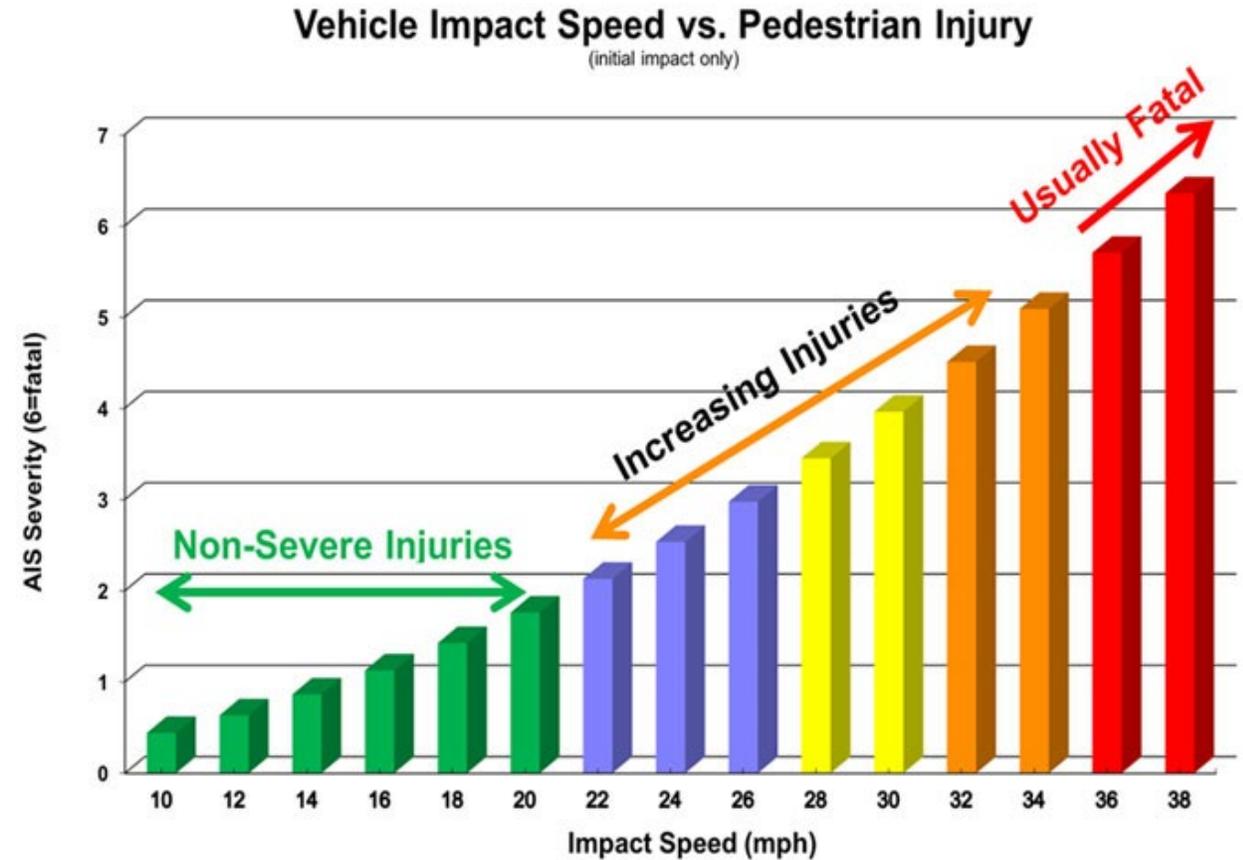
- 86 private access points
- 5-lane: 32 full closures, no partial closures
- 3-lane: 32 full closures, no partial closures
- 3-lane with median: 12 full closures, 58 partial closures (right-in, right-out)
- Most closures are consolidation of two nearby access points
- Some closures include moving driveway approaches away from intersections
- SRF is compiling justification/reasoning of proposed property access changes for Nov. 30th Property Owner Open House

Bitty Bean Access Points



Safety

- Access Management
 - Rear-end crashes
- Traffic Calming¹
 - On-street parking
 - Lane/street width reduction
 - Median
 - Curb extensions
- Other Proven Countermeasures
 - Signal timing
 - Queuing
 - Left-turn lane offsets & # of lanes crossing when turning



¹FHWA Traffic Calming ePrimer

Freight

- Wholly freight dependent properties: Prairie Farms, Bismarck Lumber Company, Ferrellgas
- Other properties rely on freight deliveries
- On-street parking may also accommodate loading/unloading
- Freight-dependent properties have limited access changes under 5-lane and 3-lane alternatives, 3-lane with median includes most significant access changes (requires freight rerouting)



Freight heading east @ 26th Street

On-street Parking

- 5-lane: limited on-street parking on west end to remain, no additional parking
- 3-lane: parking along both sides of the entire corridor
- 3-lane with median: compared with the 3-lane alternative, slightly less parking along both sides of the entire corridor
- Parallel parking lanes are typically 7-8' wide



Parallel parking example

● Pedestrian Access & Mobility

Mid-block crossings with median refuge between 9th and 12th Street



- 5-lane:
 - Least degree of pedestrian zone improvements
 - Curb extensions at 17th St.
 - Mid-block crossing locations include greatest crossing distance
- 3-lane:
 - Greatest degree of pedestrian zone improvements
 - Curb extensions at 9th St., 12th St., 17th St., and Airport Rd.
 - Mid-block crossing locations have shorter crossing distance
- 3-lane with median:
 - Near-greatest degree of pedestrian zone improvements
 - Curb extensions at 9th St., 12th St., 17th St., and Airport Rd.
 - Mid-block crossings benefit from median refuge area

Environmental Justice

- All alternatives have positive impact on vulnerable populations—increased multimodal access and mobility.
- 5-lane includes the least degree of multimodal improvements, 3-lane with median includes the greatest degree of improvements, with the 3-lane alternative very close.



● Bike Access & Mobility

- Bismarck-Mandan Bicycle + Pedestrian Plan (2017) planned and prioritized bicycle facilities in the region. East Main Ave was not forwarded on by that plan's SRC for implementation.
- Given traffic volumes, traffic speed, and lack of ROW on East Main Ave, parallel route like East Broadway and East Rosser may be used to accomplish complete streets objectives.
- No dedicated bike facilities (on- or off-street) are included in alternatives.
- Still may be improvements for bicyclists with wider sidewalks as proposed in the 3-lane and 3-lane with median alternatives
- Bicycling on sidewalk between 7th and 12th Streets, or Downtown Bismarck, is illegal.

Transit

- The orange route runs west along East Main Ave from 26th Street to Airport Road
- No existing transit shelter/bus stop exists at the current “timing point”
- Five-Lane is limited in space and some property acquisition would likely need to occur for a bus pullout and transit shelter
- 3-Lane alternatives offer more space to accommodate a potential transit stop and less property acquisition for a bus pullout.



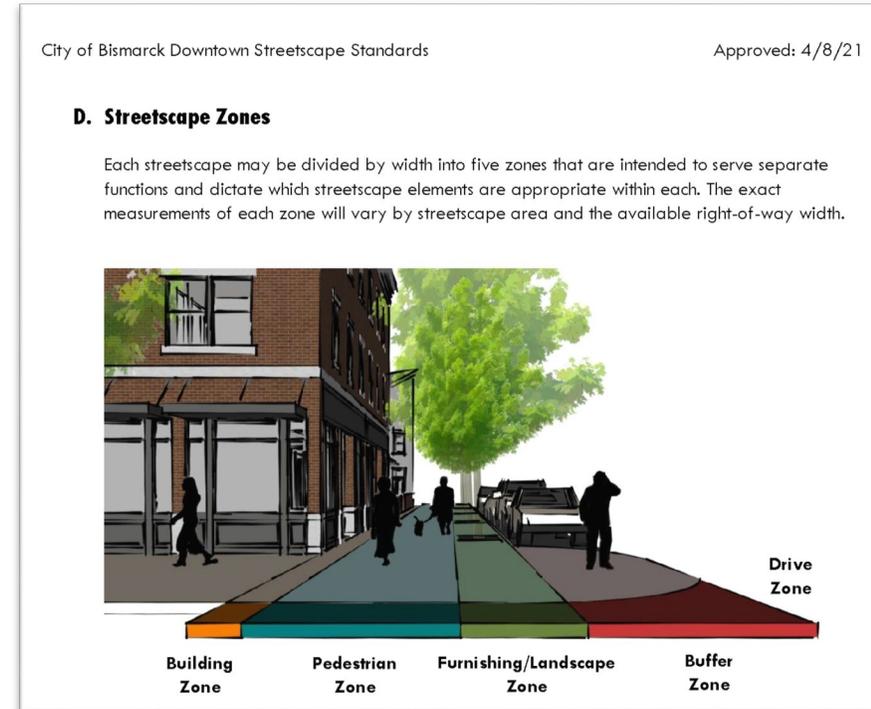
• Snow Control/Maintenance

- 5-lane:
 - Minimal snow storage area (2' sidewalk buffer zone)
 - Minimal on-street parking conflicts
- 3-lane:
 - Ample snow storage area (min. 4' buffer zone)
 - More conflicts with on-street parking
- 3-lane with median:
 - Ample snow storage area (min. 4' buffer zone/8' median)
 - Median decreases amount of snow needing to be cleared
 - More conflicts with on-street parking
 - Medians may need seasonal delineation for plow maneuverability



Corridor Image

- 5-lane:
 - 2' sidewalk buffer does not allow sufficient room for landscaping
 - Space likely not wide enough for street furniture or adjacent retail use
 - Space can accommodate lighting improvements
 - Does not align with downtown streetscaping standards (between 7th and 12th Street)
- 3-lane:
 - Space can accommodate landscaping improvement
 - Potential for street furniture or adjacent retail use
 - Space can accommodate lighting improvements
 - Downtown Bismarck Subarea Study specifies 15' sidewalk width recommendations from 1st to 6th Street. This could be accommodated east to 12th Street with some minor lane width reductions
- 3-lane with median:
 - Similar opportunities as the 3-lane alternative
 - Median presents additional landscaping and/or lighting options



