

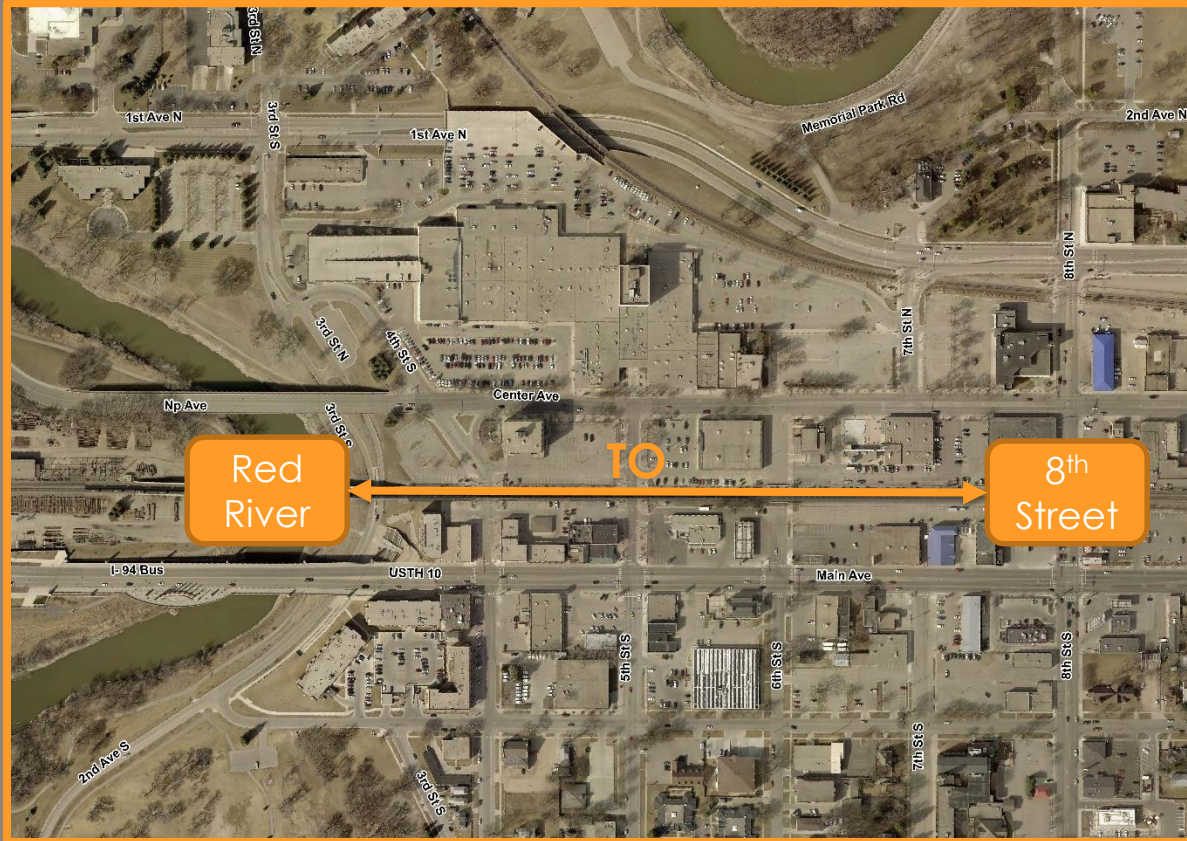
Center Avenue
Red River to 8th Street
Planning & Preliminary Engineering Study

Public Input Meeting #1
City of Moorhead

June 27, 2017



Project Location & Background



- Services downtown Moorhead
- Important connection over the Red River
- Mill & Overlay Programmed for 2019
- The City wants to ensure the improvements they complete meet the needs of the corridor today and in the future, including the potential for redevelopment of downtown Moorhead.

Project Schedule – What Have We Done?