City of Bismarck Downtown Streetscape Standards

Redevelopment Opportunity

- Considered only from 7th to 12th St



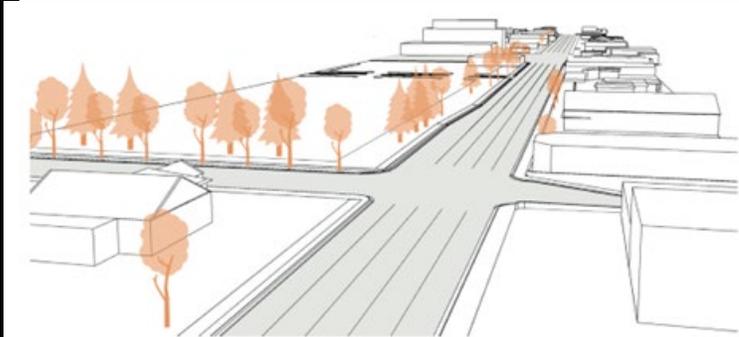
Legend

-  Parcel Boundary
-  Redevelopment Analysis Area

Redevelopment Analysis Area

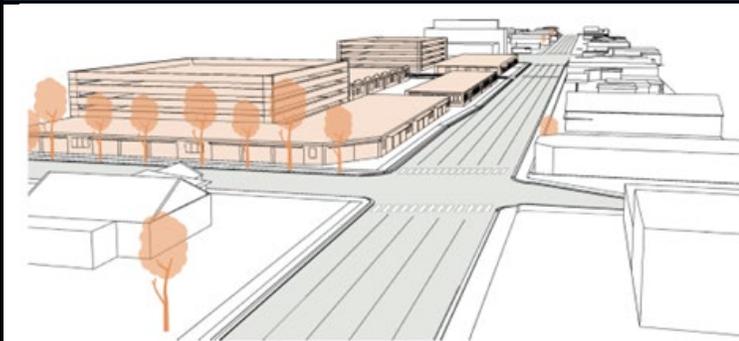
Redevelopment Scenarios vs. Existing Conditions

Existing Condition



- No change

Five-Lane



- 210,000 sf in new commercial on north frontage (one 2-story building and three 1-story buildings)
- 339,000 sf in parking structures (two 5-story buildings)

Three-Lane



- 373,000 sf in new multiuse on north frontage (three 3-story buildings and one 2-story building)
- 154,000 sf in new multiuse on south frontage (two 2-story buildings)
- 339,000 sf in parking structures (two 5-story buildings)

○ Employment and Household Impacts

- 5-lane

Development Component	Total Floor Area (square feet)	Use Fractions	Floor Area Breakdown	Jobs Impact
1-story buildings	130,000	50% ret. 50% non-ret.	65,000 sf ret. 65,000 sf non-ret.	104 ret. jobs 52 non-ret. jobs
2-story buildings	81,600	0% ret. 100% non-ret.	81,600 sf non-ret.	0 ret. jobs 65 non-ret. jobs
Total	212,000	31% ret. 69% non-ret.	65,000 sf ret. 146,600 sf non-ret.	104 ret. jobs 117 non-ret. jobs 223 total jobs

- 3-lane

Development Component	Total Floor Area (square feet)	Use Fractions	Floor Area Breakdown	Jobs/Households Impact
2-story buildings (north side)	171,200 sf	50% ret. 50% non-ret.	85,600 85,600	137 ret. jobs 68 non-ret. jobs
3-story buildings (north side)	201,800 sf	25% ret. 25% non-ret. 50% res.	50,450 sf ret. 50,450 sf non-ret. 100,900 sf res.	81 ret. jobs 40 non-ret. jobs 81 households
2-story buildings (south side)	154,200 sf	0% ret. 100% non-ret.	154,200 sf non-ret.	123 non-ret. jobs
Total	527,000 sf	26% ret. 55% non-ret. 19% res.	136,000 sf ret. 290,000 sf non-ret. 101,000 sf res.	218 ret. jobs 231 non-ret. jobs 449 total jobs 81 total households

○ Development Revenue

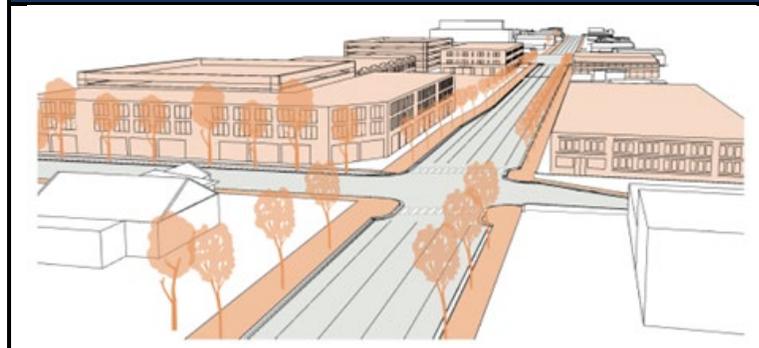
- Based upon Bismarck and Fargo Case Studies
 - 5-lane alternative: the full market value for multiuse development is estimated to be \$34 million with a taxable value of \$1.7 million, and annual property tax revenue of \$430,200 in 2022 dollars. **This results in \$11.55 million of estimated property tax revenue over 20 years.**
 - 3-lane alternative: the full market value for multiuse development is estimated to be \$84 million with a taxable value of \$4.2 million, and annual property tax revenue of \$1.07 million in 2022 dollars. **This results in \$28.75 million of estimated property tax revenue over 20 years.**

Redevelopment opportunities and methodology can be found in Alternative Evaluation Memo

Five-Lane



Three-Lane





Review Approach to Nov. 30 & Dec. 1 Engagement

Preliminary Agenda

Summary of Summer 2022 input (online and in-person)

Present alternatives

Summary of alternative analysis

Collect feedback on alternatives

Approach to Nov. 30th & Dec. 1st Engagement

Nov. 30 Property & Business Owner Open House

- 5-10 minute (brief) presentation
- Evaluation criteria stations with boards
- Roll-plots of each alternative with sticky notes
- Discussion/Q&A

Online

- Recording of presentation
- Alternatives & Boards
- Online survey similar to questions in meeting

Dec. 1 Community Workshop

- 5-10 minute (brief) presentation
- Evaluation criteria stations with boards
- Roll-plots of each alternative with sticky notes
- Comment/question sheet
 - Importance of criteria
 - Elements of alternatives

Next Steps

Put together Final Report

Final SRC Meeting (#5)

SRC to be held January/February 2023 to discuss Final Report and Implementation

Location: SRF Bismarck Office Conference Room/Zoom

Client: Bismark-Mandan Metropolitan Planning Organization (MPO)

Date: February 27, 2023

Subject: East Main Avenue Corridor Study – SRC #5

Attendees: Kim Riepl, Bis-Man MPO
Mark Berg, City of Bis. Engineering
Wayne Zacher, NDDOT
Glen Hellebust, Prairie Farms Dairy, Inc.
Jason Gullicks, Apex Engineering
Michael Mart, City of Bis. Engineering

Daniel Nairn, City of Bis. Planning
Kate Herzog, Bismarck Downtowners
Dean Schloss, NDDOT
Kristen Sperry, FHWA
Scott Harmstead, SRF Consulting Group
Matt Pacyna, TC2

Purpose of Meeting:

The purpose of this meeting was to review the Bismarck East Main Avenue Corridor Study draft study report, locally recommended alternative, and implementation issues with the Study Review Committee (SRC). Attache is the PowerPoint that was presented at the meeting. Discussion from meeting participants is included in the “Summary of Meeting” section.

Summary of Meeting

- Kim R: purpose and need needs to address transit, safety concerns, lack of transit facilities higher speeds, doesn’t bode well for flag down system. No determined stops. Transit needs to be tied into safety and gaps needs.
- Kim R: what does safety survey result reflect, vehicular, pedestrian, etc.?
- Scott H: safety not spelled out in the survey, reflects both vehicular and pedestrian. Did not hear a lot about bikes. Bicyclists typically avoid this corridor. Facility on Rosser isn’t very far away.
- Daniel N: Vehicular mobility and property access have higher priority along the corridor’s eastern end.
- Katie H: what about that spur west of Big Boy, there was discussion of Big Boy expansion in the past for parking, employee parking.
- Scott H: we did chat with Chad Wachter about that block, he is in preliminary negotiations with AmVets and other property owners in that block. Not for Big Boy expansion but overall redevelopment. Big Boy is uninterested in changing their drive-through.
 - o Redevelopment and tax revenue discussion.

- Group: Vehicular mobility is the hot button issue, same issue came up with East Main Ave. between Washington and 7th Street, still the roadway changed to three lanes. A lot of pieces to the puzzle. If vehicular mobility falls down a little bit, you're really not losing any capacity.
 - o Scott H: operationally the 3-lane doesn't impact traffic all that much compared to the 5-lane.
- Group: Why is 3-lane moderate in vehicular mobility and not "good"?
 - o Scott H/Matt P: queuing is still an issue that relocates from 9th St to 12th St under the recommended alternative, travel times increase by an average of 12 seconds.
- Wayne Z: just be careful calling it preferred alternative. May want to call it something else.
 - o Name will be changed to "locally preferred alternative".
- Daniel N: assumes synchronization of lights?
 - o Scott H: yes
- Mark B: as synchronized as the lights can be, some are too far out, too many access points. Have to operate independently. Signals are also tied to the rail which exacerbates the problem. Some trains can shut down 12th street for several minutes.
- Wayne Z: FRA study that's ongoing? Do we need to incorporate anything?
 - o Kim R: FRA conducting a study for long-distance passenger service (750+ mile start point and end point). Taking a look at some of the routes removed in 1978, including the Hiawatha line through Bismarck. Study is looking at adding new routes or reinstating old routes. There is some movement to reinstate the line through Bismarck, pushed by the Big Sky Passenger Rail group in Montana. Touting economic development, however, in Downtown in Bismarck, this could have a huge impact. The study may also consider dual lines through Bismarck. One line is divisive, two would be even more contentious. FRA just started the study, first round of meetings is concluded, end of year expecting the final recommendations. Study has short time frame, as it was mandated by IIJA/BIL. BMMPO is a stakeholder on the study.
- Group: Do we need to look at Train traffic?
- Kim R: Tammy Wagner (FRA) would be good to chat to about the rail study.
- Scott H: will make sure rail information is covered in existing conditions.
- Group: Segments in cost estimate table need to updated.
- Group: What does CPR useful life timeframe look like?
 - o Michael M: Difficult to say, depends on the existing concrete slab conditions.
- Group: add TIF as a local funding option.
- Michael M/Mark B: pedestrian issues seem first and foremost along this corridor. Curb ramps needed.
- Group: concern with speeds and pedestrian crossings at 35 mph.
- Group: do we want a public hearing at City Commission on April 11th? Don't have to have a public hearing but some jurisdictions have gone that route for studies, especially if there is contentious feedback. BMMPO has a 15-day advertising requirement in the paper for the public meeting on March 6. Will decide based on the March 6 open house. BMMPO is open to it depending on the City's preference. What does the MPO want? Don't think its

necessary but if it seems like its warranted, then we should have one. Michael to check with Dave to confirm. Make decision by 3 weeks prior to the April 11th City Commission meeting.

- Kate H: Downtowners will notify members about the upcoming meetings. Members sometimes don't come out to talk, the loudest people providing input are typically those with a negative viewpoint or are in opposition.
- Kate H: the new Tressel building on the northwest corner of 7th St and E Main Ave. is basically full – lots of zero-vehicle households. Filled faster than anyone anticipated. Exciting to see more housing options/commercial spaces Downtown.
- Scott H: final comments needed by March 21st – includes public comment period.

Actions Needed

Actions Needed	Responsibility
SRF to gather comments and finalize report.	SRF



Recommendations & Implementation

East Main Avenue Corridor Study

Bismarck-Mandan MPO & City of Bismarck



● Agenda

- Fall-winter engagement results
- Report overview
 - Outline
 - Preferred alternative
 - Implementation
- March open house
- Adoption process

○ Reminder: Study Purpose & Need

Purpose

The purpose is to achieve the following goals for East Main Avenue, from 7th Street to 26th Street, in the year 2045:

- Improve the aging corridor pavement
- Ensure all modes of transportation are safely and comfortably accommodated
- Support economic development opportunities
- Minimize detrimental impacts to adjacent corridors
- Improve image as a gateway to Bismarck/Downtown

Need

- ✓ Pavement deterioration
- ✓ Snow control/maintenance
- ✓ Safety concerns throughout corridor – crash history, access, pedestrian, & bike
- ✓ Pedestrians and bikes– gaps & comfort
- ✓ Environmental justice populations – access & mobility needs
- ✓ Maintain freight access
- ✓ Redevelopment accommodation/ economic development pressure
- ✓ Improve corridor image



Recent Engagement Results

○ Nov. 30 – Dec. 1 Meetings

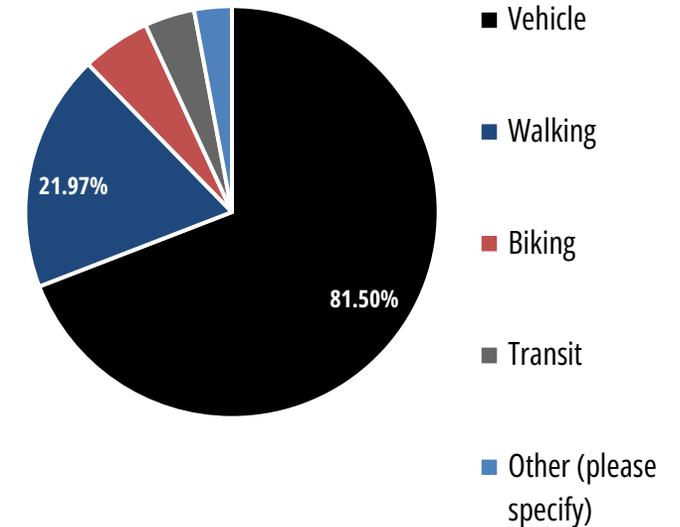
- 8 open house attendees
- 6 workshop attendees
- All completed the survey
- Lots of questions & discussion



Corridor Improvement Survey

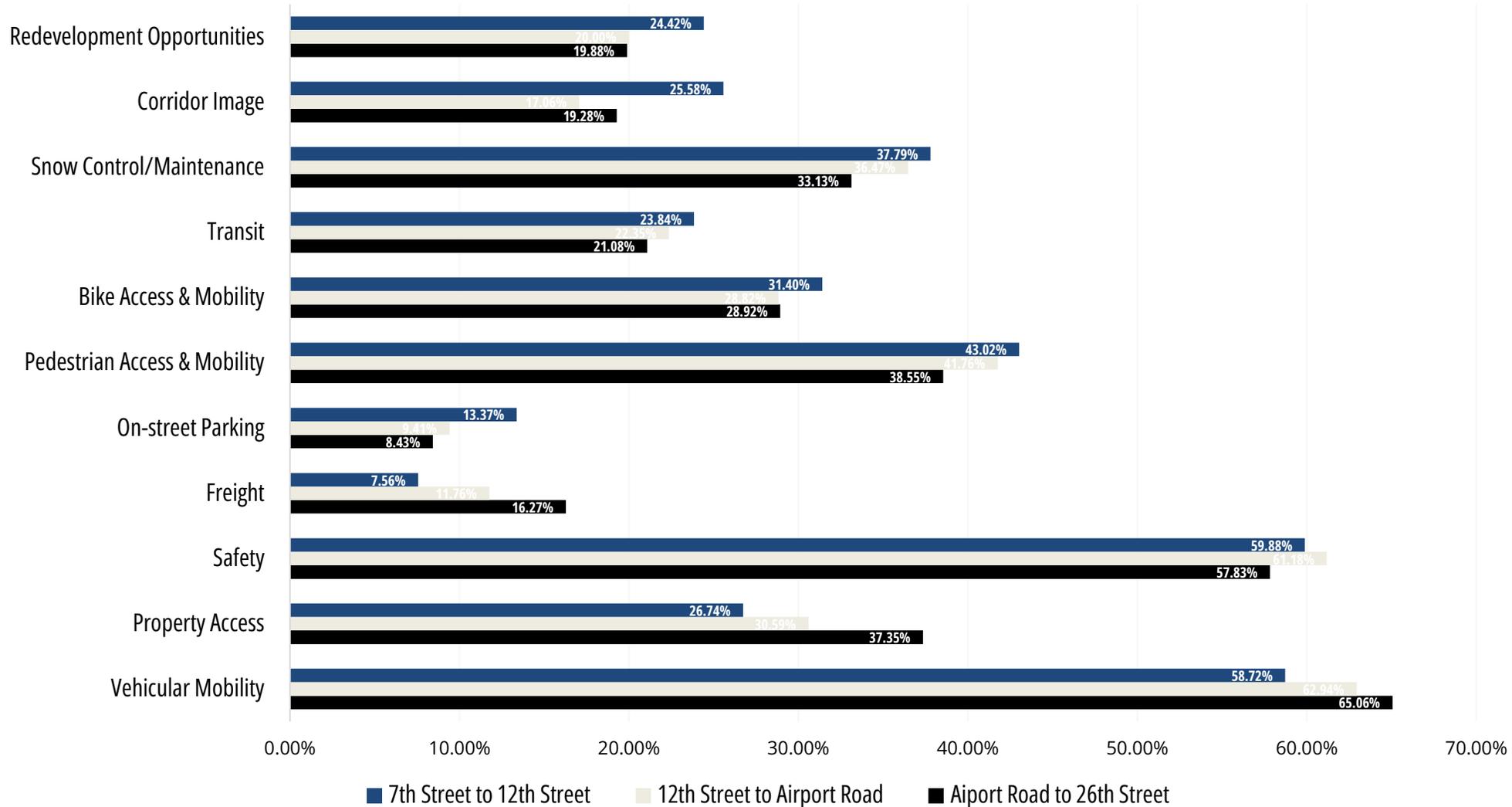
- 174 surveys completed
 - 100 online, 8 at the meetings, and 66 through social service organization outreach
- A little bit about respondents:
 - 80% live in Bismarck, rest in the region outside of Bismarck
 - 70% touch corridor daily or several times/week.
 - Primary use of corridor: shopping/errands and to get to work
 - *option not included for those who use corridor to access social services

Survey: Transportation Modes
Along East Main Avenue



Corridor Improvement Survey

Criteria Prioritization by Segment





Report Overview

Outline

- History
- Process/Engagement
- Analysis
 - Issues & needs
 - Alternatives
 - Engagement results
- Recommendations
- Implementation
- *Remaining: Executive Summary*



Preferred Alternative

Evaluation Criteria	Preferred Alternative		
	Segment 1, 7 th Street to 12 th Street (3-Lane)	Segment 2, 12 th Street to Airport Road (5-Lane)	Segment 3, Airport Road to 26 th Street (5-Lane)
Vehicular Mobility	Good	Ok	Ok
Property Access	Good	Good	Good
Safety	Moderate	Moderate	Moderate
Freight	Ok	Moderate	Moderate
On-street Parking	Good	Poor	Poor
Pedestrian Access & Mobility	Ok	Moderate	Moderate
Environmental Justice	Ok	Moderate	Moderate
Bike Access & Mobility	Ok	Moderate	Moderate
Transit	NA	NA	Moderate
Snow Control/Maintenance	Good	Moderate	Moderate
Corridor Image	Ok	Marginal	Marginal
Redevelopment Opportunity	Good	Marginal	Marginal

- *Terminology – “Locally” Preferred?*

Good	Good; best meets criteria
Ok	Ok; meets criteria well
Moderate	Moderate; close to achieving criteria
Marginal	Marginal; does not meet criteria
Poor	Poor; fails to meet criteria

“Hottest” Issue: Vehicular Mobility

Travel Time

Alternative	Travel Time (minutes)					
	AM Peak Hour			PM Peak Hour		
	EB	WB	Average	EB	WB	Average
2045 No Build	3.80	4.09	3.90	4.00	4.69	4.30
Year 2045 Preferred Alternative	4.03	4.23	4.10	4.35	4.64	4.50

Average peak hour queues:

- 9th St: Decrease from existing in preferred alternative
- 12th St: Increase from existing and 2045 no build, both thru movements and right turns

Intersection Capacity

East Main Avenue Intersection	2045 No Build	2045 Preferred Alternative	2045 No Build	2045 Preferred Alternative
	A.M. Peak Hour	A.M. Peak Hour	P.M. Peak Hour	P.M. Peak Hour
7 th Street	B	B	B	B
9 th Street	B	B	B	C
12 th Street	B	B	B	C
17 th Street ⁽¹⁾	A/B	A/C	A/C	A/D
Airport Road	B	B	C	B
24 th Street ⁽¹⁾	A/C	A/C	A/C	A/D
26 th Street	B	B	B	C

⁽¹⁾Indicates an unsignalized intersection with side-street stop control, where the overall LOS is shown followed by the worst approach.

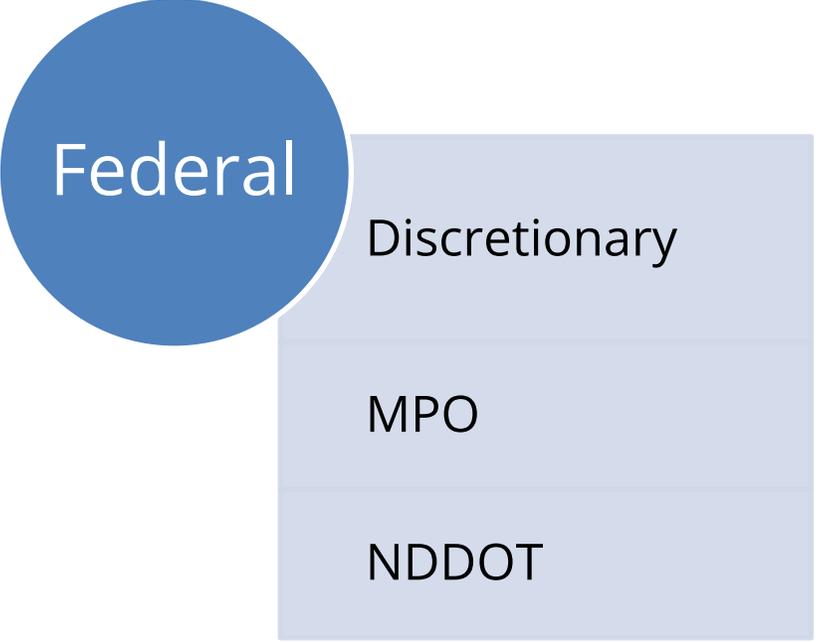
Implementation

- Next step: design & environmental review
- Phasing
- Costs

Segment	No Build Alternative	Build/Reconstruction Alternatives			
	Concrete Pavement Rehabilitation (CPR)	3 Lane	3 Lane Median	5 Lane	Preferred Alternative
7 th Street to 9 th Street	NA	\$3,116,000	\$3,303,000	\$3,272,000	\$3,116,000
9 th Street to 12 th Street		\$7,682,000	\$8,143,000	\$8,066,000	\$8,066,000
12 th Street to 17 th Street		\$7,654,000	\$8,114,000	\$8,037,000	\$8,037,000
Subtotal	\$3,164,000	\$18,452,000	\$19,560,000	\$19,375,000	\$19,219,000
Contingency 20%	\$633,000	\$3,690,000	\$3,912,000	\$3,875,000	\$3,844,000
Subtotal	\$3,797,000	\$22,142,000	\$23,472,000	\$23,250,000	\$23,063,000
Engineering 20%	\$759,000	\$4,428,000	\$4,694,000	\$4,650,000	\$4,613,000
Total Cost (2022 Dollars)	\$4,556,000	\$26,570,000	\$28,166,000	\$27,900,000	\$27,676,000