Existing + Forecast
Year Conditions
Assessment

Alternative Development

Alternative Analysis + Preferred
Alternative Selection

Plan Presentations

April

May

June

July

August

September

October

November

December

January

Focus
Group &
Steering
Committee
Meetings

Landowner
Meetings

Steering
Committee
Meeting



Here
Tonight

Focus
Group &
Steering
Committee
Meetings

Steering
Committee
Meeting

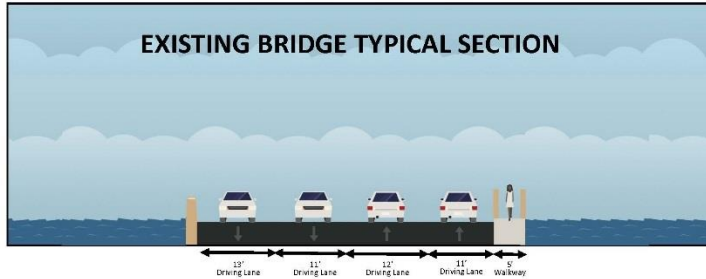
Focus
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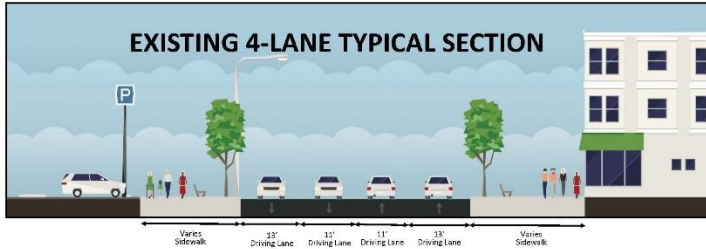
Planning
Commission
& City
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Presentations

PUBLIC AND STAKEHOLDER INVOLVEMENT

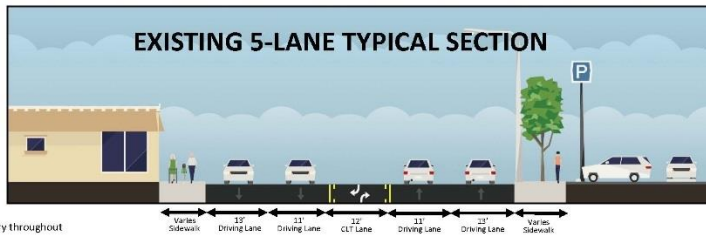
Existing Roadway Sections



Center Avenue Bridge



4th Street to 6th Street



6th Street to 8th Street

Notes:
Lane widths for all typical sections vary throughout the project.
Exterior driving lane width includes curb reaction distance.

- 4-Lane Section from the Center Avenue Bridge to 6th Street
- 5-Lane Section with a center turn lane from 6th Street to 8th Street
- Concern for existing alignment shift near 6th Street where roadway transitions between a 4- and 5-lane section
- Current pavement section is 2-inch HBP over 8-inch concrete section.

Volumes & Capacity

Facility Type	2040 Forecast		
	2040 Max Corridor Volume (V)	Capacity Max for Facility Types (C)	V/C Ratio
Two-lane undivided urban	11,600	10,000	1.16
Three-lane urban	11,600	16,000	0.73
Four-lane undivided urban	11,600	21,000	0.55
Five-lane urban	11,600	31,000	0.37

- Highest projected 2040 volume = 11,600 AADT (Annual Average Daily Traffic)
- V/C Ratio is the volume divided by the capacity of the road. Anything over 1.0 is considered over capacity
- A two-lane undivided section would not handle this amount of traffic
- A three-lane section with a center left turn lane could handle the capacities

Crash Analysis

Corridor Crash Analysis (Red River to 8th Street)

Calculated Rates		Statewide Avg. Rates		Critical Rates	
Crash	Severity	Crash	Severity	Crash	Severity
9.05	13.06	4.15	5.67	5.80	7.59

Corridor calculated crash and severity rates are higher than corresponding critical rates. Consideration for the addition of a continuous left turn lane and access improvements may reduce crashes along the corridor.

Intersection Crash Analysis (Red River to 8th Street)

Intersection	Calculated Rates		Statewide Avg. Rates		Critical Rates	
	Crash	Severity	Crash	Severity	Crash	Severity
8th Street	0.87	1.25	0.60	0.85	0.87	1.16
7th Street	0.24	0.33	0.60	0.85	0.97	1.27
6th Street	0.26	0.42	0.28	0.47	0.55	0.80
5th Street	0.26	0.42	0.60	0.85	0.98	1.29
4th Street	0.48	0.81	0.60	0.85	0.98	1.29

Existing Pavement Condition

Location	PCI Value	Pavement Condition	Recommended Solutions
4 th Street to 5 th Street	29	Poor	Mill & Overlay, Rehabilitation/Reconstruction
5 th Street to 6 th Street	31	Poor	Mill & Overlay, Rehabilitation/Reconstruction
6 th Street to 7 th Street	46	Fair	Mill & Overlay, Local Repairs
7 th Street to 8 th Street	70	Good	Mill & Overlay, Crack Sealing, Seal Coating

Pavement Condition Rating (PCI)