○ Implementation

- Funding Opportunities



○ Implementation

- Maintenance
 - Sidewalks
- Public Utilities
 - Sanitary Sewer
 - Watermain
 - Stormwater





Final Steps

○ March 6 Open House

- City-County Office Building, 1st Floor Conference Room, 4:30 – 6 pm
- Presentation, discussion, and boards

○ Adoption Process

- April 11 – City Commission
- April 17 – MPO TAC
- April 18 – MPO Policy Board



Questions?

○ Thank you

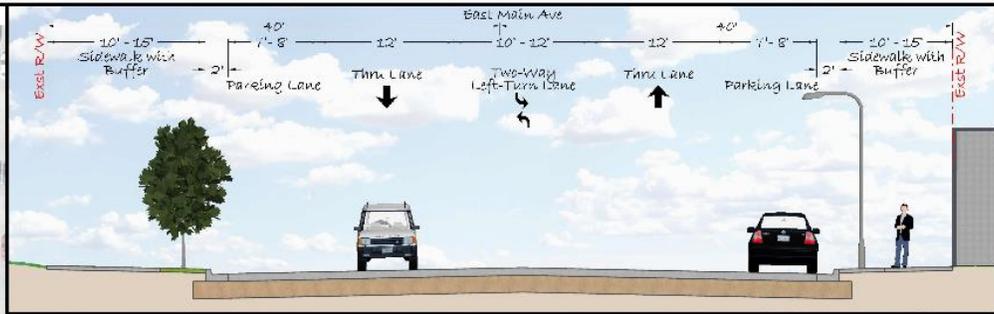
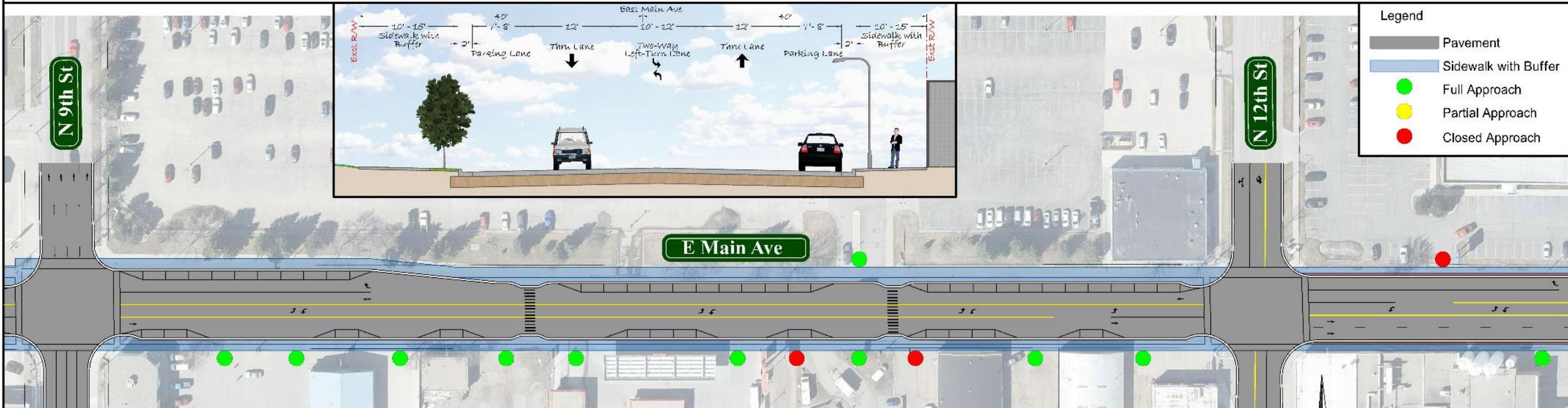
Consultant Contact

Scott Harmstead, AICP

Email - sharmstead@srfconsulting.com

Phone - 701-354-2405

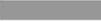
Address - 2370 Vermont Ave
Bismarck, ND 58504



Legend

-  Pavement
-  Sidewalk with Buffer
-  Full Approach
-  Partial Approach
-  Closed Approach

Legend

-  Pavement
-  Sidewalk
-  Stamped Concrete
-  Full Approach
-  Partial Approach
-  Closed Approach

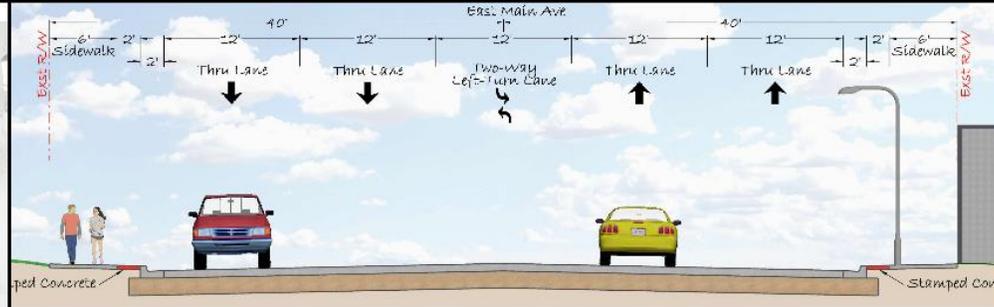
N 12th St

E Main Ave

N 17th St

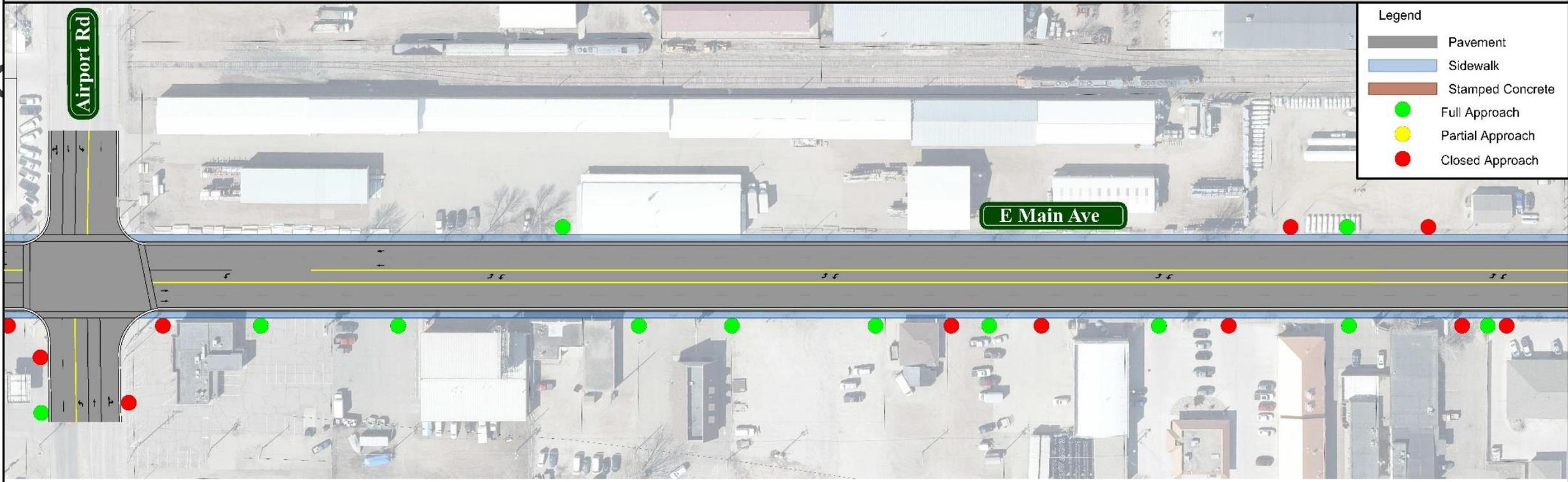
Airport Rd

E Main Ave



Legend

-  Pavement
-  Sidewalk
-  Stamped Concrete
-  Full Approach
-  Partial Approach
-  Closed Approach



Stakeholder Interview Summaries

Method: In-person and via phone
Client: Bismarck-Mandan Metropolitan Planning Organization (MPO), City of Bismarck
Interviews Conducted: June 27 – December 22, 2022
Subject: East Main Avenue Corridor Study – Stakeholder & Community Group Interviews

The below summary includes input received from corridor business owners, property owners, community groups, and other interested stakeholders through the following means:

- Walk along the corridor on June 27, 2022 and November 22, 2022.
- Property & Business Owner Open House on July 13, 2022 at the City/County Office Building.
- Phone and Zoom interviews held June – December, 2022..

Sanford Health

Cole Johnson - Architect, Zoom meeting

- Sanford owns a parking lot on the northeast corner of E Main Ave. and 7th St.
- Long-term potential to expand medical facility immediately to the north of parking lot (access from Broadway Ave. and 7th St.). Could expect two-level medical/office facility with potential to build to the lot line along E Main Ave.
- Future cross section of E Main Ave. will not heavily influence building layout/design. Existing cross section or three-lane cross section would work for future development needs.

The Window & Door Store

Business owner - in-store interview

- Mentioned ongoing issues with safety of E Main Ave./9th St. intersection. Frequent crashes often results in law enforcement asking for business security camera footage of crashes.

Simonson Station Stores

Arch Simonson, Owner; Jim Patton, Employee - in-store interview and phone interview

- Mentioned decrease in business since conversion of Main St. in Downtown to three lanes.

- Peak hour queuing of traffic extends from 7th St. and 9th St. to in front of business and discourages access to business.
- 3-lane downtown has changed operations in front of business
- Lost traffic as people have taken other parallel routes
- Peaks morning and afternoon – 9th St back-ups, prevented access to business. West bound. What will signal improvements do??
- Safety – 7th and Airport – ~one crash a week. Often in front of store.
- When store was built, Main was two lanes. Over time have taken much of driveway. Tight for cars on north side of fuel islands. Combo driveway and city sidewalk. Can't lose any more ground on north side of fuel island.
- Customers – autos and box trucks. Fuel trucks go around the back of the station. Tight on north side of fuel island.
- 11 foot wide lanes – interested in how this effects property and sidewalk width
- Is a signal warranted at 11th St.?

Bittybean

Trent Mindeman, Owner - interview at open house event

- Issue during winter with city plowing driveway access shut.
- Speeding and speed limit is also an issue, often witnesses vehicles getting rear-ended as some attempt to make right-hand turns into business.
- Perceives a lack of speed limit enforcement along corridor.
- Witnesses pedestrian traffic from St. Alexius/CHI facilities to the north of E Main Ave. cross lanes of traffic to access business.
- Business closes at 4 pm and is not impacted by traffic queuing along E Main Ave. during peak hours.
- Business access sometimes competes with access to St. Alexius/CHI parking lot access on the north side of E Main Ave.
- In general likes the idea of live-work opportunities when it comes to redevelopment or new development opportunities in the area.
- Freight needs includes semi-truck deliveries early in the morning before the peak hour. Trucks cannot make it safely onsite due to narrow/tight driveway, so trucks park in the right-hand travel lane to unload. Presents a safety concern.

Threefold

Keenan Hauff & Caleb Hauff, Owners - interview at open house event

- Recently purchased building formerly used by Northern Plains Dance. Lot lacks onsite parking capacity, but provides ample indoor workspace.
- Not a high demand for customers to visit site.

- Open to alternative street cross sections, such as a three-lane cross section with parking.

Prairie Farms

Glen Hellebust, Manager - comments from SRC meeting (SRC member)

- Significant freight access needs for business along E Main Ave. and 12th St. 12th St. freight loading bay is located immediately adjacent to travel lanes (no sidewalk).
- Walking along E Main Ave on business property is uncomfortable due to higher traffic speeds and narrow sidewalk abutting building.
- Train events impact crossing at 12th St., which impacts business access.
- Freight access and turning movements from 12th St. is a concern, as it is limited due to railroad and lack of space.

Ministry on the Margins

Kathleen Atkinson, Employee/Worker – discussion at community workshop

- Confirmed high pedestrian traffic on the east side of the corridor and to the northeast of the corridor to access residential and social service-related organizations. Many walk from the south along 26th St., Airport Rd., and 9th St., then take E Main Ave. or Broadway to get to the northeast portion of the corridor. There are basic commercial services to the south that pedestrians may be accessing, such as Walmart or Cashwise.

Spa's Etc

Jerry Caufield, Owner - in-store interview

- Was not in support of former special assessment proposal from the City of Bismarck. Feels most corridor traffic is through-traffic to destinations outside of the corridor.
- Biggest concern is funding. Corridor properties owners have a limited capacity to fund improvements. Funding should come from other sources than corridor property and business owners due to traffic sources and destinations as noted.
- Speeds can be excessive at times.
- Business has plenty of off-street parking capacity.

Big Boy

Chad Wachter, Owner – video interview

Access and Drive-Thru Concept Discussion

- Really doesn't think any different drive-thru concepts will work.

- Queues get to be as long as 50 cars, had a mile long queue once that backed up to 9th Street
- Some concepts would create more of a pedestrian peninsula surrounded by the Big Boy drive-thru on the south and East Main on the north.
- The way the drive-thru is designed now is not too bad and everything works pretty well.
- They have no expansion plans for Big Boy
- People like that it has remained the same, hasn't changed.
- Even when they changed to a modern menu board, people were upset, even picketing outside. The Historical Society got involved. There is a historical significance to Big Boy and keeping it the way it is.
- Talked about changing the building/roofline and people were not happy.
- Big Boy is the oldest locally owned chain business in Bismarck
- Had a drive-thru even before McDonald's
- Same today as 67 years ago
- They have made improvement over the years including park/picnic area and secondary egress/parking area between Big Boy and Railroad Ave.
- Overall, the drive-thru functions as is, please leave it the same.

Redevelopment

- Potential to redevelop entire block between 24th and 26th Streets.
- East Main is a gateway to Bismarck/Downtown – doesn't look so great.
- Would like to see the same enthusiasm for these areas as Downtown.
- Development of the Big Boy block would be different than downtown.

Corridor Alternatives

- Would be curious to know how many crashes happen during peak hours, after businesses are closed?
- Kids cruise main and have been doing so for the past 50 years
- Typically occurs at night – social pressures, not paying attention could be to blame.
- Culture of dragging/cruising Main.
- Safety might be a part of that. Traffic will be harder to fix.
- Prefers 5-lane but need to look at stimulating redevelopment and what tactics are appropriate for the City to use in order to spark that redevelopment.

St. Alexius/CHI

Jeffrey Gustafson, Director of Facilities – virtual interview

- St. Alexius/CHI controls large surface parking lots south of the main St. Alexius hospital, between Broadway and E Main Ave, generally east of 9th St. and west of 12th St. these lots are used for employee parking only. Current parking lots serving the hospital and related facilities have plenty of capacity.

- Regarding their parking lots fronting E Main Ave., they are not interested at this time in redeveloping the parking lots due to the organization's financial situation.
- There is interest in repurposing 1120 E Main Ave (northwest corner of E Main Ave. and 12th St.). Noted that the City is looking at placing a warning siren adjacent to this building along E Main Ave.
- Verified that hospital employees do walk from the parking lots to Simonson and Bitty Bean on the south side of E Main Ave.
- If redevelopment were to occur at the parking lot, a parking ramp would likely be needed to satisfy parking needs.
- Noted that ambulances do sometimes use E Main Ave., but Broadway is more frequented.
- Noted that many of the signals on E Main Ave. seem to be old and there are problems when the sun is low with glare/visibility at times.
- Parking lot has one access point to E Main Ave. at the 11th St. alignment and another access to Broadway along the 11th St. alignment. Access point can be problematic accessing E Main Ave. during the peak hours and can be a safety concern.
- Old driveway to parking lot along E Main Ave. is closed. This driveway is a drainage way for the parking lot.
- Noted that the hospital crosswalks on Broadway often flood during the spring thaw, presenting a significant problem.

Davis Group

Julie Helten, Property Manager – in-person interview at SRF Consulting

- The Davis Group manages two St. Alexius/CHI buildings on the northeast corner of E Main Ave. and 12th St. One houses their rehabilitation services and the other is largely a technology/data center for St. Alexius/CHI.
- The rehabilitation services building is closest to the intersection of 12th St. and E Main Ave. and has a driveway onto to E Main Ave. that is problematic because it is so close to the intersection. She introduced a concept of potentially moving the driveway further east of the intersection and aligning it with a driveway to the north on Broadway. She said the potential exists to relocate the access drive and to reconfigure parking.
- The critical nature of the technology building precludes any possibility of redevelopment. The rehabilitation services building is also unlikely to be redeveloped.

Local Development Group (Group Interview at SRF Consulting)

Joel Kostecky, Market President - First Western Bank & Trust

Brock Schoch, VP Commercial Lending - First Western Bank & Trust

Ian MacDonald, Commercial Lending - First Western Bank & Trust

Dave Ehlis, President & CEO - Bravera Bank (holdings)

Landon Wutzke, Commercial Banking – Bravera Bank

Darren Schmidt, Broker Owner - Oaktree Realtors (commercial and residential license), former Board of Realtors President, current Northern Plains Dance board president.

Tobias Marmon, Owner Marmon Construction - Owner Dakota Beer Building on northwest corner of 26th St. & Main Ave.

David Witham, Urban Real Estate Developer, Partner as Denizen Partners LLC.

Bill Dean, Realtor - BMG Realty

- Bismarck Downtowners Association (Kate Herzog and Dawn Koop) helped convene a meeting of corridor property owners, adjacent property owners, and others interested or involved in area development.
- Darren Schmidt has been involved with Northern Plains Dance, and the business was formerly located on the corridor. His realty office also was located on the corridor.
- Tobias Marmon is the owner of multiple investment properties in the community and owner of Hillcrest Acres Campground. He is also the general contractor for the Grove (downtown housing).
- David Witham is the property owner of new mixed-use development at 7th St. & Main Ave. He is an architect by trade.
- Bill Dean is a property owner and owner of investment properties in the community and is also a realtor for East Main Ave. property owners (Bismarck Motor Motel for example).
- Group expressed interest in the corridor from 12th St. to the west as more conducive to redevelopment opportunities, and greater opportunities streetscaping and beautification. The St. Alexis parking lots on the north side of the corridor are a significant opportunity for development. Downtown-type development with reduced/zero setbacks and mixed-use opportunities are of interest in this area.
- There is some interest in concepts for redevelopment on the west side of the corridor, and the economic impacts of redevelopment.
- The corridor from 12th St. to the east is more industrial in nature and has freight needs. Redevelopment opportunities are also much more limited in this area.
- Pedestrian movements on the eastern end of the corridor, and to the north and south of the east side were confirmed from current and former property owners of that area. It was noted that pedestrian transportation was due to the need to access social service organizations in the area, the Bismarck Motor Motel, and basic commercial services to the south, such as Walmart. Low-income residential development is present to the northeast of the corridor where mobile home park developments are located—some pedestrian traffic comes from there.
- Interest was noted in getting BNSF railroad more involved in the study. Concern was noted on how the railroad might limit improvement and redevelopment opportunities. BNSF's

future plans for railroad improvements are unknown and this could be a potential drawback to development in the area.

Missouri Valley Coalition for Homeless People – Unmet Needs Committee

- Native Inc. customers use E Main Ave. on foot, bike, and scooter. Customers also frequent Heaven’s Helper’s Soup Café (220 N 23rd St.), Ministry on the Margins (201 N 24th St.), Bismarck Motor Hotel (2301 E Main Ave.),—access to all locations requires travel along E Main Ave. and across it for those without access to a vehicle.
- Paratransit frequents the eastern side of the E Main Ave. corridor, especially the Bismarck Motor Hotel.
- PeopleReady is a day-labor agency located at 2015 E Main Ave. Many without access to a vehicle frequent this location.
- People walking, biking, or on scooters are often carrying items.
- Many people without vehicles reside in trailer/mobile home parks and the Mark IV and Mark V apartments (all generally north of E Main Ave. and west of 26th St.).
- Many people who are customers at local social service organizations often congregate at 16th Street Park just north of the E Main Ave. corridor.
- Different social service organizations are open at different times which forces customers to rotate between the different locations along and adjacent to E Main Ave.

1103 E Main, Sanford Storage Facility (Driver)

- Driver said talk to Sanford, this is just storage.
- Noted traffic backs up from light at 9th Street all the way east to 12th Street during noon and PM peak.
- Emphasized need to be able to turn left (west) on Main from this building.
- Indicated same for Simonson’s and need for 2-way access (access by bi-directional traffic) for both businesses.
- Noted east end of Main Ave. needs to be redeveloped, so many open areas but nobody seems very interested in doing anything on that end.
- Asked when railroad crossing signs will be removed on East Main, has to stop by law even if no active crossing. (assumed he was referring to the removal of the tracks between 24th St. and 26th St.