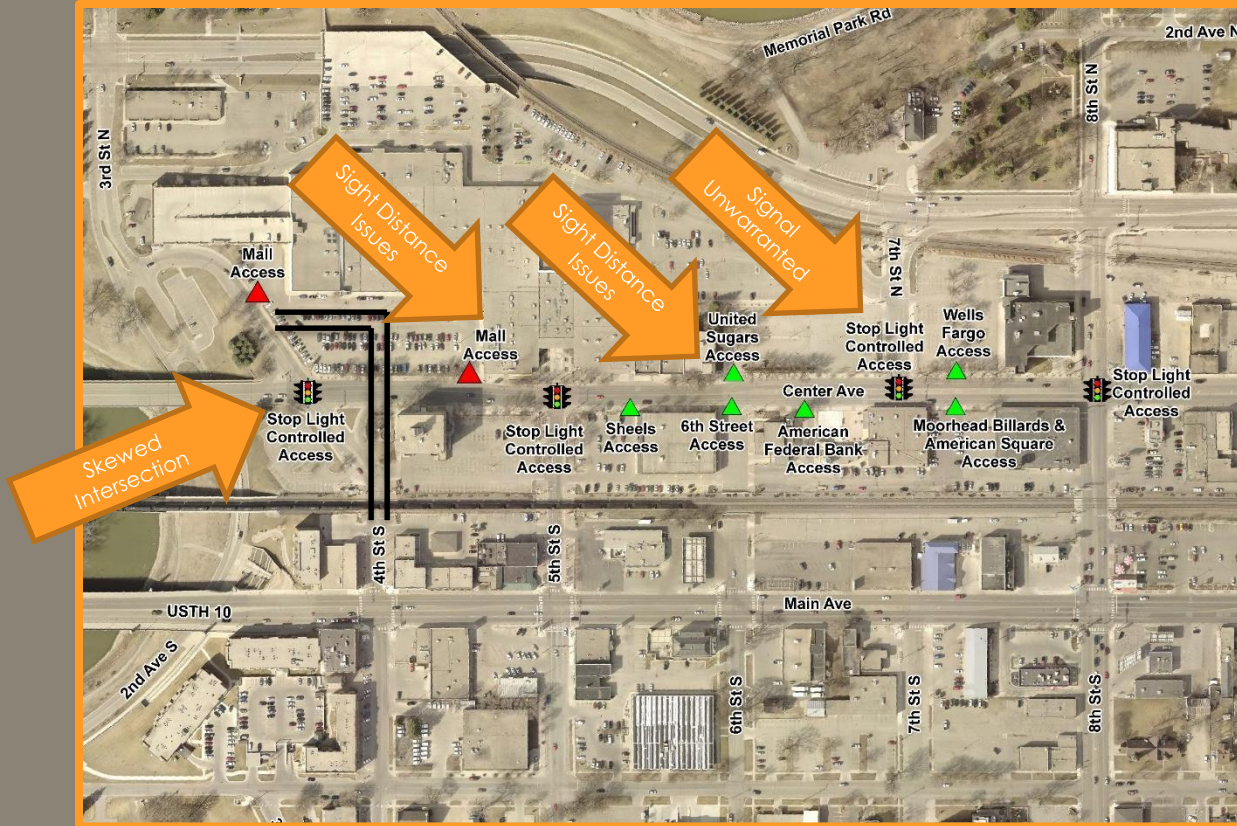
- PCI values are used to indicate the general condition of the pavement
- PCI values reflect the condition of the bituminous pavement on top and not necessarily the entire pavement structure
 - Due to the existing pavement section consisting of hot bituminous pavement over concrete pavement cores will be taken prior to construction

Existing Utilities

Existing Utilities:

- Lighting
 - Good condition
- Electrical
 - Good condition
 - If 4th Street was realigned electrical would be impacted
- Water
 - 2018 waterline replacement project programmed using trenchless methods
 - If 4th Street was realigned water would be impacted
- Sanitary Sewer
 - Good condition
 - Manholes need rehabilitation at the street level
- Traffic Signal Interconnect
 - Good Condition
 - Sub-alternative to run fiber optic cables included as part of this project
- Miscellaneous Private Utilities
 - Condition Unknown