Auto Air & Cruise

- Manager noted preference for corridor to not change in terms of vehicular capacity.
- Noted displeasure with the Downtown conversion of Main Ave to three lanes and resulting congestion.

Finish Line

- Employees noted difficulty in crossing E Main Ave. on foot in front of their business in order to reach another building used by the business on the south side of E Main Ave.
- Concern with high traffic speeds.

Capital City Motorworx

- Employee noted preference to keep E Main Ave. in its current lane configuration.
- Noted displeasure with the Downtown conversion to three lanes and congestions resulting from it.

Bismarck Lumber

- Owner noted concern about cost and that property owners along E Main Ave. should not pay for the majority of any needed improvements.
- Interesting in keeping lane configuration as it currently is—five lanes.

Advantage Appliance

- Employee noted displeasure with the conversion of Main Ave. Downtown to three lanes and desire to keep E Main Ave. as five lanes.
- Believes property owners should not have to pay for the majority of street improvement costs.

Online Survey Results
Issue Mapping and Improvements Survey

PROJECT DESCRIPTION

The City of Bismarck and the Bismarck-Mandan Metropolitan Planning Organization are seeking input from corridor property owners, businesses, those who travel the corridor, and others to envision how the East Main Avenue corridor can best serve everyone in 2045.



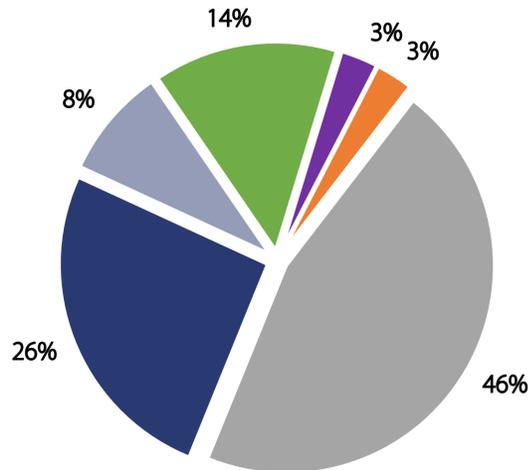
HOW DID WE GATHER FEEDBACK?

A wikimap was developed to solicit public feedback on how East Main Avenue should be improved. People were able to leave comments and respond to comments left by others. The wikimap was available for **XX** weeks from **XX** to **XX**.



WHAT THEMES DID WE HEAR?

- Accessibility
- Biking
- Driving
- Safety
- Walking
- Other



- 1.** The largest proportion of comments pertained to driving. These comments ranged from ideas for improving traffic flow to proposed improvements for reducing conflict points.
- 2.** About 26 percent of comments focused on safety, both for vehicles and for improving design for safety for people walking.
- 3.** Other commenters brought up the need to improve the aesthetics of the corridor.



WHAT SUGGESTIONS AND IDEAS DID WE RECEIVE?

“As the primary east-west corridor into downtown, the road could use significant improvement... general beautification, surface improvement, landscaping and signage.”



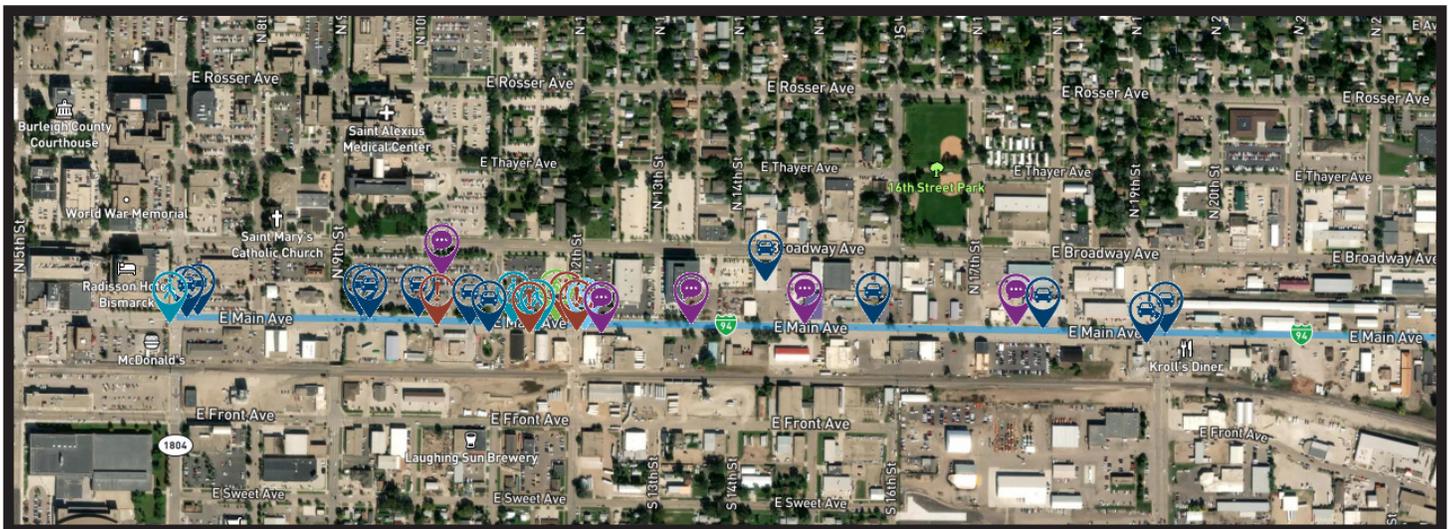
“East Main Avenue as a whole has too many conflict points; it makes driving it a more uneasy experience,”



“Lower the speed limit to 25 mph and enforce it!”



“Put in an underpass at 12th to minimize traffic tie-ups due to trains.”





E Main Avenue Corridor Study

QUESTION SUMMARIES

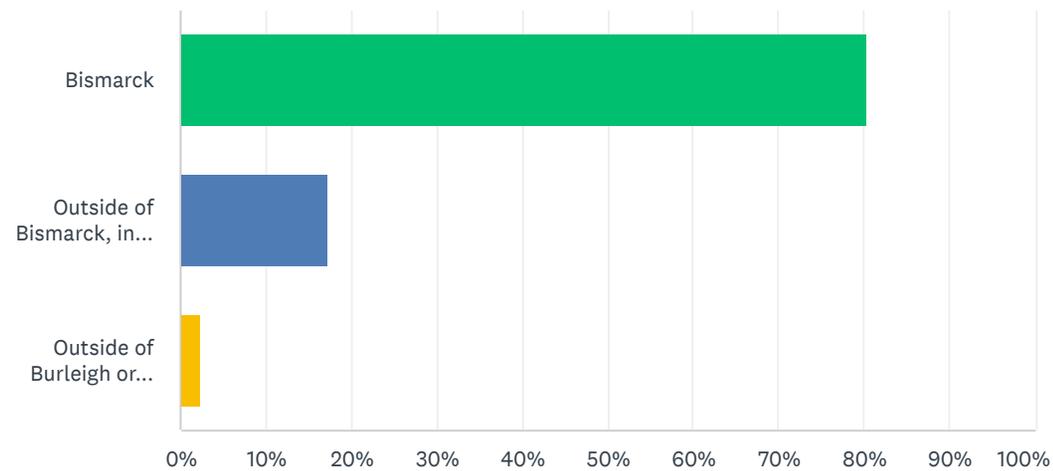
DATA TRENDS

INDIVIDUAL RESPONSES

Q1

Where do you live?

Answered: 174 Skipped: 0



ANSWER CHOICES

RESPONSES

ANSWER CHOICES	PERCENTAGE	RESPONSES
Bismarck	80.46%	140
Outside of Bismarck, in Burleigh or Morton County	17.24%	30

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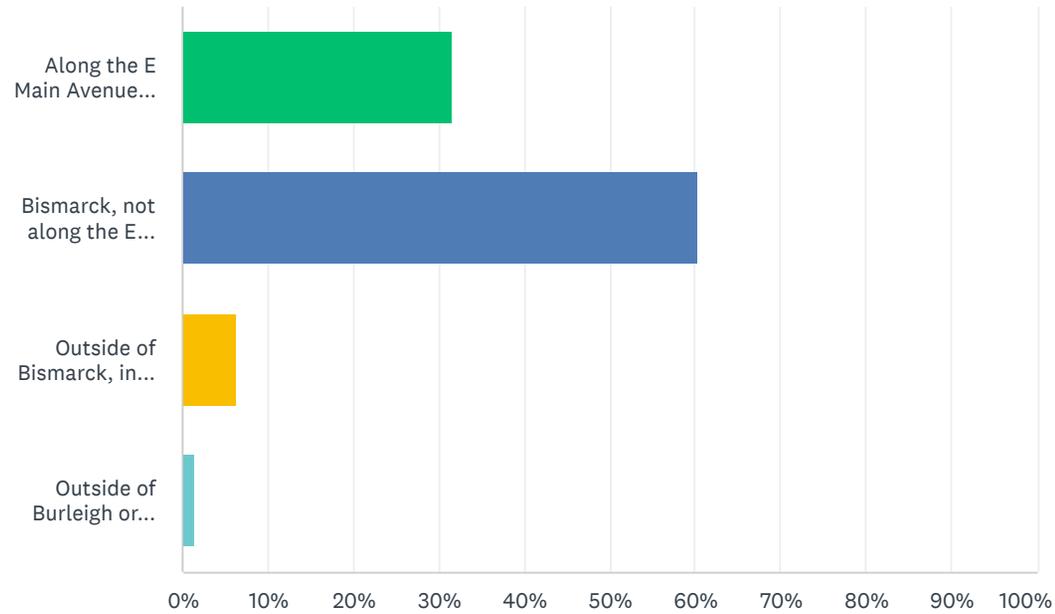
174 responses



Q2

Where do you work?

Answered: 139 Skipped: 35



ANSWER CHOICES

RESPONSES

Along the E Main Avenue corridor (between 7th Street and 26th Street)	31.65%	44
Bismarck, not along the E Main Avenue corridor	60.43%	84
Outside of Bismarck, in Burleigh or Morton County	6.47%	9
Outside of Burleigh or Morton County	1.44%	2

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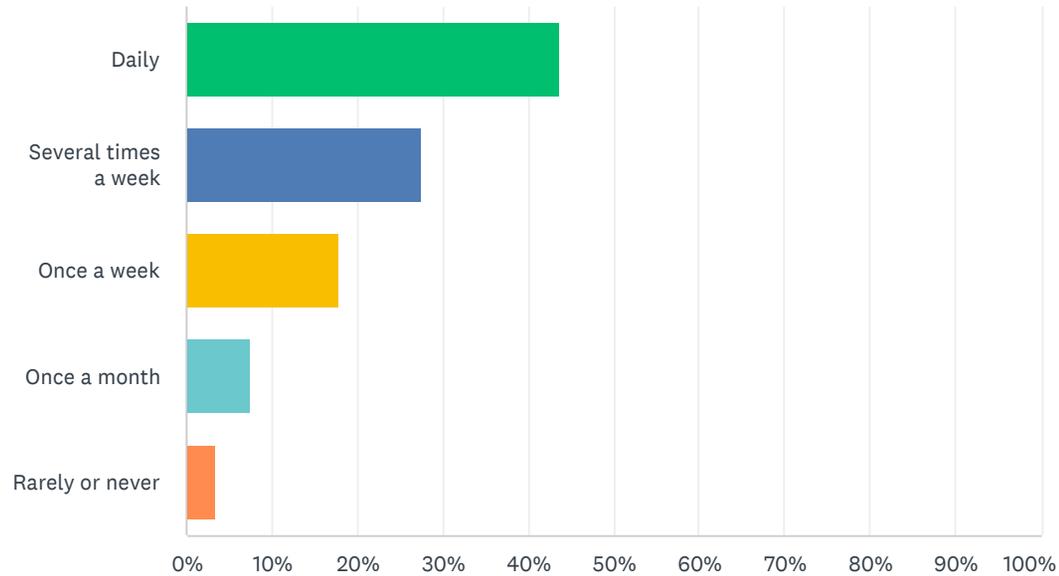
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174 responses

Q3

How often do you travel along E Main Avenue (anywhere between 7th Street and 26th Street)?

Answered: 174 Skipped: 0

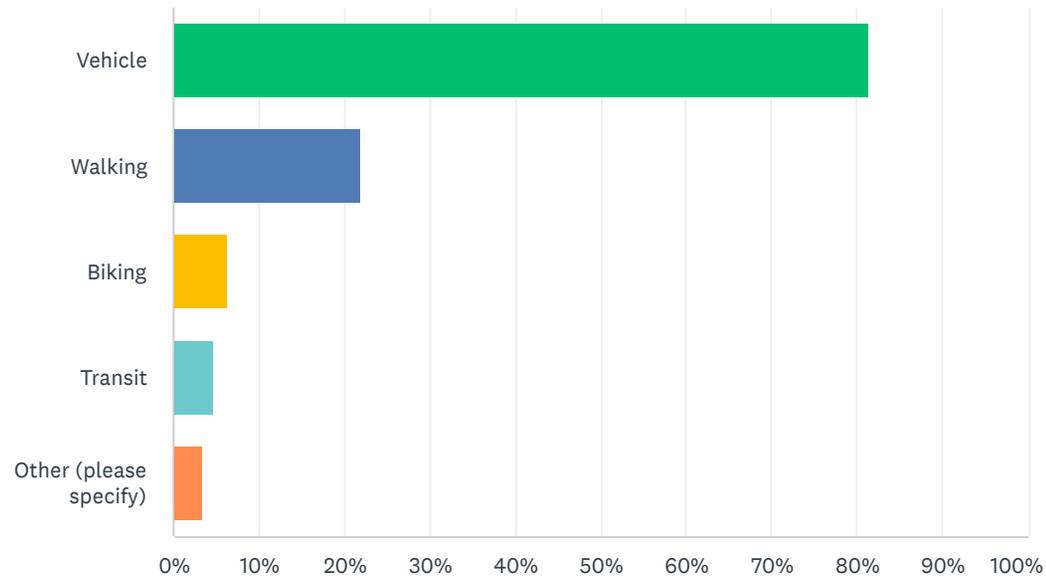


ANSWER CHOICES	RESPONSES	
Daily	43.68%	76
Several times a week	27.59%	48
Once a week	17.82%	31
Once a month	7.47%	13
Rarely or never	3.45%	6
TOTAL		174

Q4

What mode of transportation do you use along E Main Avenue (anywhere between 7th Street and 26th Street)?
(select all that apply)

Answered: 173 Skipped: 1

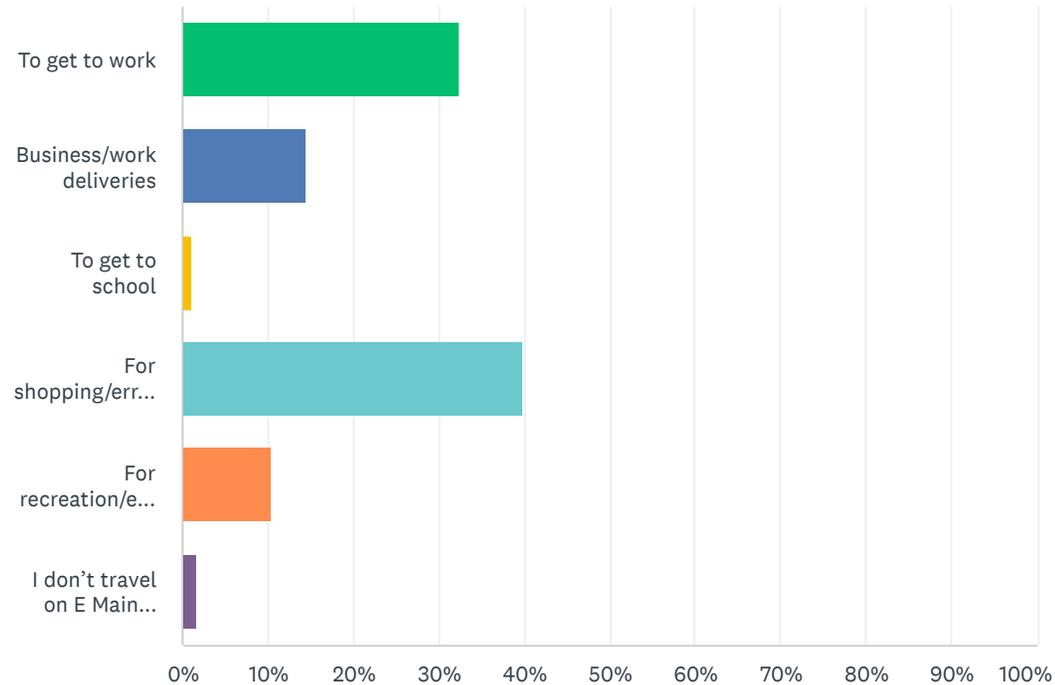


ANSWER CHOICES	RESPONSES	
Vehicle	81.50%	141
Walking	21.97%	38
Biking	6.36%	11
Transit	4.62%	8
Other (please specify)	3.47%	6
Total Respondents: 173		

Q5

What is the primary purpose of your travel along E Main Avenue?

Answered: 173 Skipped: 1



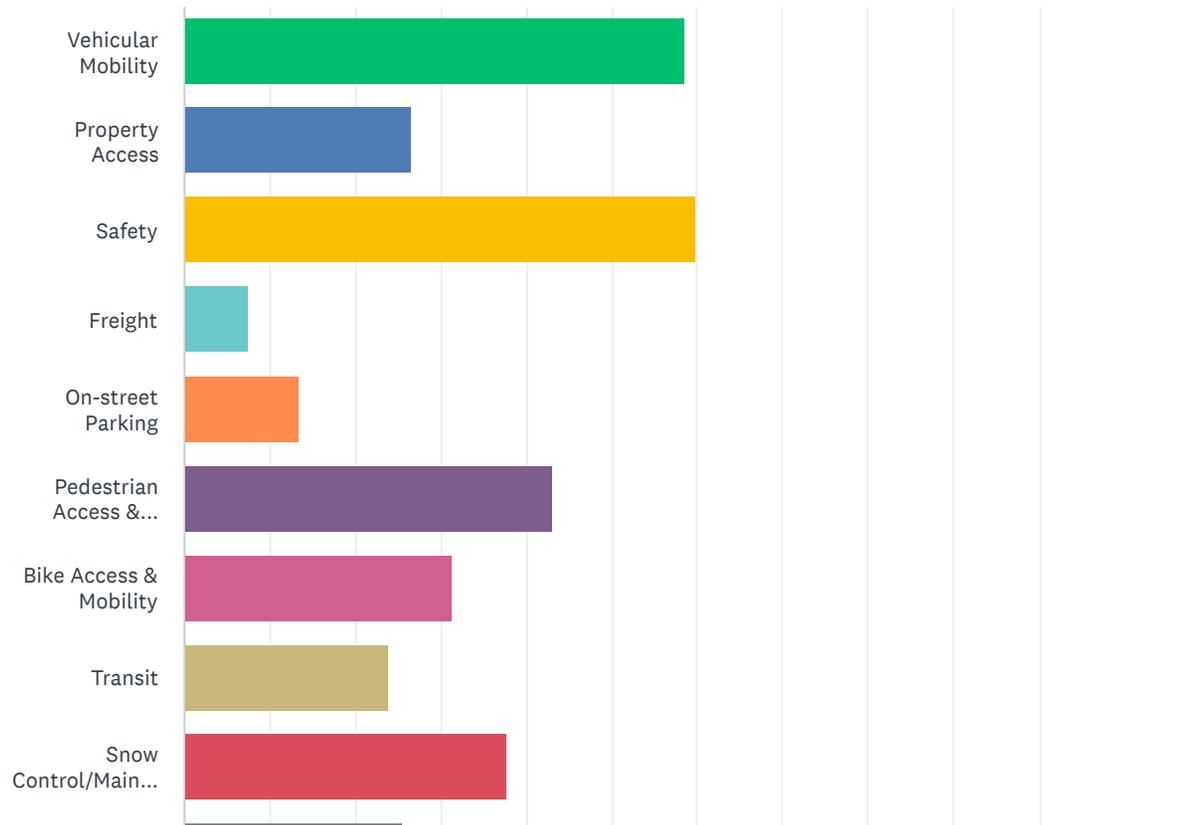
ANSWER CHOICES	RESPONSES
To get to work	32.37% 56
Business/work deliveries	14.45% 25
To get to school	1.16% 2
For shopping/errands	39.88% 69

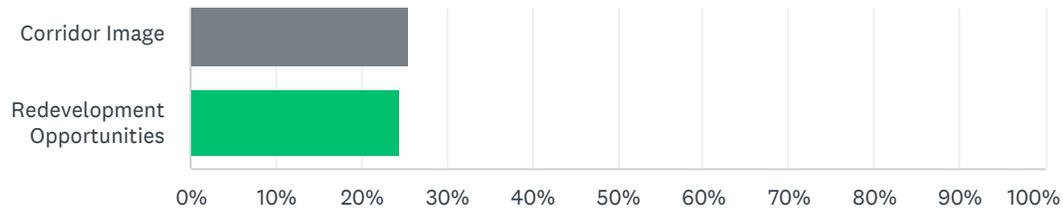
For recreation/exercise/leisure	10.40%	18
I don't travel on E Main Avenue	1.73%	3
TOTAL		173

Q6

When considering future improvements on E Main Avenue between 7th Street and 12th Street, which of the following criteria would you prioritize? (select all criteria you would prioritize)

Answered: 172 Skipped: 2





ANSWER CHOICES	RESPONSES	
Vehicular Mobility	58.72%	101
Property Access	26.74%	46
Safety	59.88%	103
Freight	7.56%	13
On-street Parking	13.37%	23
Pedestrian Access & Mobility	43.02%	74
Bike Access & Mobility	31.40%	54
Transit	23.84%	41
Snow Control/Maintenance	37.79%	65
Corridor Image	25.58%	44
Redevelopment Opportunities	24.42%	42
Total Respondents: 172		

Q7

Any feedback on the three alternatives (5-lane, 3-lane, and 3-lane with median) between 7th Street and 12th Street?