Existing Access & Intersections



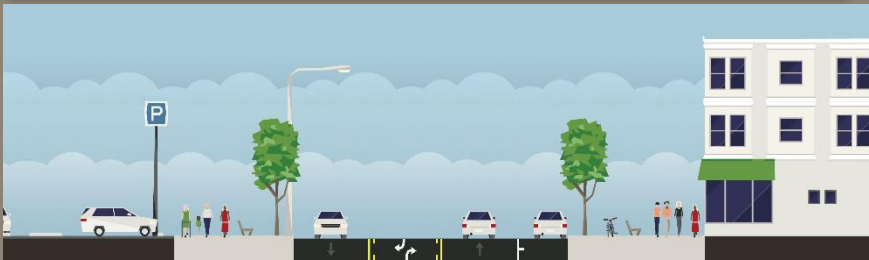
- 11 access along 0.3 mile corridor = 37 access/mile. Recommended City guidelines = 8 access/mile
- Concerns for sight distance at Moorhead Center Mall, United Sugars, & 4th Street
- 7th Street Signal is not warranted or tied into the same preemptive system as the other traffic lights

Parking Considerations

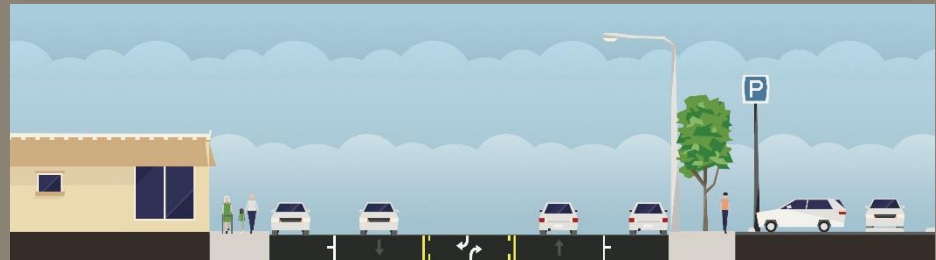


- Moorhead Center Mall Lots = 33% Utilized
- Remaining Adjacent Lots = 46% Utilized (Note: Lot 1 not included in either category)
- Consideration for on-street parking to facilitate downtown revitalization theme
- Many under-utilized parking lots adjacent to the corridor

Potential Parking Alternative 4th to 6th Street

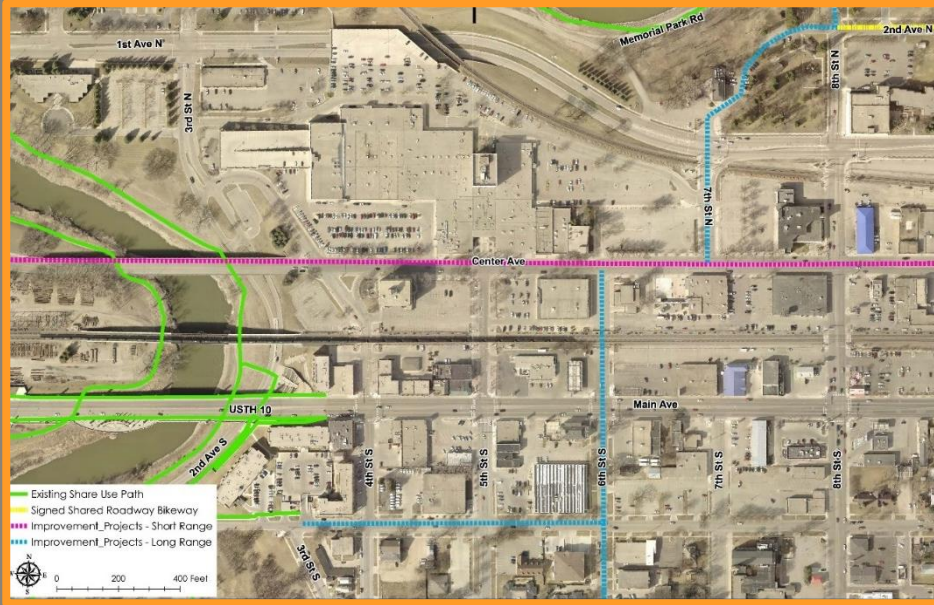


Potential Parking Alternative 6th to 8th Street



*Typical sections created using streetscape.net

Bicycle & Pedestrian Facilities

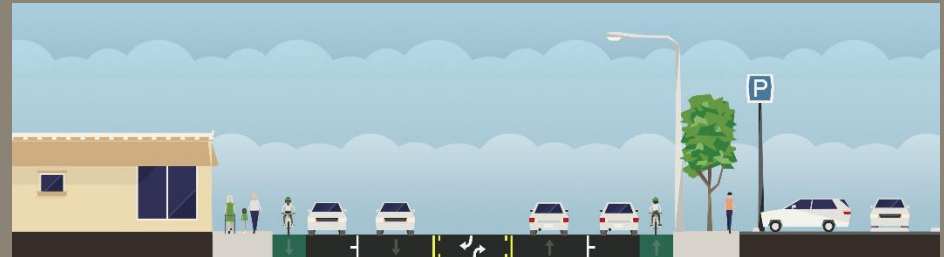


- Previous studies completed by Metro COG determined the need for an east/west bicycle connection across the river
- 6 Pedestrians per hour and 8 bicyclists per hour use the Center Avenue Bridge
- Tie into the existing Red River Trail
- Existing obstacles such as light poles, trees, and fire hydrants make the sidewalks difficult for bicyclists