Answered: 127 Skipped: 47

5-lane preferred

2/2/2023 03:28 PM

Large portion of traffic to and from airport.

2/2/2023 03:27 PM

none

2/2/2023 03:26 PM

no

2/2/2023 03:25 PM

3-lane with median preferred

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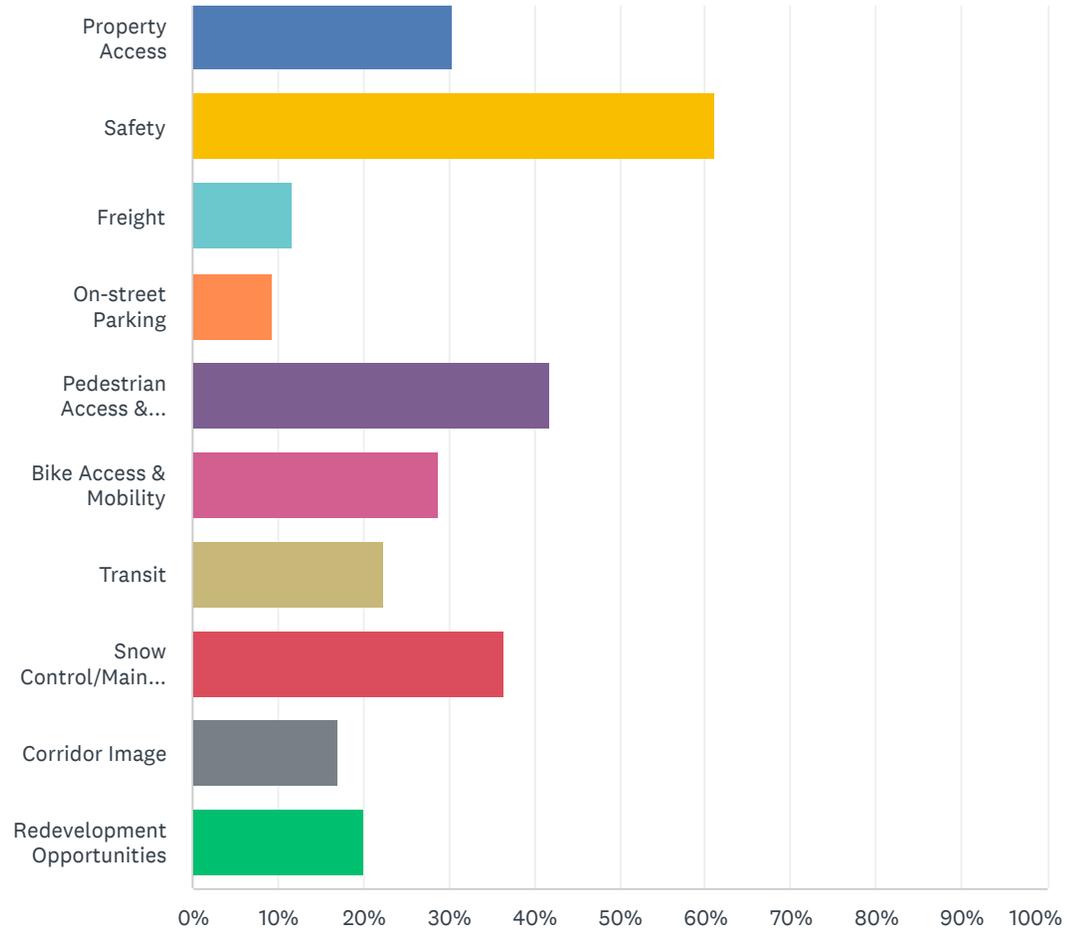
Q8

When considering future improvements on E Main Avenue between 12th Street and Airport Road, which of the following criteria would you prioritize? (select all criteria you would prioritize)

Answered: 170 Skipped: 4

Vehicular
Mobility





ANSWER CHOICES	RESPONSES	
Vehicular Mobility	62.94%	107
Property Access	30.59%	52
Safety	61.18%	104
Freight	11.76%	20
On-street Parking	9.41%	16
Pedestrian Access & Mobility	41.76%	71
Bike Access & Mobility	28.82%	49

Transit	22.35%	38
Snow Control/Maintenance	36.47%	62
Corridor Image	17.06%	29
Redevelopment Opportunities	20.00%	34

Total Respondents: 170

Q9

Any feedback on the three alternatives (5-lane, 3-lane, and 3-lane with median) between 12th Street and Airport Road?

Answered: 110 Skipped: 64

To provide widening for traffic

2/2/2023 03:27 PM

none

2/2/2023 03:26 PM

no

2/2/2023 03:25 PM

3-lane with median preferred.

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no

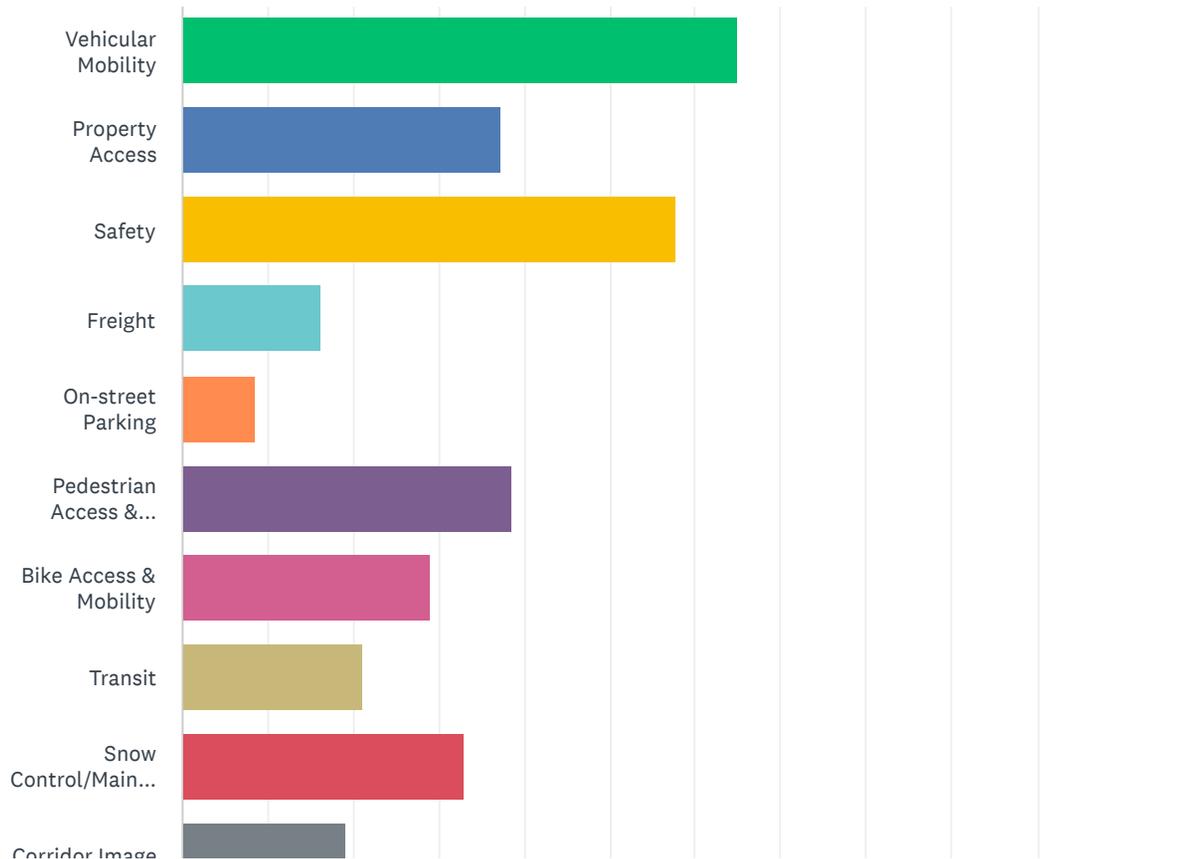
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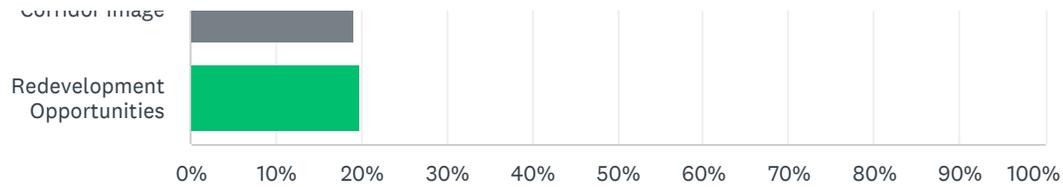
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Q10

When considering future improvements on E Main Avenue between Airport Road and 26th Street, which of the following criteria would you prioritize? (select all criteria you would prioritize)

Answered: 166 Skipped: 8





ANSWER CHOICES	RESPONSES	
Vehicular Mobility	65.06%	108
Property Access	37.35%	62
Safety	57.83%	96
Freight	16.27%	27
On-street Parking	8.43%	14
Pedestrian Access & Mobility	38.55%	64
Bike Access & Mobility	28.92%	48
Transit	21.08%	35
Snow Control/Maintenance	33.13%	55
Corridor Image	19.28%	32
Redevelopment Opportunities	19.88%	33
Total Respondents: 166		

Q11

Any feedback on the three alternatives (5-lane, 3-lane, and 3-lane with median) between Airport Road and 26th Street?

Answered: 101 Skipped: 73

none

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none

2/2/2023 03:26 PM

no

2/2/2023 03:25 PM

3-lane with median preferred

2/2/2023 03:22 PM

none

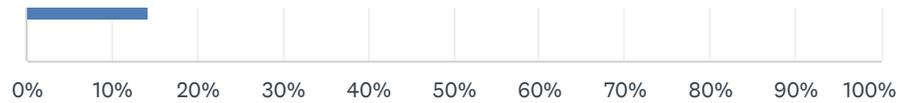
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Q12

Are any criteria missing from the previous questions?

Answered: 146 Skipped: 28





ANSWER CHOICES	RESPONSES	
No	85.62%	125
Yes, please explain:	Responses 14.38%	21
TOTAL		146

Q13

Do you have any other suggestions for improving the E Main Avenue corridor?

Answered: 92 Skipped: 82

no

2/2/2023 03:28 PM

none

2/2/2023 03:27 PM

none at this time

2/2/2023 03:26 PM

no

2/2/2023 03:25 PM

none

2/2/2023 03:21 PM