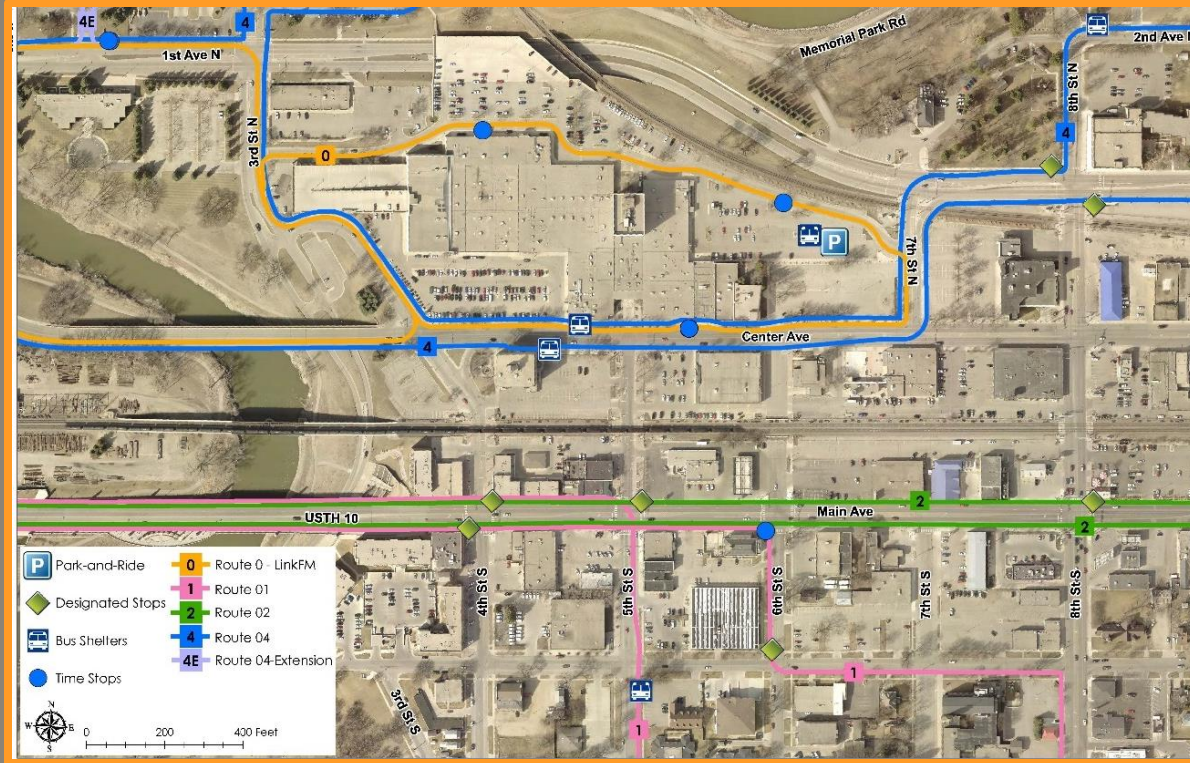
Potential Bicycle Alternative 4th to 6th Street



Potential Bicycle Alternative 6th to 8th Street



Transit Routes



- Route 4 and FM Link provide service along Center Ave
- Three bus shelters and park and ride facility around the project corridor
- If a 3-lane section is chosen traffic will be held up during loading/unloading
- Transit routes would be impacted if 4th Street was realigned

Corridor Vision

Input we have heard to date:

- The “Center Stage” of downtown Moorhead
- Upgraded street lights
- A complete streets corridor to accommodate all modes of transportation
- More greenspace for amenities
- Trail head connecting to the existing Red River trails
- Street easily shut down for parades with a standard rerouting plan
- A community gathering place for people to live, work, play, and learn

We Want Your Input!

- Fill out a comment form and leave it tonight or mail it in.
- Vote on the dotmocracy boards around the room.
- What do you support – What do you not support?
- What is your vision for the Center Avenue Corridor?
- Attend the next Public Input Meeting for additional information and input.

Project Schedule – Where Do We Go from Here?

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Thank You!



Return to Open House

